

HAWAI`I COMMUNITY COLLEGE
ANNUAL
PROGRAM REVIEW REPORT

Forest TEAM

November 25, 2009

(Assessment Period: 2008-2009)

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UHCC December 2009 Coversheet – Annual Report Program Data

College: Hawai'i Community College

Program: Forest TEAM

Check All Credentials Offered	AA	AS	ATS	AAS	CA	CC	COM	ASC	APC
		X			X				

Introduction: Brief description of the program and program mission.

The Forest TEAM program is an Associate of Science degree program which is designed to prepare individuals for careers as Ecosystem Management Technicians, which includes work in native forest conservation and restoration, with commercial forest plantations, or with Agroforestry operations. Graduates are prepared for employment with state and federal agencies, the private sector, or to set up their own businesses. Students may also opt to continue with their four-year degree.

TEAM graduates at HawCC are prepared with knowledge and skills for entry-level positions in the fields of plant propagation, forest restoration, forest surveying, agroforestry, and use of GIS in decision making and management.

TEAM students should be able to:

- I. **Apply basic eco-system concepts to natural resources.**
- II. **Use an understanding of general science concepts to apply experimental designs.**
- III. **Use knowledge of applicable laws and regulations to make decisions about managing ecosystems.**
- IV. **Apply effective interpersonal and communication skills.**
- V. **Recognize, collect, and interpret field data.**
- VI. **Apply effective management practices to commercial or conservation efforts.**

Part I.

Quantitative Indicators (Reported on 2009 Summary Report Program Data excel sheet --includes health calls based on system scoring rubric).

**Annual Report of Program Data for Trop Forest Ecosys Mgt & Agroforestry
Hawaii Community College Program Major(s): TEAM**

Overall Program Health					Unhealthy
Demand Indicators		Academic Year			Demand Health Unhealthy
		Fall 06	Fall 07	08-09	
1	New & Replacement Positions (State)	27	1	7	
2	New & Replacement Positions (County Prorated)	18	1	2	
3	Number of Majors	34	31	39	
4	SSH Program Majors in Program Classes	57	63	141	
5	SSH Non-Majors in Program Classes	4	0	148	
6	SSH in All Program Classes	61	63	289	
7	FTE Enrollment in Program Classes	4	4	10	
8	Total Number of Classes Taught	3	3	13	
Efficiency Indicators		Academic Year			Efficiency Health Unhealthy
		Fall 06	Fall 07	08-09	
9	Average Class Size	9.0	9.0	9.8	
10	Fill Rate	49%	60%	47%	
11	FTE BOR Appointed Faculty	0.0	0.0	0.0	
12	Majors to FTE BOR Appointed Faculty	0.0	0.0	0.0	
13	Majors to Analytic FTE Faculty	72.3	66.0	35.1	
13a	Analytic FTE Faculty	n/a	n/a	1.1	
13b	Majors to Analytic FTE Faculty @12cr.	57.9	52.8	28.1	
13c	Analytic FTE Faculty @12cr.	0.6	0.6	1.4	
14	Overall Program Budget Allocation @12cr. F07, 0809	\$52,789	\$31,594	\$188,911	
14a	General Funded Budget Allocation	n/a	n/a	\$73,337	
14b	Special/Federal Budget Allocation	n/a	n/a	\$115,574	
15	Cost per SSH @12cr. F07, 0809	\$388.16	\$501.48	\$653.67	
16	Number of Low-Enrolled (<10) Classes	1	3	8	
Effectiveness Indicators		Academic Year			
		2006	2007	08-09	
17	Successful Completion (Equivalent C or Higher)	n/a	n/a	92%	
18	Withdrawals (Grade = W)	n/a	n/a	2	
19	Persistence (Fall to Spring)	76%	71%	77%	
20	Unduplicated Degrees/Certificates Awarded	n/a	n/a	5	
20a	Number of Degrees Awarded	4	10	4	
20b	Certificates of Achievement Awarded	3	4	3	
20c	Academic Subject Certificates Awarded	n/a	n/a	0	
20d	Other Certificates Awarded	n/a	n/a	0	
21	Transfers to UH 4-yr	4	3	2	
21a	Transfers with degree from program	n/a	n/a	1	
21b	Transfers without degree from program	n/a	n/a	1	

