

Biotechnology (BTEC) Program Advisory Committee Meeting

Wednesday, December 3, 2014

History/Mission of BTEC at Skyline College:

BTEC Program has been in existence at Skyline for many years. GeneConnection (BTEC labs go out to High Schools) was started at Skyline 25 years ago and we are still involved today. Around 2002, the last major Skyline BTEC actions were training airport employees displaced due to 9/11, including mechanics, technicians, and security techs; we brought them on campus and taught them about Biotech principles, and worked on resumes to move them into the BTEC industry. That program eventually faded along with the economy, and we found ourselves taking a hiatus. We still have a "Biotechnology" degree, which is actually a Biology degree with BTEC "capstone courses."

In the last year, our BTEC transfer model grew under the direction of Dr. Melissa Michelitsch with the support of Sarah Perkins, our VP of Instruction. During the last academic year we had an intentional focus on becoming visible, in order to bring back the program. Moving forward, we want our faculty and staff fully immersed in the community in order to really understand what the local needs are, so it can be reflected in what we offer at Skyline College.

Introductions/In attendance:

Josie Sette – Ohlone College, DSN Northern Ca.

Justin Lovell – City of South San Francisco

Elaine Johnson – Biolink

Steven Weinstein – SFSU

Jimmy Ikeda – San Mateo High School

Johanna Anton – GeneConnection/BayBec

Lily Chen – SFSU

Kim Hansen – GeneConnection/BayBec

Nick Kapp – Skyline College, BTEC Program

Raymond Hernandez - Skyline College, Dean

Mousa Ghanma – Skyline College, Adjunct Faculty

Raj Lathigara – Skyline College, Workforce Dev

Alina Varona – Skyline College, CAA

Aaron Wilcher – Skyline College, Workforce Dev

Pat McKay – Skyline College, Adjunct Faculty

Jing Folsom – Skyline College, Adjunct Faculty

Brian Young – Skyline College, Adjunct Faculty

Alana Utsumi – Skyline College, SMT Staff

Upcoming Events:

Biolink is offering a free webinar on Tues, Dec 9th at 11 am. You must register first. (Contact Elaine Johnson)

<https://www.eventbrite.com/e/webinar-gap-analysis-ca-biotech-middle-skills-workforce-tickets-14119430597>

There is an annual networking symposium event at Genentech Hall at UCSF on Dec 19th, where interns are showing posters from the bridge and stem cell programs. (Contact Elaine Johnson or Josie Sette)

There is a Community College forum on Feb 12th, 2015 in San Jose at the AAAS meeting; \$45.00. (Contact Elaine Johnson) <http://meetings.aaas.org/>

The CSUPERB Symposium is the annual CSU conference on BTEC. Jan 8 to 10th this year it will be held at the Santa Clara Marriott. Your registration can be sponsored. (Contact Josie Sette) <http://www.csuperb.org/symposium/>

State Transfer Model Curriculum: *(see Transfer Model Curriculum Summary attachment)*

Josie Sette: This was an initiative of the Community College Chancellor's Office and CSU; they decided to come up with an infrastructure to number common BTEC courses based on educational paths and CSU curriculum. For example, *ABC Community College's* BTEC 101 is equivalent to the CSU BIO 112, which is meant to assist in transfer and guarantee transfer to a CSU. There was a lot of participation, and the results of this study were submitted, but unfortunately, not approved because BTEC is not offered as a degree at all CSU schools. Website to view approved courses under this regimen: <https://c-id.net/degreereview.html>

Along these lines, the Governor just signed recent legislation for a pilot program to allow community college's to offer 4-year bachelor's degrees. Mira Costa in San Diego is applying to offer a Biomanufacturing degree, which is a great step forward.

Skyline BTEC Program Ideas/Curriculum:

Skyline currently has a transfer degree curriculum (*see BTEC Degree Curriculum attachment*), it's basically a Biology degree with BTEC courses. Differences between City College and Skyline curriculum? *Elaine Johnson:* They're not all BTEC at CCSF either. Our contextualized math and languages are different within learning communities. Internships make such a huge difference, and offer a great opportunity to the students. It helps to get the students into the workplace more quickly, by learning in context.

Clerkships are being framed as part of certificates and degrees. Whereas internships can sometimes be few and far between and may mean some students do not have the opportunity to participate, a clerkship is integrated into the certificate or degree program, and each student enrolled will take part. The issue that arises is whether there are enough workplaces to place these students for clerkship.

Johanna Anton: Right now there is a collaborative project for community college BTEC programs to create a "supply chain program" that produces the materials that go out in the portable labs that are supplied to high schools. The idea is to give students simulated work base learning experiences – taking orders, packaging, and distribution. There is a model in Pasadena where the city has sponsored an off-campus incubator space where this type of work occurs. Offers mentorship, an advisory board, etc.

There was discussion around having a dedicated coordinator who would work between schools and multiple communities - a central "clearinghouse" that could gather information for internships and allow collaboration throughout the district. This allows students to get hands-on "experience" before going out into companies for internships.

Misc. Ideas: Students as Teaching Assistants, making educational videos.

Skyline Biotechnology Summer Camp: (see BTEC Summer Camp Course Outline and BTEC Summer Camp Flyer attachments)

Nick Kapp: Skyline is offering a summer BTEC camp for "middle" individuals; not focusing on students who already know they will transfer, but rather students who may not be thinking of even going to college. Even if they decide in June that they'd like to go, Skyline still has room for people to attend; we take anyone at any time. This is a 2-week daily program (for about 25 students) where they learn about STEM programs with a focus on BTEC, using the resources we have on campus. We want to work with SSF schools to encourage juniors and seniors to be exposed to BTEC, STEM and college in general.

We'll try to have people of various STEM backgrounds to lead different workshops – a pre-business plan workshop, or bringing students in to the CSU campuses and have hands-on experiences on the transfer campus. This is an attempt to bridge the intentions of CCPT as we try to connect with High Schools and attract their students to the BTEC program and exposure to STEM opportunities. The summer camp is free to concurrent enrollment students at Skyline.

Proposed curriculum and sequence for BioBridge: *(see BTEC BioBridge Proposed Curriculum attachment)*

This was designed for students with little to no Biology background to move them through Skyline and the BTEC Program with contextualized learning or a “cohort” experience. We want to determine in what area/specialty we should focus our BTEC program, to allow the swiftest route to the work field, including appropriate entry and exit points. We want to make certain we have a point of focus, but not necessarily in competition with the existing program at City College. What would our niche be?

Career Technical Education/Career Advancement Academy: *(see CAA Path attachment)*

Alina Varona: CTE leverages best practices from other programs. Oftentimes, students test one to two levels below college level english and math – set gatekeepers stop them from being able to take those higher level certificate courses. Then they spend a year taking basic skills courses, get frustrated and possibly drop out. The idea is to package these basic skills level courses with content-specific courses in their areas of study. It offers dedicated counseling, financial literacy training, a program services coordinator, and a faculty community of practice who will meet to align content/assignments in fundamentals to reinforce soft skills and content. This is done in an effort to help students succeed in basic skills courses in college and their careers, to move on to higher level courses and go on to ultimately earn higher level wages.

Next Steps

Nick Kapp will be reviewing and updating the AS degree in Biotechnology as well as review certificate models. He will bring drafts to the next advisory meeting.

Next Advisory Committee Meeting:

Wednesday, March 11th, 2015

Attachments:

Transfer Model Curriculum Summary
BTEC Degree Curriculum
Transfer Model Curriculum
BTEC Summer Camp Course Outline
BTEC Summer Camp Flyer
BTEC BioBridge Proposed Curriculum
CAA Path