HAWAIʻI COMMUNITY COLLEGE
PROGRAM COMPREHENSIVE 3-YEAR REPORT

Agriculture

April 15, 2017

Review Period
July 1, 2013 to June 30, 2016
AY 2013-14, AY 2014-15, and AY 2015-16

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Program/Unit Review at Hawaiʻi Community College is a shared governance responsibility related to strategic planning and quality assurance. Annual and 3-year Comprehensive Reviews are important planning tools for the College's budget process. This ongoing systematic assessment process supports achievement of Program/Unit Outcomes. Evaluated through a college-wide procedure, all completed Program/Unit Reviews are available to the College and community at large to enhance communication and public accountability.
Please see http://hawaii.hawaii.edu/files/program-unit-review/

Please remember that this review should be written in a professional manner. Mahalo.

PART I: THE PROGRAM

Describe the Program	
Provide the short description as listed in the current catalog.	This program prepares students for employment in government service, agribusiness, horticulture, livestock, flowers and foliage, landscape, macadamia nuts, papaya, and coffee industries.
Provide and discuss the program's mission (or goals and objectives if no program mission statement is available).	The mission of the Agriculture Program is to maximize the potential of individuals to fulfill their personal and career goals by providing curricula that prepare students for entrepreneurship or employment within the many fields of agriculture or landscaping. Our program provides coursework and direct, hands-on learning experiences emphasizing current, environmentally and economically sound, and sustainable principles and practices that develop the skills, knowledge, and abilities vital for Hawaii's green industries as well as for a healthy, productive society.

Report and discuss all major/meaningful actions and activities that occurred in the program over the past three years, from July 1, 2013 through June 30, 2016. For example:	
Changes to the program's curriculum due to course additions, deletions, modifications (CRC, Fast Track, GE-designations), and re-sequencing	
New	

certificates/degrees	N/A
Personnel and position additions and/or losses.	There was a huge transition in the program at the end of Spring 2015 when the long-time instructor and APT left the program and a new instructor took over the Ag program. The former faculty and staff, spent two days showing the new instructor the program. After their short orientation, he ran the program for the remainder of the review period, initially without the help of an APT. In Spring 2016 an APT was hired to assist the Ag program.
Other major/meaningful activities, including responses to previous CERC feedback.	The focus of the last review was 1) aligning classes to matriculate to the four year UHH Agriculture degree, 2) replacing and upgrading equipment, and 3) increasing capacity. The program has changed a great deal since the last review, primarily due to the change of Faculty at the start of the Fall 2015 semester. The focus of the program is now built around an integrated farm-to-table model with emphasis on hands-on learning.

Describe, analyze, and celebrate the program's successes and accomplishments. (For example, *more students were retained/graduated* OR *the program successfully integrated new strategies/technologies*.)	
Discuss what the program has been doing well that needs to be maintained and strengthened. Please provide evidence if applicable (ex: program data reports, relevant URL links, etc.).	The major accomplishment during AY2015-16 was a new emphasis on the farm to table initiative with intensive hands-on learning. The Ag program reinvigorated its collaborative relationship with the Culinary program. This collaboration involved commercial scale vegetable production by students at the Panaʻewa Farm Lab with weekly produce deliveries to the Culinary program kitchen at the Manono campus.

Describe, analyze, and discuss any challenges and/or obstacles the program has faced.	
Identify and discuss the program's challenges/obstacles.	The current instructor started teaching in the Fall of 2015, covering six courses out of the twelve offered by the Ag Program during AY2015-16. All six of the courses were new to the instructor and he experienced a steep learning curve. During AY2015-16, the current instructor re-focused the program into three major areas - Farm to Table, Food Sustainability, and Landscaping. The Ag Program continues to experience a small operating budget. At the end of each semester, the program runs out of funds and has to rely on the instructor to carry the program to the end. Our fertilizer expense has doubled in AY2015-16 due to the Farm to Table and Food Sustainability initiatives. We must insure that we can provide our students with learning opportunities without being cut off due to lack of operating funds.
Discuss changes and actions taken to address those challenges, and any results of those actions.	The need to connect, work, and plan with the Culinary program lead to meetings with Culinary faculty for menus and timetables for produce deliveries. The need to revamp growing areas to handle production lead to an increase in the area of hydroponic growing tables by 150%.

	We have found that as the Ag program's production increases, the supplies need to increase also.
Discuss what still needs to be done in order to successfully meet and overcome these challenges.	Increase budget

ARPD Data

Program Review document.Please attach a copy of the ARPD data tables for the three years under review and submit with the

a) **If you will be submitting the Program Review document in hard copy, print and staple a copy of the data tables to the submission; the icon to print the data tables is on the upper right side, just above the data tables.**
   OR
b) **If you will be submitting the Program Review document in digital form, attach a PDF copy along with the digital submission; the icon to download the data tables as a PDF is in the upper right side, just above the data tables.**

Program data can be found on the ARPD website: http://www.hawaii.edu/offices/cc/arpd/

Analyze the program's ARPD data for the 3-year review period.	
Describe, discuss, and provide context for the data, including the program's health scores in the Demand, Efficiency, Effectiveness, and Overall Health categories.	**Demand** – Our Demand Health Call went from Healthy in 2014 to Unhealthy in 2015 and 2016. The only difference from 2014 compared to the 2015 and 2016 data is that the Scoring Rubric changed. If we used the same Scoring Rubric from 2014 for the 2015 and 2016 data, we would have been given a Demand Health Call of Healthy for both of those years. The new Scoring Rubric is figured out by dividing New & Replacement Positions County Prorated (numerator) by Number of Majors (denominator). A Healthy call is a ratio of job openings to majors of 0.75 or more or job openings for 75% of the majors.

	There are two adjustments, one in the numerator and one in the denominator that would make the Demand Indicator accurate. The first adjustment, the numerator (New & Replacement Positions -County Prorated), must be based on more than one CIP code. We prepare students to work in more areas than Plant Nursery and Greenhouse Management (CIP: 01.0606). This would increase the numerator. The second adjustment, the denominator (Number of Majors), should be based on Graduating Majors. Currently, this number includes every student that declared AG as their major. The only students entering to workforce are the graduates, therefore, only these should be counted. This will decrease the denominator. Increasing our numerator and decreasing our denominator will definitely give us a ratio greater than 0.75, which equates to a Demand Health Call of Healthy. **Efficiency** – We have been given an Efficiency Health Call of Healthy for the past three years. We have a mandated enrollment capacity so our scoring rubric is based off of Class Fill rate. In the past three years, our Fill Rate averaged 97%. The minimum Fill Rate to get a Healthy call is 75%. We do not see this number dropping anytime in the near future. **Effectiveness** - We were given Effectiveness Health Calls of Healthy, Healthy, and Cautionary over the past three years. The change to Cautionary in 2015-16 was due to the combination of lower number of Unduplicated Degrees/Certificates Awarded and a change in the scoring rubric. There was a lower number of Unduplicated Degrees/Certificates Awarded due to the lowered capacity, which was done to assist the new instructor to familiarize himself with the program. On its own, this would not lower the Effectiveness Health Call, but the new scoring rubric requires a 5% increase in Unduplicated Degrees/Certificates Awarded. Once the program is stabilized, we look to receive an Effectiveness Health Call of Healthy!

	<u>Overall</u> – Over the past three years we have been given the following Overall Program Health Calls: 2014 – Healthy, 2015 – Cautionary, 2016 – Cautionary. The only major changes has been the scoring rubrics. As mentioned above, if we used all the CIP codes required and input relevant data for the Demand Indicator Scoring Rubric, our Overall Health Call would be Healthy.
Describe, discuss, and provide context for data in the Distance Education, Perkins Core Indicators, and Performance Funding Indicators categories, as appropriate.	**1P1** : Technical Skills Attainment This has not been met for the past two years. After analyzing the data we have found that it is due to an average dropout rate of 3.45. The reason 3 students dropped out last year can be attributed to social issues stemming from outside the College. **4P1**: Student Placement This has not been met for the past three years. There are a few variables which are not taken into consideration in this rubric. The first is that this is also a transfer program and we had an average of 2.7 transfers to UH-4yr over the past three years. The second is that some of our students start their own business and the data will not pick this up. Third, this data does count the students that drop out of the class. Data should be based on the graduating students that did not transfer to UH-4yr. We will start to look into a feasible way of tracking our students. This data will be important but time-consuming to initiate and maintain. **5P1 and 5P2: Nontraditional Participation and Nontraditional Completion** We have done well in meeting these indicators over the past three years. Only this year we have not met 5P1 by 0.34! The only reason this was not met is because we had to decrease the class capacity. Once the capacity is increased, we should be able to meet this indicator. To make sure we do, we will also emphasize nontraditional

	participation when we promote the program at career fairs/days.
Describe any trends, and any internal and/or external factors that are relevant to understanding the program's data.	Sustainability and Food Security is important to Hawaii's autonomy. This has become a hot button topic in Hawaii due to the Governor's proclamation that we will decrease our food imports by 20% by the year 2020. There is a growing movement within the millennials to get back to self sustainability and homestead farming. We see this in our classroom already. Because of this, we will see increased interest in the program, especially among young people and those seeking a self-sufficient life-style.
Discuss other strengths and challenges of the program that are relevant to understanding the program's data.	As stated previously, only an average of 2.7 students transferred to UH-4yr over the past three years. This information indicates that the Ag program needs to focus on students interested in starting their own farm business, or who go on to work for other farm businesses, and those whose goal is self-sufficiency.

Analyze the program's IRO data for the 3-year review period: If applicable: Discuss how data/analysis provided by the Institutional Research Office has been used for program improvement. (For example, how results from CCSSE or IRO research requests have impacted program development.)	
Describe, discuss, and provide context for the data.	N/A

Discuss changes made as a result of the IRO data.	N/A

<u>Contributions to the College</u>: Discuss how the program aligns with and supports the College's institutional effectiveness and helps the Kauhale achieve our shared goals.	
<u>College Mission</u>*:* *"Hawai'i Community College (Hawai'i CC) promotes student learning by embracing our unique Hawai'i Island culture and inspiring growth in the spirit of "E 'Imi Pono." Aligned with the UH Community Colleges system's mission, we are committed to serving all segments of our Hawai'i Island community."*	The Agriculture Program recognizes and embraces the uniqueness of Hawai'i island from both a cultural and environmental perspective. Sustainable production practices presented through the program draw from methods practiced throughout Polynesia as well as those practiced by other cultures that are relevant and appropriate. Natural environmental and ecosystem characteristics throughout the island are explored as they relate to agriculture. The program strives for excellence and is actively engaged in assessment, reflection and self-improvement. These characteristics are instilled in students of the program as well. Finally, the program is proud of the diversity within its classroom. It far exceeds Perkins nontraditional student completion indicators. There is a great diversity of ethnicities within the program and ages of students have ranged for 17-58 years of age.
<u>Institutional Learning Outcomes (ILOs)</u>:	ILO 1: Our graduates will be able to communicate effectively in a variety of situations. Students in the program work closely with fellow classmates and through this learn communication and collaboration skills. As they progress through the program, they learn to conduct literature searches and write reports. They also conduct and summarize scientific research. In the business component of the program they gain experience drafting resumes and business plans. Oral presentations are a part of nearly every class. Finally, students gain experience

	with computers and various forms of media development.
	ILO 2: Our graduates will be able to gather, evaluate and analyze ideas and information to use in overcoming challenges, solving problems and making decisions. Agriculture, by its very nature, relies very heavily on observation, analysis and decision making processes. Every crop cycle represents new opportunities for refinement of practices and also new challenges. Students gain experience in this area through a hands-on real world learning environment.
	ILO 3: Our graduates will develop the knowledge, skills and values to make contributions to our community in a manner that respects diversity and Hawaiian culture. Agriculture and food security is foundational to any healthy community and society. Students learn and develop skills to provide healthy and wholesome food for their families and on a commercial scale. Sustainable methods of production include indigenous practices from Hawaii and other Polynesian cultures.

