

HAWAI'I COMMUNITY COLLEGE ANNUAL PROGRAM REVIEW (APR)

Agriculture

Date: January 18, 2019

**Review Period
July 1, 2017 to June 30, 2018**

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Program/Unit Review at Hawai'i 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 and Institutional 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 1: PROGRAM DATA AND ACTIVITIES

Program Description (required by UH System)

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.
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Comprehensive Review information (required by UH System)

Provide the year and URL for the location of this program’s last Comprehensive Review on the HawCC Program/Unit Review website: http://hawaii.hawaii.edu/files/program-unit-review/	
Year	2016
URL	http://hawaii.hawaii.edu/files/program-unit-review/docs/2016_ag_comprehensive_program_review.pdf
<p>Provide a short summary of the CERC’s evaluation and recommendations from the program’s last Comprehensive Review.</p> <p>Discuss any significant changes to the program that were aligned with those recommendations but are not discussed elsewhere in this report.</p>	<p>Overall, the CERC evaluation of the Agriculture Comprehensive Program Review 2014-2016 was very good. The program is tracking correctly and expectations are very high for this program. CERC gave excellent recommendations and the program will address each concern seriously.</p> <p>The first is to update the agriculture program description in the catalog, which was last done many years ago. The addition of new faculty brought renewed interest in Sustainable Food Production and the “Farm to Table” concept. This concept is not addressed so we will discuss the modification with the Assessment Coordinator and Advisory Council by the end of the AY 2018-2019.</p> <p>CERC noted that funding for the program is always a major concern. During the review period, we were fortunate to obtain funding on two separate occasions from UH systems and the Dept. of Labor which provided major equipment additions to the program. However, we are taking CERC advise and being proactive and are discussing other ways to work with a new grant person or other means to seek future funding for equipment purchases.</p> <p>CERC asked for specific action plans and more details to support the</p>

	<p>hiring of a farm manager and to develop a clear action plan so we may be provided funding. The program will provide this going forward. As per recommendations to develop a phased comprehensive action plan with budget asks linked to each phase, the program is currently developing this phased plan with a budget and outlining our priorities, which will be discussed in this report. In the next comprehensive report, the program will make sure to provide more in depth information and estimates in order to justify the costs of items requested and how they support student learning, the ILOs, and student achievement of degrees/certificates, and include how these budget request align with HawCC Strategic Directions 2015-2021.</p> <p>As per CERC recommendations to work with administration to develop a new MOU with UHH, the program has followed through and is currently helping to develop a new MOU.</p>
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ARPD Data: Analysis of Quantitative Indicators (required by UH System)

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

Please attach a copy of the program’s data tables and submit with this Annual Program Review (APR).

Analyze the program’s ARPD data for the review period.	
Describe, discuss, and provide context for the data, including the program’s health scores in the following categories:	
Demand	<p>Healthy</p> <p>With the update in the CIP code, there was an increase in jobs that brought our Demand “Healthy” with a rubric score to 3.3. However, the replacement position numbers do not reflect entrepreneurial opportunities that many students would like to pursue. Also, the CIP codes may not reflect more opportunities for smaller private companies. The current job opportunities is very good due to low unemployment in the County and State of Hawaii.</p>
Efficiency	<p>Cautionary</p> <p>The two previous years, our Efficiency Indicators were “Healthy” due to an over 90% fill rate. This years fill rate was over 115%. We allowed students to enroll over the class limit due to the high agriculture interest. Agriculture interest seems to be on the rise. If our fill rate continues to exceed capacity, we may need to start a new cohort and seek another faculty position otherwise this will continue to give the program a cautionary health indicator. Unless the</p>

