Biotechnology Advisory Committee Meeting Minutes
Friday, May 28, 2021
10:00am – 11:30am (Zoom)

In attendance: 18

Mark Parrish, Christine Garrison, Sandra Porter, Don Sodora, Julia Gabriels, Guy Hamilton, Jan Chalupny, Reitha Weeks, Christine Garrison, Roshan Liyanage, Meg O'Conor, Dina Kovarik, Rachel Rawle, Tuan Phan, Zita Mears (for Marion Dorer), Stephanie Sadowsky, Louise Petruzzella, Kelly Griffin (note taker)

Mark Parrish facilitated a vote to approve the 2/26/2021 minutes and the minutes were approved. Introductions were made and Mark reminded everyone this was his last meeting as Chair and Roshan will Chair future meetings. He said it has been fun and interesting and he will still be around to participate.

Program updates:

Louise said the NSF award for the BioHub will begin in July to develop a comprehensive labor market and skills gap analysis for biomanufacturing technicians (cell therapy and immunotherapy); issue biomanufacturing kits in hopes to establish a high school pipeline; and provide a knowledge source for others developing their own programs.

She also said NIIMBLE 2.2 on workforce expansion in biomanufacturing emerging technologies will include other community colleges across the nation (CA, PA, NC) in curriculum development (two Shoreline courses) and NIIMBLE 3.1 is wrapping up for Shoreline (AGC will limit to eight high school students next year). Guy said Shoreline will offer a 10-week accelerated program in the fall.

A few faculty updates were mentioned. Dina introduced Rachel who shared a little bit of her background and excitement for teaching at the college. Jan said instructor candidates have been identified for the flow cytometry and biotech techniques courses. Reitha anticipates biotech camps to be held in July and August of 2022.

Guy Hamilton facilitated a general education outcomes query of the committee by asking two questions:

> 1. What do you want students to know and be able to do outside of the technical skills they learn in the program?
>
> 2. Can you provide specific examples or scenarios in which employees live up to expectations related to that outcome and when they do not?

Communication; self-awareness; criticality of own performance when coming out of college; able to receive criticism from others; not *too* self-critical; data integrity; independent decision making and critical thinking when something goes wrong; organizational skills (so we can reduce human errors during training); customer service (what is the ask?) and active listening; appropriate response; teamwork and collaboration; time management and time constraint projects; scientific curiosity (wanting to know how things work); able to give and receive feedback (everything is reviewed before approved, so, review and give feedback about updates); dealing with change and ambiguity;

reflect on who to contact and other departments and stakeholders (technical writing) to move forward; situational leadership (if something is not going right, being able to stop, reflect, and ask someone valuable); conflict resolution and emotional intelligence (even at operator level – working with someone – resolving differences); and students telling each other when something doesn't look right. Guy thanked everybody for their input.

Dina shared her screen to go over master course outline material for BIOL 281, Immunology. She talked about the material being the same as it was before Covid and how splitting lecture and lab out (as done during Covid) requires a vote by the committee to continue in having the option in the future. Students will be required to take the lecture prior to, or concurrent to, lab. The content is the same whether they decide to take them separate or together. There committee had discussion and then a vote to formally admit BIOL 281 on the planning guide. A motion was made, seconded, and it was passed.

Dina shared her screen to share a draft of a list to put into the MCO for BIOL 286, Molecular Lab Techniques in Medical Diagnostics. There was discussion and Dina added and edited the list. She will insert the feedback to combine and tighten up the outcomes; update the catalog description (to include RNA and PHA language); and send out for review. The plan is to have a vote at the next meeting. The title of "Molecular Diagnostics and Analysis Lab" was proposed during the discussion.

Mark asked if there were any closing comments and Don asked how students are doing with the pandemic and if the committee can do anything to help. Dina said students recently expressed difficulty in making connections because they feel so isolated. Their graduation is at the end of summer and some of the committee gave ideas on ways to reach out to the students: tours; virtual tours; speed networking with industry partners in Zoom rooms; and perhaps another panel (including alumni) in the summer.

Guy thanked Mark for all of his work as Chair.

Next Advisory Meeting: October 2021

Adjournment: 11:30am

Chat box links:

Sandra Porter: Here's a link to a description of the NSF ATE Award https://innovatebio.org/ate-project/establishing-a-hub-to-support-education-of-biomanufacturing-technicians-in-cell-therapy

Meg O'Conor: https://forms.office.com/Pages/ResponsePage.aspx?id=pHbBsLx0pECa0I-8D1neMbPBjwp_Sc1AnIoMSagYjoJUNEtZWDM0WVBMQVpKRlNGM0xQT0hBVVZaMC4u

Sandra Porter: This page has links to the curriculum that Jan mentioned.
https://innovatebio.org/ate-project/collaborative-to-strengthen-work-based-learning-in-biotech