The Program's Learning-Outcomes Assessments

For assessment resources and PDF copies of all submitted assessment reports from the program during the review period, please see the following websites:
Assessment website: http://hawaii.hawaii.edu/files/assessment/
Assessment Reports/Resources: http://hawaii.hawaii.edu/files/assessment/reports/

☒ The program faculty/staff have reviewed the program record on Kuali KSCM and hereby affirm that all information, including the PLOs, is correct.

☐ The program faculty/staff have reviewed the program record on Kuali KSCM and have found that all information is not correct and hereby affirm that the program will be submitting proposals for revision.

Kuali KSCM: https://hawaii.kuali.co/cm/#/courses

If the Kuali KSCM program entry needs revision (for example, to the program description, entry or completion requirements, and/or PLOs) those revisions must be proposed through the Fast Track process or CRC "Proposal to Modify a Program" process, as appropriate.

PLOs

Please list the Program Learning Outcomes (PLOs) as recorded on Kuali KSCM.	1. Plan and manage projects and cultivated horticultural crops using legal; sustainable; safe; and ecologically, biologically, and technologically sound practices. 2. Design gardens that demonstrate the aesthetic principles of unity, repetition, balance, color, and texture congruent with the customers' desires. 3. Operate and maintain tools and equipment. 4. Set up and manage a business enterprise. 5. Interact with customers and co-workers in ways that effectively support the work to be accomplished.
Discuss the program's challenges, if any, in helping students overall achieve its PLOs.	The PLO's focus on experiential and practical learning, and although broad in scope they are readily encompassed by the farm to table activities. Farm to table activities involve production, marketing of vegetables during sales on campus, and daily interaction as part of a production team and with "clients" in the Culinary program. PLO 2 is specific to our annual Model Home Project with Carpentry. Our students on this project grow all the plants, do a landscape plan and install the plants according to the plan. This would entail a start to finish landscaping project of a residential home. A huge undertaking for a 3 credit class. PLO 4, set up and manage a business enterprise presents a few challenges for the students. We need them to be great growers before we can turn them into great business men and women. The financials are important in any business enterprise and we must make sure they can carry out the business side as well as the farm production.
Include a summary discussion of the results	N/A

of any PLO assessments voluntarily undertaken by the program's faculty.	

CLOs

Discuss and summarize the <u>overall</u> results of course learning outcomes (CLO) assessments during the 3-year review period.	Overall, students consistently score above 80% on meeting technical skills rubric for CLO assessments during the 3-year period. However, only 70% of students achieved the benchmark set on the soft skills rubric during the same time period. Six courses were assessed during this time period. For example, in Ag 54A, students were assigned to work in groups of three and a peer evaluation was conducted to determine skill, accuracy, safety and productivity of the assignment. On another occasion, students were assessed through hands-on skill demonstrations of their mastery of a process that involved propagation, irrigation and bench set-up, transplanting, fertilization, IPM, pruning and training and finally marketing and sales of plants. The students scored 85% on the technical skills and 70% on the soft skills on this assessment. The hands on approach provides each student with copious amounts of practice on the skills and tools involved. They become well versed and score well on the technical rubrics. The soft skills continue to be a problem with assessments with students scoring below the 80% benchmark. We attribute this to poor attendance, lack of preparedness and bad attitudes. We try our best to counsel students to strive for excellence and be forward thinkers for their future.
Describe how the program's faculty/staff regularly discussed and used overall assessment results to plan for improvement.	Given the personnel changes the program has undergone and the fact that only a sole instructor teaches in the program, we haven't been able to engage with others too much about our assessment results so far.
Discuss the implementation of these	We are looking to improve this collaborative process by revitalizing the Advisory Council and working more closely with Culinary and other

improvement plans and consequences for overall program improvement.	CTE programs to discuss our results and help plan for improvement.

PART II: PROGRAM ACTION PLAN

Describe and discuss the program's action plan to improve student learning for the next 3 years, from July 1, 2016 through June 30, 2019.	**Benchmarks and Timelines**
Action Goal 1: **Facilities Upgrade:** Increase and upgrade the Agriculture program's facilities at the Panaʻewa Farm Lab. We want to get a certified kitchen, a produce processing unit, and a building to house them in. The next step is to plan and build a classroom at the Panaʻewa Farm Lab. With these facilities in place we can continue to focus on the Farm to Table Initiative so that it is an integral part of the Agriculture Program.	**Benchmarks/Timelines:** Secure an area on the Panaʻewa Farm where HawCC Ag program can develop. 2016-17 - Develop and design the certified kitchen, produce processing unit and building to house them in. 2017-18 - Construction of the building to house the certified kitchen and produce processing area. Followed by installation of the certified kitchen and produce processing unit.
How can this action Goal lead to improvements in student learning and attainment of the program's learning outcomes (PLOs)? The Ag program's facilities update goal will help improve student learning and attainment of the PLO's by supporting the whole program's curriculum, especially in the programs re-focus into Farm to Table, Sustainability, and Landscaping. Farm to Table involves not only the Agriculture program, but also the Culinary Arts program.	

Farm to Table improves student learning by giving the students direction and pride in the produce that they are generating while attaining all the PLOs. At the same time the Culinary students are learning the value in locally grown produce and how to form partnerships with local farmers.

Once the certified kitchen and the produce processing unit are enabled, students will learn about creating value-added products from their harvests and how to process fresh produce in a way that is compliant with federal regulations. This state-of-the-art learning experience will equip the students with knowledge to build their own farm businesses and contribute to farm businesses looking to upgrade their operation. Thus, this educational experience fulfills the PLO's of the agriculture program.

Once the classroom has been built and fitted with visual teaching aids, any subject presently covered at the Manono campus classroom can be taught at the Panaʻewa Farm Lab. Guest lecturers can present in the classroom and it can be used by Forest TEAM and Culinary; faculty and students as well. We would also invite K-12 students and groups for field trips and career days to promote the program and College and educate the public. Learning for students in the Agriculture Program will be enhanced by the classroom's close proximity to crop examples of insect pests, diseases, mulching, fertilizing, etc. in real-time. Students will also benefit by gaining more time in their class and no time spent commuting between the classroom and the Panaʻewa Farm Lab. Both of these factors will lead to improvements in student learning and attainment of the Agriculture Program's PLO's. This facility will also house bathrooms, which are much needed on the farm.

All buildings will incorporate cost-savings strategies and sustainable practices wherever and whenever possible.

Action Goal 2:	**Benchmarks/Timelines:**
Equipment Upgrade: Increase and upgrade the Agriculture program's equipment and supplies. We also want to remodel the tractor shed so it can securely store the tractor and all of its implements and the program's tools.	Continuous – find funding 2016-17 – Finalize list and prioritize all items. 2016-19 – Purchase items

How can this action Goal lead to improvements in student learning and attainment of the program's learning outcomes (PLOs)?

The Ag program's equipment update goal will improve student learning and attainment of the PLO's by supporting the curriculum, especially in the program's re-focus into Farm to Table, Sustainability, and Landscaping.

Currently the equipment we are using is inefficient. In two years, the equipment will not be able to keep up with the goals of the Ag program. The equipment is also being worked overtime due to being repurposed (doing jobs for which they are not designed), which results in higher maintenance and higher costs. The equipment increase and upgrade goal will improve student learning by allowing students to perform lab exercises more efficiently allowing for more time learning. It will also decrease maintenance costs in the future, which can be reinvested into the program.

The equipment will also be displayed and demonstrated at career days, fairs or excursions to the farm.

Action Goal 3:	**Benchmarks/Timelines:**
New Position/Personnel: Hire a Farm Coordinator/Manager	Continuous – find funding

How can this action Goal lead to improvements in student learning and attainment of the program's learning outcomes (PLOs)?

Unlike most other programs, the Ag program deals with live crops. These live crop are student projects that must be maintained (watered, fertilized, etc.). The instructor should be spending his off time developing the program, not maintaining the farm. With the assistance of a farm manager, the instructor can develop and fine tune the program/curriculum so that the students can learn and attain the PLO's efficiently. This will enhance student learning by exposing students to a well thought out and planned curriculum provided by the instructor.

The farm manager will also schedule excursions and career days at the farm for K-12 students and hopefully coordinate use of the HCC Ag program's classroom facility at the farm.

Describe and discuss any specific strategies, tactics, activities, or plans for:
Program modifications: No changes planned
Course-level instructional or curriculum changes: No changes planned
Changes to assessment practices, activities, or projects: No changes planned
Increases or changes in student support activities and services: No changes planned

Discuss how the program's action plan will help the Kauhale achieve the four Initiatives in the College's ***Strategic Directions 2015-2021*** plan: http://hawaii.hawaii.edu/sites/default/files/docs/strategic-plan/hawcc-strategic-directions-2015-2021.pdf	
Hawai'i Graduation Initiative	**Action Goals 1, 2, and 3** align with **HGI Action Strategy 1** by engaging Hawai'i Island K–12 students, parents, and public and private schools early and often to promote and prepare for college. **Action Goal 1, 2 and 3** align with **HGI Action Strategy 2** by reducing gaps in college completion for Native Hawaiians and low–income and underrepresented groups. **Action Goal 1, 2, and 3** align with **HGI Action Strategy 3** by engaging systematically with community-based groups to inform program offerings and curricula.
Hawai'i Innovation Initiative	**Action Goal 1** aligns with **HI2 Action Strategy 3** addressing Health and Wellness and Sustainable Agriculture by working closely with employers to increase the qualified and skilled workforce base.
21st Century Facilities (21CF) – Modern Teaching and Learning Environments	**Action Goal 1** aligns with **21CF Action Strategy 2** by continuing to explore and implement cost-savings strategies and sustainable practices.