	rubric is modified to compensate the over fill rate.
Effectiveness	Healthy Currently, our Fall to Spring is at 92% and our unduplicated degrees and certificates increased by 40% over last year. That should suggest that we have the potential to grow the program.
Overall Health	Healthy The change in the CIP code will keep this program in good health. Our enrollment continues to grow and students are completing their degrees. Improvement have been made in a short amount of time and should continue to exceed expectation.
Distance Education	N/A
Perkins Core Indicators (if applicable)	<p>1P1-Technical Skills Attainment was not met due to 2 students dropping out of the program. We expect at least 1 student to drop out of the program every year. If we can increase enrollment to our max capacity, the expected one student dropping out will not cause this indicator to drop below our goal.</p> <p>2P1-(Met)- Completion was met due to high completion rate of degrees and certificates.</p> <p>3P1-(Not Met)- Was not met but was 3 points short of the state goal.</p> <p>4P1-(Not Met)- Out of 7 graduated, only 7 was picked up by the Unemployment Insurance Quarter. We are currently looking into a employment tracking system to track our graduates.</p> <p>5P1-(Met)-Nontraditional Participation was met. There seems to be a growing interest in this field. We will continue to pursue nontraditional participation by promoting career/job fairs, be involved with high school, intermediate and elementary schools and other community events.</p> <p>5P2-(Not Met)-Nontraditional Completion was not met, but was 2 points off the state goal. We will continue to pursue non traditional participation by promoting career/job fairs, be involved with high school, intermediate and elementary schools and other community events. We will also encourage, nontraditional students to utilize campus resources to complete their degrees.</p>
Performance Funding Indicators (if applicable)	The number of degrees and certificates to Native Hawaiian was 11 ag students out of 272 HawCC (4.04%) students. We maintain a Hawaiian Medicinal garden which may spur interest to native Hawaiian students or other students

	<p>such as nursing or pharmacy.</p> <p>The number of transfers to UH 4-year was a small number, 2 AG students out of 270 HawCC (0.74%) students transferred last year. Most of our students would like to find employment or be self-employed immediately upon graduating. However, a few students uses HawCC as a bridge to further their education by transferring to a school completing a bachelor degree or higher. Once we identify which students would like to further their education, we direct them to councilors who can direct them in what classes to take.</p> <p>*data from John Morton's HawCC Fall 2018 Campus Report</p>
<p>What else is relevant to understanding the program's data? Describe any trends, internal/external factors, strengths and/or challenge that can help the reader understand the program's data but are not discussed above.</p>	<p>The scopes of the datasets used are not representative of the unique situation in Hawai'i County. Additionally the local interest in agriculture and sustainability attracts many people to enroll in classes simply to learn the subject, with less interest in pursuing degrees and certificates let alone moving on to a 4-year program. We will monitor degree/certificate interest vs. general Ag interest in future student cohorts to confirm this observation.</p>

PROGRAM ACTIVITIES

Report and discuss all major actions and activities that occurred in the program during the review period, including the program's meaningful accomplishments and successes. Also discuss the challenges or obstacles the program faced in supporting student success and explain what the program did to address those challenges.

For example, discuss:

- Changes to the program's curriculum due to course additions, deletions, modifications (CRC, Fast Track, GE-designations), and re-sequencing;
- New certificates/degrees;
- Personnel and/or position additions and/or losses;
- Other changes to the program's operations or services to students.

Since the last program review, we have added a few pieces of equipment. A 25 hp John Deere tractor, equipped with the following attachments: mower, front loader, tiller, forklift and a backhoe. We also added a self-propelled lawn mower, additional weed-eaters, hand-tillers,

hedge trimmers, blowers, sprayers and generator. This made maintaining the farm much more efficient but more importantly, the students get to use and learn how to operate the latest equipment available. This will help with their employability.

We also added a used van that help transport students and to help when we have multiple projects going on at the same time.

We also added a new APT hire as of Fall 2017. This has enabled the ag program to be more self-reliant and more efficient.

To increase agriculture interest, we continue to attend numerous job/career fairs and other agriculture related functions such as Earth Day and Taste of the Range. We also are currently doing outreach to Laupahoehoe Community Public Charter School, Hilo High School and Kalaniana'ole Elementary and Intermediate School. In addition, there have been numerous farm visits such as Keaau High School, Kohala Center and various interested agricultural groups. During previous years, we increased production by over 50% and now have maximized all the production area. As interest continues to grow in the program, we will need more production area, classroom space and additional faculty and equipment.

The focus for the past several years has been the concept of "Farm to Table" with emphasis on "hands-on" learning and will continue to do so. The farm to table concept is in collaboration with HawCC Culinary Program. We currently have several outreach schools, and it is our hope that they follow the same concept of "Farm to Table" with their respective cafeteria or food service program. Also, we continue to collaborate with the carpentry program "Foundation to Finish" Model Home Project.

But more importantly, we implemented the first imbedded college CTE course with Hilo High and Laupahoehoe Community Public Charter School (LCPCS). This was a dual credit forestry greenhouse construction course. This was the first of three courses that HawCC is committed to administer to high school ag programs on Hawai'i Island.

PROGRAM WEBSITE

Has the program recently reviewed its website? Please check the box below that best applies and follow through as needed to keep the program's website up-to-date.

Program faculty/staff have reviewed the website in the past six months, no changes needed.

Program faculty/staff reviewed the website in the past six months and submitted a change request to the College's webmaster on _____ (date).

“X” Program faculty/staff recently reviewed the website as a part of the annual program review process, found that revisions are needed, and will submit a change request to College's webmaster in a timely manner.

Please note that requests for revisions to program websites must be submitted directly to the College's webmaster at

<http://hawaii.hawaii.edu/web-developer>

PART 2: PROGRAM ACTION PLAN

AY18-19 ACTION PLAN

Provide a detailed narrative discussion of the program's overall action plan for AY18-19, based on analysis of the Program's AY17-18 data and the overall results of course learning outcomes assessments conducted during the AY17-18 review period.

This Action Plan should identify the program's specific goals and objectives for AY18-19 and must provide benchmarks or timelines for achieving each goal.

The Hawai'i Community College Agriculture Program is seeking to secure its own farm lab, independent of the UH Hilo College of Agriculture Forestry and Natural Resource Management (CAFNRM). With the Manono Redevelopment Plan moving forward, we are also seeking to relocate our classrooms to the farm lab to eliminate costly commuting time between the classrooms and farm lab. If the Hawai'i CC Agriculture Program is able to secure its own land to develop a modern and efficient farm lab, we would double our student capacity and quadruple our growing area. This would lead to increased student enrollment and ultimately enhanced student learning.

Another reason is we would like to fulfill part of our mission statement, by having livestock as part of the curriculum. Under the current agreement with UHH CAFNRM, we are not able to have livestock on the farm. Livestock has not been part of the curriculum for a number of years but with a new farm lab, we anticipate adding a Small Animal Production cohort to the AG Program.

We are currently seeking 15 acres from UHH CAFNRM to develop as the HCC Ag Farm Lab. A workable memorandum of agreement (MOA) is currently being negotiated by Administration and UH CC system. Money has already been allocated to start the planning of the new ag facility. If an agreement cannot be negotiated, we will look into other alternatives. However, if we obtain the MOA during the academic year 18-19, we believe the planning/building stage for the farm lab will be a 3-5 year process if there are no major setbacks. Upon receiving the MOA, we hope to have state of the art classrooms, greenhouses,

restrooms, a food processing area, equipment and other necessary components with “green sustainability” as the theme for all of the items that are included for the farm lab. By having a new facility it will bring a renewed excitement to student learning. We will be able to recruit effectively, keep students motivated and increase our retention. Our goal is to have a public friendly facility and facilitate tours for grades K-12 and the general public.

ACTION ITEMS TO ACCOMPLISH ACTION PLAN

For each Action Item below, describe the strategies, tactics, initiatives, innovations, activities, etc., that the program plans to implement in order to accomplish the goals described in the Action Plan above.

For each Action Item below, discuss how implementing this action will help lead to improvements in student learning and their attainment of the program’s learning outcomes (PLOs).

