

**LANEY COLLEGE**  
**Peralta Community College District**  
**Annual Program Update Template 2014-2015**

<b>I. Overview</b>			
BI Download:	10/24/2014	Dept. Chair:	<a href="#">Rebecca Bailey</a>
Subject/Discipline:	BIOL	Dean:	<a href="#">Denise Richardson</a>
Campus:	Laney		
Mission Statement	<p>The mission of the Biology Department includes providing:</p> <ul style="list-style-type: none"> <li>• introductory courses that meet requirements of AA and AS degrees</li> <li>• Career Technical Education, specifically Biomanufacturing (including two certificates and an AS degree)</li> <li>• transfer courses to four year schools</li> <li>• prerequisites for professional schools (including programs for Registered Nurse, Licensed Vocational Nurse, Nurse Practitioner, Radiology Technician, Physician Assistant, Dental, Dental Hygiene, Medical and Pharmacy).</li> </ul> <p>We meet the educational needs of the community by providing up-to-date programs and allowing students flexibility to earn degrees and certificates in select occupational and academic fields. Our program also allows students to expand their general knowledge and improve their position in the work force. Our faculty and staff strive to:</p> <ul style="list-style-type: none"> <li>• prepare students for the next level of study</li> <li>• facilitate and inspire each student's best effort</li> <li>• be fair, consistent and organized</li> <li>• challenge students to reach higher and farther than they thought they could.</li> </ul>		

<b>II. Enrollment</b>					
	<b>Alameda</b>	<b>Berkeley</b>	<b>Laney</b>	<b>Merritt</b>	<b>District</b>
Census Enrollment F11	490	483	1,052	869	2,894
Census Enrollment F12	322	433	1,023	1,027	2,805
Census Enrollment F13	313	469	1,173	863	2,818
Sections F11	12	13	24	22	71
Sections F12	8	13	25	28	74
Sections F13	9	13	31	23	76
Total FTES F11	103.03	100.10	187.56	190.88	581.57
Total FTES F12	71.87	86.21	184.73	213.38	556.19
Total FTES F13	63.23	100.35	195.46	176.81	535.85
Total FTEF F11	4.85	4.93	8.35	8.69	26.82
Total FTEF F12	3.59	4.62	8.35	10.22	26.78
Total FTEF F13	3.64	5.87	9.55	8.95	28.01
FTES/FTEF F11	21.23	20.30	22.47	21.97	85.97
FTES/FTEF F12	20.04	18.67	22.13	20.87	81.71
FTES/FTEF F13	17.37	17.10	20.47	19.75	74.69

Note: Attendance Method "X" classes are excluded from the calculations.

**III. Student Success**

	<b>Alameda</b>	<b>Berkeley</b>	<b>Laney</b>	<b>Merritt</b>	<b>District</b>
Total Graded F11	461	460	1,012	819	2,752
Total Graded F12	311	426	998	984	2719
Total Graded F13	313	470	1,177	864	2,824
Success F11	308	341	674	610	1933
Success F12	200	294	722	720	1936
Success F13	190	325	776	619	1910
% Success F11	0.67	0.74	0.67	0.74	0.7
% Success F12	0.64	0.69	0.72	0.73	0.71
% Success F13	0.61	0.69	0.66	0.72	0.68
Withdraw F11	99	75	183	139	496
Withdraw F12	60	69	138	157	424
Withdraw F13	75	98	234	146	553
% Withdraw F11	0.21	0.16	0.18	0.17	0.18
% Withdraw F12	0.19	0.16	0.14	0.16	0.16
% Withdraw F13	0.24	0.21	0.20	0.17	0.2

