



Instructional Annual Program Review Update Form

BACKGROUND:

Program Review (PR) is an integral part of the campus planning process. As programs and areas monitor their progress on the current comprehensive four-year program review, changes in need and scope can be expected. This PR Update Form is designed to outline and request modifications to the current program review that occur between comprehensive four-year review cycles, as needed.

Examples of a requested change include new information such as action plans, outcomes modifications, personnel changes, technology needs, and capital expenditures requirements. As programs and areas monitor their progress on the previous comprehensive four-year program review, the form provides the basis to suggest a change in plans and processes to improve student success and institutional effectiveness.

DIRECTIONS:

This form shall be completed annually by ALL instructional programs.

- All instructional programs must submit their Annual Program Review Update Form to their dean or manager by **Monday, March 6.**
- All deans or managers will forward the completed form to the Program Review Committee Chair by **Monday, March 13.**

SUBMISSION:

Program: GEOGRAPHY DEPARTMENT Division: SOCIAL SCIENCE Date: MAR 1, 2023

We have reviewed our most recent self-study and **have not identified** any significant changes that necessitate resource requests for the upcoming academic year. *(Complete only pages 1 and 2)*

We have reviewed our most recent self-study and **have identified** significant changes that necessitate additional resource requests, which are attached in our submission. *(Complete the entire form)*

Program Signature(s): _

Printed Name: ALINE GREGORIO

PPRC Endorsement: Yes

No

Revised 01/27/2023

Part 1: Review of Data

Institution Set Standards (ISS)

1. Use the data provided by the Office of Institutional Effectiveness (OIE) to review your course completion and success rates and provide a comparison to the Institution Set Standards for course completion and success rates.

You can access your program's ISS here: [ISS Documents](#); Alternately, if you have access to Tableau, you can access the data here: [Tableau ISS Data](#).

Course Success Institution-Set Standard	Completion (Retention) Institution-Set Standard
Below Standard: Less than 61.2%	Below Standard: Less than 74.5%
Warning: Between 61.2% and 64.6%	Warning: Between 74.5% and 78.6%
+: Above 64.6%	+: Above 78.6%

Course Success and Completion by Program

Subject	Enrollments	Avg. Success	Success Standard	Avg. Completion	Completion Standard
GEOG	1,695	72.2%	+	86.0%	+

Course Success and Completion by Course

Course	Enrollments	Avg. Success	Success Standard	Avg. Completion	Completion Standard
GEOG 100 F	437	52.6%	Below Standard	76.9%	Warning
GEOG 102 F	797	78.4%	+	89.3%	+
GEOG 102HF	18	83.3%	+	88.9%	+
GEOG 102LF	328	84.1%	+	89.6%	+
GEOG 120 F	39	64.1%	Warning	82.1%	+
GEOG 160 F	68	70.6%	+	89.7%	+
GEOG 230 F	8	50.0%	Below Standard	75.0%	Warning

As noted in the dataset available on Tableau, most of the courses in the Geography Department meet the Institutional Set Standards for completion and success rates. Nonetheless, World Geography (GEOG 100) and Introduction to GIS (GEOG 230), rate below the ISS for success rates and have a warning for completion rates. An analysis is presented below.

2. If your program meets or exceeds the standard for completion and success, to what do you attribute your success? If your program does not meet this standard, please examine the possible reasons, and note any actions that should be taken, if appropriate.

GEOG 100 is our second most enrolled course. It prepares students with global literacy and

