**West Los Angeles College**

**Biotechnology Advisory Board Meeting**

January 22, 2018

Southern California Biomedical Council (SoCal Bio)

617 Olive Street

Los Angeles, CA 90014

1-800-418-7079

3:00 – 4:30 PM

**1. Welcome and Introductions**

* Council members present:

Carmen Dones – Dean, Allied Health

Patricia Zuk, PhD – Biotechnology Program Director

Ahmed Enany, PhD – CEO, SoCal Bio

Steve Dahms, PhD – VP, SoCal Bio - Talent Development (present on phone)

* Council members absent:

Rosemarie Christopher – CEO & President, Rx Research Services Foundation

Wendie Johnson, PhD – Lab Director, Pasadena Bio Collaborative Incubator

**2. Program Overview**

* Pat gave the meeting members a brief overview of the current state of the college’s Biotechnology and distributed the Narratives for both the Biotech Lab Technician and Biotech Research Lab Technician certificate

**3. Industry needs/suggestions**

* Steve cautioned against just doing a conventional lab technician certificate claiming that the local labor market may be saturated already
* Pat informed the participants of the college’s desire to create a Quality Control certificate under our Biotech program
* Steve was more enthusiastic about this direction & informed the participants that out of 300 companies surveyed – 62 openings were offered for Quality control positions while 32 offerings were for bio-manufacturing
* Steve suggested the following QC avenues
  + Standard QC
  + Nutritional support QC
  + Water QC
  + Marijuana QC – will be a multi-million dollar industry
* Steve advised that we make sure our QC courses align with on-line courses
* Pat informed him that Rosemarie Christopher is also on the advisory council and that she will be meeting with Pat in the near future to discuss our QC certificates and any on-line QC courses
* Pat is enrolling in Citrus college’s on-line QC course this summer
* Ahmed suggested contacting Elaine Johnson to discuss their bio-manufacturing standards for lab work and Ivy (last name?) to discuss standards for medical devices
* Ahmed gave Carmen and Pat copies of the c3bc Medical device skill standards booklet as a guideline to develop education & training programs for medical device industry careers
  + While we may not pursue medical devices currently – the booklet might serve as a guideline for our training programs in QC
* Steve also suggested bringing in coordinators from other programs outside of the city and even outside of the state
  + CSU Dominguez Hills has a basic QC Certificate
  + USC has a QC program but concentrates on pharmaceuticals – doesn’t do food or water QC

At the end of the meeting – the following QC “streams” had been identified for integration into our Biotechnology Program:

1. Food Industry QC – industrial and medical plus wine and breweries

* Rosemarie will be instrumental in finding contacts for this

2. Nutritional supplements – nutraceuticals and medical food

* Rosemarie will be instrumental in finding contacts for this
* Ahmed recommended contacting PharmaVite to discuss program

3. Standard Pharmaceuticals with expansion into medical marijuana

* Ahmed recommended contacting Medmen LLC to discuss since standards haven’t been established for the marijuana industry yet

4. Water QC

* Ahmed recommends contacting Eurofin to discuss programs
* Ahmed also advised that any organization registered with the FDA would have contacts readily available

Possible WLAC Biotechnology Certificates:

1. Lab Tech and Lab Research Tech

2. Lab Tech with an emphasis on Quality Control – Food Science, Nutritional Support

Discussion of Estabished courses in region

* Discussed the presence of local biotech programs
* Pat has created a table to summarize
* Pat has reached out to all program coordinators
* Majority of coordinators have emailed back with their approval of our program