**IV. Faculty**

	<b>Alameda</b>	<b>Berkeley</b>	<b>Laney</b>	<b>Merritt</b>	<b>District</b>
Contract FTEF F11	1.90	1.07	3.45	4.78	11.2
Contract FTEF F12	1.80	1.43	3.25	5.55	12.03
Contract FTEF F13	1.59	2.45	3.33	4.44	11.81
TEMP FTEF F11	2.25	3.84	4.17	3.45	13.71
TEMP FTEF F12	1.11	3.15	4.40	3.70	12.36
TEMP FTEF F13	1.37	3.42	5.43	4.13	14.35
Extra Service FTEF F11	0.70	0.02	0.72	0.46	1.9
Extra Service FTEF F12	0.68	0.04	0.70	0.98	2.4
Extra Service FTEF F13	0.68	0.00	0.79	0.38	1.85
Total FTEF F11	4.85	4.93	8.35	8.69	26.82
Total FTEF F12	3.59	4.62	8.35	10.23	26.79
Total FTEF F13	3.64	5.87	9.55	8.96	28.02
% Contract/Total F11	0.39	0.22	0.41	0.55	0.4176
% Contract/Total F12	0.50	0.31	0.39	0.54	0.449
% Contract/Total F13	0.44	0.42	0.35	0.50	0.4215

## V. Qualitative Assessments

**CTE and Vocational:** Community and labor market relevance. Present evidence of community need based on Advisory Committee input, industry need data, McIntyre Environmental Scan, McKinsey Economic Report, licensure and job placement rates, etc.

The Laney Career Technical Education Advisory Committee is participating in a survey to collect data on the employment placement rates of our students. A considerable number of students who have not yet been placed in jobs have chosen to continue on in their education; some are now completing the Certificate of Achievement in Biomanufacturing. Others are working toward AS or BS degrees. We work with Kelly Scientific, Aerotek and Manpowerm biotechnology oriented-staffing agency in our area to help place candidates in positions in the Biotechnology and Biomanufacturing fields.

### Labor Market Information and Analysis

The following are some statistics about the biotechnology industry in Northern California obtained from baybio.org from the 2010 BayBio2010 impact report. "From 2003 to 2008 California employment in the life science industry climbed by a steady 3.29%. Despite the recent economic downturn, California life science industry continues to expand its portfolio of therapeutics. The growth of phase II, phase III and marketed treatments portrays the ability of California companies to adapt and grow despite a decrease in the total investments".

- 271,000 people are employed by life science companies
- 1/3 of entire US Life sciences industry is based in Northern California
- There are more than 900 treatments in California research pipeline
- 233 treatments in Phase III
- 68 preapproved treatments, 148 approved treatments and 1754 treatments on the market
- more than 3 billion in NIH Grants Awarded to Northern

#### California Organizations

- 1465 millions of venture capital in biotechnology in Northern California, which accounts for 15% of the total venture capital investment in the US.

According to studies by the Centers of Excellence (SF Bay Area and Greater Silicon Valley) [www.coecc.net](http://www.coecc.net) report in 2014

Medical appliance technicians job openings will increase by 2.8 % from 325 jobs in 2013 to 334 in 2016. Average wage/hour \$15.57

Life, physical and social science technician job openings will increase by 5.8% from 2,380 job openings in in 2013 to 2518 job openings in 2016. Average wage earnings/hour \$18.76

Biological technician job openins will increase by 8% from 3,836 job openings in 2013 to 4,142 job openins in 2016. Average wage earnins/hour \$15.97

The biomufacturing program's advisory committee members confirm that the Career ladder program of certificates and associates degree taught at Laney College develops the skill sets and course requirements responsive to the industry needs.

<p><b>Transfer and Basic Skills:</b> Describe how your course offerings address transfer, basic skills, and program completion.</p>	<p>Our course outlines are articulated with local 4-year institutions. Students in our programs often transfer to 4-year institutions or are accepted at professional schools in the health care field. We do not have data on their success, although we are eager to have such information. Anecdotally, we are aware that many of our students go on to successfully complete programs, especially in health care. The Biology Transfer degree is currently being vetted. We have discussed some of the basics within the department, and are prepared to develop the new degree once the state model is approved.</p>
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<b>VI. Course SLOs and Assessment</b>	
Number of active courses in your discipline	25 that are required to have SLOs (we also have one Independent Study and one fee-based course, which are not required to have SLOs)
Number with student learning outcomes (SLOs)	25
Number of courses that have assessed at least one SLO in the past academic year, 2013-2014 (see your TaskStream report for data):	24 (one course has not yet been taught)
Percent of courses that have assessed at least one SLO last year, 2013-2014: <i>Calculating your percentage: Number of courses assessed divided by total active courses in your discipline.</i>	100% of courses that were offered
Number or percent of courses you plan to assess (at least one SLO each) this academic year (2014-2015):	100%
If the percent of courses you plan to assess is not 100%, explain why here.	
Briefly describe the general types of assessment methods you are using. (For example: common test questions, student papers evaluated with a rubric, student projects evaluated with a rubric, safety observation checklists, etc.)	

We use groups of test questions, including common test questions for the multi-section courses, agreed upon by the instructors teaching the courses. We use rubrics for grading laboratory notebooks, writing assignments, and other projects in many of our courses. We use student surveys to assess study habits and student sense of responsibility. We use observation of student behavior to assess safe and proper use of equipment as well as student engagement.

List two examples of the **most important plans for changes and improvements** as a result of what you learned during the course SLO assessment process in the past academic year (Fall 2013- Spring 2014). State the course number for each example so that the details of the assessment findings and action plans can be located in TaskStream. \*

\* This will be verified by checking in TaskStream.

**Example:** Chem 30A, Departmental safety policies need to be revised and all instructors need to be made aware of new policies. Lab techs to start monitoring lab safety.

The Biology department has been assessing its courses for many years, and we typically meet our success criteria. In the past year or two, we have emphasized making improvements in courses even though we have met basic criteria. See below.

List two examples of the **most significant changes/improvements your department has made** as a response to assessment results in the past academic year (Fall 2013-Spring 2014). State the course number and the academic year it was assessed for each example so that the details of the assessment findings, action plan and status report can be located in TaskStream. \*

(\* This will be verified by checking in TaskStream.)

(Please make sure that the evidence for these changes/improvements is uploaded to the Status Report in TaskStream, or attach the evidence to this report.)

**Example:** ESL 283, assessed Fall 2012. In Fall 2013, projects were made an integral part of this High Beginning Speaking/Listening course to engage students more deeply in the target language.

In the introductory biology course for non-majors (Biol 10), instructors felt that although assessment criteria were being met across the course, they were not completely satisfied with student performance. Instructors collaborated on the creation of a new laboratory manual for Biology 10. The lab exercises are more focused on the areas found lacking in assessments. More time is allowed for particular activities, critical thinking is emphasized, and microscope skills are explicitly tested. The course outline was updated to reflect changes in time spent on particular topics and in the new lab manual.

In the majors biology courses, the students were meeting assessment criteria, but the instructor felt that the communication of expectations could be improved. Instructors collaborated on new lab manuals for Biology 1A and 1B. The new manuals more clearly communicate to students what they are expected to learn. Course outlines are in the process of being updated to reflect the changes.

## VII. Program Learning Outcomes and Assessment

	Fall 2014
Number of degrees and certificates in your discipline (If your department doesn't offer any degrees or certificates, you don't have to answer the rest of the questions regarding program assessment.)	3

Number of degrees and certificates with PLOs entered into TaskStream: (* This will be verified by checking in TaskStream.)	All programs
Number of degrees/certificates that have assessed at least one PLO in the past year:	3
If less than 100% of your programs have assessed at least one PLO last year, what is your plan for assessing program outcomes for all degrees and certificates?	n/a
<p>List two examples of the most important plans for changes and improvements as a result of what you learned during the program (PLO) assessment process in the past academic year (Fall 2013- Spring 2014). State the program name for each example so that the details of the Assessment Findings and Action Plan can be located in TaskStream. *</p> <p>(* This will be verified by checking in TaskStream.)</p> <p>As with SLOs, we have typically met success criteria, see improvements made below.</p>	
<p>List two examples of the <b>most significant changes/improvements your department has made</b> as a response to program (PLO) assessment. State the program name and assessment cycle for each example so that the details of the Assessment Findings, Action Plan and Status Report can be located in TaskStream. *</p> <p>(* This will be verified by checking in TaskStream.)</p> <p>(Please make sure that the evidence for these changes/improvements is uploaded to the Status Report in TaskStream, or attach the evidence to this report.)</p> <p>Students met the criteria for knowing the advantages and disadvantages of using different types of organisms in biomanufacturing, but the instructor felt they would benefit from greater knowledge of this basic topic. The Biology 76 lecture on the topic was given more emphasis and contextualized to job interview skills and knowledge.</p> <p>In a variety of the biomanufacturing certificate courses, instructors noted students would benefit from more specific instruction on how to apply their basic skills and knowledge to biomanufacturing. Instructors across the biomanufacturing program developed certificates and degrees, and continue to update them with an emphasis on contextualized learning.</p>	

