

ANNUAL

REPORT OF PROGRAM DATA

2023

A photograph of a campus landscape featuring a winding paved path, green grass, and modern buildings in the background. The image is overlaid with a purple geometric design consisting of several overlapping triangles.

UNIVERSITY *of* HAWAI'I

HAWAI'I

COMMUNITY COLLEGE

July 1, 2022 through June 30, 2023

AGRICULTURE

1. Program or Unit Mission

Program or Unit Mission or Purpose Statement

This statement will likely not change each year. You may copy/paste from last year unless there was a significant change.

This program prepares students for employment in government service, agribusiness, horticulture, livestock, flowers and foliage, landscape, and the macadamia nuts, papaya, and coffee industries.

Hawai'i Community College is a two-year institution targeting students who are interested in the Agricultural field.

2. Program Student Learning Outcomes or Unit/Service Outcomes

For the past year, please indicate which program student learning or unit/service outcomes were assessed, assessment results, and what changes will be made to address the results.

AG PLOs

ILO

Alignment

PLO 1: Plan and manage projects and cultivate horticultural crops using legal, sustainable, safe, and ecologically, biologically, and technologically sound practices.

ILOs 1, 2, 3,
5, 6

PLO 2: Design gardens that demonstrate the aesthetic principles of unity, repetition, balance, color, and texture congruent with the customers' desires.

ILOs 1, 2, 3, 6

PLO 3: Operate and maintain tools and equipment.

ILOs 2, 5

PLO 4: Set-up and manage a business enterprise.

ILOs 1, 2, 3, 5, 6

PLO 5: Interact with customers and co-workers in ways that effectively support the work to be accomplished.

ILOs 1, 2, 3,
4, 5, 6

No assessments were completed this year due to severe time constraints on faculty. We will try to catch up and complete the backload during the summer break.

3. Analysis of the Program/Unit

Demand Indicators: Very good score. All indicators seem to point to high demand for highly skilled Ag graduates, even though the county replacement position numbers have remained the same post-COVID. The replacement position numbers do not reflect entrepreneurial opportunities that many students would like to pursue. Also, the CIP/SOC codes may not reflect workforce opportunities with smaller private companies. The actual current job opportunities are very good in the County and State of Hawai'i.

Efficiency Indicators: Very good score. Our fill rate averaged out to 105.5% for AY22-23. We continue to allow students to enroll over the class limit due to the high interest in the program. Agriculture interest seems to be on the rise. If our fill rate continues to exceed capacity, we may need to start an additional cohort and seek another faculty position.

Effectiveness Indicators: Very good score. Fall to Spring persistence and successful completion both stayed about the same as AY21-22. Although we had a very good score for this Indicator, we are limited in our ability to increase our Unduplicated Degrees/Certificates Awarded much further than the current number. We do not have the physical space or staff to grow the program beyond what the single faculty member already is accomplishing.

Perkins Indicators

1P1 (Met) Successfully met goal of 33% with a 80%

2P1 (Met) Successfully met goal of 34% with a 61%

3P1 (Met) Successfully met goal of 11% with a 36%

The Ag Program in collaboration with the Electronics Program successfully secured a \$300,000 NSF ATE Grant to build a Mobile Controlled Environment Greenhouse that would be solar powered. The grant runs from July 2021 to 2024 and will be used to train AG Technicians in high tech agricultural production. This mobile unit will be taken to local high schools to help train and recruit new AG students to Hawai'i Community College. Production started in the spring of 2021, and we are currently half way through the initial build. We are currently working on the curriculum for this project and the solar power source.

The HCC AG Program is partnering with Ka'u High School to articulate our first year of study to form a career pathway to HCC. This would give students the opportunity to complete their first year of the HCC AG Program while in high school and earned two certificates of completion. They may

continue on at HCC after graduation to finish their final year and receive an AAS degree in Agriculture.

The HCC AG Program in partnership with the Honua Ola Bioenergy Company has developed a working Agroforestry project on three acres of land adjacent to the bio-energy plant. The edible crops that are grown will be donated to the Hawai'i Food Basket for distribution. Summer interns worked during the summer of 2021 to hand clear the site. Fencing was completed in the fall of 2021, and planting commenced in the spring of 2022. The first harvest of bananas was completed in the Spring of 2023 with 63lbs being donated to the Hawaii Food Basket.

The HCC AG Program continues its collaboration with the Culinary Program with a program-to-program farm-to-table initiative. This provides the Culinary Program with a variety of fresh produce and gives our students a chance to learn true production agriculture skills and about food sustainability and resiliency. About 200 to 300 lbs of produce is transferred weekly to the culinary program during the semester.

The HCC AG Program continues its collaboration with the four ATE programs on the Model Home Project in Keaukaha. We propagate all plants that are used in the landscaping during the fall semester and continue to do the planning and installation in the spring semester at the model home site. We will be installing the landscaping for Model Home 56 this coming Spring 2024.