fulfills GE Social Science requirements and the cultural diversity requirement. Despite the importance of GEOG 100 in our students' educational journey, the success rates for the course continue to fall below that of the success rates of other geography courses in our department, hovering around 60% each year, 10 percentage points below the department (70%), the Social Science Division (71%), and college average success rates (69%) in 2020/2021. When disaggregated by race/ethnicity, the course shows great inequities in student success rates, with Black and Latinx students disproportionately impacted. Furthermore, the course has the highest withdrawal rate (19%) in our department. But students in GEOG 100 are much younger than those in other GEOG courses, a third being under 20 years old and 13% being first-time college students (the highest share in our department aside from honors courses). The lack of basic skills preparation and lack of basic geographic literacy of most first-time college students is likely an underlying reason for the student success patterns described. Furthermore, young first-time students are still navigating how to be a college student altogether, and there is a learning curve. In addition, World Geography is a challenging course to teach and learn, given that it combines all areas of geography (human, environmental, and physical) in an exploration of each of the world regions. Professor Gregorio as taught a decade of teaching experience in this course, and through her cross-institution collaborations on improving pedagogy for World Geography, she has consistently adopted new strategies and methods for improving student learning in this rigorous class. In our latest Program Review, we outlined some strategies that are being employed, like the usage of equitable grading and embedded tutoring. Our main strategy, however, is the adoption of Open Resources. Professor Gregorio is working with a team of co-authors to publish an Open World Geography textbook, a project sponsored by ASCCC and guided by an advisory board composed of university professors. Open educational resources have been identified by ASCCC as an effective strategy to mitigate inequities and improve student success. Our Annual Update 2023 includes a resource request to help us universalize OER in our department, in light of new realizations of the need for better geography OER materials, like an open atlas.

It is also worth noting that the high withdrawal rates in GEOG 100 are **attributable to phantom students**. In Spring 2023, 135 students were removed from GEOG 100 five days before the beginning of the semester. Then, before census date, another 60 fake enrollments were identified (across GEOG 100 sections alone). Past census date, a large share of students deliberately only participated in the first mandatory weeks and then never returned. This is unprecedented over the years that this course has been offered. The delay in identifying phantom students has hurt our ability to serve real students. GEOG 100 was full for one month over winter break, blocking real students from enrolling in the course. By the time administration identified 135 fake students in the class, any student who had wished to enroll had already turned away. Subsequent enrollment continued to be of students who never intended to stay enrolled in the course. This is an issue that is severely impacting the metrics for this course.

GEOG 230 is a specialized course, as it introduces students to Geographic Information Systems (GIS). It is highly technical and time intensive. While serving a small number of students, this course helps prepare students of all majors to gain a technological edge. GIS courses are 100% taught by an adjunct professor, and there are many barriers adjuncts face in offering this course, such as not having paid office hours, tutors, nor options for Open Education textbooks. In this Program Update, we are requesting funds to work with your GIS specialist, to inquire about barriers, formulate new strategies, maintain software and license, and open communication more efficient access for students to the GIS software.

Institutional Student Learning Outcomes (ISLOs)--Do Not Complete Spring 2023

All programs will compare their CSLO attainment to the Global Awareness ISLO.

1. Describe your program's participation in assessment of Institutional Student Learning Outcomes (ISLO's). Specifically, how does your CSLO attainment, for the courses that are mapped to the Global Awareness ISLO, compare to Fullerton College's ISLO attainment?
2. Does the SLO data show significant achievement gaps among demographic groups in your program? If so, where are the gaps and what steps can your program take to shrink them? If not, to what do you attribute your success in minimizing the achievement gap?

Part 2: Additional Resource Request Reasoning and Support

Request Justification (Note: Expand all areas as needed to support your resource request)

Briefly summarize your new / modified resource request. Is it imperative that this resource request be processed now rather than during the next comprehensive program review?

1. If the Resource Request is personnel-related, include support and associated details/data in support of this request.
2. How will this additional resource allocation specifically enhance your program's services, activities, processes, etc. to continue or improve student learning and achievement?
3. How will this resource enhance your area or program? Have you considered the College Mission or Strategic Initiatives, physical/organizational restructuring, and or your program's goals for improvement, as stated in your last program review?