Distance Education Completely On-line Classes		Academic Year		
		Fall 06	Fall 07	08-09
22	Number of Distance Education Classes Taught	n/a	n/a	0
23	Enrollment Distance Education Classes	n/a	n/a	0
24	Fill Rate	n/a	n/a	0%
25	Successful Completion (Equivalent C or Higher)	n/a	n/a	0
26	Withdrawals (Grade = W)	n/a	n/a	0
27	Persistence (Fall to Spring Not Limited to Distance Education)	n/a	n/a	0%
Perkins IV Core Indicators				
Perkins IV Measures 2007-2008		Goal	Actual	Met
28	1P1 Technical Skills Attainment	90.00	80.00	Did Not
29	2P1 Completion	44.00	80.00	Met
30	3P1 Student Retention or Transfer	55.00	83.33	Met
31	4P1 Student Placement	50.00	83.33	Met
32	5P1 Nontraditional Participation	25.00	38.10	Met
33	5P2 Nontraditional Completion	25.00	40.00	Met

Part II.

Analysis of the Program (strengths and weaknesses in terms of demand, efficiency, and effectiveness based on an analysis of the data).

In the 1990s, studies of the State of Hawai`i workforce targeted forest and conservation workers as an area with a large potential need and lack of in-state training programs. In response to this and a Secretary of Conservation Biology workshop in 1997, the State of Hawai`i Dept. of Labor's Workforce Development Office and the Hawai`i Community Forestry Initiative provided seed money for Hawaii Community College to develop grant proposals that led to the initiation of the Forest TEAM program.

The strengths of the program are:

- Provides internships with potential employers;
- Produces qualified graduates that are employed in the local community;
- Through Hawaii CC articulation agreements with Oregon State University and University of Hawai`i at Hilo, the program provides graduates with opportunities to complete 4-year degrees in natural resources;
- The program is situated in an ideal environment which provides students with the opportunity for hands-on field experience;
- The program has a strong relationship with its Advisory Board, which strengthens the program and provides internship opportunities for students.
- Utilizing the latest technology, the program is distributing its courses throughout the island of Hawai`i.

Challenges for the program are:

- Under-prepared students that require remedial/developmental education prior to entering the program, which reduces enrollment;
- Students from other islands find it difficult to relocate to the Big Island.
- Recent changes to the demand indicators indicate a 75% drop in the number of positions statewide since 2006, resulting in unhealthy scores for the TEAM program

Although the indicators suggest an unhealthy program, we believe that these data do not accurately reflect the program's true health. Because of changes in the way that jobs are identified, our demand indicators portray a climate where few to no jobs are available to our students (7 in the state, 2 in the county). This is a nearly 75% drop since the 2006 when the old job identification methods were used. Since all of our graduates who have remained in Hawaii have either found employment in their fields or gone on to a 4-year degree, we believe that the numbers used for this indicator are unrealistic, and that, in reality, the demand for our graduates is commensurate with the number of students who are obtaining TEAM degrees. Our efficiency indicators are unhealthy, in large part because of the grants which the program brings to the College. Together with the Hawaiian Life Styles and Agriculture program we obtained a \$115,574 federal grant which has helped not only to offset program costs but also to provide student scholarships, internships, and travel to off-island conferences, among other things. Because the entire \$115,574 is counted as an input to the TEAM program (item 14b), our per-SSH cost is very high (\$653.67). Again, we feel that this is an inaccurate portrayal of the program since 1) the monies are shared between three programs, and 2) the money provides opportunities to students that they would not otherwise have, but that neither the students nor the College are responsible for financially.

We feel that our program has been improving steadily over the past few semesters. The number of majors in the program increased by 25% between 2007 and the 2008-2009 reporting years (from 31 to 39) and the number of Majors SSH also increased (from 63 SSH in fall 2007 to an average of 70 SSH in fall 2008 and spring 2009). We had a dramatic increase in the number of non-majors SSH in our courses (4 in fall 2006, none in fall 2007 and an average of 74 in the 2008-2009 academic year). This was due to our participation in a USFS program to bring professional Pacific Island foresters to Hawaii to further their education. Our FTE enrollment also increased over the reporting period (from 4 in 2006 and 2007 and 10 in 2008-2009) as did the total number of courses taught (3 in fall 2006 and 2007 and an average of 6.5 in the 2008-2009 academic year).

