

BUDGET NEEDS ASSESSMENT APPLICATION
Fall 2017

Name of Person Submitting Request:	Todd Heibel and Tatiana Vasquez on behalf of the Science Division
Program or Service Area:	Architecture, Biology, Chemistry, Environmental Science, Geography, Geology, Nursing, Oceanography, Physics, and Psychiatric Technology
Division:	Science
Date of Last Program Efficacy:	SP 16 (GEOL, ENV SCI, and OCEAN) and SP 15 (GEOG); SP17 (Biology)
What rating was given?	Continuation
Amount Requested:	\$12,000 to be shared among departments
Object Code: Object Codes Object Code Guidelines	5611 (bus or van rental)
State specifically how this budget will be used:	Site visits and immersive outdoor laboratory (formerly known as “field trips”)
Strategic Initiatives Addressed: Strategic Directions + Goals	Student Access, Student Success, and Provide Exceptional Facilities

Note: To facilitate ranking by the committee, please submit separate requests for each general area of budget augmentation needed. Do not request a lump sum to encompass many different areas.

One-Time Ongoing

Does program or service area have an existing budget? Yes No

Are there alternative funding sources? (for example, Department, Budget, Perkins, Grants, etc.)

Yes No

If yes, what are they: Selected departments have limited 5611 budgets while others do not.

1. Provide a rationale for your request (Give a detailed explanation of why this budget increase is needed.)

This is a **growth request** to supplement existing funding. This is a holistic request to meet the needs of multiple departments within the Science Division: Architecture, Biology, Chemistry, Environmental Science, Geography, Geology, Nursing, Oceanography, Physics, and Psychiatric Technology. **We are requesting an ongoing \$12,000 budget augmentation each academic year** to fund multiple **site visits** and to facilitate **immersive outdoor laboratory experiences** (field trips) each semester. Current bus and van funding is insufficient. Experiences outside the classroom are an integral component of the curriculum for nearly all Science Division departments. While Biology, Environmental Science, Geography, Geology, and Oceanography students analyze a variety of outdoor physical processes, Architecture, Chemistry, Nursing, Physics, and Psychiatric Technology students conduct necessary site visits necessary for fostering extended learning opportunities in their prospected professions. While traditional indoor lecture and laboratory exercises introduce students to theoretical concepts, **site visits provide tangible, hands-on opportunities that allow students to understand abstract concepts, professional liability and regulatory issues, and accreditation/licensure requirements.** Immersive outdoor laboratory experiences provide purposeful activities that improve student engagement, access, success, and equips our students with the skills they require to transfer to university (Kuh et al 2008, Journal of Higher Ed) and enter the labor force. The bus or van provides a **mobile laboratory** where topics are discussed en route from one site to

another, thereby extending and enhancing the learning experience. Because bus companies employ **professional drivers**, this mode of transportation is **much safer** than students driving their own vehicles. In addition, many of our students have serious transportation constraints that would otherwise prevent participation in crucial field activities. The San Bernardino-Riverside MSA is one of the most socioeconomically disenfranchised regions in the US. Many of our students do not have their own transportation which leads to the exclusion of their participation. The institution must foster **equity** with these curricular needs by funding this budget request for van/bus transportation for our students.

2. Indicate how the content of the department/program's latest Efficacy Report and/or current EMP supports this request and how the request is tied to program planning. (*Directly reference the relevant information from your latest Efficacy Report and/or current EMP in your discussion.*)

Many of the current EMP reports state that a program goal is to "increase transfer and AS-T/AS degrees" and "increase the number of funded field trips and maintain laboratories with equipment and supplies needed for quality education". Page 14 of the spring 2015 Geography and GIS Program Efficacy document states that, "Additional [field trip] funding has been made available through special, intermittent one-time funding vehicles. However, these programs are ephemeral by nature and [the Geography Department seeks] more stable [field trip] funding platforms." Our EMP documents include goals that aspire to increase successful student completion of certificates and degrees, successful transfer into four-year degree programs, successful entry into the labor force, and accreditation/licensure requirements.

3. Indicate any additional information you want the committee to consider (*for example, regulatory information, compliance, updated efficiency, student success data, or planning, etc.*).

Kuh et al (2008) showed that student engagement, critical thinking, and student success in educationally purposeful activities is positively related to academic outcomes as represented by first-year student grades and by persistence between the first and second year of college (Journal of Higher Ed. 79 (5)). Science instructors find that many SBVC students have not previously explored sites visited during field trips. In addition, field trips serve as one of the best recruiting mechanisms for Geography, Biology, Geology, Chemistry, and other science fields. "Immersive experiences have been shown, for instance, to foster interconnections and emotional linkages to nature that can be effective in promoting learning and engagement" (McCauley 2017, Science 358). In addition, program accreditation is dependent upon specific field experiences.

4. Indicate any related costs (including any ongoing maintenance or updates) and department/program plans to support those costs.

There are no on-going maintenance costs for our requested funds. However, bus and van (transportation) costs generally increase over time. Currently, buses cost approximately \$1,200 per day and vans cost approximately \$500 per day.

5. What are the consequences of not funding this budget request?

The consequences are as follows:

- Failure to meet the Departments' curricular goals (course outlines of record) and the insufficient preparation for upper division and professional school.
- Reduced parity with "native" university students in transfer majors' courses.
- Decreased safety and limited site access.
- Failure to meet accreditation standards and failure to accommodate underserved students.