The Need for SUCCESS

At California State University, East Bay (CSUEB), we face the critical problem of not being able to retain STEM majors. As an example, of the STEM freshmen entering CSUEB in 2005, 19% graduated as a STEM major within six years, 32% switched to a non-STEM major, and 46% left without a terminal degree. CSUEB's SUCCESS program was developed to meet the urgent need for innovative instruction and support networks to increase persistence, retention, and graduation of STEM majors. Moreover, CSUEB is the most diverse four-year campus on the US mainland, and we strive to do our part to meet the demand in the SF Bay Area and beyond for highly skilled STEM graduates, including women and underrepresented minorities.

The Design of SUCCESS

The SUCCESS program draws upon and builds cohesion between existing CSUEB STEM education efforts and programs. SUCCESS braids three main program strands into a supportive network of opportunities and services for students: (1) a STEM-focused existing CSUEB STEM education efforts and programs. SUCCESS Summer Bridge, and (3) advising and academic support services. A SUCCESS Community of Practice which includes all faculty, directors, staff, peer mentors/tutors, and program evaluator will be established to monitor progress, share strategies for student success, and coordinate program activities.

The Status of SUCCESS

STEM-focused Summer Bridge Program
- Launches August 3 – September, 2015;
- Based on the existing EOP Summer Bridge program;
- Involves 30 incoming freshman biology majors;
- Curriculum to include critical reading, writing, and thinking; basic quantitative skills; biological concepts; and science practices;
- In collaboration with the Port of Oakland, curriculum will include theme-based learning experiences that will continue through the first-year learning experiences.

First-year Learning Experiences
- Ongoing course redesigns for the first-year general biology series:
  - BIOL 1401 Cell & Molecular Biology
  - BIOL 1402 Plant Biology
  - BIOL 1403 Animal Biology
- Working with Freshman Learning Community administrators to streamline student enrollment in FLC courses in the coming academic year.

Student Advising/Case Management
- Hired a Community Engagement Specialist and Case Manager (CES);
- Selection and training of existing EOP counselors to serve as SUCCESS student advisors;
- Identifying an appropriate case management database system;
- Establishing a protocol for the ongoing communication between the CES, EOP advisors, and students.

Assessment
Components that have been completed or are currently being developed include:
- IRB protocol (including all informed consent forms);
- Pre-post tests for Summer Bridge content areas and general biology courses;
- Student perceptions about science (Biography CLASS survey);
- Ongoing baseline data collection and compilation (Fall 2014 - Spring 2015).

Funding & Acknowledgements
This project is funded by a CSU STEM Collaboratives grant supported by the Leona M. and Harry B. Helmsley Charitable Trust. Indirect support was provided by the CSU Course Redesign with Technology and Affordable Learning Solutions programs. We would also like to thank CSUEB Provost James Houpis, Associate Provost Linda Dobb, College of Science Dean Michael Leung, and Biology Department Chair Don Gailey for their support.

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