

**Title of Proposed Program:**

*[insert program title]*

**Effective Term:**

***[insert proposed start date]***

**ITEM 1: PROGRAM GOALS AND OBJECTIVES**

*[Identify the goals and objectives of the program. The stated goals and objectives of the program must be consistent with the mission of the community colleges as established by the Legislature in Education Code section 66010.4 (academic and vocational instruction).]*

*[insert program* ***student learning outcome only****, no assessment]*

**ITEM 2: CATALOG DESCRIPTION**

*[insert program* ***Title and Catalog Description only****]*

**ITEM 3: PROGRAM REQUIREMENTS**

*\*Sample below – please replace information with your certificate information.*

*[insert program title]*

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Requirement | Department Name/Course Number | Course Name | Units | CSU-GE | IGETC | Sequence |
| Required (13 units) |  |  |  |  |  |  |
|  | ESC 100 F | Physical Geology | 3 | B1 | Area 5A | Yr 1, Spring |
|  | ESC 100LF | Physical Geology Lab | 1 | B3 | Area 5C | Yr 1, Spring |
|  | ESC 130 F or ESC 130HF | Introduction to Oceanography or Honors Introduction to Oceanography | 3 | B1 | Area 5A | Yr 1, Fall |
|  | ESC 130LF | Introduction to Oceanography Field Experience | 1 | B1 | Area 5C | Yr 1, Fall |
|  | ESC 116 F or ESC 116HF | Astronomy or Honors Astronomy | 3 | B1 | Area 5A | Yr 2, Fall |
|  | ESC116LF | Astronomy Lab | 2 | B1 | Area 5C | Yr 2, Fall |
| Restricted Electives (8 units) |  |  |  |  |  |  |
|  | ESC 102 F | Survey of Natural Disasters | 3 |  |  | Yr 2, Fall |
|  | ESC 103 F | Historical Geology | 4 | B1 | Area 5A | Yr 2, Spring |
|  | ESC 104 F | Geology of National Parks and Monuments | 3 | B1 |  | Yr 2/Fall |
|  | ESC 105 F | Introduction to Meteorology | 3 | B1 | Area 5A | Yr 1, Fall/Spring/ Summer |
|  | ESC 106 F | Geology of the Orange County Area | 2 |  |  | Yr 2, Fall/Spring/Summer |
|  | ESC 120 F | Geology of California | 3 | B1 | Area 5A | Yr 1, Spring |
|  | ESC 190 F | Environmental Geology | 3 | B1 | Area 5A | Yr 2, Spring |

***\*\*\*Once you have completed all the above, then add to CurricUNET proposal under “ATTACHED FILES” and email Rachel Roschel at*** [***rroschel@fullcoll.edu***](mailto:rroschel@fullcoll.edu) ***that it’s been completed. She will update the below matrix box and reattach the fully completed document back in CurricUNET for state submission.***

|  |  |  |
| --- | --- | --- |
| **Major Total:** | **?? units** | **?? Units** |
| GE Pattern CSU-GE or IGETC: | 37 units | 39 units |
| Electives (as needed) (CSU transferrable): | ?? units | ?? units |
| Double-Counted: | ?? units | ?? units |
| Total Degree (maximum): | 60 units | 60 units |

**ITEM 4: MASTER PLANNING**

This discussion addresses the role the proposed program will fulfill in the college’s mission and curriculum offerings, the placement of the proposed program in the district master plan, and how the program is appropriate to the objectives and conditions of higher education and community college education in California.

Include these items in this section:

\*May include history of the program proposal origins, a description of the program purpose, and/or the program’s relevancy for the region and college including related community support.

\*Must demonstrate a need for the program that meets needs of the region

\*Must reference a program review that stated the need for the degree

\*If applicable, describe financial implications (facilities/equipment needs, etc.).

\* Programs that require new facilities, major renovation to existing facilities, or an expenditure of over $100,000 in district and state funds for equipment must submit an itemized matrix that details program costs and anticipated revenue (either public or private), both for the initial year of operation and in the near future years.

\* High-unit programs (above 60 semester units) must be addressed in this section by providing a rationale for the additional unit requirements (e.g.; mandate, law, baccalaureate requirement, etc.).

