

PROGRAM REVIEW Fall 2018

Program: Environmental Science/Environmental Studies

Division: STEM

Date: 10/19/2018

Writer(s): Michal Shuldman, Eric Harpell

SLO/SAO Point-Person:

Audience: Deans, Vice Presidents of Student Services and Academic Services, All Planning and Allocation Committees. This document will be available to the public.

Uses: This Program Review will be used to inform the campus and community about your program. It will also be used in the processes of creating Division Summaries, determining College Planning Priorities and allocating resources. A final use is to document fulfillment of accreditation requirements.

Time Frame: This Program Review should reflect on program status during the 2017-18 academic year. It should describe plans starting now and continuing through 2018-19. This document also provides the opportunity to describe more long-term plans (optional).

Sections: The first section of this Program Review focuses on general program reflection and planning. The second section has specific questions to be filled out by all programs this year. The third section is an SLO/SAO update. The fourth section is a review of curriculum. Only programs with curriculum need to complete Section 4.

Topics: A list of topics of particular interest to Program Review readers can be found here:

<https://goo.gl/23jrxt>

Help: Contact Karin Spirn: kspirn@laspositascollege.edu

Instructions:

- 1) Please respond to each question as completely as possible.
- 2) If the requested information does not apply to your program, write "Not Applicable."
- 3) Optional: Meet with your dean to review this document before October 22.
- 4) Send an electronic copy of this form to Karin Spirn and your Dean by October 22.

Links:

Program Review Home Page: <https://goo.gl/XATqjJ>

Fall 2017 Program Review Updates : <https://goo.gl/pkv76m>

Frequently Asked Questions: <https://goo.gl/ilhRtt>

Section One: Program Snapshot

No Significant Changes Option

Contact person: Michal Shuldman, Eric Harpell

By marking an X in the box above, the writers of this Program Review indicate that there have been no significant changes to their program or their program's needs in the past year. In this case, programs may opt not to complete Program Review Section One: Program Snapshot.

Programs must still complete all other sections (as applicable).

Please note: Choosing this option means that your program's information may not be included in the yearly Division Summary.

The No Significant Changes Option may only be used for two years in a row; after two years, programs must complete a full Program Review including the Program Snapshot. Our program's most recent Program Review was submitted in the following semester: Fall 2017_____.

- A. Program Description: Briefly describe your program, including any information or special features of your program that will provide helpful context for readers of this Program Review.**

- B. Changes to Program and Needs: Describe any significant changes to your program or your program's needs since the previous Program Review Update (Fall 2017).**

Mark an X before each area that is addressed in your response.				Definitions of terms: https://goo.gl/23jrxt			
	Community Partnerships/Outreach		Facilities, Supplies and Equipment, Software		LPC Planning Priorities		Services to Students
	Curriculum committee items		Financial/Budgetary		LPC Collaborations		SLO/SAO Process
	Enrollment Management		Human Resources		Pedagogy		Technology Use
	External Factors		Learning Support		Professional Development		

C. Reflection: What plans from the [2017 Program Review](#) or any [previous Program Reviews/Updates](#) have been achieved and how? You may also describe achievements that were not planned in earlier Program Reviews.

Mark an X before each area that is addressed in your response.				Definitions of terms: https://goo.gl/23jrxt			
<input type="checkbox"/>	Community Partnerships/Outreach	<input type="checkbox"/>	Facilities, Supplies and Equipment, Software	<input type="checkbox"/>	LPC Planning Priorities	<input type="checkbox"/>	Services to Students
<input type="checkbox"/>	Curriculum committee items	<input type="checkbox"/>	Financial/Budgetary	<input type="checkbox"/>	LPC Collaborations	<input type="checkbox"/>	SLO/SAO Process
<input type="checkbox"/>	Enrollment Management	<input type="checkbox"/>	Human Resources	<input type="checkbox"/>	Pedagogy	<input type="checkbox"/>	Technology Use
<input type="checkbox"/>	External Factors	<input type="checkbox"/>	Learning Support	<input type="checkbox"/>	Professional Development	<input type="checkbox"/>	

D. IR Data Review: Describe any significant trends in your program’s data from the office of Institutional Research and Planning. (Note: Not all Programs have IR data packets available; if your program does not have a data packet, you may note that in the response box). You may also discuss any other data generated for your program by the Office of Institutional Research and Planning.