NEW STRATEGIC ACTION PLAN #1 – FACULTY WORK GROUP for GEOG 230, Geographic Information Systems

(PART 2. QUESTIONS 1-2)

Geographic Information Systems (GIS) is an integral component of Geography departments across the CCC system, yet GIS is 100% taught by adjuncts at FC, an entire program without full-time faculty with GIS expertise to guide students. As of 2017, GEOG 230: Introduction to GIS, has been consistently offered to a myriad of majors seeking to attain technological skills. The course is now integrated in Geography, Anthropology, Environmental Science, and Environmental Sustainability Associate Degrees and an upcoming Administrative Justice Certificate. Three new GIS courses will be offered along with a newly active Geospatial Technologies Certificate (Fall 2022). This curricular development is a collaborative effort with the Director of the Drone Program, Jay Seidel, and an inevitable direction for our department given the momentum of Drone Technology at FC. Without participating in the geospatial technology momentum, our department is at risk of losing this important piece of our discipline. We have worked in collaboration with the Technology and Engineering division, developing CTE curriculum in GIS.

We have requested a full-time hire to teach the Geography Lab and the GIS courses in the last two Program Review Cycles, and since we have not been able to hire, we still need to work to maintain the GIS course and support our adjunct instructor to offer new advanced courses. This semester was particularly challenging, as the new GIS software was updated to GIS Pro, which requires new software installation and procedures. Even though we initiated this process for the new license and software in the Summer of 2022, we started our GIS course this semester without the software (the course is for students to learn to use the software, so this is a huge risk for our department). Since we do not have a full-time GIS expert at Fullerton College, we rely on the directives of our adjunct instructor, Joseph Diminutto. He is the only one with any expertise to teach and guide the software and hardware needs for this class, and we were unequipped to ensure that Joseph had what he needed this semester. Spring 2023 started with a full enrollment for the GIS course, and we were at **risk of canceling the class** due to our **inability to renew the appropriate license, software, and hardware needs for our GIS students.**

The Geography Department is 75% adjunct, with only two full-time faculty that manage evaluations, hiring, scheduling, SLOs, curriculum, Program Review and updates, and *four* degrees: GIS, Environmental Sustainability, Geography AA and AAT. Thus, the administrative component of our department requires time beyond our contractual calendar. For that reason,

we must plan for time to work outside of our contract to fill the gap for the fact that we do not have enough full-time faculty to cover the curricular breadth of our department.

This request is to form a faculty workgroup with our department faculty and our GIS expert to respond to the instructional needs of our adjunct professor and mitigate licensing/technology/access issues. This workgroup would be active in Summer 2023 and would focus on transitioning the license (and learning of the license and licensing renewal process) to Aline Gregorio and Joseph Diminutto. Currently, our license administrator is Jose Guardado, who works in ACT. Jose is unable to manage user ID's for GIS students, and only instructors can do that. It is a complicated matrix of permissions that we need to sort out along with the best way to offer online instruction for this course since online offerings have had more interest from students. ESRI offers a myriad of options to access their resources online, but we have had trouble in identifying how to provide access to the learning academy that they offer, to integrate it into the GIS course. In Spring 2023, GEOG 230 (this time offered online) filled for the first time with more than 35 students enrolled in the beginning of the semester. This shows us great demand for offering this course online, with the new GIS Pro License, especially as a course for a new vocational certificate. We are unable to offer the new advanced GIS courses unless we are given work time to meet and collaborate with our GIS expert and prepare for the technological needs of the specialty courses that are now active. We almost lost our GIS instructor due to our shortcomings in supporting the fundamental tech needs for these courses. As an adjunct instructor, he is not compensated to do the preparatory work required for this course.

With this workgroup, we plan on achieving the following:

- Connecting with ESRI and the Community College Foundation to establish a connection directly with the Geography Department for our site license, along with our Division Office and our ACT. Our Division Office secretary, Pat Sanchez, is retiring, and we will need to know the process and point persons, timelines, etc., in order to avoid the near cancelation of full GIS courses due to our past shortcomings.
- Learning the license, transferring license administration to Aline Gregorio and Joseph Diminutto, and learning about options for GIS Pro access for online instructors.
- Learning how to manage remote users in both virtual labs and for license downloads.
- Identify textbook needs and investigate options for OER textbooks for GIS.
- Identify needs and prepare for offering advanced GIS courses using GIS Pro in Spring 2024.

