College of Alameda

Annual Program Update

Supplemental/Revised **Template 2014-2015**

I. Overview			
BI Download:	September 19, 2014	Dept. Chair:	Eileen Cliddord & Patti Tsai
Subject/Discipline:	Geology	Dean:	Dr. Charlene Perlas
Campus:	College of Alameda		
Mission Statement	A goal is to create a serious earth science program where courses with labs and field trips would satisfy lab science and transfer requirements. A higher level physical geology course (with required labs and field trips) emphasizing California geology would be offered for science/engineering majors and potential earth science transfer students. A geology research participation opportunity would also be made available to students with sufficient chemistry background.		

II. Enrollment – Geology 10 has not been taught since 2012. Previously it has been taught in 2008 (Fall), 2009, 2010, 2011, and 2012 (Spring) with enrollments ranging from ~30 to 50 students.

III. Student Success – Success rates have ranged from 37% (Spring 2010) to 74% (Fall 2011).

IV. Faculty – No full time or part time geology faculty are currently at COA. Previously Geology 10 has been taught at COA by Merritt faculty member Teresa Williams.

V. Qualitative Assessments	
CTE and Vocational: Community and labor market relevance. Present evidence of community need based on Advisory Committee input, industry need data, McIntyre Environmental Scan, McKinsey Economic Report, licensure and job placement rates, etc.	The San Francisco Bay area straddles the Pacific-North-American plate boundary expressed locally as the San Andreas Fault system. Earthquake hazards are real: College of Alameda is constructed on water saturated landfill which the USGS has designated extremely hazardous due to high levels of shaking and liquefaction in the event of a large earthquake. Increased interest in environmental issues includes geologic aspects of groundwater flow, landslides, earthquake hazards, as well as natural resources and alternative energy. Skills attained working in a mineral separations lab (bench chemistry, microscopy, electron microscopy, etc.) are in demand at and transferable to industrial and academic labs.

Transfer and Basic Skills: Describe how your course offerings address transfer, basic skills, and program completion.	Geology 10 – "rocks for jocks" class would be aimed at current non-science majors. Goals are to motivate curiosity, provide basic field and lab experience, and encourage interest in the sciences. Geology 1 – Physical geology class for science majors. Mineral separations – Hands-on field and laboratory class. Optical and electron microscopy applied to rocks and minerals – Hands on mineral identification and characterization using current technology.

VI. Course SLOs and Assessment

	Fall 2014
Number of active courses in your discipline	None.
Number with SLOs	
% SLOs/Active Courses	
Number of courses with SLOs that have been assessed	
% Assessed/SLOs	
Describe types of assessment methods you are using	
Describe results of your SLO assessment progress	
Describe how assessment results and reflection on those results have led to improvements.	

VII. Program Learning Outcomes and Assessment

	Fall 2014
Number of degrees and certificates in your discipline	None.
Number with Program Learning Outcomes	
Number assessed	
% Assessed	

Describe assessment methods you are using

Describe results of assessment. Describe how assessment of program-level student learning outcomes led to certificate/degree program improvements.

VIII. Strategic Planning Goals

Check all that apply.	Describe how goals apply to your program.
x☐Advance Student Access, Success & Equity x☐Engage our Communities & Partners x☐Build Programs of Distinction x☐Create a Culture of Innovation & Collaboration x☐Develop Resources to Advance & Sustain Mission	Research opportunities at the community college level essentially don't exist. At COA good students will be rewarded with participation in an earth science research effort they can appreciate and understand, after completing only one or two semesters of general chemistry. The above effort will be an easy sell to philanthropists and foundations interested in STEM and research opportunities for underrepresented student populations.

IX. College Strategic Plan Relevance

Check all that apply

x☐New program under development
x☐Program that is integral to your college's overall strategy
x☐Program that is essential for transfer
x☐Program that serves a community niche
x☐ Programs where student enrollment or success has been demonstrably affected by extraordinary external factors, such as barriers due to housing, employment, childcare etc.
x☐Other Research at the community college level.

X. Action Plan

1) Geology is a hands-on science which should involve the observation and handling of rocks in addition to in-situ observations in the field. We propose to reinstate Geology 10 with labs, lectures, and field trips to make it fun for students with little or no scientific background.

2) We propose to offer physical geology: a course for earth science or engineering majors requiring physics and chemistry pre-requisites or co-requisites. A physical geology course for science majors would also articulate with UC and Cal-State courses looking to transfer to earth science or engineering departments at these institutions.

