

2020 Annual Program Review

Program Name: Earth Science

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I. PROGRAM DESCRIPTION: In one or two paragraphs, provide a description of the primary goals of your program or service area. Attach an appendix to describe your program or service area in more detail, if needed.

Note: If no changes have occurred, copy and paste from your last review. If it exists, feel free to copy the brief description of your program from the college catalog: <http://www.smc.edu/CollegeCatalog/Pages/default.aspx>

There are four diversified and yet, integrated, academic programs within the Earth Science department: Anthropology, Astronomy, Geography and Geology. We also have Career Technical Education (CTE) programs housed within the Earth Science Department under the over-arching umbrella of the Sustainable Technologies Programs: Solar Photovoltaic Installation; Recycling and Resource Management; and Energy Efficiency. Although we are a diversified academic department, housing four separate academic disciplines and our CTE programs, we have many

II. PROGRESS SINCE LAST REVIEW (LAST YEAR’S OBJECTIVES)

Identify the original objectives from your last review, as well as new objectives that have emerged since then (if applicable). For each objective, determine status and explanation for status.

Objective	Status	Status Explanation
To submit applicable courses for distance education approval.	In Progress	With the emergence of COVID-19 in spring 2020 and the move to remote learning on 3/18/2020 it was soon determined by the Chancellors office that all courses taught in the remote format need approval for distance education format by December 2020.
Investigate the viability of developing a Geospatial Technology CTE program	Concluded	On June 28 th 2019, we hosted the first advisory board meeting to discuss the viability of developing a Geospatial Technology CTE program. The advisory board committee suggested a Chancellor Office Approved Certificate of Achievement (CoA) may be a better option for now considering the most recent labor market data and the chances of getting jobs only with a CTE certificate. Since most jobs require degrees from four-year universities, the advisory board suggested to upgrade the current Department Certificate to a CoA and focus on transferring our students to four-year institutions. We also surveyed students in our own classes and learned that about 40% of the students have transfer goals and the rest are working professionals who are more interested learning new skills to help their current jobs.

		Therefore, we decided to upgrade the current Department Certificate to a Chancellor office approved CoA. We are currently working with California State University Northridge (CSUN) to establish a transfer pathway to the institution.
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III. ACHIEVEMENTS

(Optional) List any notable achievements your program accomplished in the last year.

We hosted the very first GIS Day at SMC on Nov 12th, 2019. We had a student map gallery to display maps made by our own students; we also collaborated with the PV program (Prof Stuart Cooley) to show students how virtual reality is combined with other Geospatial technologies to solve real world problems!

A new anthropology course, Introduction to Primatology (ANTHRO 11), was approved by the SMC Curriculum Committee. We plan to start offering this course to students in 2021.

Anthropology professor Ciarán Brewster is a co-principal investigator on a National Science Foundation’s (NSF) Hispanic-Serving Institution Program grant awarded to Santa Monica College (SMC) in 2019 that will total nearly \$2.5 million over five years. The grant—entitled “Fostering an Equity-Minded Student Success Culture – STEM through Faculty Development”—will allow SMC to consolidate the work of its STEM Science and Research Initiative and the Center for Teaching Excellence to develop an equity-minded student success culture, one that helps traditionally underrepresented students succeed in STEM (Science, Technology, Engineering, and Mathematics) fields and careers.

Two new geology courses (GEOL 32, Introduction to Oceanography with Lab and GEOL 7, Climate Change) were approved by the SMC Curriculum Committee. We plan to start offering both courses to students in fall 2021.

Geology professor Lisa Collins has a paper accepted for publication in the Journal of College Science Teaching, “Using publicly-available long-term climate records in undergraduate interdisciplinary big data curriculum.”

During the 2019-2020 academic year, the Anthropology Program successfully changed our Departmental Certificate in Cultural Resource Management to a State Certificate of Achievement. Seven students were awarded the State Certificate this past academic year. This brings the total number of Departmental and State Certificate awardees to 19 in just two years.