High Performance Mission-Driven System	N/A

Explain how the program's action plan contributes to the College's achievement of the performance-based measures below.	
Degrees & Certificates	**Action Goal 1** will help increase Degrees & Certificates because it keeps the students motivated to attain their PLO's. **Action Goal 2** will enhance the technology of the program thus revitalizing the achievement of Degrees & Certificates. **Action Goal 3** will contribute to an increase in Degrees & Certificates.
Native Hawaiian Degrees & Certificates	**Action Goal 1** will help increase Degrees & Certificates because it keeps the students motivated to attain their PLO's. **Action Goal 2** will enhance the technology of the program thus vitalizing the achievement of Degrees & Certificates. **Action Goal 3** will contribute to an increase in Degrees & Certificates.
STEM Degrees & Certificates (include 4-Year Degrees)	NA
Pell Grant Recipients Degrees & Certificates	NA
Transfers to UH 4 Year/Transfers to non-UH 4 Year	**Action Goal 1** will not detract from any course alignment with a 4 year college. The 2 plus 2 transfer initiative will work out well for students who want to continue their education after graduating from HCC. All 5 courses will still be aligned to UHH. The facility will also be a shared with UHH. **Action Goal 2** will enhance all of the PLO's and thus benefit the four year transfer student. Student will be exposed to the latest and current farm

	machinery that they will not receive at UHH. **Action Goal 3** will enhance all of the PLO's and thus benefit the four year transfer student.
IPEDS Success Rate	NA

Suggestions for Improvement: If the program's faculty/staff have any suggestions they'd like to share with the College about raising the program's or the College's overall enrollment, improving overall student engagement and success, or any other matter that the faculty/staff think can help the College increase our overall institutional effectiveness, please discuss below.

PART III: Resources

Note: "Budget asks" for all categories may be included in the Comprehensive Review.

Based on the program's overall AY 2014-16 assessment results, other relevant program information and data, and the program's overall action plan to improve student learning, describe and discuss below the program's current resources, resource needs, and cost-item "budget asks" for the 3-year period from July 1, 2016 through June 30, 2019.

Resource Inventory

Describe the status of the following faculty/staff program resources:	
Adequate Academic Support Resources	Good, no problems.

(Library, tutoring, learning and testing facilities).	
Adequate Student Support Services (academic advising, counseling, career guidance).	We have a very good counselor who is available for the students.
Safe workplace.	We maintain a safe workplace.
Adequate and up-to-date computers and software (for program needs).	We have adequate and up-to-date computers and software.
Adequate computer access to allow faculty to do their jobs.	We have adequate computer access for the faculty. Would like the APT to have access to Kuali curriculum database.
Adequate training in computer technology (applications, operating systems, hardware, etc.).	Need to make time for more computer training for faculty.
Adequate training in audiovisual technology (projectors, ELMOs,	More training for faculty and staff is needed.

polycom, etc.).	
Adequate training in distance learning course development and management (Laulima, etc.).	We need more training for faculty and staff in this area.

Resource Category	Resources the program needs to operate effectively:	Resources the program already has:	What is the program's resource gap?
A. Personnel			
1) Positions (Functions)	Instructor APT Farm Coordinator	Instructor (APT position is vacant)	Program needs to fill its existing open APT position, and hire a Farm Coordinator (new position)
2) Professional Development			
B. Operating Resources			
1) Supplies	irrigation controllers, fertilizer injectors and new shade cloth panels for the greenhouse Conley Hoop houses to protect crops in the field	Have outdated irrigation controllers and fertilizer injectors and old shade cloth that is too dark Sustainable crops are currently grown unprotected in the field	Need controllers, injectors and shade cloth to handle the program's foreseen increase in crop production Need a Conley Hoop house to protect field crops
2) Contracts			
3) Equipment	Skid-steer with all the implements to aid in farm construction projects	Farm tractor	Need a Skid-steer

	John Deere Gator with a trailer Flail mower to attach to agriculture program's tractor Two row disc seeder and a two row disc cultivator/side dresser to attach to the agriculture program's tractor	Wheelbarrows and handcarts Brush-mower operated by hand Students plant each seed by hand and cultivate and side-dress crops using hoes and a rototiller	Need a John Deere Gator with a trailer Need a flail-mower attachment Need a two row disc seeder to allow greater plant production and a two row disc cultivator/side dresser to give students more time for crop protection activities, fertilizing and harvesting.
C. Technology			
1) Hardware			
2) Apps or Software			
3) Tech Support			
4) Tech-related Professional Development	Training in computers, software, AV tech, DE tech (Laulima).	Adequate training on computers & software.	Need training in AV tech and DE tech
5) Tech labs / facilities	Remodeling the tractor shed to securely house only the tractor, implements and tools Turnkey commercial kitchen A commercial produce washing/processing unit Building to house the commercial kitchen and	At present, two sides of the tractor shed are open and half is occupied by produce processing equipment Two woks, a burner and a smokehouse A sink with 5 handheld sprayers and a packing table with packing bins Food processing is done	The agriculture program needs funds to remodel the tractor shed The agriculture program needs funds to build a commercial kitchen The agriculture program's farm to table operation needs to be upgraded to handle a higher volume of produce The program needs funds to construct a

	commercial produce washing/processing unit Classroom to seat 25 students	in the open and produce washing is done in the tractor and tools storage shed Two picnic benches and a chalkboard in the greenhouse	building to house the commercial kitchen The agriculture program needs to construct a classroom at the Panaewa Farm Lab

RESOURCE REQUESTS: **For <u>each</u> "budget-ask" item, provide the following information:**	
Describe the needed item in detail.	1. A Farm Coordinator to maintain operation of the agriculture program's resources at the Pana'ewa Farm Lab (Action Goal 3) 2. Two electric 12 station irrigation controllers (Action Goal 2) 3. Six fertilizer injectors (Action Goal 2) 4. Sixteen, 20'x50' shade cloth panels (Action Goal 2) 5. Two 20'x40' Conley Hoop houses (Action Goal 2) 6. Remodeling the tractor shed and removing sinks and produce washers (Action Goal 1) 7. A commercial kitchen with stove, convection oven and walk-in fridge (Action Goal 1) 8. A produce processing unit with washing stations and a packing area (Action Goal 1) 9. A 20'x40' building to house the commercial kitchen and the produce processing unit (Action Goal 1) 10. A classroom to seat 25 students, equipped with a bathroom and showers, two offices and the latest visual teaching aides (Action Goal 1) 11. Skid-steer with all the implements (Action Goal 2) 12. John Deere Gator with a trailer (Action Goal 1) 13. Five foot flail mower (Action Goal 1) 14. Two row disc seeder (Action Goal 2) 15. Two row disc cultivator/side dresser(Action Goal 2)
Provide complete information about	1. $44,000.00

