



## Instructional Annual Program Review and Planning Update Form Fall 2023

### BACKGROUND:

Program review 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 Annual 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** programs.

- Instructional programs must submit their Annual Program Review Update form to their dean by 5pm on Monday, November 27, 2023.
- Deans will forward the completed form to the Program Review and Planning Committee Chairs by 5pm on Monday, December 4, 2023.
- Questions or concerns?
  - Committee contacts:
    - Co-chairs Mary Bogan ([mbogan@fullcoll.edu](mailto:mbogan@fullcoll.edu)) and Bridget Kominek ([bkominek@fullcoll.edu](mailto:bkominek@fullcoll.edu))
    - Division representatives on the [Program Review and Planning Committee](#)
  - [Office of Institutional Effectiveness](#)

### SUBMISSION:

Program:

Division:

Date:

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 part 1 only)*

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 parts 1 and 2)*

Principal Author Signature: *Marc Willis*

Printed Name: **Marc Willis**

Date: **11/20/2023**

Dean Signature: Bridget Salzameda

Printed Name: Bridget Salzameda

Date: 11/29/2023

## 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.

After August 15, you will be able to access PDF copies of your program's ISS data here: [ISS ISLO Documents](#). The folder will also include instructions to access Tableau dashboards with the same information. The instruction document will also provide more context about how these standards are calculated. If you have any questions, please reach out to the Office of Institutional Effectiveness at [ie@fullcoll.edu](mailto:ie@fullcoll.edu).

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.

An analysis of the Instructional Program Review Annual Update Data (IPRAUD) AY 2022/2023 for the Earth Science Department (ESD) meets standards. ESD serviced 1,672 students with an average "Success" of 76.0% and average "Completion" of 88.1%. The ESD attributes this success to the following efforts: tutors, multiple types of teaching modalities, and plasticity of instructional delivery. The ESC currently offers a mix of online, hybrid, and campus courses at a variety of times. This has allowed students to match their busy schedules to our offerings. However, one course ESC 190 F had warning flags associated with completion standard.

The "Below Standard" given to ESC 190 F Environmental Geology is statistically invalid number due to the extremely small N-value of seven. Due to the lingering pandemic field trip, locations were not allowing in-person visits. The lack of real field trips combined with the low number of students, resulted in poor engagement by the students.

### Institutional Student Learning Outcomes (ISLOs)--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?

After August 15, you will be able to access PDF copies of your program's ISLO data here: [ISS ISLO Documents](#). The folder will also include instructions to access Tableau dashboards with the same information. Please reach out to your SLOA representative if you have questions.

The ESD does not have any data for the Global Awareness ISLO.

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?

The ESD currently has one mapped ISLO with data from Fall of 2022. The ISLO is: Analyze and synthesize data/information in a variety of forms (numerical, textual, graphic) for the purpose of interpretation, problem-solving, and decision-making. According to the data provided to the ESD, overall 51.98% "Meet Expectations" and 48.02% "Does not meet expectations". In most cases, the statistical N-value for most ethnic groups is too small to be of any help in interpreting the ISLO; however, when looking at the overall "ethnicity" percentages overall 51.15% "Meet Expectations" and 48.85% "Does not meet expectations". When evaluating the largest

ethnic group (Hispanic) data, we find that 49.82% “Meet Expectations” and 50.18% “Does not meet expectations”. The analysis above shows that the ESD has roughly the same achievement with all student groups. Comparing the ESD to campus wide ISLO: Analyze and synthesize data/information in a variety of forms (numerical, textual, graphic) for the purpose of interpretation, problem-solving, and decision-making shows that ESD falls below that of the campus. ESD is committed to raising the “Meets expectations” to well above the current 51.98%. In an effort to address student achievement short falls, the ESD is proposing the following as part of this program review:

- Professional Expert for supporting laboratory and field rip activities
- Establish a general budget for the ESD to cover ongoing expenditures for field trips
- Hire a replacement instructor to teach geology
- Professional Expert funds to cover the time of volunteer faculty drivers on field trips
- Teaching compound microscope

## Part 2: Additional Resource Request Reasoning and Support

For each separate resource request, complete steps A, B, and C.

