SUMMARY OF PROJECT:

I am applying for a teaching grant to cover the cost of a shaker incubator to culture microorganisms for a Microbiology laboratory course at the Biology department. Given the diversity of microorganisms and their growth requirements, a Microbiology laboratory needs many growth incubators that can accommodate the various temperatures growth needs of diverse microbes. The shaker incubator is essential to grow and study microorganisms in a laboratory. Liquid cultures of microbes grown in shaker incubators allow us to grow large volumes of microorganisms in manageable containers with minimum media expense. The microbial cultures will be used to train students in learning important Microbiology laboratory concepts and to practice techniques in handling microorganisms. By giving our students hand-on experience in working with a huge diversity of microorganisms we will equip them with a world-class education and training that supports their pedagogy needs.
SUMMARY OF PROJECT:

The use of digital fabrication tools is providing a multitude of creative spheres for exploration and research in design education. This proposal requests $3,500.00 to purchase a small desktop CNC milling machine (NOMAD883) and basic supporting supplies, to be used for hands-on practical exercises as part of the new content of ARCH 3052: Architectural Communication II; a core undergraduate class offered in the Spring of every year. In addition, this tool will be available for use to other related undergraduate and graduate communication classes in the School of Architecture. By integrating a wide range of qualitatively different tools into the communication curriculum, students are encouraged to explore design solutions through multiple approaches, perspectives and methods, which help to connect different domains of thought and encourage new creative realizations. This effort is geared toward promoting immersive learning environments that encourage creative thinking and interdisciplinary engagement across traditional boundaries and beyond.
SUMMARY OF PROJECT:

We need to purchase 14 dissecting microscopes and an eyepiece camera to support laboratory classes taught in both Anthropology and Geography departments. New and existing classes (e.g., Paleoethnobotany, Zooarchaeology, Vegetation and Climate, Advanced Biogeography, Paleoclimatology) will emphasize hands-on learning with respect to instrumentation and technique, bringing students (especially undergraduates) exciting learning experiences and giving them basic tools for ongoing education. Currently, neither Anthropology nor Geography have a set of microscopes that can be readily used in a lab setting. In the past, we have had to impose on the Biology Department, using their facilities and equipment. If funded, this project will help establish a hands-on approach to science in laboratory classrooms of the Anthropology and Geography departments. This project will also be the first step toward collaborative laboratory classrooms, as there is now a plan forming to house Anthropology and Geography together in the new OSH building.
SUMMARY OF PROJECT:

The proposed Teaching Grant will help support the development of a set of hands-on modules to be used in Numerical Methods for Engineers (ME EN 2450), a sophomore-level course required for the BSME degree. Numerical Methods is primarily a computer programming course that culminates with a design project where the students write an optimization code to obtain a solution to a given design problem. Currently, the design problem is purely hypothetical. The proposed hands-on modules will allow us to bring the real world into the computer lab, thereby giving students a practical context for better understanding the design process. A Teaching Grant will be used to purchase the necessary materials and supplies to build the modules, which will then be available for future course offerings. Based on current enrollment numbers, the improvements will impact approximately 160 students per year.
SUMMARY OF PROJECT:

The University of Utah Lyric Opera Ensemble plans to produce Mozart’s opera *Idomeneo* in Libby Gardner Concert Hall on February 12-13, 2016 in partnership with The Paradigm Chamber Orchestra. I will produce the project and a doctoral student will stage it. The production will be double-cast to give as many students as possible the opportunity to learn and sing a major operatic role under the direction of their private applied voice teachers. One of the most exciting (and costly) aspects of this project is the opportunity for the singers to perform with a live orchestra. Other costs for the production include costumes, set pieces, props, lighting, stage management, rehearsal pianists, music for the orchestra, advertising, and printing.
SUMMARY OF PROJECT:

There is a growing need to train archaeology students in high-precision mapping. Whether undertaken by academic, government or private institutions, archaeological research increasingly requires highly technical mapping skills associated with field data recordation using professional high-precision GPS technology. This is especially true in the private sector, where many students seek employment as field technicians which requires them to be capable of high-precision, high-efficiency mapping. However, to date we are unable to train our students due to the lack of necessary equipment. To remedy this situation, this proposal requests funds to acquire a GPS-enabled tablet and a roving GPS receiver which together will provide the tools needed to train students in the collection of high-precision archaeological spatial data.