known or estimated cost(s)	2. $1,000.00 3. $3,000.00 4. $6,000.00 5. $14,000.00 6. Estimate to be made 7. Estimate to be made 8. Estimate to be made 9. Estimate to be made 10. Estimate to be made 11. $112,000.00 12. $15,000.00 13. $5,000.00 14. $5,000.00 15. $5,000.00
Provide details about timeline(s) for procurement and activation/implementation.	1. ASAP 2. ASAP 3. ASAP 4. ASAP 5. ASAP 6. AY 17-18 7. AY 17-18 8. AY 17-18 9. AY 17-18 10. AY 18-19 11. ASAP 12. ASAP 13. ASAP 14. ASAP 15. ASAP
How does this align with the program's Action Plan above?	1. **Action Goal 1** aligns to Ask Items 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14 and 15. 2. **Action Goal 2** aligns to items 6, 7, 8, and 9. 3. **Action Goal 3** aligns to item 10.

Identify how the item aligns with one or more of the ***2015-2021 Strategic Directions'*** four Initiatives.	Ask Items 1 -15 aligns to action goal 1 which is align to HGI, HII,and 21CF. Ask Items 6,7,8,9 aligns to action goal 2 which is align to HGI. Ask Item 10 aligns to action goal 3 which is align to HGI.
Discuss how the item will help the program support improvements in student learning and attainment of the program's and College's learning outcomes.	**Ask Item 1** will directly support student learning and attainment of the PLOs because the person in this position will be closely working with the Agriculture Program's lecturer supervising students and teaching them how to use the equipment at the Pana'ewa Farm Lab. **Ask Items 2, 3, 4, 5, 6, 7, 8, 9, 11, 12, 13, 14, and 15** will improve student attainment of the PLOs and give them the experience using tools and equipment that they will encounter working in the agricultural sector. **Ask Item 10** will enhance student learning and attainment of the PLOs and because their classroom will be at the Pana'ewa Farm Lab, supplying learning encounters right at-hand.

RESOURCE REQUESTS: **For <u>each</u> "budget-ask" item, answer the following questions:**	
What are the implications or consequences for the program if this request is not funded?	**Ask item 1**is crucial to the success of the agriculture program. move Without a farm coordinator, it will be difficult for the program to ahead and realize its goals. **Ask items 2 and 3** are needed to increase production and replace worn equipment. **Ask items 4 and 5** are needed to move forward with instructional projects in AY 17-18. **Ask items 6-9** are in line with the agriculture program's goal to have a state-of-the –art field to table operation and creation of value added

	products. **Ask item 10** is necessary to alleviate the bottleneck of transporting students to the farm lab from the Manono Campus classroom, wasting time in transportation which now takes away from hands-on instruction time. However, if the Agriculture Program's van can accommodate 12 students, program maintains a cap of 14 students each semester, the leaving 2 which must drive themselves. **Ask items 11-15** will keep the students up-to-date with technology that commercial growers use on their farms and which students need training to operate. However, the agriculture program can struggle along with what it has and not increase its production capacity and the potential of its students.
How can the program build, create, or develop the needed resources within its existing capacity?	It is possible that the Agriculture Program's budget can cover **ask items 1-5** and **ask items 13-15**. But for the program to move ahead with the vision that is has of Sustainable Agriculture, some money will need to be spent on infrastructure and equipment, which are **ask items 6-13**.
Can other resources be repurposed to accommodate this need?	No other Agriculture Program resources can be repurposed to accommodate **ask items 1-15**.
Are there other sources to fund this need, such as grants, community partnerships, etc.?	We would be interested in any grant opportunities, but we would need help from a grant procurement specialist in order to pursue them.
Can this need be deferred? If so, for how long? What are the consequences if deferred?	**Ask Items 2, 3, 4, 5, 13, 14, and 15** are the lowest costing items and should be purchased first. The longer it takes to get them, the greater the students' drop in learning and attainment of the PLO's and CLO's. **Ask Item 1** should be acted upon and approved as soon as possible because this will be the greatest enhancement to student PLO and CLO attainment. **Ask Items 6, 7, 8, and 9** need action by the end of 2017. The program is growing and the current produce washing operation cannot keep up with the volume. In addition, construction of a certified kitchen will greatly add to the

	appeal of the agriculture program to prospective students. This definitely adds to PLO and CLO student attainment. **Ask Item 10** needs to start construction in 2018. The classroom at the Panaʻewa Lab will enhance the Agriculture Program as well as adding to the prestige and facilities at the Farm. This definitely adds to PLO and CLO student attainment.

Hawaii Community College
2014 Instructional Annual Report of Program Data
Agriculture

Part I: Program Quantitative Indicators

Overall Program Health: Healthy

Majors Included: AG Program CIP: 10606

Demand Indicators		Program Year			Demand Health Call
		11-12	12-13	13-14	
1	New & Replacement Positions (State)	172	330	42	Healthy
2	*New & Replacement Positions (County Prorated)	114	194	8	
3	*Number of Majors	35	40.5	31.5	
3a	Number of Majors Native Hawaiian	17	21	15	
3b	Fall Full-Time	60%	48%	76%	
3c	Fall Part-Time	40%	52%	24%	
3d	Fall Part-Time who are Full-Time in System	0%	2%	0%	
3e	Spring Full-Time	61%	59%	77%	
3f	Spring Part-Time	39%	41%	23%	
3g	Spring Part-Time who are Full-Time in System	0%	0%	0%	
4	SSH Program Majors in Program Classes	387	412	495	
5	SSH Non-Majors in Program Classes	21	41	3	
6	SSH in All Program Classes	408	453	498	
7	FTE Enrollment in Program Classes	14	15	17	
8	Total Number of Classes Taught	6	8	6	