\*For a program with a selected goal of “Career Technical Education (CTE)” or “Career Technical Education (CTE) and Transfer,” whenever a program is to be offered in close cooperation with one or more specific employers, a discussion of the relationship must be provided.

For the full text of the state template requirements, see document “State Narrative Templates 7 10 13”

*\*Sample Below:*

*Fullerton College, like most metropolitan community colleges in California, strives to meet the needs of a diverse community of learners with transfer, career, or life-long learning goals. It is the college’s vision to “create a community that promotes inquiry and intellectual curiosity, personal growth, and a life-long appreciation for the power of learning.” Similarly, the North Orange County Community College District, to which Fullerton College belongs, aims to provide “a comprehensive program of educational opportunities that are accessible, academically excellent, and committed to student success and lifelong learning.” The District’s 2011 Comprehensive Master Plan provides a framework for putting these visions into action through its focus on improving completion rates and student success, eliminating the achievement gap, implementing best planning practices, and developing collaborative projects and partnerships.*

*The Earth Sciences department at Fullerton College has long prided itself on its emphasis on the nature of science, and especially science as inquiry. Lecture courses frame content as exploration of broader scientific questions, and provide students with opportunities to engage in science through measurement, data analysis, and critical thinking. The department has created several field classes to provide opportunities for students to experience firsthand the diverse landscapes and seascapes of California. So, too, does the department participate in professional development opportunities to expand the ways that we teach diverse learners, including online instruction, flipped classrooms, science literacy activities, problem-based learning, and use of technology in the classroom. Members of the faculty have authored textbooks, and taken advantage of sabbaticals to acquire rock and sediment samples, and to obtain photographs and videos of natural wonders from around the world. The Earth Sciences department remains active in professional organizations, and maintains frequent contact with researchers to ensure relevancy and currency in the various disciplines of Earth Science. Within the college community, the department assists or hosts campus events, such as the Great California Shakeout, Earth Day, and World fest, and collaborates with local K-12 schools (e.g., Fullerton School District Science Advocacy Council) and four-year institutions (e.g., CSUF). The department also has been successful in obtaining small grants to provide research opportunities for students. Thus, in these ways, the department has supported and continues to support the mission, goals, and master plan of the College and District.*

*We believe that the Earth Science A.S. is an important step in our support of the mission, goals, and master plans of Fullerton College and the North Orange County Community College District for the following reasons:*

1. *The Earth Science A.S. will attract a more diverse population of students to science than traditional science degrees because it offers a broader curriculum, and provides opportunities for students to explore a wide range of topics in Earth, Space, and Ocean sciences. Thus, we support the college and district’s goals to meet the needs of diverse learners and provide comprehensive educational opportunities.*
2. *As the saying goes, variety is the spice of life. We believe that by providing a multidisciplinary offering, the Earth Science A.S. will motivate “undecided” students to become more interested in completing a science degree. A breadth of offerings gives students a sense that they have options, and instills an openness to explore, a factor which has been shown to help students decide on a major. Thus, we support the College and District’s goal to increase rates of completion.*
3. *We believe that students starting a degree in Earth Science will be more likely to complete their degree because the degree offers an opportunity to explore a broader and (in their minds) more interesting set of topics than a single-discipline degrees. Because each semester can bring exposure to a different discipline, or different approach within a discipline (e.g., field-based versus lecture based), we believe that students will be more determined to complete their courses, in support of the College and District’s goal to increase rates of success.*
4. *A major advantage of a multidisciplinary degree offering is the larger pool of role models by which to inspire students. Traditionally underrepresented students may feel discouraged from seeking a career in science because of the lack of diversity among scientists. With role models in Astronomy, Geology, Earth Science, Meteorology, and related Earth-Science disciplines to choose from, there’s a greater opportunity to highlight the achievements of minorities in science. Thus, we believe that an Earth Science A.S. will attract a high proportion of traditionally underrepresented students, and, with attention to their needs as learners, help to reduce the achievement gap.*
5. *With its emphasis on science-related issues of environmental, social, political, and economic importance, the Earth Science A.S. connects with the interests of 21st century millennials, who express interest in and demonstrate concern for these issues. We believe that the degree will provide a focal point for students who wish to pursue environmental careers, or who simply wish to be better informed about science-related issues, such as choosing sustainable or healthy products, or voting for leaders who make science-based decisions. Thus, the degree serves to promote intellectual curiosity, and builds appreciation for the power of learning, in keeping with the vision of the college.*