Step A: Briefly describe the request.

### ESC budget:

ESC does not have a dedicated annual budget for conducting course related field trips. A number of important field trips require entrance fees, tour costs, or campsite fees. Field trips are routinely performed by the ESD are Aquarium of the Pacific, Whale Watching, USC Wrigley – Catalina Island, Santa Cruz Island, Cal State Desert Study Center, national and state park entrance fees, and various camping trips across the southwest.

Step B: Answer the following questions:

1. Is it imperative that this resource request be processed now rather than during the next comprehensive program review? Why?

The ESD has traditionally relied on passing fees along to students to cover outside costs. When a student could not afford the fees the ESD would cover the cost of the student by requesting moneys for the division or from the Prospectors Fund. In the case of the Natural Sciences Division, funds have been scarce in the last few years. As for the Prospectors Club, these funds have been **misappropriated** by the Fullerton Foundation and the college and NOCCCD refuses to make the funds whole. This has resulted the ESD has been having trouble conducting field trips.

2. How will this additional resource allocation specifically enhance your program’s services, activities, processes, etc. to continue or improve student learning and achievement?
  - Is the resource request personnel-related? If so, please provide evidence to justify the requested positions such as retirements, program growth or curricular demands, full-time/adjunct ratios, etc.

One of the fundamental underpinnings of the ESD is getting students out of the classroom and into the field. The ESD believes once a student experience field-based learning they are more likely to become Earth Science majors. These funds will remove the impediment of fees that contribute to socioeconomically disadvantage.

3. How will this additional resource allocation help you serve the college mission or strategic initiatives, and/or your program’s goals for improvement, as stated in your last program review?

SAP#6: The Earth Sciences department will maintain or expand the number of sections of field courses to meet growing demand of majors and non-majors for field-experience classes. No Student Left Inside!

The request for a dedicated annual budget to support field-based learning directly correlates to SAP#6 (above) from the last ESD Program Review.

Step C: Complete this chart with details of the request:

Type of Resource	Requested Dollar Amount	Potential Funding Source It is only necessary to list potential funding forces if you are aware of specific grants/program funds appropriate to the request, such as Strong Workforce.
Personnel		
Facilities		

Equipment		
Supplies		
Computer Hardware		
Computer Software		
Training		
Other	\$12,500.00	
<b>Total Requested Amount:</b>	\$12,500.00	

For each separate resource request, complete steps A, B, and C.

Step A: Briefly describe the request.

**Teaching microscope:**

The ESD currently does not have the ability to magnify and project small scale materials in a classroom or lab setting. Areas where gaining the ability to project are rock thin sections, sediment samples, crusted mineral samples, fluid inclusions, and plankton tow samples. The type of teaching microscope that the ESD is wanting to purchase is a 50x500x Trinocular Dual-Illumination Polarizing Microscope with 20 MP camera with 3.0 USB connection or equivalent.

Step B: Answer the following questions:

1. Is it imperative that this resource request be processed now rather than during the next comprehensive program review? Why?

The ESD is continuously developing new lecture and laboratory activities for students to enhance their engagement with science. The ESD inability to show the microscopic world has impaired the development of new activities in areas such as beach composition and plankton/microplastics in ocean waters which is relevant to connecting the students to understanding global pollution.

2. How will this additional resource allocation specifically enhance your program's services, activities, processes, etc. to continue or improve student learning and achievement?
  - Is the resource request personnel-related? If so, please provide evidence to justify the requested positions such as retirements, program growth or curricular demands, full-time/adjunct ratios, etc.