(PART 2. QUESTION 3)

This workgroup is necessary for the viability of offering the Geospatial Technologies Certificate, a vocational certificate that is supported by our CTE processes based on workforce needs identified for the area. According to the recent Career & Technical Education Employment Outcomes Survey, CTE programs are extremely beneficial for workforce building. The survey concludes that "...completing CTE studies and training –whether or not a credential is earned, whether or not a student transfers –is related to positive employment outcomes." Participants of this survey reported a 75% employment rate, a 41% wage increase, and 92% satisfaction with their training³⁵. As it pertains to GIS, in the Summer of 2021, the LAOCRC (Los Angeles/Orange County Regional Consortium) approved FC's Geospatial Tech Certificate based on regional labor and market data that confirm both current and projected needs for GIS training in the labor force. Offering an array of GIS courses enables FC to serve students seeking both vocational and academic paths. Since we do not have a full-time GIS specialist to teach the courses

and to institutionalize this program, we must setup workdays to collaborate with your GIS professor (who is not even paid for office hours let alone preparing software and hardware for a course like this) to support the offering of three new GIS courses using a new software, GIS Pro. Without this collaboration, we will not be able to offer any of the GIS courses.

PART 3. RESOURCE REQUEST, SAP #3 - FACULTY LAB WORK GROUP, SUMMER 2023	
Describe Strategic Action Plan	Participate in three full work days scheduled in Summer 2023 to work on software and licensing for all GIS courses and preparation to offer advanced GIS courses in Spring 2024.
College goal/objective the plan meets.	College mission: “advance student learning and achievement by developing flexible pathways for students from our diverse communities who seek educational and career growth, certificates, associate degrees, and transfer”. College vision: “inspire positive change in the world.” DEIA: reduce achievement gaps through improved online access to ESRI’s GIS software. College Goals: 1) “promote success for every student, 2) “cultivate a culture of Equity,” 3) “strengthen our connection to our community” “be a hub for the local community, 4) Ensure financial, physical, and technological resources are available to maintain necessary services and programs.
Explain how the request helps the College attain student equity.	The Academic Senate for California Community Colleges has communicated the connection between full-time/part-time faculty ratios to student achievement and student success as well as student equity. GIS is 100% taught by adjuncts, and given the technical needs of this course, the full-time faculty must collaborate with adjunct faculty for software and hardware preparation for all GIS courses. Tactile learning in labs as a high impact learning practice that fosters student success and promotes more equitable student achievement.
What measurable outcome do you anticipate for this SAP?	Improved student success rates and reduced equity gaps in GEOG 230, a course that needs improvement in student success and retention rates. Establishing a strong GIS Program online helps respond to student demand for this course to be offered online along with other courses in the vocational certificate that became active in Fall 2022.
Type of resource Requested	Dollar Amount / Potential Source
FACULTY WORK GROUP, Summer 2023, two full work days over Summer 2023 Type: Professional Expert/Personnel <ol style="list-style-type: none"> 1. Aline Gregorio 2. Ruben Lopez 3. Joseph Diminutto 	24 x professional expert hourly rate (\$55) for 3 faculty = \$3,960 total
	Potential Source: One-time funds, student re-engagement funds

TOTAL requested amount	\$3,960
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NEW STRATEGIC ACTION PLAN #2 – AN OPEN DIGITAL ATLAS of WORLD GEOGRAPHIES

(PART 2. QUESTIONS 1-2)

World Geography (GEOG 100) is the second most enrolled course in the Department of Geography & the Environment, enrolling about 700 students each academic year. It helps students fulfill their Social Science and Cultural Diversity requirements for transfer and is a foundational course for instilling global literacy. Its curricular scope focuses on the examination of the interrelationships of physical and cultural processes that create the unique landscapes of a geographic region, with particular emphasis on nature-society relationships and contemporary regional and global issues. There are a range of topics highlighted in such geographical inquiry, including an understanding of world and regional migrations, agriculture, climate change, resource depletion, economic globalization, international institutions, conflict, human development, and more. In such curricular explorations, students “analyze and synthesize data/information in a variety of forms (numerical, textual, graphic) for the purpose of interpretation, problem solving, and decision-making” and “analyze the interconnectedness of racial, cultural, political, social, economic, and environmental issues from multiple perspectives and recognize the individual agency and collective responsibility necessary for positively influencing those systems” - thus in one course, hundreds of students attain two of the institutional learning outcomes (ISLOs) of Fullerton College.

