

## Meeting Minutes

**Members in Attendance:** Brendan Rayhan Amer, Tom Chen, Andria Denmon, Wendie Johnston, Mabel Pang, Tricia Ramos (Supervising Dean), Damon Tighe, Navija Watson

### I. Call to Order & Approval of the Agenda



- a) Meeting called to order at 9:04 AM-PST
- b) Approval of the agenda
  - i) Motion: Navija Watson
  - ii) Second: Tom Chen


### II. Roll Call & Introductions

- a) Quorum was reached with four of five voting members in attendance.

### III. Action Items

- a) **Overview of program mission & vision (15 min.)**
  - i) Andria Denmon provided an overview of the economic landscape and projected job growth related to the life sciences/biotechnology sector in Los Angeles County. She also reviewed the major goals related to the creation of the program; recruitment of students; and retention and training of the students. Discussion of current and pending funding was also addressed.
  - ii) Brendan Amer inquired about current equipment and Andria D. mentioned that over \$50,000 in lab equipment had been donated by board member, Michael Moritz, along with two laminar flow biosafety cabinets from Pasadena City College.
- b) **Review of curriculum & program maps (35 min.)**
  - i) Andria D. provided an overview of the timeline to complete the stackable biotechnology certificates and associate degree.

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- ii) Discussion regarding the possibility of CHEM 19 as a second chemistry option was initiated by full-time faculty from the Life Science Department in attendance. Upon further discussion and review of the curriculum pathway, the board decided that CHEM 19 would not be an acceptable option for students continuing with the associate degree. Further discussion regarding CHEM 19 as an option for the stackable certificates will be tabled until the next meeting.
  - iii) The board felt that a concurrent designation of the Fundamentals of Biotechnology 2: From Genes to Proteins, for the Immunoassay course would put students at a disadvantage since they might not have covered the appropriate content needed to understand protein interactions. Therefore, the board voted unanimously to remove the concurrent designation.
  - iv) Andria D. asked if the board felt that we should include a Quality Control/Quality Assurance course as part of the associate degree pathway.
    - (1) Wendie Johnston felt that incorporating QA/QC into the courses would be sufficient for the stackable certificate, but that a course would be appropriate for students on the degree path. Wendie J. also indicated that having this type of course would pull in different types of students into the program.
    - (2) Nevija W. felt that a QA/QC course was essential. Brendan A. and Damon Tighe echoed this sentiment.
    - (3) The board voted unanimously to incorporate a QA/QC course into the associate degree pathway.
  - v) Andria D. mentioned that the work-based study course would include technical writing and communication as well as the completion of an independent project designed by their industry mentor and that the nanobiotechnology course would be a seminar style course with invited speakers that would cover nanotechnology applications used in the cell science and immunoassay fields.
  - vi) Upon completing the presentation of the certificate and degree pathways, the board voted unanimously in support of the courses and the proposed pathway.
  - vii) Dean Ramos asked about validation of skills through certification as well as multiple avenues for students to start, stop, and catch back up on the pathway.
    - (1) Damon T. mentioned multiple options for credential exams to validate skills, which were BACE and ECSI. Both are grant-funded (soft money), while Wendie mentioned the BIOCOM/Grifols, Biotility, and a credentialing program through a Nebraska institution.
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- viii) Yvonne Ortega, curriculum representative from the Life Sciences department, noted that a UC/CSU social science course would need to be added to fulfil the transfer requirements. This would include psychology or sociology.
  - ix) Wendie J. mentioned that 20% of students in CCC biotechnology programs already have a degree and that the average age is 32. Therefore, it is important to keep in mind that transferring may not be every student's intended goal.


c) **Equipment & facilities review (20 min.)**


- i) Andria D. reviewed the equipment that was to be purchased through the budgeted Strong Workforce Program grant. The board found the planned equipment to be acceptable. Andria D. asked if a mechanical stage was necessary on the inverted microscope. The board felt that if students were receiving experience on a microscope with a mechanical stage, it would not be necessary to include one on the inverted microscope. The board also felt that the ThermoFisher NanoDrop One was the most prevalent UV/VIS microspectrophotometer in an industry setting. Based on these recommendations the project leads will purchase the ThermoFisher NanoDrop One and the inverted microscope without a mechanical stage.

d) **Work-based study/internship model (20 min.)**

- i) Andria D. asked what type of mentorship structure should be considered to ensure that our students have the best internship experience.
  - (1) Damon T. mentioned e-mentoring, which is a structured, long-term mentoring program.
  - (2) David Hall from workforce development: business relations and career development, mentioned the LinkedIn tool to connect students to industry, jobs, and additional internships. He also can facilitate industry tours.
- ii) Discussion on the internship model will continue at the next meeting.
- iii) Faculty externships were discussed and Amgen, BioRad, and Kite would be willing to facilitate and support externships. Amgen and BioRad have externship models in place, while Kite would need to establish an official program or opportunity.

e) **Funding & opportunities for special populations (20 min.)**

- i) Tom C. discussed the plans to work closely with Austin City College and InnovATEBIO to support disabled students in biotech. Brendan A. mentioned that Amgen is committed to
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these types of initiatives and that contacting the diversity coordinators within the companies would help to facilitate getting students into internships.

- ii) It was suggested that Veterans also be included in the list of special populations the program wishes to support. In response, Andria D. said that multiple attempts were made to reach out to the Veteran's Resource Center but there was no immediate response. Additional attempts will be made to ensure that the Veteran population is included.

#### **IV. Comments**

- i) \*Dean Ramos brought up the discussion of pathway development and alignment for high school/pre-college students. She mentioned that outreach is an important key, but to also consider dual enrollment and a high school/pre-college cohort path. This can be achieved by offering some of the courses at the high school.

\*Dean Ramos's comments were initiated while the meeting was in session but due to technical difficulties, her comments were completed after the meeting was adjourned. Her comments have been added to the minutes in their entirety to complete what she intended to say while the meeting was in session.

#### **V. Adjournment**

- a) Meeting adjourned at 10:27 AM-PST
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