According to the data provided by the college, the average class size increased by nearly 10% from 2006 and 2007 to 2008-2009 but the fill rate decreased (by 4% from 2006 and by 22% from 2007). We are unsure of how the class size increased but fill rate decreased.

The persistence rates for students from fall to spring semester has remained relatively steady over the two year reporting period, and our students have a high successful completion rate (92% receive a C or higher). Our graduation rates have fluctuated over the reporting period, remaining steady from 2006 to 2008-2009 but with a

dramatic rise in 2007. Of those who are graduating, we have seen a decrease in the number who are transferring to a baccalaureate program within the UH system: 4 in 2006 and 3 in 2007, and only 2 in 2008-2009. We continue to exceed the Perkins goal of placement or graduation (Perkins core indicator 3P1) by over 50% (goal = 50%, actual = 83.33%). In addition, 83.33% of our students have been successful in obtaining jobs (4P1), exceeding our goal by nearly 70%.

We are successful in attracting non-traditional female students (5P1; >38% of our students) and we are surpassing the goals for non-traditional students (5P2; 60% more than the stated goal). We are also have a very high overall rate of completion (2P1; over 80% higher than our goal). The only Perkins IV Core indicator for which we did not realize our goal was “technical skills attainment,” (1P1) for which 80% of our students were successful, but the stated goal was 90%. We were 11% below our goal, but since we do not know what this was measuring or how the goals were determined, we cannot comment on it further.

Significant Program Actions (new certificates, stop-out; gain/loss of positions, results of prior year’s action plan).

Over the past year, we have worked on the action plan from the previous report, including recruitment, association with the Natural Career Pathways program, sending distance-education to West Hawaii, working with our advisory board, providing student learning and internship opportunities for our students, implementing the assessment of PLOs, developing rubrics for PLOs, working with course SLOs to align with PLOs, developing and improving curriculum, keeping computer software up-to-date, beginning work on the TEAM website, obtaining funding (Perkins mini-grant) to improve field-based learning, continuing faculty professional development and completing an articulation agreement with OSU.

We were unable to hire an APT position for help with office and grant management due to lack of funding, but we did hire a UHH student to help with office tasks. We have recruited a lab coordinator in Kona to help run the field portion of our distance-ed courses.

We expanded our Jr Forest TEAM club to five Hawaii-island locations and recruited volunteer leaders to work with and supervise high school students in the club.

Part III. Action Plan

The Forest TEAM Program plans to do the following:

- Continue to expand recruiting through brochure mailings to all public and private high schools statewide. Continue to participate in career fairs at local high schools in the Career Pathways career fairs held in Hilo each year. Continue to visit classes of high school teachers in agriculture and natural resources. Continue to promote the Junior Forest TEAM club at locations around Hawaii Island.

- Continue to work with high school groups to encourage learning about natural resources in the high schools
- Send applied TEAM distance education classes to the West Hawai`i campus
- Work with the Advisory Board to continue to meet the needs of employers
- Continue to work with federal and state agencies in service learning and internships
- Develop programs with local community groups to provide technical support and development of environmentally appropriate landscapes
- Build full-size greenhouse for shared use with Agriculture and Hawaiian Life Styles programs
- Continue 20% course review
- Implement the assessment of PLO 4 and 6
- Develop an assessment rubric for PLO 4 and 6
- Continue with curriculum development in response to student and program needs
- Continue to update the software on the Forest TEAM computers
- Update the Forest TEAM website
- Improve our field-based learning program with updated tools and methods to ensure that our graduates are competitive in the shrinking employment scenario
- Continue professional development for faculty
- Work to develop articulation agreements with UHH and UHM

Part IV. Resource Implications (physical, human, financial).

- New and back-up inventory for classroom and office equipment: Polycom
- Technical support staff for course delivery
- Funding and resources for professional development
- Funding for distance learning course delivery
- Materials and supplies for greenhouse and shadehouse
- Student workers in office and greenhouse

Annual Report Program Data and analysis located on college website at:

[AY 2009 Completed Annual Program-Unit Reviews](#)