IR Data packets are available here: <http://www.laspositascollege.edu/research/progrev.php>

Course Success Rates Dashboard can be found at the bottom of this page: <http://www.laspositascollege.edu/research/outcomes.php>

Although there are no significant changes to the program since last semester, I am including success data here for reference. No significant trends observed other than the number of students completing and the success rate for students seems relatively constant and appropriate for a course with no prerequisites.

		Las Postias College						Total	
		Success (A,B,C,CR,P)		Non-success (D,F,NC,NP,I)		Withdrawal (W)			
		Num	Pct	Num	Pct	Num	Pct	Num	Pct
EVST 5	2012-13	24	59%	8	20%	9	22%	41	100%
	2013-14	38	81%	6	13%	3	6%	47	100%
	2014-15	66	80%	13	16%	4	5%	83	100%
	2015-16	54	67%	14	17%	13	16%	81	100%
	2016-17	66	75%	12	14%	10	11%	88	100%
	2017-18	60	73%	15	18%	7	9%	82	100%

Mark an X before each area that is addressed in your response.				Definitions of terms: https://goo.gl/23jrxt			
<input type="checkbox"/>	Community Partnerships/Outreach	<input type="checkbox"/>	Facilities, Supplies and Equipment, Software	<input type="checkbox"/>	LPC Planning Priorities	<input type="checkbox"/>	Services to Students

	Curriculum committee items		Financial/Budgetary		LPC Collaborations		SLO/SAO Process
	Enrollment Management		Human Resources		Pedagogy		Technology Use
	External Factors		Learning Support		Professional Development		

E. Other Data Review (Optional): Describe any significant findings based on other data regarding your program. Possible sources of relevant information might include, but are not limited to, the following:

- **Data generated by your program**
- **CEMC Data**
- **Labor Market Data**

Mark an X before each area that is addressed in your response.								Definitions of terms: https://goo.gl/23jrxt	
	Community Partnerships/Outreach		Facilities, Supplies and Equipment, Software		LPC Planning Priorities		Services to Students		
	Curriculum committee items		Financial/Budgetary		LPC Collaborations		SLO/SAO Process		
	Enrollment Management		Human Resources		Pedagogy		Technology Use		
	External Factors		Learning Support		Professional Development				

F. Impacts to Students (Optional): Discuss at least one example of how students have been impacted by the work of your program since the last Program Review Update (only if you did not already answer this in Questions B-E).

Mark an X before each area that is addressed in your response.								Definitions of terms: https://goo.gl/23jrxt	
	Community Partnerships/Outreach		Facilities, Supplies and Equipment, Software		LPC Planning Priorities		Services to Students		
	Curriculum committee items		Financial/Budgetary		LPC Collaborations		SLO/SAO Process		
	Enrollment Management		Human Resources		Pedagogy		Technology Use		
	External Factors		Learning Support		Professional Development				

G. Obstacles: What obstacles has your program faced in achieving plans and goals?

Mark an X before each area that is addressed in your response.								Definitions of terms: https://goo.gl/23jrxt	
	Community Partnerships/Outreach		Facilities, Supplies and Equipment, Software		LPC Planning Priorities		Services to Students		
	Curriculum committee items		Financial/Budgetary		LPC Collaborations		SLO/SAO Process		
	Enrollment Management		Human Resources		Pedagogy		Technology Use		

	External Factors		Learning Support		Professional Development	
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H. Short Term Planning: What are your most important plans (either new or continuing) for next year? Describe plans starting now and continuing through AY 2018-19.

Mark an X before each area that is addressed in your response.							Definitions of terms: https://goo.gl/23jrxt		
	Community Partnerships/Outreach		Facilities, Supplies and Equipment, Software		LPC Planning Priorities		Services to Students		
	Curriculum committee items		Financial/Budgetary		LPC Collaborations		SLO/SAO Process		
	Enrollment Management		Human Resources		Pedagogy		Technology Use		
	External Factors		Learning Support		Professional Development				

I. Long Term Planning (Optional): Please detail any long-term plans for the next 3-5 years. (Only if you have significant plans, such as implementation of a grant project, creation of long-term initiatives including those using restricted funds such as Equity or SSSP, construction and outfitting of a new building).

Mark an X before to each area that is addressed in your response.							Definitions of terms: https://goo.gl/23jrxt		
	Community Partnerships/Outreach		Facilities, Supplies and Equipment, Software		LPC Planning Priorities		Services to Students		
	Curriculum committee items		Financial/Budgetary		LPC Collaborations		SLO/SAO Process		
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	External Factors		Learning Support		Professional Development				

Section Two: Current Topics (Required for All Programs)

- A. **Educational Master Plan: A list of goals and strategies appears on page ii of the Educational Master Plan, which can be accessed here:**

http://www.laspositacollege.edu/about/assets/docs/LasPositas_Ed_Master_Plan.pdf

If applicable, describe how your program's upcoming plans reflect the goals described in the college's Educational Master Plan (your plans are described in Section 1, Questions H-I, or on a previous program review if you did not complete this year's Program Snapshot).