Both courses require dedicated laboratory space with computers, rock collections, polarizing microscopes, maps, and balances for density measurements. This laboratory space should be incorporated into new C-D building plans, modification of 860 Atlantic Ave Science annex, or occupation of the vacant 960 Atlantic building (40,000 square feet of lab and office space).

3) See attached Measure B research/STEM proposal. Since this proposal was written (and rejected) Cr isotope results have been obtained at UC Davis (QingZhu Yin's isotope lab) confirming terrestrial origin for KT boundary chromite grains.

The research/STEM effort will require dedicated laboratory space for mineral separations and an electron microscope with elemental analysis (EDS) attachment for mineral imaging, identification, analysis, in addition to a laboratory technician knowledgeable in lab safety and competent in the handling of hazardous materials.

The development of the above program will be carried out in collaboration and consultation with Berkeley City, Merritt and Laney Colleges in addition to nearby four year institutions.

XI. Needs

Please describe and prioritize any **faculty, classified, and student assistant** needs.

1 full time faculty member.
2 part time faculty members.
1 full time laboratory technician.
5 to 10 paid student laboratory assistants.

Please describe and prioritize any **equipment, material, and supply** needs.

Computers, polarizing microscopes, analytical balances, rock/mineral collections, thin-section collections, mineral models and maps are needed to carry out laboratory experiments and observations in introductory and physical geology classes.

See attached Measure B proposal for research/STEM equipment, material, and supply needs.

Please describe and prioritize any **facilities** needs.

Laboratory space equivalent to the chemistry lab plus stock rooms is desirable. One or two sinks and locking cabinets (and/or a stock-room) for microscopes and rock collections are needed. With sufficient planning, balance rooms and stock rooms might be shared with chemistry and/or physics.

See attached Measure B proposal for research/STEM facilities needs.

College of Alameda

MISSION

The Mission of College of Alameda to serve the educational needs of its diverse community by providing comprehensive and flexible programs and resources that empower students to achieve their goals.

VISION

The Vision of College of Alameda is that we are a diverse, supportive, empowering learning community for seekers of knowledge. We are committed to providing a creative, ethical and inclusive environment in which students develop their abilities as thinkers, workers and citizens of the world.

VALUES

We use this vision to choreograph three central themes in our quest for “learning excellence” and services to students.

* Academic Excellence

* Budgetary Competence

* Community Engagement

We call these “our ABCs” emphasizing crucial success indicators for our students in achieving an enhanced capacity to pursue their dreams!

District Strategic Goals & Institutional Objectives 2014-2015

The following are the Peralta Community College District’s Strategic Goals and Institutional Objectives for the Academic Year 2014-15 (July 1, 2014 – June 30, 2015) which will be evaluated in Summer 2015.

Strategic Focus for 2014-2015: Our focus this year will be on student success in the core educational areas of basic skills/ESOL (English for speakers of other languages), transfer, and CTE (career technical education) by encouraging accountability, outcomes assessment, innovation and collaboration while spending within an established budget.

Strategic Goals & 2014-2015 Institutional Objectives	
A: Advance Student Access, Equity, and Success	**A.1 Student Access:** Increase enrollment for programs and course offerings in the essential areas of basic skills/ESOL, CTE and transfer to achieve the District target of 19,355 RES FTES. **A.2 Student Success:** Increase students' participation in SSSP eligible activities by 50%, with specific emphasis on expanding orientations, assessments, academic advising and student educational plans. **A.3 Student Success:** Using baseline data, increase student engagement in activities such as student governance, student life activities, Student leadership development, service learning programs, learning communities, student employment, etc. **A.4 Student Equity Planning:** Address the achievement gap through fully developing and implementing the student success and equity plans at each campus.
B: Engage and Leverage Partners	**B.1 Partnerships:** Develop a District-wide database that represents our current strategic partnerships and relationships. **B.2. Partnerships:** Expand partnerships with K-12 institutions, community based organizations, four-year institutions, local government, and regional industries and businesses.
C: Build Programs of Distinction	**C.1 Student Success:** Develop a District-wide first year experience/student success program. **C.2 Student Success:** Develop an innovative student success program at each college.
D: Strengthen Accountability, Innovation and Collaboration	**D.1 Service Leadership:** Provide professional development opportunities for faculty, staff and administrators that lead to better service to our students and colleagues. **D.2 Institutional Leadership and Governance:** Evaluate and update policies and administrative procedures and the PBIM participatory governance structure.