Students often enroll in World Geography (GEOG 100) not knowing what to expect, often associating their geography courses with memorizing location of attributes such as capitals, rivers, mountains, etc. The overwhelming majority (90%+) of students entering GEOG 100 have never taken a geography course in their lifetimes, a feature of the American k-12 educational system and the consequential lack of familiarity with world geography of the American populace. Thus, being a gateway course into the discipline means that faculty have the challenge and the opportunity to introduce for the first time the holistic scope of world geography. As a first-time course, it is one of the most challenging courses. The success rates continue to fall below that of the success rates of other geography courses in our department, hovering around 60% each year, 10 percentage points below the department (70%), the Social Science Division (71%), and college average success rates (69%) in 2020/2021. When disaggregated by race/ethnicity, the course shows greatest inequities in student achievement, with Black and Latinx students disproportionately impacted.

High quality and open educational resources have been identified as a strategy to tackle inequities in student achievement. Rising textbook costs are barriers to student achievement, as many students are not purchasing textbooks and attempting to pass college courses without any materials to refer to when studying. The Academic Senate for California Community Colleges (ASCCC) has recognized textbook costs as a barrier to completion, adopting a series of resolutions supporting the development of Open Educational Resources as an important strategy in promoting student success - Resolution 12.02 resolves that colleges “...allow the use of sabbaticals and other professional development opportunities for the development of accessible open educational resources.” This support stems from widely available data on the

impact of zero cost textbooks on student achievement. The Office of Institutional Research and Effectiveness at Fullerton College produced comparisons of success rates for students in courses with free textbook materials and those without, showing that courses with free textbooks showed higher student success rates by about of five percentage points. Other studies have found that free textbooks increase success rates, improve overall student grades, and help reduce the equity gap in student achievement by particularly improving the performance of economically disadvantaged nonwhite students.

In the 2021 Self-Study, the Geography Department’s Equity Plan included the universal adoption of Open Educational Resources in order to improve student success in GEOG 100 as well as other geography courses. **All of our courses require high quality professional maps, which are copyrighted.** Since now most of our courses are online, we need digital professional maps that are easily accessible to students. High quality openly licensed digital maps needed for geography courses do not exist, despite our best efforts searching for them. Maps used in textbooks are expensive and copyrighted components of textbook publishing and cannot be published/distributed to students without legal repercussions. Maps that we have identified for teaching often come from National Geographic, and all of them are copyrighted and cannot be distributed to students. Thus, our efforts to implement a universal adoption of Open Educational Resources requires that we have an alternative to copyrighted maps published in expensive media formats and textbooks that our students cannot afford.

To support our Equity Plan and uphold our OER commitment, we are proposing this funding request for the creation of an Open Digital Atlas. Professor Gregorio would oversee the creation of 15 original Digital Maps with up to two freelance professional cartographers that would sell the maps under a CC BY-NC-SA 4.0 (Creative Commons Non-Commercial License) in a compilation titled “An Open Atlas of World Geographies.” This process requires data acquisition and management, overseeing cartography, composition/elements design, accessibility checking for color schemes, copy-editing, publishing, and licensing. The Atlas would include essential maps for teaching GEOG 100 (World Geography), GEOG 160 (Cultural Geography), GEOG 120 (Global Environmental Problems), and GEOG 102 (Physical Geography), thus improving access to geography learning materials for thousands of students each year. The maps could also be used to benefit other educational efforts on campus, providing invaluable visuals for teaching environmental/spatial justice topics, including climate change, migration, biodiversity and indigenous rights, environmental justice, environmental racism, pollution, and governance (to name a few topics). The budget requested is negligible compared to the costs incurred on students for geography textbooks/maps. Based on our current enrollment, the creation of an open atlas represents more than \$70,000 in yearly savings transferred directly to students by offering them free direct access to a free high-quality atlas.

