2017 Annual Program Review Update Outline
You may also download the below outline from the KCC Program Review webpage.

Kaua`i Community College
Annual Program Review Update for
(Plant Biology and Tropical Agriculture Program)

Program Description

Web address of the last comprehensive review is at:
https://www.hawaii.edu/offices/cc/arpd/instructional.php?action=quantitativeindicators&year=2017&college=KAU&program=215

The Plant Biology and Tropical Agriculture (PBT) academic program is designed to meet the need of students interested in agriculture. PBT offers Academic Subject Certificate (ASC) (24-25 credits), Certificate of Competence (CO) (16 credits), Certificate Achievement (CA) (35 credits) and a pathway to the Associate in Science (AS) (60 credits) degree. The AS in Plant Biology and Tropical Agriculture may be utilized as a terminal degree for students wishing to enter the workforce directly. Certificate programs in PBT are to meet a range of academic and career needs. Graduates with an AS degree or certificates in PBT will qualify for a range of different agricultural occupations that provide improved career opportunities and income. The PBT is a new program and this is the second review for PBT.

The 2017 Instructional Annual Report of Program Data for PBT is available at https://www.hawaii.edu/offices/cc/arpd/instructional.php?action=quantitativeindicators&college=KAU&year=2017&program=215

Part I: Program Quantitative Indicators

Overall Program Health: Cautionary

Majors Included: PBS Program CIP: 01.1101

Demand Indicators		Program Year			Demand Health Call
		14-15	15-16	16-17	
1	New & Replacement Positions (State)	0	20	13	Healthy
2	*New & Replacement Positions (County Prorated)	0	3	3	
3	Number of Majors	0	3	9	

3a	Number of Majors Native Hawaiian	0	1	4	
3b	Fall Full-Time	0%	0%	11%	
3c	Fall Part-Time	0%	100%	89%	
3d	Fall Part-Time who are Full-Time in System	0%	0%	11%	
3e	Spring Full-Time	0%	0%	11%	
3f	Spring Part-Time	0%	100%	89%	
3g	Spring Part-Time who are Full-Time in System	0%	0%	0%	
4	SSH Program Majors in Program Classes	0	7	53	
5	SSH Non-Majors in Program Classes	0	91	62	
6	SSH in All Program Classes	0	98	115	
7	FTE Enrollment in Program Classes	0	3	4	
8	Total Number of Classes Taught	0	8	10	

Efficiency Indicators		Program Year			Efficiency Health Call
		14-15	15-16	16-17	
9	Average Class Size	0	4.4	4.4	Cautionary
10	*Fill Rate	0%	29.1%	29.3%	
11	FTE BOR Appointed Faculty	0	0	1	
12	*Majors to FTE BOR Appointed Faculty	0	0	9	
13	Majors to Analytic FTE Faculty	0	4.1	5.1	
13a	Analytic FTE Faculty	0	0.7	1.8	
14	Overall Program Budget Allocation	Not Yet Reported	Not Reported	Not Yet Reported	
14a	General Funded Budget Allocation	Not Yet Reported	Not Reported	Not Yet Reported	
14b	Special/Federal Budget Allocation	Not Yet Reported	Not Reported	Not Yet Reported	
14c	Tuition and Fees	Not Yet Reported	Not Reported	Not Yet Reported	
15	Cost per SSH	Not Yet Reported	Not Reported	Not Yet Reported	
16	Number of Low-Enrolled (<10) Classes	0	8	8	

***Data element used in health call calculation** **Last Updated: October 29, 2017**

Effectiveness Indicators		Program Year			Effectiveness Health Call
		14-15	15-16	16-17	
17	Successful Completion (Equivalent C or Higher)	0%	97%	98%	Cautionary
18	Withdrawals (Grade = W)	0	0	0	
19	*Persistence Fall to Spring	0%	100%	55.5%	
19a	Persistence Fall to Fall	0%	100%	25%	
20	*Unduplicated Degrees/Certificates Awarded	0	1	7	
20a	Degrees Awarded	0	0	5	
20b	Certificates of Achievement Awarded	0	0	0	
20c	Advanced Professional Certificates Awarded	0	0	0	
20d	Other Certificates Awarded	0	0	1	
21	External Licensing Exams Passed	N/A	Not Reported	N/A	
22	Transfers to UH 4-yr	0	0	0	
22a	Transfers with credential from program	0	0	0	
22b	Transfers without credential from program	0	0	0	

Distance Education: Completely On-line Classes		Program Year			
		14-15	15-16	16-17	
23	Number of Distance Education Classes Taught	0	0	0	
24	Enrollments Distance Education Classes	N/A	N/A	N/A	
25	Fill Rate	N/A	N/A	N/A	
26	Successful Completion (Equivalent C or Higher)	N/A	N/A	N/A	
27	Withdrawals (Grade = W)	N/A	N/A	N/A	
28	Persistence (Fall to Spring Not Limited to Distance Education)	N/A	N/A	N/A	

	Perkins IV Core Indicators 2015-2016	Goal	Actual	Met	
29	1P1 Technical Skills Attainment	92.00	100.00	Met	
30	2P1 Completion	51.00	0.00	Not Met	
31	3P1 Student Retention or Transfer	81.00	0.00	Not Met	
32	4P1 Student Placement	63.87	100.00	Met	
33	5P1 Nontraditional Participation	N/A	N/A	N/A	
34	5P2 Nontraditional Completion	N/A	N/A	N/A	

	Performance Measures	Program Year			
		14-15	15-16	16-17	
35	Number of Degrees and Certificates	0	0	5	
36	Number of Degrees and Certificates Native Hawaiian	0	0	3	
37	Number of Degrees and Certificates STEM	Not STEM	Not STEM	Not STEM	
38	Number of Pell Recipients[1]	0	2	3	
39	Number of Transfers to UH 4-yr	0	0	0	

***Data element used in health call calculation** **Last Updated: October 29, 2017**

[1]PY 16-17; Pell recipients graduates not majors

Part II. Analysis of the Program

Plant Biology and Tropical Agriculture (PBT) is a new program and the data before 2015-16 are not available. Thus, in this review, current data (2016-17) were compared with those of 2015-16. The overall program health was consistently cautionary. However, most of the program health indicators were higher in 2016-17.

In 2016-17, the PBT program had a healthy demand heath call. Compared to previous year, five out of eight major demand indicators had higher values. The new replacement position for state was reduced from 20 to 13 and the similar position for the county was consistent at 3. Full-timer students were increased from 0% to 11%, whereas part-timers were decreased from 100% to 89%. Consistently, most of them were from non-majors (91 out of 98 in 2015-16 and 62 out of 115 in 2016-17). Thus, the demand health call was consistently healthy.

The overall efficiency health call had been improved from unhealthy (2015-16) to cautionary (2016-17). This result was due to increased FTE BOR appointed faculty (0 to 1), majors to FTE

appointed faculty (0 to 9), majors to analytic FTE faculty (4.1 to 5.1) and analytic FTE faculty (0.7 to 1.8).

The effectiveness health call was consistently cautionary in 2015-16 and 2016-17. Successful completion rate had been increased from 97% (2015-16) to 98% (2016-17). In addition to this, awarded number of degree/certificate was increased from 1 (2015-16) to 7 (2016-17). However, the persistence rate for Fall to Spring and Fall to Fall both were decreased in 2016-17.

As per Perkins IV core indicators, technical skills attainment (1P1) and student placement (4P1) were met, whereas, completion (2P1) and student retention or transfer (3P1) were not met. Thus, the 1P1 and 4P1 (met) were strengths and 2P1 and 3P1 (did not meet) were weakness of the program.

Part III. Goals, Alignment and Action Plan

As mentioned, PBT is a new program. Thus, the review of PBT has not done yet.