Currently the ESD does not have a way to show the microscopic world in real time to students. One of the areas that the ESD believes is important in engaging a diverse student body is to connect them to the environment they live in. The microscope with its ability to connect into the existing projections systems in the classroom and labs will allow faculty to show the microscopic world of Earth Science. Topics such as local plankton and the microplastics, beach composition, mineral growth, and fluid inclusions trapped during mineral growth will be investigated.

3. How will this additional resource allocation help you serve the college mission or strategic initiatives, and/or your program's goals for improvement, as stated in your last program review?

Earth Sciences Department will increase rates of course retention and success.

The addition of a teaching microscope lines up with SAP#3 above from the ESD program review. Up grading the ESD with a microscope with a camera and connecting to a PowerPoint projector will allow faculty to facilitate instrument-based activities.

Step C: Complete this chart with details of the request:

Type of Resource	Requested Dollar Amount	Potential Funding Source It is only necessary to list potential funding forces if you are aware of specific grants/program funds appropriate to the request, such as Strong Workforce.
Personnel		
Facilities		
Equipment	\$10,000.00	
Supplies		
Computer Hardware		
Computer Software		
Training		
Other		
<b>Total Requested Amount:</b>	\$10,000.00	

For each separate resource request, complete steps A, B, and C.

Step A: Briefly describe the request.

**STEM Field Trip:**

As part of the recruitment of majors for the ESD and other departments within the Natural Science Division, students participate in a field trip focusing on multidisciplinary field-based sciences. The goal of the field trip is to introduce and broaden students understanding of field-based sciences such as geology, ecology, environmental science, biology, and others.

Step B: Answer the following questions:

1. Is it imperative that this resource request be processed now rather than during the next comprehensive program review? Why?

In the past, the STEM Field Trips have been extraordinarily successful. These trips have not been consistently offered due to relying on sporadic funding source. Currently no funding is available for conducting STEM field trips.

2. How will this additional resource allocation specifically enhance your program’s services, activities, processes, etc. to continue or improve student learning and achievement?

- Is the resource request personnel-related? If so, please provide evidence to justify the requested positions such as retirements, program growth or curricular demands, full-time/adjunct ratios, etc.

The design of the STEM Field Trips are twofold. The first is to recruit students into field-based science majors such as Earth Science, Ecology, Environment Science, Biology. The second is to provide an opportunity to get a diverse community of students out into the field while creating a supportive and inclusive environment while expanding their knowledge.

3. How will this additional resource allocation help you serve the college mission or strategic initiatives, and/or your program’s goals for improvement, as stated in your last program review?

Fullerton College advances 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. We foster a supportive and inclusive environment for students to be successful learners, responsible leaders, and engaged community members.

STEM Field Trips support the college’s mission by fostering supportive and inclusive environment.

SAP#5: The Earth Sciences department will expand outreach efforts to attract more students to our programs, to educate students and the public about natural disasters and human impacts on our planet, to build relationships with local K-12 institutions, and to strengthen ties with local community and business partners, including potential sources of funding.

STEM Field Trip a line with SAP#5 (above) from the ESD Program Review.

Step C: Complete this chart with details of the request:

Type of Resource	Requested Dollar Amount	<b>Potential Funding Source</b> It is only necessary to list potential funding forces if you are aware of specific grants/program funds appropriate to the request, such as Strong Workforce.
Personnel	\$5,000.00	
Facilities		
Equipment		
Supplies		
Computer Hardware		
Computer Software		
Training		
Other	\$3,000.00	
<b>Total Requested Amount:</b>	\$8,000.00	

For each separate resource request, complete steps A, B, and C.

Step A: Briefly describe the request.

**PE support for a Laboratory Technician:**

The ESD for several years, prior to the pandemic, had a part-time classified staff to assist in supporting the ESD faculty. This person assisted in preparing the labs, maintaining equipment, ordering supplies, and attending field trips. During the pandemic, we lost this person. At the start of the Fall 2023, the ESD was able to hire a part time Professional Expert to support the ESD. Their ability to relieve the ESD faculty of non-teaching tasks has allowed the faculty to focus their time on students. In order to continue having the support necessary so that the faculty can do what they do best, teaching, the ESD need continued funding of the part-time Profession Expert support position.