Action Item 1:

Once an MOA is attained, plans could be made to get a certified kitchen, a produce processing unit and a building to house these items, along with a classroom at the Farm Lab. Plans could be made available within a few months. As the plans are put into motion during AY 2018-19, the facilities will be established and this will help improve student learning. There would be less commute time and more teaching time. Hands-on learning would be greatly increased due to the efficiency of the layout of the farm. The MOA would bring stability to the program knowing where we will be from semester to semester. We hope to finalize and secure the MOA by spring of 2019.

By having a new facility it will bring a renewed excitement to student learning. We will be able to recruit effectively, keep students motivated and increase our retention. Our goal is to have a public friendly facility and facilitate tours for grades K-12 and the general public.

Benchmarks/Timeline: Develop project with legislators and administration, organize ATE collaborators and begin site-specific planning in 2019-2020. Completion of the project in 2023-2024.

This project directly facilitates PLOs 1-5 for the agriculture program. Additionally the college as a whole benefits from the physical results of this project as well as the inherent benefits of increased collaboration.

Action Item 2:

Once the MOA is acquired, hiring a Farm Manager is a vital part of the program expansion. Unlike most other programs, the Ag program deals with live crops. These live crops 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 PLOs efficiently. This will enhance student learning by exposing students to a well thought out and planned curriculum provided by the instructor. Also, this would give the current APT more time for student support and other important things to enhance the agriculture program.

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.

Benchmark/Timeline: Submit job description and supporting documentation to administration in AY 2019-2020 with the goal of this position being approved by the legislature for permanent G-funding by AY 2020.

This position would directly support PLO 1 and 3. With an increasing focus on the productive capacity of the farm, the organizational and production management responsibilities will also expand. This position will allow the instructional faculty to focus on their primary duties and will support all students in the program being offered the highest quality instruction and support they need to succeed.

RESOURCE IMPLICATIONS

NOTE: General “budget asks” are included in the 3-year Comprehensive Review.
Budget asks for the following three categories only may be included in the APR: 1) health and safety needs, 2) emergency needs, and/or 3) necessary needs to become compliant with Federal/State laws/regulations.

BUDGET ASKS

For budget ask in the allowed categories (see above):	
Describe the needed item(s) in detail.	N/A
Include estimated cost(s) and timeline(s) for procurement.	

<p>Explain how the item(s) aligns with one or more of the strategic initiatives of <u>2015-2021 Strategic Directions</u>:</p> <p>http://hawaii.hawaii.edu/sites/default/files/docs/strategic-plan/hawcc-strategic-directions-2015-2021.pdf</p>	

PART 3: LEARNING OUTCOMES ASSESSMENTS

For all parts of this section, please provide information based on CLO (course learning outcomes) or PLO (program learning outcomes) assessments conducted in AY17-18.

Evidence of Industry Validation and Participation in Assessment (for CTE programs only)

Provide documentation that the program has submitted evidence and achieved certification or accreditation (if applicable) from an organization granting certification/accreditation in the program’s industry/profession. If the program/degree/certificate does not have a certifying body, you must submit evidence of the program’s advisory committee’s/board’s recommendations for, approval of, and/or participation in the program’s assessment(s).

Please attach copy of industry validation for the year under review.

Courses Assessed

List all program courses assessed during AY17-18, including Initial and “Closing the Loop” assessments.			
Assessed Course Alpha, No., & Title	Semester assessed	CLOs assessed (CLO#s)	PLO alignment (PLO#s)
Ag 54A Tropical Ag Production I	Fall 2017	CLO 1	PLO 1,4
		CLO 2	PLO 3
		CLO 3	PLO 1
		CLO 4	PLO 5
Ag 46 Landscape Maintenance	Spring 2018	CLO 1	PLO 3
		CLO 2	PLO 1, 2
		CLO 3	PLO 3,4,5
“Closing the Loop” Assessed Course Alpha, No., & Title	Semester assessed	CLOs assessed (CLO#s)	PLO alignment (PLO#s)
Ag 54B Tropical Ag Production II	Spring 2018	CLO 1	PLO 1, 4
		CLO 2	PLO 1,3
		CLO 3	PLO 1
		CLO 4	PLO 5
Ag 33 Greenhouse Construction	Fall 2017	CLO 1	PLO 3
		CLO 2	PLO 3
		CLO 3	PLO 1
		CLO 4	PLO 5

