

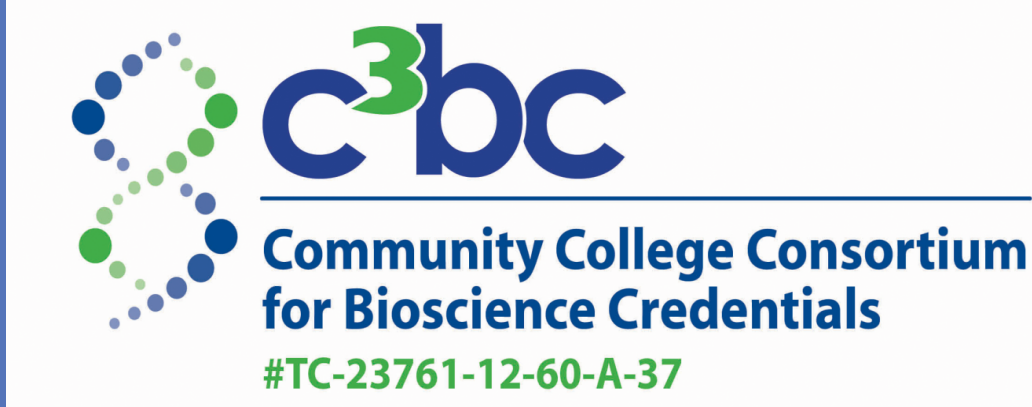
Bridge to Bioscience Internship Program: Mentoring for Success

A Job Preparation Program at City College of San Francisco

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INTRODUCTION

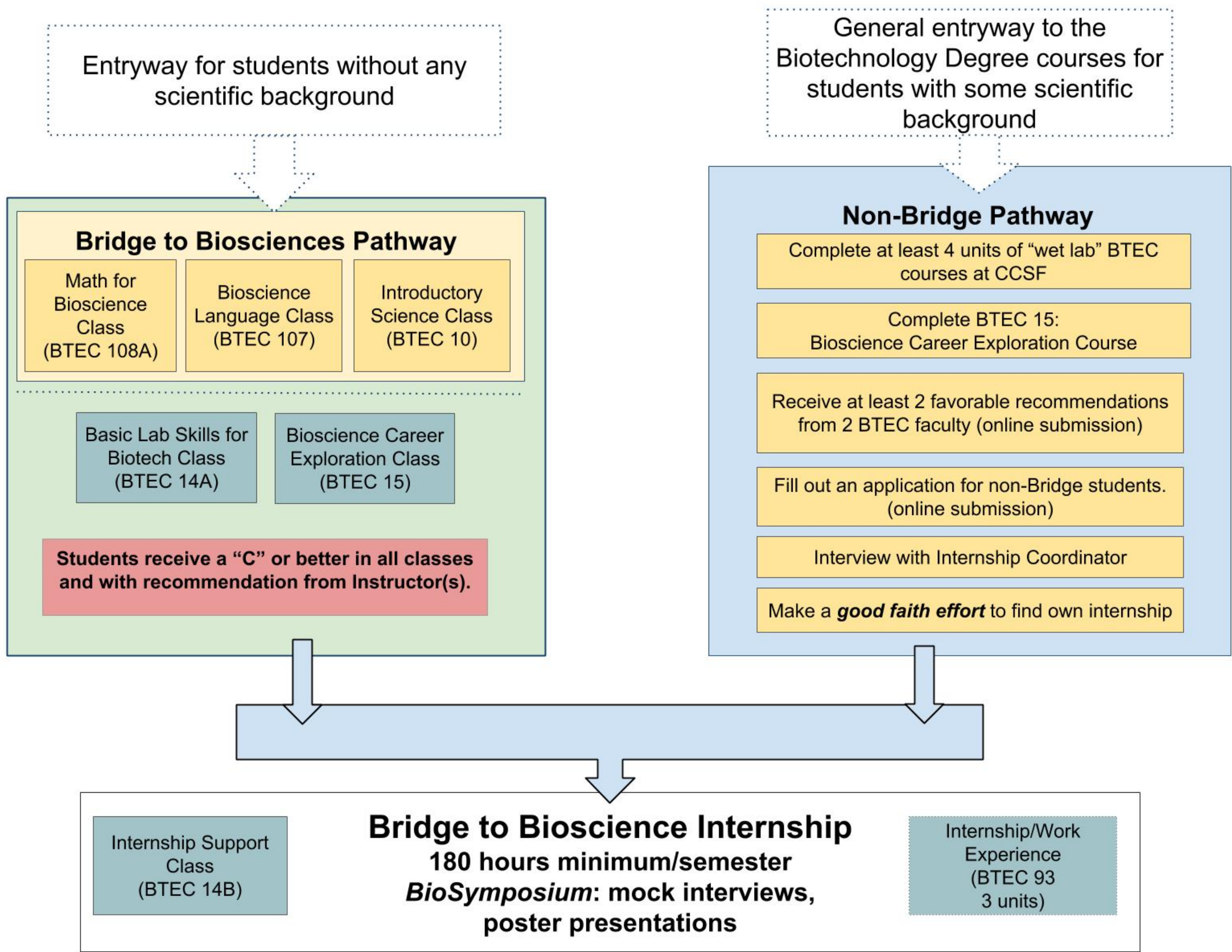
The Bridge to Bioscience Internship Program prepares students to enter laboratory science careers. Students enter with or without science background and follow the appropriate path shown on the right.