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| --- | --- | --- |
| **COLLEGE** | **COURSES OFFERED** | **DEGREE/CERTIFICATE & DESCRIPTION & SIMILARITY TO PROPOSED PROGRAM** |
| **LACCD District** | | |
| **Pierce College**  **\*\*email sent to Jamie Beaver, PhD**  No response | BIO 006 – General Biology I (5 units)  **BIO 040 – The Science of Biotechnology (3 units)**  CHEM 101 – General Chemistry I (5 units)  PHILOS 029 – Ethics of Biotechnology (1 unit) | Certificate of Achievement in Biotechnology (14 units)  -low unit value certificate  -contains only one biotechnology course – Bio 040 |
| **LA Valley College**  **\*\* email sent to Pamela Byrd-Williams, PhD**  Program no longer offered due to low enrollment. However, LAVC supports our efforts | **BIOTECH 001 – Fundamentals of Biotechnology (3 units) BIOTECH 002 – Biotechnology I (3 units)**  **BIOTECH 003 – Biotechnology II (4 units)**  **BIOTECH 005 – Biotechnology: Environmental Control (2 units)**  **BIOTECH 006 – Biotechnology: Quality Control (2 units)** | Skills Certificate in Biotechnology/Biomanufacturing (14 units)  -low unit value skills certificate with an emphasis on biomanufacturing  -contains three biotechnology courses similar to West’s proposed program – Biotech 001, 002 & 003  -contains two biomanufacturing based courses – Biotech 005 and 006 |
| **LA Trade Tech**  **\*\*email sent to Miguel Moreno, PhD**  No response | 33 units from the following:  BIO 003 Introductory Biology (4 units)  CHEM 051 Introductory Chemistry (5 units)  MICRO 020 Microbiology (4 units)  PRPLTEK (Process Plant Technology) 102 Process Management and Control Fundamentals (3 units)  PRPLTEK 103 Process Plant Equipment (3 units)  PRPLTEK 104 Introduction to Applied Science (4 units)  PRPLTEK 214 Industry Trends: Employment & Regulations (3 units)  **BIOTECH 010 – Introduction to Biomanufacturing I (4 units)**  **BIOTECH 012 – Introduction to Biomanufacturing II (4 units)** | One certificate program and an Associate degree offered  1. Biotechnology Certificate of Achievement (33 units)  -higher unit certificate with an emphasis on biomanufacturing  -contains two biotech courses – Biotech 010 and 012 that are biomanufacturing based  2. Associate in Science Degree – Biotechnology (60 units) |
| **LA Mission College**  **\*\* email sent to Steven Brown, PhD**  Dr. Brown supports our efforts | **BIOTECH 002 – Biotechnology I (3 units)**  **BIOTECH 003 – Biotechnology II (4 units)**  **BIOTECH 006 – Biotechnology: Quality Control (2 units)**  **BIOTECH 008 – Biotechnology Research Internship (5 units)**  CHEM 051 – Fundamentals of Chemistry I (5 units)  MICRO 20 – Microbiology (4 units)  Math 227 – Statistics (4 units) | Two certificate programs and an Associate degree offered  1. Biotechnology Lab Assistant Certificate of Achievement (12 units)  -low value certificate with two biotech courses similar to West’s proposed program  -students also take Chem 051  2. Biotechnology Research Lab Assistant Certificate of Achievement (25 units)  -higher unit value Certificate with two biotech courses similar to West’s proposed program (Biotech 002, Biotech 003) plus two additional biotech courses (Biotech 006, Biotech 008)  -students also take core life science courses - Chem 051, Micro 20, Math 227 to complete unit requirements  3. Associate in Science Degree – Biotechnology (60 units) |
| **East LA College** | BIO 040 – The Science of Biotechnology (3 units)  Courses on ECD & Not on class schedule:  **BIOTECH 100 – Foundations of Laboratory Science (4 units)**  **BIOTECH 101 – Biological Molecules: Proteins & Nucleic Acids (5 units)**  **BIOTECH 102 – Cell Culture (4 units)**  **BIOTECH 103 – Chromatography & Biomanufacturing (4 units)** | No Certificate offered  -Biotech 100 similar to West LA’s Biotech 002  -Biotech 101 similar to West LA’s Biotech 003 |
| **Outside District** | | |
| **Pasadena City College**  **\*\*email sent to Pamela Eversole-Cire, PhD**  Dr. Cole is supportive of our program | BIOL 102A – Biological Technology: Basic techniques (3 units)  BIOL 102B – Biological Technology: Advanced techniques (3 units)  BIOL 102C – Biological Technology: Cell Culture techniques (3 units)  BIOL 102D – Biological Technology: Lab Internship (3 units) | Biological Technology Certificate (50 units)  Occupational Certificate Biological Laboratory Skills (16 units) |
| **El Camino College** | ----- | No certificate offered |
| **Santa Monica College**  **\*\*emailed Mary Colavito, PhD**  Program is not accepting applications. However, Dr. Colavito supports our efforts | Bio 75 – Biotechnology Methods (5 units) | Medical Laboratory Technician Certificate - Not accepting applications |