Step B: Answer the following questions:

1. Is it imperative that this resource request be processed now rather than during the next comprehensive program review? Why?

The ESD has been operating without a laboratory technician for several years resulting in a degradation in the equipment and supplies. This has led to faculty having to take up the slack at the expense of teaching.

2. How will this additional resource allocation specifically enhance your program’s services, activities, processes, etc. to continue or improve student learning and achievement?
  - Is the resource request personnel-related? If so, please provide evidence to justify the requested positions such as retirements, program growth or curricular demands, full-time/adjunct ratios, etc.

The lab technician role is to support faculty so the faculty can focus on students. The lab technician duties are to make sure equipment is working, supplies are on hand, and labs are set up for students to these conduct labs. They also manage purchasing and performing maintenance on equipment. This request is to replace the lab technician that left during the pandemic.

3. How will this additional resource allocation help you serve the college mission or strategic initiatives, and/or your program’s goals for improvement, as stated in your last program review?

College Mission:

Fullerton College advances 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. We foster a supportive and inclusive environment for students to be successful learners, responsible leaders, and engaged community members.

This request lines up with the college’s mission by enabling the ESD ability to have properly working equipment, supplies that support students in the lab, and free up faculty to focus on teaching.

This request directly lines up with and supports Goal #2 from the last ESD Program Review of (SAP#2) - The Earth Sciences Department will establish an Earth Science Lab Clerk position to organize, maintain, repair, and distribute the equipment and supplies necessary for instruction.

Step C: Complete this chart with details of the request:

Type of Resource	Requested Dollar Amount	Potential Funding Source It is only necessary to list potential funding forces if you are aware of specific grants/program funds appropriate to the request, such as Strong Workforce.
Personnel	\$25,000	



Facilities		
Equipment		
Supplies		
Computer Hardware		
Computer Software		
Training		
Other		
<b>Total Requested Amount:</b>	\$25,000	

For each separate resource request, complete steps A, B, and C.

Step A: Briefly describe the request.

**PE support for drivers on field trips:**

An important part of the ESD mission is taking students into the field. In fact, field trips are best way to recruited students into becoming Earth Science majors. One aspect of the field trip planning is finding enough qualified drivers for the school vans to take students into the field. It is a customary practice to recruit faculty volunteers to drive on field trips. In many cases, volunteer driving is a mutual support system amongst the Natural Science faculty. Having faculty drivers provides several benefits such as having additional responsible adults on the trip and additional faculty can educate students about their specialty while on the trip. In the ESD, we teach a 1-unit field trip course in the fall and spring as well as a 2-units field trip course in the summer. Each field trip course has 20 students requiring three vans. This means two faculty volunteers are need for each field trip. A one-unit field trip class would require 16 hours per volunteer at \$55/hr. for a total of \$1,760.00. A two-unit field trip class would require \$3,520.00.

Step B: Answer the following questions:

1. Is it imperative that this resource request be processed now rather than during the next comprehensive program review? Why?

Getting students out into the field is an important part of the ESD. The ESD runs field trip courses every semester that last from one to five days. It is seen as an important recruiting tool for the department. Providing PE compensation for fellow faculty that volunteer their time will help to ensure that there is a reliable and responsible pool of drivers for the field trips.

2. How will this additional resource allocation specifically enhance your program’s services, activities, processes, etc. to continue or improve student learning and achievement?
  - Is the resource request personnel-related? If so, please provide evidence to justify the requested positions such as retirements, program growth or curricular demands, full-time/adjunct ratios, etc.

The ESD has found that students that attend field trip courses are much more likely to become Earth Science or other STEM major such as Environmental Science. Field trips also develop a sense of accomplishment in

diverse students who life experiences have been limited to their urban surroundings. These newfound capabilities pushes students toward finishing degrees and certificates.