(PART 2. QUESTION 3)

This workgroup is necessary for the viability of our Equity Plan strategy to adopt open educational materials in geography. As noted earlier, using Open Educational Resources is an effective measure to improve student success across all student groups. The Faculty Senate, PAC, and Associated Students have all taken stances in the support of OER development and adoption.

PART 3. RESOURCE REQUEST #2 - GEOGRAPHY OPEN ATLAS	
Describe Strategic Action Plan	the creation of an Open Digital Atlas, a compilation of 15 original Digital Maps published under a CC BY-NC-SA 4.0

	<p>(Creative Commons Non-Commercial License). This process requires data acquisition and management, overseeing cartography, copy-editing, publishing, and licensing. Professor Gregorio would oversee the creation of the maps with up to two freelance professional cartographers that would be paid per map produced. The Atlas would include essential maps for teaching GEOG 100 (World Geography), GEOG 160 (Cultural Geography), GEOG 120 (Global Environmental Problems), and GEOG 102 (Physical Geography), improving DEIA through access to geography learning materials for thousands of students each year.</p>
<p>College goal/objective the plan meets.</p>	<p>College mission: “advance student learning and achievement by developing flexible pathways for students from our diverse communities who seek educational and career growth, certificates, associate degrees, and transfer” and “foster a supportive and inclusive environment for students to be successful learners, responsible leaders, and engaged community members.” College vision: “inspire positive change in the world.” DEIA: reduce achievement gaps through open educational resources. College Goals: 1) “promote success for every student, 2) “cultivate a culture of Equity,” and 3) “strengthen our connection to our community” “be a hub for the local community. EJ Mapping Project (recommendations approved through PAC Spring 2023): Improve Environmental Justice education and partnerships. Sustainability Goals, Sustainability BP & AP: “The District will model sustainability learning and practice by supporting faculty and appropriate shared governance bodies in the development of curriculum, programs, and co-curricular educational opportunities that prepare students to understand environmental issues and address environmental sustainability challenges.” Institutional Learning Outcomes: Global awareness</p>
<p>Explain how the request helps the College attain student equity.</p>	<p>The Academic Senate for California Community Colleges has communicated the need for instructors to consider and help expand existing Open Educational Resources as a strategy to reduce equity gaps. Existing Open Educational resources do not have cartographic components, which hinders students’ abilities to learn geography.</p>
<p>What measurable outcome do you anticipate for this SAP?</p>	<p>Improved student success rates and reduced equity gaps in GEOG 100, a course that needs improvement in student success and retention rates. All Geography courses would have access to the Digital Atlas, so it would benefit all geography students. Our 2021 Self-Study’s Equity Plan lists universal OER adoption as a principal strategy to improve equity in our department, but existing OER’s do not have an accompanying Open Atlas.</p>
<p>Type of resource Requested</p>	<p>Dollar Amount / Potential Source</p>
<p>Funds for an Open Atlas to be</p>	

<p>used for all geography courses, free of charge to students.</p> <ol style="list-style-type: none"> 1. Coordinator/editor: data acquisition and management, coordinating, copy-editing, publishing and licensing 2. Cartography (original/professional maps paid per map output) <p>Type: Professional Expert/Personnel</p>	<p>Data acquisition, copy-editing, composition/design (including color checking for accessibility), compilation/publication interface, accessibility captioning, and licensing – 60 hours of professional expert pay (\$55 x 60 = \$3,300).</p> <p>15 custom digital maps, licensed CC BY-NC-SA (creative commons for non-commercial purposes) made available to all geography students. Maps and open publication rights (CC BY NC SA) would be purchased from freelance professional cartographers at a maximum of \$400 each (\$400 x 15 = \$6,000).</p>
	Potential Source: One-time funds, student re-engagement
TOTAL requested amount	\$9,300