Assessment Strategies

For each course assessed in AY17-18 listed above, provide a brief description of the

assessment strategy, including:

- a description of the type of student work or activity assessed (e.g., research paper, lab report, hula performance, etc.);
- a description of how student artefacts were selected for assessment (e.g., the assessment included summative assignments from all students in the course, OR a sample of students' summative assignments was randomly selected for assessment based on a representative percentage of students in each section of the course);
- a brief discussion of the assessment rubric/scoring guide and the criteria/categories and standards used in the assessment.

Course Alpha/#: Ag 54B Tropical Agriculture Production II

The students will be assessed through hands-on skill demonstration during the production and marketing of potted peppers and tomatoes. Students took part in all aspects of propagation, irrigation and bench setup, transplanting, fertilization, integrated pest management, pruning and training, and finally marketing and sales.. Every step of this process will be assessed as the plants grow and the various elements of the project present themselves over the second half of the spring semester. The instructor and APT will assess each student individually according to a rubric for technical skills as well as a separate rubric for soft skills.

The assessment method was determined based on the hands-on nature of the course and the inherent nature of the skills and techniques involved. Due to the small class size, all students work for this project will be considered in the assessment.

CLO #1, 2 & 3 Students will demonstrate basic agricultural practices and production techniques through hands on involvement in the production of potted peppers and tomatoes. Students will demonstrate mastery of a variety of small tools and equipment including nursery tools, irrigation equipment, and pruning tools. This will be assessed in the technical skills rubric.

Course Alpha/#:Ag 33 Greenhouse Construction

the CTL assessment continues the initial plan from fall 21015
all students were assessed and the instructor and the APT conducted the assessment
see attachment fall 2015 initial plan

Course Alpha/#: Ag 54A Tropical Ag Production I

1. **Every student will be assessed on their soft-skills/employability. The instructor will evaluate each student at the end of the semester using a rubric. This assessment was chosen because of the importance of these skills upon completion of the certificate/degree. It is necessary that the students have the right attitudes, they are motivated, they are able to communicate and work as a team and they are professional**

(soft-skills) in order to gain employment in their field. CLO: 2,4

2. Every student will be assessed on their ability to create, manage and cultivate a rotating crop production plan of poinsettias. Although, this assessment is ongoing throughout the semester, the instructor will use a rubric to assess each student at the end of the semester when the project is complete. CLO: 1,2,3,4

Course Alpha/#: Ag 46 Landscape Maintenance

The students will prune Macadamia trees using either a saw or chainsaw to effectively promote good plant health and increase production. Each student should be well acquainted and use excellent safety habits using the appropriate tools.

CLO 1

Each student will plan and manage an aesthetically pleasing garden using raised beds. They will also plan and install an effective irrigation system for the garden.

CLO 2

Each student will actively participate in the landscaping for the Carpentry program “foundation-to-finish” model home. Each student will be able to read blueprints, calculate costs and complete forms for landscape projects

CLO 1,3

Every student will be assessed by the instructor at the end of the semester. A rubric scoring system will assess the following learning outcomes. Each student will be assessed on demonstrating good tool safety habits and pesticide application, planning and managing aesthetically pleasing gardens with working irrigation systems and reading blueprints, calculating costs, and completing forms for landscape projects.

Expected Levels of Achievement

For each course assessed in AY17-18 listed above, state the standard (benchmark, goal) for student success for each CLO assessed AND the percentage of students expected to meet that standard for each CLO.

Example: “CLO#1: The standard for student success is that students will answer 80% of the questions on the final exam related to CLO#1 correctly. The expectation is that 85% of students will meet this standard for CLO#1.”

Example: “CLO#4: The standard for student success is that students will be able to perform

skills associated with CLO#4 with 80% proficiency. The expectation is that 75% of students will meet this standard for CLO#4.”