*The Earth Science Department’s 2011 Program Review established a goal to increase the number of majors in Earth Science. We believe that the offering of an Earth Science A.S. integrates the diverse curricular offerings within the department, provides (in light of the new degree at CSUF) a timely opportunity to attract new majors, and offers an opportunity to attract undecided students to the sciences in a world increasingly dependent on science and technology to solve local and global problems.*

**Item 5: Enrollment and Completer Projections**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | | 2012-2013 | | 2013-2014 | |
| CB01: Course Department Number | CB02: Course Title | Annual # Sections | Annual Enrollment Total | Annual # Sections | Annual  Enrollment Total |
| ESC 100 F | Physical Geology | 11 | 686 | 12 | 642 |
| ESC 100LF | Physical Geology Lab | 7 | 168 | 7 | 166 |
| ESC 130 F or ESC 130HF | Introduction to Oceanography or Honors Introduction to Oceanography | 11 | 652 | 14 | 998 |
| ESC 130LF | Introduction to Oceanography Field Experience | 7 | 130 | 6 | 113 |
| ESC 116 F or ESC 116HF | Astronomy or Honors Astronomy | 13 | 762 | 15 | 808 |
| ESC116LF | Astronomy Lab | 7 | 163 | 8 | 194 |
| ESC 102 F | Survey of Natural Disasters | 1 | 31 | 0 | 0 |
| ESC 103 F | Historical Geology | 1 | 25 | 0 | 0 |
| ESC 104 F | Geology of National Parks and Monuments | N/D | N/D | N/D | N/D |
| ESC 105 F | Introduction to Meteorology | 2 | 99 | 3 | 232 |
| ESC 106 F | Geology of the Orange County Area | 2 | 62 | 2 | 59 |
| ESC 120 F | Geology of California | N/D | N/D | N/D | N/D |
| ESC 190 F | Environmental Geology | N/D | N/D | N/D | N/D |

**Item 6: Place of Program in Curriculum/Similar Programs**

No active inventory records need to be made inactive or changed as a result of approval of the Earth Sciences A.S. degree. The degree does not replace any existing program. The program complements the existing Geology A.S. and A.S.-T degrees currently offered at the college, and we anticipate that the Earth Sciences A.S. will generate greater interest in and higher completions for the Geology degrees as well.

**Item 7: Similar Programs at Other Colleges in the Service Area**

*\*Sample Below:*

*According to the CCC Curriculum Inventory, nine community colleges in California offer an A.S. degree in Earth Science. Two of them, Chaffey College and L.A. Valley College are in Southern California, but not in the Fullerton College service area. Within our service area, Santa Ana College, located approximately 12 miles from Fullerton College, offers an A.A. degree in Earth Science. However, the proximity of Santa Ana College and its high rate of transfer to CSUF motivated the development of an Earth Science A.S. degree at Fullerton College. In fact, our A.S. Earth Science degree was developed in collaboration with faculty from Santa Ana College and CSUF as part of a mini-grant from the Department of Education. By building a strong Earth Science program at both two-year colleges, we support and strengthen the Earth Science program at CSUF, where many students from the two colleges transfer. Rather than competing with each other, we build a strong, regional focus for Earth Science education in Southern California.*

*In addition, Santa Ana College and Fullerton College draw from different populations of students in Orange County. Most students attending Santa Ana College come from high schools in the Santa Ana Unified High School District, while most students attending Fullerton College come from the Fullerton and Anaheim school districts. Thus, the programs can serve the needs of broader and more diverse population of students, and fulfill career or professional goals for training in the geosciences.*

*We believe that the collaboration between Santa Ana College, Fullerton College, and CSUF will be beneficial and synergistic. Given the strong demand for this major at CSUF, the growing need for STEM teachers, and the growth potential of geoscience careers as noted in Item 1, we anticipate strong interest in and high enrollments of students in this degree at Fullerton College.*