- How will this additional resource allocation help you serve the college mission or strategic initiatives, and/or your program’s goals for improvement, as stated in your last program review?

Fullerton College advances 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. We foster a supportive and inclusive environment for students to be successful learners, responsible leaders, and engaged community members.

Field trips courses that take the students to the field, directly address both the educating of a diverse student community as well as fostering supportive and inclusive environment. The ability of offering field trips is dependent on having van drivers.

SAP#6: The Earth Sciences department will maintain or expand the number of sections of field courses to meet growing demand of majors and non-majors for field-experience classes. No Student Left Inside!

The ESD request for PE funds for van drivers on field trip course correlates to SAP#6 (above) from the last ESD program review. Funding for drivers will reduce the risk of class cancelation due to a lack of drivers.

Step C: Complete this chart with details of the request:

Type of Resource	Requested Dollar Amount	Potential Funding Source It is only necessary to list potential funding forces if you are aware of specific grants/program funds appropriate to the request, such as Strong Workforce.
Personnel	\$5,280.00	
Facilities		
Equipment		
Supplies		
Computer Hardware		
Computer Software		
Training		
Other		
<b>Total Requested Amount:</b>	\$5,280.00	

For each separate resource request, complete steps A, B, and C.

Step A: Briefly describe the request.

**Replacement Faculty:**

The ESD has lost one of the two full time faculty due to retirement during the pandemic. This would be the second full time faculty that has retired and not been replaced in recent years. As a result, the ESD has not been able to offer as many sections of courses and especially Field Trip courses. In order to grow the program and support the degree pathways, a faculty replacement position is needed.

Step B: Answer the following questions:

1. Is it imperative that this resource request be processed now rather than during the next comprehensive program review? Why?

The geology faculty position has been vacant since 2021, and as students begin to return to college after the pandemic the need to offer more sections of Earth Science Courses (ESC) is increasing.

2. How will this additional resource allocation specifically enhance your program’s services, activities, processes, etc. to continue or improve student learning and achievement?
  - Is the resource request personnel-related? If so, please provide evidence to justify the requested positions such as retirements, program growth or curricular demands, full-time/adjunct ratios, etc.

The faculty position is a replacement position for a faculty member that retired in 2021.

3. How will this additional resource allocation help you serve the college mission or strategic initiatives, and/or your program’s goals for improvement, as stated in your last program review?

Fullerton College advances 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. We foster a supportive and inclusive environment for students to be successful learners, responsible leaders, and engaged community members.

The replacement faculty position serves the college mission by allowing the ESD to develop flexible pathways for students in their pursuit of an advanced degree.

Step C: Complete this chart with details of the request:

Type of Resource	Requested Dollar Amount	Potential Funding Source It is only necessary to list potential funding forces if you are aware of specific grants/program funds appropriate to the request, such as Strong Workforce.
Personnel		
Facilities		
Equipment		
Supplies		
Computer Hardware		

Computer Software		
Training		
Other		
<b>Total Requested Amount:</b>		

Step A: Briefly describe the request.

Step B: Answer the following questions:

1. Is it imperative that this resource request be processed now rather than during the next comprehensive program review? Why?
2. How will this additional resource allocation specifically enhance your program's services, activities, processes, etc. to continue or improve student learning and achievement?
  - Is the resource request personnel-related? If so, please provide evidence to justify the requested positions such as retirements, program growth or curricular demands, full-time/adjunct ratios, etc.
3. How will this additional resource allocation help you serve the college mission or strategic initiatives, and/or your program's goals for improvement, as stated in your last program review?

Step C: Complete this chart with details of the request:

Type of Resource	Requested Dollar Amount	Potential Funding Source <small>It is only necessary to list potential funding forces if you are aware of specific grants/program funds appropriate to the request, such as Strong Workforce.</small>
Personnel		
Facilities		
Equipment		
Supplies		
Computer Hardware		
Computer Software		
Training		
Other		
<b>Total Requested Amount:</b>		

