

AIMS² Summer Research in Civil Engineering

Research Project: Summer 2016

Research Duration: June 6, 2016 till August 12, 2016
(~15 hours/week at a minimum of three days/week)

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Research Title: Developing a Structural Engineering Encounter (SEE)
Active-Learning Laboratory Environment

RESEARCH OBJECTIVES

Considering the present status of disrepair of the AM 317 Mechanics Lab at CSUN in which many of the machines and measuring tools are either obsolete or not working properly, this research undertaking proposes to work closely with the students of the cohorts (GCC or COC) to revamp this all important lab-based course during the summer of 2016. To this end, under the faculty advisor's supervision, the students will be equipped with the necessary materials (e.g. plexiglass, aluminum, steel, etc.) as well as the measuring tools (e.g. strain gages, displacement transducers and deflectometers, etc.) in order to construct various structural modules and detailed testing instructions for future classes of engineering students to gain an enhanced and complete active-learning environment associated in their field of study. It is believed that the results and products of this project will greatly heighten the mastery of basic mechanics concepts in structural engineering for students at CSUN as well as potentially being used as an effective recruitment device for college and high school aged students in introducing them to the world of engineering.