Efficiency Indicators		Program Year			Efficiency Health Call
		11-12	12-13	13-14	
9	Average Class Size	17.2	19.4	20.8	Healthy
10	*Fill Rate	100%	100%	100%	
11	FTE BOR Appointed Faculty	1	1	1	
12	*Majors to FTE BOR Appointed Faculty	35	40.5	31.5	
13	Majors to Analytic FTE Faculty	39.4	47.5	35.4	
13a	Analytic FTE Faculty	0.9	0.9	0.9	
14	Overall Program Budget Allocation	$86,524	$75,471	$122,555	
14a	General Funded Budget Allocation	$65,606	$57,725	$68,479	
14b	Special/Federal Budget Allocation	$10,279	$2,297	$0	
14c	Tuition and Fees	$10,639	$13,206	$44,062	
15	Cost per SSH	$212	$167	$246	
16	Number of Low-Enrolled (<10) Classes	0	0	0	

*Data element used in health call calculation

Last Updated: January 25, 2015

	Effectiveness Indicators	Program Year			Effectiveness Health Call
		11-12	12-13	13-14	
17	Successful Completion (Equivalent C or Higher)	92%	89%	91%	Healthy
18	Withdrawals (Grade = W)	0	0	0	
19	*Persistence Fall to Spring	61.7%	62.7%	74.1%	
19a	Persistence Fall to Fall		33.3%	71.4%	
20	*Unduplicated Degrees/Certificates Awarded	5	5	7	
20a	Degrees Awarded	2	4	6	
20b	Certificates of Achievement Awarded	1	1	1	
20c	Advanced Professional Certificates Awarded	0	0	0	
20d	Other Certificates Awarded	5	2	7	
21	External Licensing Exams Passed	Not Reported	Not Reported	Not Reported	
22	Transfers to UH 4-yr	3	1	4	
22a	Transfers with credential from program	0	0	0	
22b	Transfers without credential from program	3	1	4	

	Distance Education: Completely On-line Classes	Program Year		
		11-12	12-13	13-14
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 2012-2013	Goal	Actual	Met
29	1P1 Technical Skills Attainment	90.00	90.00	Met
30	2P1 Completion	55.00	50.00	Not Met
31	3P1 Student Retention or Transfer	74.50	78.95	Met
32	4P1 Student Placement	65.00	11.11	Not Met
33	5P1 Nontraditional Participation	17.25	24.24	Met
34	5P2 Nontraditional Completion	15.55	33.33	Met

	Performance Funding	Program Year		
		11-12	12-13	13-14
35	Number of Degrees and Certificates		5	7
36	Number of Degrees and Certificates Native Hawaiian		2	0
37	Number of Degrees and Certificates STEM		5	7
38	Number of Pell Recipients		39	27
39	Number of Transfers to UH 4-yr		1	4

*Data element used in health call calculation

Last Updated: January 25, 2015

Hawaii Community College
2015 Instructional Annual Report of Program Data
Agriculture

Part I: Program Quantitative Indicators

Overall Program Health: Cautionary

Majors Included: AG Program CIP: 01.0606

	Demand Indicators	Program Year			Demand Health Call
		12-13	13-14	14-15	
1	New & Replacement Positions (State)	330	42	41	Unhealthy
2	*New & Replacement Positions (County Prorated)	194	8	7	
3	*Number of Majors	41	32	37	
3a	Number of Majors Native Hawaiian	21	15	18	
3b	Fall Full-Time	48%	76%	50%	
3c	Fall Part-Time	52%	24%	50%	
3d	Fall Part-Time who are Full-Time in System	2%	0%	0%	
3e	Spring Full-Time	59%	77%	56%	
3f	Spring Part-Time	41%	23%	44%	
3g	Spring Part-Time who are Full-Time in System	0%	0%	0%	
4	SSH Program Majors in Program Classes	412	495	377	
5	SSH Non-Majors in Program Classes	41	3	40	
6	SSH in All Program Classes	453	498	417	
7	FTE Enrollment in Program Classes	15	17	14	
8	Total Number of Classes Taught	8	6	8	

	Efficiency Indicators	Program Year			Efficiency Health Call
		12-13	13-14	14-15	
9	Average Class Size	19.4	20.8	18.1	Healthy
10	*Fill Rate	100%	100%	100%	
11	FTE BOR Appointed Faculty	1	1	1	
12	*Majors to FTE BOR Appointed Faculty	40.5	31.5	37	
13	Majors to Analytic FTE Faculty	47.5	35.4	43.4	
13a	Analytic FTE Faculty	0.9	0.9	0.9	
14	Overall Program Budget Allocation	$75,471	$122,555	$112,541	
14a	General Funded Budget Allocation	$57,725	$68,479	$68,479	
14b	Special/Federal Budget Allocation	$2,297	$0	$0	
14c	Tuition and Fees	$13,206	$44,062	$44,062	
15	Cost per SSH	$167	$246	$270	
16	Number of Low-Enrolled (<10) Classes	0	0	0	