- 1) One of our long-term goals is to work on developing a Wildlife Technician Certificate. We have already worked with CTE to determine there is need in the local workforce for technicians with environmental skills. The next step in the process involves setting up an Advisory Board with private and public partners. One of the first steps of the new certificate is a new class that is being offered in Spring 2019 – Field Biology.

A1. Address the educational needs of a diverse student population and global workforce

B2. Update programs to serve workforce needs

B3. Develop and strengthen private and public sector partnerships.

- 2) Our curriculum already focuses on issues related to sustainability, pollution, and human impacts on the environments. All of these are important topics for informed citizens. We have had preliminary discussions with workforce partners. A new certificate would likely involve the creation of a new class housed in the Biology Department, called California Biodiversity. It would focus on understanding the basics of the California Environmental Quality Act and identifying federally listed plants and animals found in California.

A7. Provide student opportunities to be informed, ethical, and engaged.

- 3) As described in our previous program review, we are in the planning stages of a laboratory that will fulfil the laboratory science requirement for students taking EVST 5 and/or Biology 40. It has not yet been determined if this will be two separate labs or one single lab that address the common needs of both courses. The lab would also be part of one or more certificate programs in

A2. Support existing and new programs.

A6. Focus on workforce readiness

B2. Update programs to serve workforce needs

- 4) Currently, there is no release time allocated for coordinating the EVST 5 program. In Past semesters, such coordination (including writing the program review) has been handled by one person (Harpell) but in 2017-2018 coordination has been shared by Physics (Harpell) and Biology (Shuldman). It is hoped that some release time either be provided for coordinating the program, or be added to the release time currently offered in other participating disciplines which currently include Physics,

Biology, and Chemistry.

A2. Support existing and new programs.

C3. Provide appropriate staffing levels.

D1. Streamline existing processes.

D2. Enhance transparency and accountability.

D5. Monitor and analyze student performance.

- 5) As described in our previous program review, it would be useful for our program to have dedicated lab tech support, particularly when the lab or labs mentioned in item (3) above are being offered. This may be accomplished by increasing the lab tech position in physics from 10 to 12 months, hiring a part time lab tech, or adding to the load for chemistry and biology lab techs as those departments see fit.

A2. Support existing and new programs.

C3. Provide appropriate staffing levels.

B. Program-Set Standard (Instructional Programs Only): Did your program meet its program-set standard for successful course completion? ____yes

Program-set standard data can be found on this page:

<http://www.laspositascollege.edu/research/outcomes.php>

If your program did not meet your program-set standard, discuss possible reasons and how this may affect program planning or resource requests.

C. Facilities: Do you have any facilities needs that are currently unmet? If yes, please describe.

Development of laboratory class or classes to accompany Bio 40 and EVST 5 will require the use of lab space. It is anticipated that these labs will use laboratory space currently used by Biology and Physics. However, in planning for our future STEM facilities, the rationale for adding additional laboratory space for physics and biology should include the need to share space with Environmental Science labs.

D. Professional Development

Section 87153 of California Education Code specifies the type of Professional Development activities that may be funded by the Community College Professional Development Program. You can review these activities here: <https://goo.gl/w8sqBM>

D1. Summarize the aspects of professional development that have been working well for your program. This might include the process of obtaining funds, the types of training your program members have been attending, etc.

1) The increased funding available this year allowed some of our faculty to attend professional development events (e.g. workshops, regional scientific meetings etc.). Attending these workshops and meetings is important for keeping up with industry standards, current scientific knowledge and topics related to student success. We were able to use some CTE funds to attend a conference in Southern California. The information from that meeting was foundational in thinking about our ideas for the Wildlife Technician Certificate.

2) Instructors from Biology (Shuldman) and EVST 5 (Harpell) have meet frequently on behalf of the Environmental Studies/Environmental Science program to discuss curriculum issues including course outlines, degree, and certificate programs. We also continue to discuss the plans for future laboratory course, staffing, facilities, and equipment needs. These meeting have been uncompensated and so far not included in the fulfillment of any staff development requirements such as variable flex. In the near future, it is hoped that we can obtain funds to meet and plan among ourselves, as well as with colleagues from other institutions.

D2.