Assessed Course Alpha, No., & Title	Assessed CLO#	Standard for Success	% of Students Expected to Meet Standard
Ag 54A Tropical Ag Production I Soft Skills assessment	CLOs: 2,4	The students will score 75% or better	80% of the students will meet or exceed the scores
Ag 54A Tropical Ag Production I Crop Production Plan assessment	CLOs: 1,2,3,4	The students will score 75% or better	80% of the students will meet or exceed the scores
Ag 46 Landscape Maintenance Pruning assessment	CLO: 1	The students will score 75% or better for all the CLO's	80% of the students will meet or exceed the scores
Ag 46 Landscape Maintenance Garden, Raised Bed and Irrigation assessment	CLO: 2	The students will score 75% or better for all the CLO's	80% of the students will meet or exceed the scores
Ag 46 Landscape Maintenance Blue print assessment	CLO: 3	The students will score 75% or better for all the CLO's	80% of the students will meet or exceed the scores
Ag 54B Tropical Ag Production II Soft Skills assessment	CLO: 4	The students will score 75% or better for all the CLO's	80% of the students will meet or exceed the scores
Ag 54B Tropical Ag Production II Potted Pepper and Tomato assessment	CLO: 1,2,3,4	The students will score 75% or better for all the CLO's	80% of the students will meet or exceed the scores
Ag 33 Greenhouse Construction Dumpy Level assessment	CLO: 1,3,4	The students will score 75% or better for all the CLO's	80% of the students will meet or exceed the scores
Ag 33 Greenhouse Construction PVC Irrigation assessment	CLO 1,2,4	The students will score 75% or better for all the CLO's	80% of the students will meet or exceed the scores

Results of Course Assessments

Each course assessed in AY17-18 listed above, provide:

- a statement of the quantitative results;
- a brief narrative analysis of those results.

Course Alpha/#: Ag 54B

The results of the report are as follows. The soft skills scores of 30 was met or exceeded by 16 out of 18 students (88%). The technical skills scores of 50 was met or exceeded by 16 out of 18 students (88%).

Growing potted peppers and tomatoes is a perfect crop to grow during the spring semester. The crops cycle fits the start to finish of the student's semester. It is suitable with the crops' affection for longer daylight and warmer temperatures. It gives students time to acquire the technical skills on how to propagate, setup benches, media and fertilizer preparation, transplanting, integrated pest management, pruning and training, and the all important marketing and sales. It seems the students have acquired the skills to grow peppers and tomatoes by the hands-on approach to teaching. The students should be confident to grow a crop for their own garden or to be employed with someone who has a similar crop.

During the planning of Ag 54B (Spring 2016), there seems to be a problem with soft skills and CLO 4. However, the spring 2018 Ag 54B class seems to be much improved. The remedy to the dilemma was to impress upon class attendance. We could then work on such things as following instructions, teamwork, professional conduct, initiative and having proper attire.

During this semester, students engaged in a very highly positive manner with their classmates to accomplish daily projects. They were also exceptionally confident in handling themselves and interacting with customers and the general public when selling their products on campus and at community events such as Earth Day. Not only did the instructor observe vast improvements, high praise was commented from customers and the general community.

Although soft skills have greatly improved, we will continue to counsel students in the great importance of soft skills. We consider soft skills essential to be successful in the real work environment and towards personal development. This was also recommended by the Advisory Council.

Another challenging situation may be climate change. We have noticed extremes to environmental conditions (rain and temperature) which have caused difficulties growing crops in the field. We may construct field crop shelters to help alleviate the problem.

Course Alpha/#: Ag 33

The follow up Dumpy Level test assessments for Fall 2017 was scored using the same rubric as the Fall 2017 assessment, the only difference being that CLO 3 was added. CLO 3 was added

because the dumpy level test is fundamental to constructing a greenhouse; CLO 3 is the design and layout of a containerized nursery. The goal was set to be that 80% of the students were expected to meet or exceed the standard of 75% or 45 out of 60 points. All 16 students were assessed on accuracy and skill level of three artefacts: 1. Shooting the level 2. Skill of holding the rod and 3. Record keeping.