NEW STRATEGIC ACTION PLAN #3 – PHYSICAL GEOGRAPHY LAB (GEOG 102 L), INVENTORY & MAINTENANCE

GEOG 102 LF, or Physical Geography Lab, is another important preparatory course for students’ STEM education and transfer preparation – a course dedicated to developing students’ scientific inquiry and understanding through tactile and experimental learning. Over the last five years, Physical Geography Labs enrolled over 1,206, the third largest lab enrollment in our college and a course with consistent and increasing student demand. In 2021, 58.5% more students enrolled in GEOG 102 Lab than five years ago, despite the remote learning context and steep declines in enrollments campus wide. GEOG 102 Lab was the fastest growing lab course on campus over the last five years, with the highest average annual growth rate. It is important to note that the Social Science Division hosts two of the most enrolled science lab courses in the departments of Anthropology and Geography & the Environment, two departments who share scheduling of a single lab space that is also shared with Psychology. We face substantial challenges in meeting student demand given space and staffing issues discussed in our 2021 Self-Study.

COURSE	Enrolments by Academic Year					TOTAL	Percentage %	
	2017	2018	2019	2020	2021		% avg change	AY 2017 vs AY 2021
ANTH 101 LAB	400	419	398	493	619	2329	12%	54.8%
ENVS 105 LAB	325	321	341	280	339	1606	2%	4.3%
GEOG 102 LAB	200	205	244	240	317	1206	13%	58.5%
BIO 102 LF	267	247	206	174	157	1051	-12%	-41.2%
ESC 130 LAB	149	114	90	121	82	556	-11%	-45%
ESC 116 LAB	113	157	101	123	0	494	-19%	-100%
ESC 100 LAB	122	103	90	115	48	478	-15%	-60.7%
ESC 101 LAB	97	101	99	51	74	422	0%	-23.7%

The Department of Geography & the Environment requested a replacement for Susie Grabiell, who retired in 2018, to maintain the viability of our department functions in preparing Fullerton College students for various academic paths. This request was recommended by the Program Review Committee in 2017 and in 2022, and our need has only grown more acute. Nonetheless, we have not been ranked sufficiently to hire a lab/GIS geographer, and we must continue to serve students in both courses. Physical Geography Labs are 100% taught by adjunct professors and do not have a full-time person dedicated to inventorying and maintaining lab materials, creating/ collaborating on lab manuals, and improving the lab space for geography lab teaching. Despite fulfilling the same STEM (Physical Science) credits as Earth Science or Environmental Science, students taking Physical Geography Labs are underserved, as our department is not able to provide our lab students with comparable lab experiences conducted by full-time faculty in the Natural Sciences. It is our understanding that physical science labs in the Natural Sciences also benefit from lab assistants that help maintain labs, something that we have never had. For that reason, we must plan for time to work outside of our contract to fill the gap for the fact that we do not have enough full-time faculty to cover the curricular breadth of our department nor assistants to help us maintain our lab. Furthermore, Geography shares our lab space with two other departments, Anthropology and Psychology. This makes it even more important to constantly inventory and maintain labs given that our space for equipment is substandard for any physical science lab to function properly (an issue reported in two past self-studies). We are in dire need of help to mitigate these issues and maintain and improve the Geography Lab, a foundational immersive science course for thousands of FC students.

This request is to form a faculty workgroup with our department faculty to inventory the orders of lab equipment and lab manuals, to help align lab exercises with the available lab space and supplies. Through this workgroup, Professor Aline Gregorio and Professor Ruben Lopez will dedicate three full working days in Summer 2023 to:

- Inventory lab equipment and supplies and create an equipment list/location for adjunct instructors teaching 100% of labs
- Inventory existing lab manuals/exercises and the equipment and supplies needed
- Renew thermal kits (that require proper hazardous waste disposal of old kits)
- Follow up on purchasing of lab equipment placed in summer 2022, find space, and house lab equipment ordered and received, currently in storage
- Identify and recommend technology integration in lab exercises, including GIS, into lab

exercises and provide resources for adjunct instructors from ESRI (the GIS software company)

