

# Agriculture



## 2019 ANNUAL REPORT OF PROGRAM DATA



UNIVERSITY of HAWAII®  
**HAWAII**  
COMMUNITY COLLEGE

## **1. Program Description**

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Statement and brief description of the program including a listing of the program level Student Learning Outcomes (SLOs).

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

### **Program Learning Outcomes (PLOs):**

- Plan and manage projects and cultivate horticultural crops using legal; sustainable; safe; and ecologically, biologically, and technologically sound practices.
- Design gardens that demonstrate the aesthetic principles of unity, repetition, balance, color, and texture congruent with the customers' desires.
- Operate and maintain tools and equipment.
- Set-up and manage a business enterprise.
- Interact with customers and co-workers in ways that effectively support the work to be accomplished.

## **2. Analysis of the Program**

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Strengths and weaknesses in terms of demand, efficiency, and effectiveness based on an analysis of the Quantitative Indicators. CTE programs must include an analysis of Perkins Core indicators for which the program did not meet the performance level. Include Significant Program Actions (new certificates, stop outs, gain/loss of positions, results of prior year's action plan).

### Demand Indicators

This year's Cautionary score was due to a rubric score of 0.75. All indication seems to point to high demand for highly skilled AG graduates. 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 due to low unemployment in the County and State of Hawaii.

### Efficiency Indicators

Healthy score. Our fill rate of 107.1%. We continue to allow students to enroll over the class limit due to the high interest in agriculture. 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.

### Effectiveness Indicators

Cautionary score. Fall to Spring Persistence fell due to students discontinuing for various personal reasons. Although we were given a Cautionary Call, it will be impossible to increase our Unduplicated Degrees/Certificates Awarded. We do not have the physical space to grow the program and increase the capacity 5% every year. We believe that if a program cannot grow by 5% every year, it should be rated on a set ratio of Unduplicated Degrees/Certificates Awarded to Average Class Size.

### Perkins Indicators

2P1 (Not Met). This was due to 4 students not completing their course work to obtain their AAS degrees. We will increase supporting and advising to help students navigate their academic pathway.

3P (Not Met). This was not met due to 3 students not returning for their 2nd year to complete their degrees. Will continue supporting students to stay on track to finish their AAS degrees.

4P1 (Not Met). Out of 4 graduating students, 2 were picked up by the Unemployment Insurance Quarter. We are currently looking into an employment tracking system to track our graduates.

## **3. Program Learning Outcomes**

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- a) List of the Program Learning Outcomes
- b) Program Student Learning Outcomes that have been assessed in the year of the Annual Review of Program Data.
- c) Assessment Results
- d) Changes that have been made as a result of the assessments.

### **a) Program Learning Outcomes (PLOs)**

1. Plan and manage projects and cultivate 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.

**b) PLOs assessed in AY18-19:**

All PLOs 1 through 5 were assessed through CLO-based assessments of the following courses:

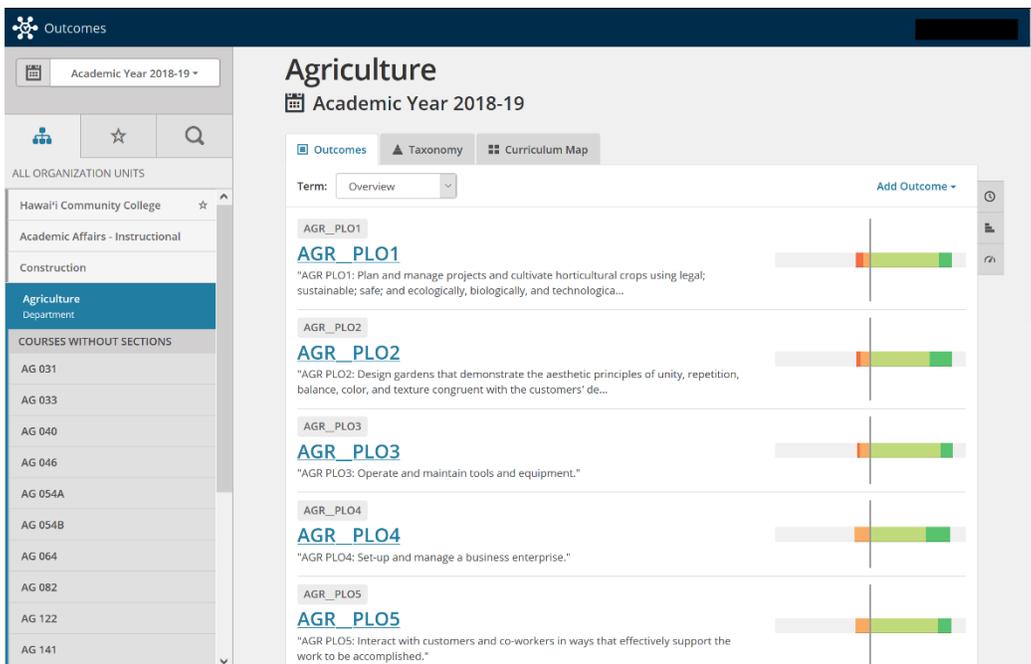
- PLO 1: AG 122, AG 200, AG2 50L in F18; AG 141, AG2 50, AG 250L in S19.
- PLO 2: AG 200, AG 260 in F18; AG 260 in S19
- PLO 3: AG 200, AG2 50L in F18; AG 250, AG 250L in S19
- PLO 4: AG 230, AG 260 in F18;AG 260 in S19
- PLO 5: AG 230, AG 250Lin F18: AG 250, AG 250L in S19

**c) Assessment Results:**

For all PLOs, between 85% and 88% of all students met or exceeded the program's achievement standards, See graph below:

**AG Program  
AY18-19 Assessment Results**

**Dark Green = Exceeds // Light Green = Meets // Orange = Partly Meets // Red = Does not Meet**



d) Based on the overall assessment results, we will continue with current instructional strategies, tactics, activities and ongoing 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.

## 4. Action Plan

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Include how the actions within the plan support the college's mission. In addition to the overall action plan for the program, include specific action plans for any Perkins Core Indicator for which the program did not meet the performance level.

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.

On September 2019, Chancellor Rachel Solemsaas officially signed the Memorandum Of Agreement (MOA) with the University of Hawaii Manoa College of Tropical Agriculture and Human Resources (UHCTAHR) to develop the HawCC Ag Farm Lab on 18 acres at the Waiakea Research Station. The planning and building stage for the farm lab will be a 3-5 year process if there are no major setbacks. We hope to have state of the art classrooms, greenhouses, restroom, 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.

### 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 2020-2021 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.

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:

The hiring of 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 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 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.

Acton Item#3:

Equipment to run the farm will need to be included in the initial planning . We will have sole ownership of the new HawCC Ag Farm and will have to maintain all 18 acres that are utilized. A comprehensive equipment evaluation and need will have to be done in AY 2019-2020. The equipment request would directly support PLO 1 and 3.

## **5. Resource Implications**

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(physical, human, financial)

Continued support to accomplish ongoing Action Plan above. Otherwise, no additional resource requests at this time.