The student was also assessed on the ability to do peer evaluation. The instructor assessed every student on these 4 main skills and calculated the results, finding that 15/16 or 94% of the students met the benchmark. CLO's 1,3 and 4.

In the assessment of the "install of PVC garden irrigation", the goal was set to be 80% of the students were expected to meet or exceed the standard of 75% or 45 out of 60 points. The students were scored on 3 different skills using a rubric created in Fall 2017. All 16 students were assessed on accuracy and skill level of three artefacts: 1. Layout 2. Measure and cutting and 3. Assembly.

The student was also assessed on their ability to do a test run. The instructor assessed every student on these 4 main skills and calculated the results, finding that 13/16 or 81% of the students met the benchmark. CLO's 1,2, and 4.

Course Alpha/#: Ag 54A

The strengths of the poinsettia project was the high demand for the product. This was due to the availability that coincides with a high demand season. We will continue to grow poinsettia to target the holiday season. Also, the crop is relatively easy to grow and the growing period fits into a semester project. The main weakness was a pest problem that could not be solved with organic products.

The students that attend class have good attitudes and motivated to get the work done. They communicate well to work as a team to accomplish a meaningful project

Course Alpha/#: Ag 46

We accomplished the goal with 12 out of 14 students (86%) achieved the standard for each assessment.

(see attachment in Campus Labs)

Participating in the landscaping of the "Foundation-to Finish" model home, adapts nearly perfectly with a lot of what we are trying to apply in Ag 46 Landscape Maintenance to the students. Such as, calculating costs, completing forms, creating and managing an appealing garden, develop familiarity and implementing safe and useful habits with tools. We will continue to use the model home to assess the landscape maintenance course. The model home is an exceptional project as it uses nearly all of the Applied Technical Education Division of the

Hawai'i Community College directly or indirectly. Although the model home project does not cover all the CLO's, we will continue to use other assessments such as pruning macadamia nut trees, growing vegetables in raised beds with an irrigation system or other projects that need to be done on the farm to cover the remaining CLO's.

A crucial weakness is the program does not have the latest mechanized landscaping equipment. For example, a Skagg zero-turn riding mower, a wood chipper and a Gator utility vehicle. Students will not be familiar on operating with the equipment. This may hinder the possibility of employment and or possible advancement in their career.

Other Comments

Include any additional information that will help clarify the program's course assessment results, successes and challenges.

HawCC is an open door college and the Ag program does not have any prerequisites, we accept anyone interested in agriculture. Soft skills continue to be a major challenge, as shown in our assessment, so we will continue to impress upon the students the importance of these skills.

Discuss, if relevant, a summary of student survey results, CCSSE, e-CAFE, graduate-leaver surveys, special evaluations, or other assessment instruments that are not discussed elsewhere in this report.

N/A

Next Steps – ASSESSMENT ACTION PLAN for AY18-19

Describe the program's intended next steps to improve student learning, based on the program's overall AY17-18 assessment results.

Include any specific strategies, tactics, activities or plans for improvement in program or course assessment practices, methods or tools, rubrics, schedules, etc.

We plan to assess the following courses for the academic year 2018-2019, Ag 122 Soil Technology, Ag 141 Integrated Pest Management, Ag 250 and Ag 250L Sustainable Crop Production and Lab and Ag 260 Tropical Landscape Management. Based on the assessments done during the academic year 2017-2018, we will not change any strategies, tactics, activities or plans. However, we will continually evaluate our assessment strategies and may make changes in the future under the supervision of the Assessment Coordinator, Advisory Council and all others involved in the future of the agriculture program.

PART 4: ADDITIONAL DATA

Cost Per SSH (to be provided by Admin)

Please provide the following values used to determine the total fund amount and the cost per SSH for your program:

General Funds	= \$	_____
Federal Funds	= \$	_____
Other Funds	= \$	_____
Tuition and Fees	= \$	_____

External Data*

If your program utilizes external licensures, enter:

Number sitting for an exam _____

Number passed _____

***This section applies to NURS only.**