This capstone semester includes an internship with a concurrent internship support course. The internship research projects are showcased at the end of the semester event, CCSF BioSymposium, where >100 attendees from the bioscience industry, academia and government agencies take part in mock interviews, poster judging, networking, and workshop panels. The BioSymposium is also an opportunity for the pre-intern students to network and obtain internships for the following semester.

This past semester, in collaboration with Laurence Clement of UCSF's Office of Career and Professional Development, we conducted a pilot project called "Mentoring for Success". In this program, we set out to "train the trainers" for more effective and competent mentorship using published research, curriculum and assessment tools.

BRIDGE TO BIOSCIENCE INTERNSHIP PROGRAM

Bridge to Biosciences Internship Program at City College of San Francisco



BRIDGE INTERNSHIP OUTCOMES & STATISTICS

From Fall 2012-Fall 2014 (5 semester), n=80 students

- 55% of those students came into the program with 4-year or higher degree
- An average of 42% of students who received training from the Bridge Internship program obtained either full or part-time positions either from their place of internship or at a different location regardless of their science background
- Many continue with courses at CCSF to obtain more certificates or the AS degree in a STEM major or decide to enter graduate school

MENTORING FOR SUCCESS WITH BRIDGE INTERNSHIP SUPPORT

BTEC 14B-Internship Support (concurrent with an internship)

Objectives:

- Focus on soft skills such as communication, reliability, persistence, positive attitude.
- Learn transferable job skills such as resume improvement, interview skills and professional networking using LinkedIn
- Articulate science in oral and written formats such as PowerPoint presentations of scientific techniques and concepts; weekly blogs about the progress of the internship and a final scientific poster which will be judged by professionals in the industry.

Outcome:

- Ownership of their science projects
- Deeper understanding of concepts
- Employment in the field

Mentoring for Success

Objectives:

- Career development program aimed at the post-doctoral mentors whose career goal include being principal investigators or faculty in a university.
- Topics to cover include:
 - Establishing Expectations
 - Maintaining Effective Communication
 - Assessing Understanding
 - Fostering Independence
 - Addressing Diversity
 - Dealing with Ethics
- Self and cross assessments to obtain data on mentor competency

Outcome:

- Develop a mentoring philosophy
- Dealing with mentoring challenges
- Deeper understanding and empathy with future employees

MENTORING FOR SUCCESS AS PROFESSIONAL DEVELOPMENT

We have found that the Mentoring for Success Program provides a good framework for professional development in hiring and integrating new employees into a working team. Our assessment of the program shows that we have been helping mentors/industry partners improve in the following ways:

- how they choose potential hires
- how they onboard and train new workers for their projects,
- how they think about and promote diversity in their staff,
- how they understand what motivates their incoming employees in order to retain them (thereby lessening entry-level turnover),
- and how they become more effective at making incoming employees independent and more proactively communicative and problem-solving when issues arise.

By involving industry as co-educators in workplace learning, we are helping industry create a more diverse, loyal, and confidence-worthy workforce.

References:

- Fleming, *et. al.* The Mentoring Competency Assessment: Validation of a New Instrument to Evaluate Skills of Research Mentors. *Academic Medicine*, 2013; 88: 1002-1008.
- McGee, *et. al.* Diversity in the Biomedical Research Workforce: Developing Talent. *Mt. Sinai J Med* 2012; 79(3): 397-411.
- Pfund, *et. al.* A research mentor training curriculum for clinical and translational researchers. *Clin Transl Sci*. 2013; 6:26-33.
- www.researchmentortraining.org