Summarize any needs, desires and visions your program has regarding professional development, as well as any challenges.

- 1) Many funding awards outside grant funds (e.g. HSI grant, CTE funds) are not large enough to defray the costs of attended professional development programs outside our local region. This limits the opportunities available to faculty.
- 2) Some of the forms for reimbursement are outdated. These forms have instructions that no longer reflect the current reimbursement process (e.g. asking for forms in triplicate when that is not required). The reimbursement process should be clear so that faculty can be reimbursed quickly and efficiently.
- 3) For many professional development opportunities, the major barrier for faculty to attend workshops and conferences is the lack of paid substitutes.

E. Program Review Suggestions (optional): What questions or suggestions do you have regarding the Program Review forms or process?

None

Section Three: SLOs/SAOs (Required for All Programs)

A. In the box below, copy and paste your “Plans for Analysis of SLO/SAO Data” from last year’s Program Review. This plan can be found in the [2017 Program Review](#) Section 1 Question L.

(If discussing multiple PSLO/SAOs copy the box below as needed.)

Circle One: <input checked="" type="checkbox"/> CSLO <input type="checkbox"/> PSLO <input type="checkbox"/> SAO
Course, Program Name, or Student Service Area: EVST 5
Text of CSLO/PSLO/SAO: <ul style="list-style-type: none">• EVST 5: Students must be able to perform and analyze a home Energy Audit.
If you plan to analyze a PSLO, identify the courses that are mapped to the PSLO.

B. Below, report on your program’s progress on the plan described in Question (A) above.

Text of CSLO/PSLO/SAO: EVST 5: This SLO aims to determine how well the students were able to perform a home energy audit demonstrating their mastery and understanding of course material. .
SLOs: Assessment data collected from _____ 4 _____ sections over _____ 2 _____ semesters. SAOs: Assessment data collected from _____ students over _____ semesters.
Describe the quantitative or qualitative results: EVST 5: Students have been able to successfully perform a home energy Audit with an average SLO score of 3.5 out of a possible of 4 points.
Discuss and reflect upon student achievement for this CSLO/PSLO/SAO. Discuss any actions taken so far (and results, if known) and your action plan for the future: Additional SLO’s must be written for both EVST 5 include students’ overall mastery of course level concepts and skills.
What changes in student achievement are evident across the semesters you analyzed? What are some possible explanations for these changes?

Results for EVST 5 have been very consistent. More SLO's are needed to gather relevant data.

DO you plan to continue tracking this SLO in the next year? Explain.

Yes. All instructors will continue to track SLO's.

C. Planning: What are your future plans (either new or continuing) for SLO/SAO analysis for next year? Identify the PSLOs, CSLOs, or SAOs that your program plans to focus on the upcoming year with subsequent analysis (next year's program review). (Copy the box below as needed.)

Circle One:

CSLO PSLO SAO

Course, Program Name, or Student Service Area:

EVST 5

Text of CSLO/PSLO/SAO:

- 1) By completion of EVST 5, students will demonstrate that they understand the concepts of Energy, and Power as applied to methods of Energy Generation, Use, and conservation.

- 2) By Completion of EVST 5, students will demonstrate they understand the scientific arguments in favor of reducing our local, national, and global Greenhouse gas emissions, as well as the challenges involved in implementing a reduction in fossil fuel use.

If you plan to analyze a PSLO, identify the courses that are mapped to the PSLO.

D. SLO/SAO Suggestions (optional): What questions or suggestions do you have regarding SLO/SAO planning, assessment and reporting?

Since no SLO data from Bio 40 was included in the 2017 program review, it was not discussed here. It will be included In the next program review, along with updated SLO's from EVST 5.

**Section Four: Curriculum Review
(Programs with Courses Only)**

The following questions ask you to review your program's curriculum. To see the last outline revision date and revision due date:

1. Log in to CurricUNET
2. Select "Course Outline Report" under "Reports/Interfaces"
3. Select the report as an Excel file or as HTML

Curriculum Updates

A. Title V Updates: Are any of your courses requiring an update to stay within the 5 year cycle? List courses needing updates below.

None All complete (updates due in 2022)

B. Degree/Certificate Updates: Are any degrees/certificates requiring an update to do changes to courses (title, units) or addition/deactivation of courses? List needed changes below.

N/A

C. DE Courses/Degrees/Certificates: Detail your department's plans, if any, for adding DE courses, degrees, and/or certificates. For new DE degrees and/or certificates (those offered completely online), please include a brief rationale as to why the degree/certificate will be offered online.

N/A