

ANNUAL PROGRAM REPORT

1. SELF-STUDY (Approx. 500 words)

Please present any planning goals from the last comprehensive Program Review, and report on progress toward achieving these goals.

Since our last Program Review (2013), our program achieved the following goals:

The chemistry program replaced its _____ class with two specialized chemistry classes: _____, and _____.

Two new classes were created in the marine sciences program, namely, _____, and _____.

A math minor was created, which included the development of the following new classes:
Introduction to _____

B. Program Changes and Needs

Tenure-track faculty changes since our last review follow in all programs:

- 2016 – Dr. Matthew Fairbanks, Assistant Professor, Hired
- 2015 – Dr. Julie Simons, Assistant Professor, Hired
- 2015 – Dr. Ryan Smith, Assistant Professor, Resigned
- 2014 – Dr. Ryan Smith, Assistant Professor, Hired
- 2014 – Dr. Nelson Coates, Assistant Professor, Hired
- 2014 – Dr. James Wheeler, Professor, Retired
- 2013 – Dr. Alex Parker, Assistant Professor, Hired
- 2013 – Mr. Lloyd Kitazono, Professor, Retired

Changes and needs in the marine science program:

The Marine Science Program is gaining stature at Cal Maritime through the increases in the number of students pursuing and completing the minor, the formation of a campus student club, and student-led research and summer internships in ocean science and policy. Popularity in the Marine Science minor has been demonstrated by eight cadets completing the program in 2016 and projecting as many as 12 cadets in 2017. Beginning in Spring 2016, we offered our first life science laboratory in marine biology (MSC 205L). In January 2015, the Oceanography Club was established; club members have attended field trips to the Monterey Bay Aquarium, a visit to a research vessel, hosted marine science seminars and film screenings on campus. Finally, since spring 2014 cadets have been engaged in marine science research, especially in the areas of ocean observing, marine invasive species science / ballast water treatment, and estuarine surveys using Cal Maritime training vessels. Bolstered by the CSU COAST Undergraduate Research Support Program and funds from Cal Maritime, more than \$12,000 in funds has been awarded to students conducting marine science and policy research since 2014. We have also increased the inventory of research instrumentation, including a new clean water system, a conductivity, temperature, and depth profiler, fluorometer, UV-VIS spectrophotometer, optical dissolved oxygen probe and received a gift of a Gas – Chromatograph Mass Spectrometer. During spring 2018 a new oceanography laboratory will be renovated in the laboratory building.

Changes and needs in the chemistry program:

As our Department moves toward offering a major in oceanography, a second semester of general chemistry and a course in organic chemistry will need iin orga(he) 00.2 ((he) 00.2 37.4

2. SUMMARY OF ASSESSMENT (Approx 500 words)

A. Program Student Learning Outcomes

Sciences – Student Learning Outcomes

1. Understand scientific principles and their relationship to the physical universe. (IWSLO-B,D)
2. Use theories, principles and models, in conjunction with the scientific method to analyze problems in science. (IWSLO-B, C, D)
3. Acquire and utilize mathematical and computational techniques to both analyze and comprehend problems in science. (IWSLO-B, C, D, G)
4. Effectively communicate scientific information in a way that is meaningful and convincing (IWSLO-A,F)

Mathematics – Student Learning Outcomes

1. Apply mathematical techniques and reasoning to problems in math. (IWSLO-C)
2. Create mathematical expressions from a word or application problem and analyze those expressions applying mathematical principles. (IWSLO-B, C)
3. Demonstrate an understanding of the theoretical and practical aspects of solving problems in math. (IWSLO-B, D)

B. Program Student Learning Outcome(s) Assessed

All

3. STATISTICAL DATA

Statistical data is meant to enhance and support program development decisions. These statistics will be attached to the Annual Report of the Program Unit. This statistical document will contain the same data as required for the five-year review including student demographics of majors, faculty and academic allocation, and course data.

<i>Program</i>	
<i>A. Students</i>	
1. Undergraduate	NA a a d
2. Postbaccalaureate	NA a a d
<i>B. Degrees Awarded</i>	NA a a d
<i>C. Faculty</i>	
Tenured/Track Headcount	a
1. Full-Time	
2. Part-Time	
3a. Total Tenure Track	
3b. % Tenure Track	
Lecturer Headcount	a

8. GD Section taught by Tenured/Track	
9. LD Section taught by Lecturer	
10. UD Section taught by Lecturer	