The HCC AG Program continues to support the Hawai'i CC Food Distribution Program for needy students. We harvest and package fresh produce for the monthly food distribution and encourage AG students to serve as volunteers during the monthly distributions.

The HCC AG program has secured a NIFA Butchering Grant in collaboration with CAFARN and CTAHR. This grant is worth \$950,000.00 and will run for 5 years. The grant has afforded the HCC Ag Program to launch its Small Animal Production Program with the first introductory course, AG 164 Integrated Livestock Production and Animal Science. This course will be articulated with both CAFARN and CTAHR. Butchering classes will run during the summer and will be available to students in the three programs mentioned above.

<https://uhcc.hawaii.edu/varpd/index.php?y=2023&c=HAW&t=CTE&p=2764>

4. Action Plan

The Hawai'i Community College Agriculture Program continues to seek and 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 trying to move forward, we are also seeking to relocate our classrooms to the farm lab to eliminate costly commuting time between the classrooms and a 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 could triple our student capacity and quadruple our growing area. This would lead to increased student enrollment and ultimately enhanced student learning. A second production ag faculty would probably be needed when we develop our own farm lab site.

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Another reason is we would like to fulfill part of our program's 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.

In 2019, Hawaii Community College officially signed a Memorandum of Use (MOU) with the University of Hawai'i Manoa College of Tropical Agriculture and Human Resources (UH CTAHR) to develop the HawCC Ag Farm Lab on 18 acres at the Waiakea Research Station. The planning and the building stage for the farm lab will be a three to five year process if there are no major setbacks.

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. Having a new facility 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.

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 Goals 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.

Action Item #1: Initiate planning for farm structures such as a certified kitchen, a produce processing unit and a building to house these items, along with classrooms at the Farm Lab. Plans could be made available within a year. As the plans are put into motion during AY 2024-2025, 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 AG program's new facilities will help improve student learning and attainment of the PLO's by supporting the whole program's curriculum, especially in the program's refocus into farm-to-table, sustainability, and landscaping. Farm-to-table involves not only the Agriculture program but also the Culinary Arts program.

Benchmark/Timeline: Develop the project with legislators and administration, organize ATE collaborators, and begin site-specific planning in 2024-2025. Plan for completion of the project in

2025-2027. 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: The hiring of a Farm Manager is a vital part of the program expansion and current program needs. Unlike most other programs, the AG program deals with live crops. These crops are student projects that must be maintained (watered, fertilized, etc.). The instructor should be spending his non-teaching 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 PLOs 1, 2, 3, 4, 5 efficiently. This will enhance student learning by exposing students to a well thought out and planned curriculum provided by the instructor. With the additional space, we would also like to add the animal component to the HawCC AG program. The program has been without a livestock curriculum for many years. We would like to have an animal instructor and an additional APT to run the livestock program. We would like to see chickens, pigs, rabbits, bees, fish, and other types of animals on the farm. As the animal program grows, we would like to add a veterinarian technician class as part of the program. This would add additional value and raise interest in the program. We hope to have a Farm Manager in place by the end of AY 2023-2024.

Action Item #3: Equipment to run the farm will need to be included in the initial planning. We will have total control of the new Hawai'i Community College Ag Farm and will have to maintain all 18 acres that are utilized. A comprehensive equipment list evaluation and needs analysis will have to be done in AY 2023-2024. The equipment requested would directly support PLO 1 and 3.

Action Item #4: Start the planning process of hiring two additional faculty members, one for horticulture and the other for animal production.

5. Resource Implications

Special Resource Requests **not included in operating "B" budget ***

☐ I am NOT requesting additional resources for my program/unit.

☒ I AM requesting additional resource(s) for my program/unit.

Total number of items being requested: 4 (4 items max.)

✓ **Item Description:**

✓ **Justification:**

✓ **Priority Criteria** (must meet at least one of the following):

1. Ensure compliance with mandates and requirements such as laws and regulations, executive orders, board mandates, agreements and contracts and accreditation requirements.
2. Address and/or mitigate issues of liability, including ensuring the health, safety and security of our Kauhale.
3. Expand our commitment to serving all segments of our Hawaii Island community through Pālanui and satellite centers
4. Address aging infrastructure.

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5. Continue efforts to promote integrated student support in closing educational gaps.
6. Leverage resources, investments with returns, or scaling opportunities
7. Promote professional development.

CATEGORY				
Equipment	Estimated	Quantity /	Total Cost	On Inventory
1)Heavy Duty	Date	Number	(with	List
tractor 55HP	Needed	of Units; Cost	S&H, tax)	(Y/N); Decal
with	1)1/2025	per	1)\$95,000.00	#,
implements	2)1/2025	Unit	2)\$96,000.00	Reason
2)Compact	3)1/2025	1)1	3)\$70,000.00	replacing
Tract Loader	4)1/2025	2)1	4)\$26,000.00	1)N/A
with		3)1		2)N/A
implements		4)1		3)N/A
3)Large				4)N/A
Flatbed				
Truck				
4)Trailer				