The program had addressed the KCC Goal #1, 6, 9, 11, 19 and 20 through offering required PBT program-related STEM courses for graduation (BOT 101, HORT 200, PBT 141, PBT 264, PBT 275, and PBT 290) (Goal #1 and Goal #9) at day and evening (Goal #6 and Goal #20) , offering HORT 200 at Kapaa High School (Goal #19), and conducting a soil fertility-related field research at Breadfruit Research Farm (Ulutopia) (Goal #11).

2017-2021 Strategic Goals

(2017-2018 Priority Goals are underlined)

Program Goals	**Goal Alignment UH System Goals, Kauai Community College Goals, and Strategic Goals**
	UHCC/KCC Initiative: Hawaii Graduation Initiative
Offer required courses for graduation (BOT 101, HORT 200 (AG 200), PBT 141 (AG 141), PBT 264 (AG 264), PBT 275 (AG 271),	<u>Strategic Goal 1: Increase the Number of Graduates</u>

and PBT 290 (AG 290)) Offer additional courses at high school(s) (HORT 200, BOT 101, BOT 101L, AG 264, BOT 130, BOT 130L)	
	Strategic Goal 2: Increase the Number of Native Hawaiian Graduates
	Strategic Goal 3: Increase the Number of Low Income Student Graduates
	Strategic Goal 4: Increase the Number of Students Who Transfer
	Strategic Goal 5: Eliminate Access and Success Gaps
Offer day and evening courses and support for reducing the time to degree.	Strategic Goal 6: Reduce the Time to Degree: Accelerate College Readiness
	Strategic Goal 7: Reduce the Time to Degree: Increase Student Retention and Credit Accumulation
	UHCC/KCC Initiative: Hawaii Innovation Initiative
	Strategic Goal 8: Increase Job Placement for KauaiCC Students
Offer PBT program-related STEM courses.	Strategic Goal 9: Increase the STEM Workforce
	Strategic Goal 10: Increase Lifelong Learning and Professional Development Opportunities for community members
	UHCC/KCC Initiative: Modern Teaching and Learning Environment

Support the campus and community sustainability initiative through conducting a soil fertility-related field research at Breadfruit Research Farm (Ulutopia)	Strategic Goal 11: Increase Campus and Community Sustainability
	Strategic Goal 12: Strengthen Distance Education Offerings
	Strategic Goal 13: Enhance Facilities with Appropriate Technology and Ensure Facilities Support 21st Century Learning and Teaching Environments
	UHCC/KCC Initiative: High Performance Mission-Driven System
	Strategic Goal 14: Reduce the Cost of Education for Students
	Strategic Goal 15: Implement Hawai'i Papa O Ke Ao
	Strategic Goal 16: Increase Opportunities for and Participation in Professional Development
	UHCC/KCC Initiative: Enrollment
	Strategic Goal 17: Increase Recent High School Graduates Enrollment
	Strategic Goal 18: Increase Pacific Islander Enrollment
Offer PBT courses at high school(s).	Strategic Goal 19: Increase High School Non-Completers and GED Recipient Enrollment
Offer day and evening courses and support for increasing the enrollment of working adults.	Strategic Goal 20: Increase Enrollment of Working Adults
	Strategic Goal 21: Increase Enrollment of

	International Students

Status Report for the prior year requests

Increase the Number of Graduates (KCC Goal #1) and Increase Campus and Community Sustainability (KCC Goal #11) and Increase High School Non-Completers and GED Recipient Enrollment (KCC Goal #19)	**Program Goal & Campus Strategic Goal or Priority Alignment**
(i) Increase student enrolment through conducting hands-on activities such as breadfruit propagation at Ulutopia and tissue culture in the laboratory. (ii) Support the campus and community sustainability initiative through conducting a soil fertility-related field research at Breadfruit Research Farm (Ulutopia). (iii) Increase high school non-completers through offering PBT courses/certificate at Kapaa High School.	**Action Item**
(i) Field (Ulutopia and student teaching plots) and laboratory supplies (ii) A lecturer for teaching PBT courses at Kapaa High School.	**Resource Acquired**
(i) Field and laboratory supplies were purchased (ii) A lecturer was hired and PBT courses were offered at Kapaa High School.	**Outcome(s)**
(i) FTE student enrolment in program classes increased by 50% (demand indicators #7). (ii) Total number of classes taught increased by 20% (demand indicators #8).	**Outcome(s) Evaluation (Improvements made to program based on assessment data)**
Not applicable	**Action Plan if outcome was not met**