- Identify needs for lab supplies, manuals, and instructional equipment, based on results from inventory
- Label cabinets with maps/equipment dedicated to geography labs in a shared space with two other departments
- Identify map needs for Lab space and place work request for map installations in the lab

(PART 2. QUESTION 3)

This workgroup is necessary for the viability of offering our Physical Geography Lab courses, the third most enrolled lab on campus. Science labs are high impact practices, tactile experiences that enhance student learning. It is impossible to continue to offer lab courses without inventorying and maintaining equipment and directing the adjuncts who teach these courses to appropriate lab manuals, exercises, technology, and materials. Without the appropriate workdays to plan and support the operations of our labs, we cannot in good conscience continue to offer a subpar lab experience to our students. Now that we are returning most labs to campus, this has become particularly urgent.

RESOURCE REQUEST, SAP #3 - GEOG 102 LAB WORKGROUP, SUMMER 2023	
Describe Strategic Action Plan	Participate in three workdays scheduled in Summer 2023 to work on improving the lab space, maintaining and inventorying lab supplies and equipment, reviewing and recommending lab manuals and technology integration, to improve access for adjuncts teaching labs in Fall 2023.
College goal/objective the plan meets.	College mission: “advance student learning and achievement by developing flexible pathways for students from our diverse communities who seek educational and career growth, certificates, associate degrees, and transfer”. College vision: “inspire positive change in the world.” DEIA: reduce achievement gaps through improved online access to ESRI’s GIS software. College Goals: 1) “promote success for every student, 2) “cultivate a culture of Equity,” 4) Ensure financial, physical, and technological resources are available to maintain necessary services and programs.
Explain how the request helps the College attain student equity.	The Academic Senate for California Community Colleges has communicated the connection between full-time/part-time faculty ratios to student achievement and student success as well as student equity. GEOG 102 Lab is 100% taught by adjuncts, and given the material needs of this course, the full-time faculty need to support adjunct instructors in what they need. Tactile learning in labs as a high impact learning practice that fosters student success and promotes more equitable student achievement. Recent purchases of equipment will need to be inventoried, housed and labeled.
What measurable outcome do you anticipate for this SAP?	Improved student success rates and reduced equity gaps through high impact practices. Improving our student lab experience with an inadequate shared space and without full-time faculty for our labs has continued to be a challenge for our department over the last seven years. since we lost a full-

	time professor.
Type of resource Requested	Dollar Amount / Potential Source
FACULTY WORK GROUP, Summer 2023, two full work days over Summer 2023 1. Aline Gregorio 2. Ruben Lopez Type: Professional Expert/Personnel	24 x professional expert hourly rate (\$55) for 2 faculty = \$2,640 total
	Potential Source: One-time funds, student re-engagement
TOTAL requested amount	\$2,640

Part 3: Resource Request Funding

Directions:

- Complete and submit this section ONLY if you have a NEW resource request
- Each NEW resource request must include the associated justification (Page 3).
- Complete as many resource requests, as necessary. Support each resource request with appropriate and relevant detail (Page 3).

All answers were provided and detailed in Part 2.

Submission:

Requested by: ALINE GREGORIO & RUBEN LOPEZ Email: agregorio@fullcoll.edu Phone: _____

Division: SOCIAL SCIENCE Department: GEOGRAPHY Total Requested \$: 14,580

This request is intended as an update to a previously submitted program review. List and provide the cost to implement this request. Describe equipment location and include a description of additional space or maintenance, if needed.

Type of Resource	Requested Dollar Amount	Potential Funding Source
Personnel	SAP #1 – GIS software and licensing management \$3,960 SAP #2 – Directing the production, freelance cartography, & licensing of an Open Atlas, \$9,300 SAP #3 – Physical Geography Lab and inventory \$2,640	one-time funds student re-engagement funds
Facilities		

Equipment		
Supplies		
Computer Hardware		
Computer Software		
Training		
Other		
Total Requested Amount:	\$15,900	

Approval:

Dean: Signature/Approval: _____

Date: _____

Rank (if appropriate): Dean Priority Ranking: _____ of _____