*Data element used in health call calculation

Last Updated: October 7, 2015

	Effectiveness Indicators	Program Year			Effectiveness Health Call
		12-13	13-14	14-15	
17	Successful Completion (Equivalent C or Higher)	89%	91%	86%	Healthy
18	Withdrawals (Grade = W)	0	0	0	
19	*Persistence Fall to Spring	62.7%	74.1%	64.1%	
19a	Persistence Fall to Fall	33.3%	71.4%	47%	
20	*Unduplicated Degrees/Certificates Awarded	5	7	14	
20a	Degrees Awarded	4	6	8	
20b	Certificates of Achievement Awarded	1	1	7	
20c	Advanced Professional Certificates Awarded	0	0	0	
20d	Other Certificates Awarded	2	7	14	
21	External Licensing Exams Passed	Not Reported	Not Reported	Not Reported	
22	Transfers to UH 4-yr	1	4	2	
22a	Transfers with credential from program	0	0	1	
22b	Transfers without credential from program	1	4	1	

	Distance Education: Completely On-line Classes	Program Year		
		12-13	13-14	14-15
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 2013-2014	Goal	Actual	Met
29	1P1 Technical Skills Attainment	91.00	83.33	Not Met
30	2P1 Completion	47.00	83.33	Met
31	3P1 Student Retention or Transfer	75.21	100.00	Met
32	4P1 Student Placement	68.92	10.00	Not Met
33	5P1 Nontraditional Participation	17.50	24.14	Met
34	5P2 Nontraditional Completion	16.00	20.00	Met

	Performance Funding	Program Year		
		12-13	13-14	14-15
35	Number of Degrees and Certificates	5	7	15
36	Number of Degrees and Certificates Native Hawaiian	2	0	13
37	Number of Degrees and Certificates STEM	Not STEM	Not STEM	Not STEM
38	Number of Pell Recipients	39	27	33
39	Number of Transfers to UH 4-yr	1	4	2

*Data element used in health call calculation

Last Updated: October 7, 2015

Hawaii Community College
2016 Instructional Annual Report of Program Data
Agriculture

Part I: Program Quantitative Indicators

Overall Program Health: Cautionary

Majors Included: AG,AGR Program CIP: 010606

Demand Indicators		Program Year			Demand Health Call
		13-14	14-15	15-16	
1	New & Replacement Positions (State)	42	41	31	Unhealthy
2	*New & Replacement Positions (County Prorated)	8	7	7	
3	*Number of Majors	32	37	24	
3a	Number of Majors Native Hawaiian	15	18	13	
3b	Fall Full-Time	76%	50%	64%	
3c	Fall Part-Time	24%	50%	36%	
3d	Fall Part-Time who are Full-Time in System	0%	0%	0%	
3e	Spring Full-Time	77%	56%	65%	
3f	Spring Part-Time	23%	44%	35%	
3g	Spring Part-Time who are Full-Time in System	0%	0%	0%	
4	SSH Program Majors in Program Classes	495	377	228	
5	SSH Non-Majors in Program Classes	3	40	0	
6	SSH in All Program Classes	498	417	228	
7	FTE Enrollment in Program Classes	17	14	8	
8	Total Number of Classes Taught	6	8	4	

Efficiency Indicators		Program Year			Efficiency Health Call
		13-14	14-15	15-16	
9	Average Class Size	20.8	18.1	12.8	Healthy
10	*Fill Rate	100%	100%	91%	
11	FTE BOR Appointed Faculty	1	1	1	
12	*Majors to FTE BOR Appointed Faculty	31.5	37	24	
13	Majors to Analytic FTE Faculty	35.4	43.4	36	
13a	Analytic FTE Faculty	0.9	0.9	0.7	
14	Overall Program Budget Allocation	$122,555	$112,541	Not Yet Reported	
14a	General Funded Budget Allocation	$68,479	$68,479	Not Yet Reported	
14b	Special/Federal Budget Allocation	$0	$0	Not Yet Reported	
14c	Tuition and Fees	$44,062	$44,062	Not Yet Reported	
15	Cost per SSH	$246	$270	Not Yet Reported	
16	Number of Low-Enrolled (<10) Classes	0	0	0	

*Data element used in health call calculation

Last Updated: January 18, 2017

	Effectiveness Indicators	Program Year			Effectiveness Health Call
		13-14	14-15	15-16	
17	Successful Completion (Equivalent C or Higher)	91%	86%	96%	
18	Withdrawals (Grade = W)	0	0	0	
19	*Persistence Fall to Spring	74.1%	64.1%	66.6%	
19a	Persistence Fall to Fall	71.4%	47%	44%	
20	*Unduplicated Degrees/Certificates Awarded	7	14	8	
20a	Degrees Awarded	6	8	4	
20b	Certificates of Achievement Awarded	1	7	1	Cautionary
20c	Advanced Professional Certificates Awarded	0	0	0	
20d	Other Certificates Awarded	7	14	0	
21	External Licensing Exams Passed	Not Reported	Not Reported	N/A	
22	Transfers to UH 4-yr	4	2	2	
22a	Transfers with credential from program	0	1	0	
22b	Transfers without credential from program	4	1	2	

	Distance Education: Completely On-line Classes	Program Year		
		13-14	14-15	15-16
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 2014-2015	Goal	Actual	Met
29	1P1 Technical Skills Attainment	91.00	85.71	Not Met
30	2P1 Completion	50.30	64.29	Met
31	3P1 Student Retention or Transfer	76.72	75.00	Not Met
32	4P1 Student Placement	69.00	16.67	Not Met
33	5P1 Nontraditional Participation	19.69	19.35	Not Met
34	5P2 Nontraditional Completion	19.36	28.57	Met

	Performance Measures	Program Year		
		13-14	14-15	15-16
35	Number of Degrees and Certificates	7	15	7
36	Number of Degrees and Certificates Native Hawaiian	0	13	4
37	Number of Degrees and Certificates STEM	Not STEM	Not STEM	Not STEM
38	Number of Pell Recipients	27	33	15
39	Number of Transfers to UH 4-yr	4	2	2

*Data element used in health call calculation

Last Updated: January 18, 2017