Action Plan and New Resource Request

List in the table below resource requests greater than or equal to $3000. Do not include requests of an ongoing nature unless it is for new permanent personnel. Do not include lecturers in your request nor overload that has to do with teaching extra courses. The ranking rubric can be found in KCCP 1-6. For multiple requests, please add additional tables as needed.

- Input your action item based on your quantitative indicators and Program Student Learning Outcomes.
- Identify names of key persons involved in implementing the steps and the overall strategy. When possible, identify partnerships that will enhance strategies.
- Indicate when you will complete the action.
- In the "Indicator of Improvement" column, identify and quantify the outcomes expected from the action by using the actual numbers from your quantitative indicators table in Part III. What indicator will be improved by the action? To what extent? (e.g., Persistence will increase from the current 63% to 73 %.)
- In the "PSLO Impacted" column, identify the specific PSLO that will be addressed by the action. Include the program-level or course-level assessment data that supports the need for the action.
- Include specific action plans for any Perkins Core Indicator for which the program did not meet the goal.

Increase the Number of Graduates (KCC Goal #1) and Increase Campus and Community Sustainability (KCC Goal #11) and Increase High School Non-Completers and GED Recipient Enrollment (KCC Goal #19)	**Program Goal & Campus Strategic Goal or Priority Alignment**
(i) Increase student enrolment through conducting hands-on activities such as breadfruit propagation at Ulutopia and tissue culture in the laboratory. (ii) Support the campus and community sustainability initiative through conducting a soil fertility-related field research at Breadfruit Research Farm (Ulutopia). (iii) Increase high school non-completers through offering PBT courses/certificate at Kapaa High School.	**Action Item**
(i) Electronic door(s) on PBT laboratory (ii) A lecturer for teaching PBT courses at Kapaa High School (budget not requested).	**Resource(s) Request**
Sharad P. Marahatta	**Person(s)**

	Responsible and Collaborators
One year	**Timeline**
Student enrolment in PBT courses	**Indicator of Improvement**
PSLO #6 will be impacted (use practical hands-on field and laboratory investigation skills in plant biology and tropical agriculture).	**PSLO Impacted**
PBT laboratory is at FARM K 105.	**Current Status**

Part IV. Resource Implications

OUTCOMES	**RESOURCES NEEDED**		
(Identify and Quantify)	**Useful Life**	**Annual Recurring Cost**	**Initial Acquisition Cost**
Electronic door(s)	One year	$0.00	$10,000

Add rows as needed.

Part V. Program Student Learning Outcomes and Assessment

Students graduating from the Plant Biology and Tropical Agriculture program will be able to:

1. Use appropriate scientific and agricultural terminology to communicate in different settings and with different audiences.
2. Identify and analyze the biotic and abiotic factors that affect agricultural production and describe how these factors are managed at the local, state, national, and global level.
3. Apply principles and practices from tropical agriculture and plant and soil sciences to improve production and profitability.
4. Apply the scientific method and available technology to understand and manage agronomic and agribusiness challenges and opportunities.
5. Explain contemporary social, political, economic, and ethical issues involving food, agriculture, and the environment.
6. Use practical hands-on field and laboratory investigation skills in plant biology and tropical agriculture.

Till now, Course Student Learning Outcomes (CSLOs) are assessed and the Program Learning Outcomes (PSLOs) are not assessed. Thus, the next step is to determine the practical way for assessing PSLOs.

Part VI. Programs Cost Per SSH

Part VII. Capacity

Not applicable.