## VIII. Strategic Planning Goals

Check all that apply.

- Advance Student Access, Success & Equity
- Engage our Communities & Partners
- Build Programs of Distinction
- Create a Culture of Innovation & Collaboration
- Develop Resources to Advance & Sustain Mission

Describe how goal applies to your program.

The Biology Department faculty work collaboratively to perform assessments and improve curriculum on a regular basis. Our analysis of assessment results and collaboration among faculty members to improve our teaching advances student access, success and equity. All f/t faculty and many p/t faculty are involved on the college and/or district level, and promote innovation and collaboration on many levels. We have built programs of distinction – including biomanufacturing, pre-health care, and transfer courses for majors and general education - and continue to improve upon these models. We work to advance access, success and equity in all our programs. Group work and creating a classroom atmosphere with an expectation that students support each other pertains to all the strategic planning goals. The biomanufacturing program is particularly successful at engaging our community.

## IX. College Strategic Plan Relevance

Check all that apply

- New program under development
- Program that is integral to your college's overall strategy
- Program that is essential for transfer
- Program that serves a community niche
- Programs where student enrollment or success has been demonstrably affected by extraordinary external factors, such as barriers due to housing, employment, childcare etc.
- Other

## X. Action Plan

Please describe changes in your program since your last program review or annual program update that requires additional resources not addressed in your last program review or annual program update. If additional resources are need, please reference data (quantitative, qualitative, and data specifically from course and program learning outcomes assessment). In describing changes, consider curriculum, pedagogy/instructional, scheduling, and marketing strategies. Also, please reference any cross district collaboration with the same discipline at other Peralta colleges.

Include overall plans, goals and specific action steps for the coming year.

Our lab technician will be retiring in early 2016, and the department has assessed its needs for this role. We have determined that a newly negotiated classified position for a science lab coordinator fits our needs. The department has grown substantially in the decades since our current technician was hired, including the addition of certificates and degrees in biomanufacturing. This area is specifically addressed in the new job description, whereas the old job description did not require a skill set that fit biotech courses (also see Form D justifications). We are also nearing the local-level completion of our transfer degree in biology, and need more lab support in this area. We will need to hire this replacement in time to be trained in certain skills and procedures by our current technician. We are still making a request for a second lab technician, a to serve our night sections, as has been the case for many years.

We have added a facilities request to identify space for a grant-funded clean room to serve the growing biomanufacturing program.

We plan to continue pursuing our major goals, including a new science building (or STEM center), additional biology tutoring hours, and additional f/t faculty positions.

	<b>XI. Resource Needs: Using the Excel Spreadsheet (separate document)</b>
<b>FORM A</b>	Please describe the need and prioritize any NEW faculty requests.
<b>FORM B</b>	Please describe and prioritize any NEW <b>equipment, material, and supply</b> needs. For Instructional Equipment & Library Material (including instructional equipment repairs).
<b>FORM C</b>	Please describe and prioritize any NEW facilities needs using Form C.
<b>FORM D</b>	Please describe the need and prioritize any NEW classified and student worker requests.
<b>TECH FORM</b>	Laney College Technology Equipment Request Form: Please list your computer and other technology needs in this form.