The 2019-2020 academic year marked the 23rd consecutive year that Santa Monica College’s Anthropology Program has directed international archaeological research.

Creation of 7 non-credit courses and 3certificates in Sustainability Systems & Technology: Sustainability in Organics Aide Certificate, Sustainability Assistant Certificate, Sustainability Services Technician Certificate.

Created **Pathway Program Maps** in the following disciplines: Anthropology, Astronomy, Energy Efficiency, Geography, Geology, Recycling and Resource Management, and Solar Photovoltaic.

Full DE conversion for Astronomy 3 = SMC’s first fully DE science lab. (We have since been approved by Curriculum for full DE conversion of Geology 4 = SMCs 2nd fully DE science lab.)

IV. CURRENT PLANNING AND RESOURCE NEEDS

Part 1: Narrative

Broadly discuss issues or needs impacting program effectiveness for which institutional support or resources will be needed for the next academic/fiscal year.

The Earth Science Department has had four full-time faculty retire in the past three years (including two this year). As to date, none of these faculty have been replaced with new hires. As a small department, the lack of new hires means our department is shrinking. We do not have the luxury that large departments do of spreading the work load amongst many faculty members for college-wide committee work, and tenure review committee work etc.

In the Sustainable Technologies Program, our one full-time faculty member retired after this semester. We subsequently had to cancel the fall classes in PV because we could not find a replacement faculty for these

While this information will be reviewed and considered in institutional planning, the information does not supplant the need to request support or resources through established channels and processes.

Resource Category	Resource Description/Item	Rationale for Resource Need (Including Link to Objective)
Human Resources	<ol style="list-style-type: none"> 1. Physical Anthropology professor 2. Physical Geography professor. 3. Astronomy professor. 4. PV professor. 5. Lab tech 	<p>Replacements for retired faculty.</p> <p>The PV and Energy programs had only one full-time faculty member. With the retirement of this professor at the end of the spring 2020 semester, we currently have no faculty members to teach in these programs.</p> <p>We are the only science department on campus without a lab technician.</p>
Facilities <i>(info inputted here will be given to DPAC Facilitates Comm.)</i>	Click or tap here to enter text.	Click or tap here to enter text.
	Click or tap here to enter text.	Click or tap here to enter text.
Professional Development	Click or tap here to enter text.	Click or tap here to enter text.

V. CHALLENGES RELATED TO SPRING 2020 COVID-19 CRISIS AND RESPONSE:

List significant challenges your program faced in Spring 2020 due to COVID-19. Please also include your responses and solutions to this crisis.

Students without access to technology – computers, reliable internet connection, computer programs (ex. GIS programs).
 Students without quiet areas to study, read, and complete assignments.
 Varying levels of faculty and student knowledge (and use) of Canvas.

Varying levels of access to technology and reliable internet for faculty.

VI. THE NEXT SECTION IS FOR CTE PROGRAMS ONLY

PARTNERSHIPS:

Part 1: Industry advisory meeting dates and attendance for 2019-2020.

Date of Meeting	# of SMC Attendees	# of Non-SMC Attendees
PV Advisory meeting canceled in spring 2020 due to Covid-19, and full-time SMC faculty member on medical leave for spring semester.	Click or tap here to enter text.	Click or tap here to enter text.
June 28, 2019: Geospatial Technology Advisory Board Meeting	Click or tap here to enter text.	Click or tap here to enter text.
Click or tap to enter a date.	Click or tap here to enter text.	Click or tap here to enter text.
Click or tap to enter a date.	Click or tap here to enter text.	Click or tap here to enter text.

Part 2: Employer partnerships/collaborations for 2019-2020. Identify the most salient partnerships or collaborations.

Employer Name	Type of partnership or collaboration	Optional: Additional information about partnership or collaboration
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The following section will be completed by your program’s area VP

Check this box to indicate that you have reviewed the program’s annual review Provide any feedback and comments for the program here: