

ANNUAL PROGRAM REVIEW SUMMARY for Earth Science 06-07 Full Review Due: 12-13

MISSION: Does program meet the District's mission and established core competencies? Does program reflect the District's diversity?	Status					
	07-08	08-09	09-10	10-11	11-12	12-13
Current Recommendations						
a) Consider offering and scheduling transfer courses on record: Historical Geology (ESCI 121), Earth History (ESCI 122), and Environmental Geology (ESCI 124) to meet general education and transfer standards established by CSU and UC systems, and associate degree standards for Citrus College		I				
b) Consider offering and scheduling transfer (limited) and life-long learning courses on record: Geology of Death Valley National Park (ESCI 140), Geology of Yosemite National Park (ESCI 141), Geology of Channel Islands National Park (ESCI 142), Geology of Joshua Tree National Park (ESCI 143), Geology of Lassen Volcanic National Park (ESCI 144), and Geology of Sequoia-Kings Canyon National Parks (ESCI 145) to meet General Education and transfer standards established by CSU and UC systems, associate degree standards for Citrus College, and community life-long learning courses.		P				
c) Consider developing and offering: (1) a Physical Geology course without a lab component, or offer a separate lecture and a separate laboratory component, (2) a transferable course in Mineralogy (with a laboratory component), (3) distance education, and hybrid, courses, and (4) a series of life-long learning courses illuminating the geology of selected California State Parks; provide a diversity in class offerings for transfer students and community learning, thus improving Mission compliance.		I				
d) Consider developing and offering team-taught General Education courses in: (1) Planetary Geology (Earth Science-Astronomy instructors), and (2) Evolution of Life (Earth Science-Biology instructors). Offering these courses will develop closer ties within science departments and provide students and community with a modern perspective and more diverse choices in General		I				

Status key: C: Completed I: Incomplete N/A: No longer applicable P: Pending (not yet undertaken)

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Education science course offerings.						
e) Consider upgrading Physical Oceanography (ESCI 130) to include a laboratory component, thus offering enhanced transferability in marine sciences and offering Citrus College students more choices in meeting the <u>Physical Science with a lab requirement for their Associate degree</u>		P				
f) Consider reevaluating ESCI 111 (Earth and Space Science for Educators) as part of a larger review of the Science for Educators series of courses in order to enhance the desirability of students to enroll in the course.		C				
g) Consider developing and offering Geology of the National Parks and restructuring California Geology.		I				
h) Explore the opportunities to do in-service activities for K-12 teachers at their school site or at a workshop at Citrus College in effort to promote geoscience education in primary and secondary schools and to increase pool of prospective geoscience majors within the UC and CSU system and Citrus College.		P				
i) Work with Articulation Officers to change limited (CSU only) transferability courses on record to fully transferable.		P				
j) Consider emphasizing geology and oceanography instruction over physical geography to make more effective use of department personnel.		C				
k) Consider working with the Articulation Officer to possibly change course numbering to follow a more logical, less confusing sequence showing a hierarchy that students can follow; for instance higher numbered courses should be indicative of having lower numbered courses as prerequisites.		P				
New Recommendations						

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a) Consider creating an A.A./A.S. degree in Earth Science/Geology.

b) Consider restructuring Physical Geography (ESCI 118) and Introduction to GIS (ESCI 180) with Cultural Geography (GEOG 102). These three courses should be considered for inclusion within the Social and Behavioral Sciences Department.

c) Consider online offering of course content followed by laboratory experiences in the field for Physical Geology 120.

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NEED: How is program addressing needs based on labor market data, enrollment, articulation, advisory committee, regional agreements, etc.?	Status					
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Current Recommendations						
a) Endeavor to promote the Earth Science Program by advertising in the Schedule of Classes, Clarion, and courses that incorporate Earth Science into curriculum (e.g., Natural History, Physical Geography, Introduction to GIS, Anthropology).		N/A				
b) To help promote the Earth Science Program, offer more field classes and facilitate field instruction/trips, with faculty and journalistic involvement, to expose students to the exciting outdoor activities and academic stimulation associated with geological sciences.		N/A				
c) Objectively review the state of Earth Science and Geology Programs at other academic institutions (US, CSU, and community colleges) and evaluate whether the Citrus College Earth Science Program is in line with current geosciences attitudes, trends, and advances and whether it meets the needs of students and faculty entering those disciplines.		C				
d) Consider offering courses to meet not just lower division transfer needs, but preparation for major and higher status student transfer needs in addition to General Education requirements. Historical Geology, Mineralogy, and field component courses should be offered and scheduled on a regular basis to achieve these ends.		P				
New Recommendations						
a) Establish new guidelines for proper field trip protocol.						

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<p>QUALITY: Are lec/lab unit values appropriate? Have the course outlines been reviewed/updated regularly? Are disciplines appropriate? Is faculty development adequate? Does program support State and District emphasis on critical thinking, problem solving and written expression? Does program meet stated objectives in the form of SLOs? Are course pre-requisites and co-requisites validated?</p>	Status					
	07-08	08-09	09-10	10-11	11-12	12-13
Current Recommendations						
a) Meet with local representatives of academic institutions and industries to ensure that the Earth Science Program is meeting academic and industry needs.		P				
b) Develop and integrate student learning outcomes into each course outline of record (please see timeline on page 20).		I				
c) All class syllabi should include student learning outcomes, clear grading standards, attendance and test make-up policy, drop date, office hours, homework policy, and general DSPS and FERPA statements.		I				
d) Replacements for full-time faculty should be arranged so staff development is more feasible for Earth Science faculty. Since there are no replacements for faculty they are hesitant to attend faculty development functions.		C				
e) Class descriptions should be reviewed and updated as needed.		I				
f) Continue to insure that Earth Science faculty has access to post information on class websites.		P				
g) Insure, through TeCS, that software used in lecture halls is loaded properly and functions correctly on a consistent basis.		C				

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New Recommendations						
a) Consider combining ESCI 122 and 121 into a single course, or, consider offering these two courses concurrently.						
b) Consider removing ESCI course indicator and replacing with appropriate GEO indicators.						
c) Electronic display equipment should be installed in each of the three lecture halls for instructor use (LH 101, 102, and 103).						

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FEASIBILITY: Are facilities, equipment, and library resources adequate? Are evening programs and services adequate? Are course offerings frequent enough for students to make adequate progress in both day and evening programs? Does the program have adequate communication with & support from Counseling?	Status					
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Current Recommendations						
a) Consider hiring a dedicated Geology laboratory tech and stockroom assistant.		P				
b) Consider hiring qualified faculty to meet current, and potential, program demands. Current Earth Science faculty WSCH is much higher than science department(s) averages; and increased class offerings for transfer purposes and lifelong learning demands (see Mission Recommendations) will make additional qualified instructors necessary also.		P				
c) Consider acquiring vehicles suitable for natural sciences field trips (i.e., suitable suspensions, clearance, and driving range). Develop a pool of responsible science students as qualified drivers and compensate them appropriately. Consider other innovative options to meet transportation needs.		P				
d) Consider installing multiple computer stations with internet and printing capabilities in geology laboratories.		C				
e) Consider increasing the number of Physical Geology sections taught to ensure an adequate base of students from which to draw to adequately fill higher level (Historical Geology and Mineralogy) Earth Science courses.		C				
New Recommendations						

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a) Evaluate the need for the purchase of new software to augment the laboratory experience of Earth Science students.						
b) New dissecting microscopes are needed to aid in student comprehension of mineral identification. The department should request adequate funds for this purchase.						

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COMPLIANCE: Do course requisites meet Federal, State & District requirements? Do the course outlines meet state, district & federal regulations for content? Do vocational programs have regular advisory meetings?	Status					
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Current Recommendations						
a) Update Course Outlines of Record to reflect Student Learning Outcomes language, and develop processes to accurately track SLO assessment within specific classes.		I				
b) Faculty instructing Earth Science courses should meet required California minimum qualifications in Earth Science. Consider whether instructors of current cross-discipline courses, or potential cross-discipline courses, with a <u>major</u> Earth Science component should also meet required California minimum qualifications in Earth Science or the courses should be team-taught.		C				
c) Ensure that any (adjunct or full-time) faculty instructing geography courses meet minimum California qualifications.		C				
New Recommendations						

describing scientific concepts pertaining to Earth's processes and environments. They will be able to read scientific books, journals, or articles and environments.

natural world. They will develop the skills necessary to synthesize and analyze scientific material pertaining to the Earth's processes and environments.

to increase community and global awareness of environmental concerns and set them on the path of Lifelong Learning.