

# **HAWAI`I COMMUNITY COLLEGE PROGRAM REVIEW REPORT**

## **PROGRAM NAME**

**November 25, 2009**

**Assessment Period: July 1, 2006 to June 30, 2009**

**Initiator: Laura Brezinsky**

**Writer(s): Pamela Scheffler  
Orlo Steele**

*Program Review at Hawai'i Community College is a shared governance responsibility related to strategic planning and quality assurance. It is an important planning tool for the college budget process. Achievement of Student Learning Outcomes is embedded in this ongoing systematic assessment. Reviewed by a college wide process, the Program Reviews are available to the college and community at large to enhance communication and public accountability.*

## **HAWAII COMMUNITY COLLEGE PROGRAM NAME**

### **A. Program Effectiveness**

1. The Mission of Hawai`i Community College is to promote “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 College’s imperatives include:

- The College will provide students with opportunities to serve their community.
- The College will teach the skills needed to succeed in the workforce.
- The College will build an awareness, appreciation, and sense of personal responsibility for the natural, social, and economic environments.
- The College will work with students to build healthy communities.
- The College will provide access to current technology that supports student learning.

The Forest TEAM was created as a response to community’s request for a trained workforce in areas of resource management. In the spirit of E`Imi Pono, our curriculum provides learners with the skills and knowledge that will allow them to become productive and successful members of our community, in ways that are environmentally, economically, and socially beneficial. The Program also incorporates current technology in its course work to allow students to become familiar with upcoming workforce trends. Healthy ecosystems are the backbone of healthy communities.

The interconnections of the Forest TEAM Program with Hawai`i Community College, four-year Universities and employers can be seen in **Appendix A**.

2. The TEAM program has created an assessment plan to determine the effectiveness of the curriculum. It can be found in **Appendix B**.
3. We have collected artifacts for two of our PLO assessments and have analyzed the artifacts for PLO#2. For this PLO, 80% of the artifacts were deemed to meet the expectations and we are not planning to make any changes to the program based on our satisfactory progress with this goal. The results can be found in **Appendix C**.
4. Program Strengths and Weaknesses  
Briefly describe the program’s strengths and weaknesses to include:
- a) The Forest TEAM Program is a relatively new program that earned permanent status by the BOR in Fall 2005. Although the enrollment figures are relatively low, they have increased steadily since the program’s inception and for the last 3 years have leveled to

an average of 35 students majoring in the Forest TEAM Program. Concomitantly, the number of student semester hours for program majors, average class size and class fill rate have also increased during this reporting period. We participated in a US Forest Service program for educating Pacific Island foresters which increased our non-majors SSH dramatically in the last year of the reporting period. Three-quarters of our most recent graduates are presently employed and a quarter of our graduating students in the last year have continued on to a 4-year degree and one of our past graduates has entered a Master's degree program at UHH. This supports our primary program learning objective of training students to find jobs in forest ecosystem management or further their education. Because of changes in the reporting system, only two jobs are predicted for Hawaii County (#2) which drastically affects our program standing, resulting in an "unhealthy" health for two of our indicators. However, since based on internal surveys, the majority of our students who have graduated during the reporting period have either found employment in their fields (56%) or continued their education (38%), we therefore believe that the indicators #1 and #2 do not accurately reflect the number of jobs available to our graduates. In contrast, we have excellent successful completion (#17) and persistence from fall to spring semester. Neither of our faculty are considered BOR appointed which negatively affects our student:faculty ratio. In addition, our USDA grant which we share with Hawaiian Lifestyles and Agriculture was reported as allocation entirely to our program which creates a SSH cost of \$653.67 – unrealistically high. Low-enrolled classes appear high, but several of our classes have caps below 10 (which automatically places them in that category, even when full) and the remainder have caps of 16 so even classes that are 2/3-full are considered low-enrolled by these indicators.

- b) We believe that the results of our PLO assessment indicate that we are on target with 80% of the artifacts showing successful general understanding of science concepts.

### **Program Strengths (S) and Weaknesses (W)**

**S1** – Recent recruitment efforts have resulted in increasing enrollment.

**S2** - The Forest TEAM program maintains a strong relationship with their Advisory Board. The advisory board helps the program strengthen the curriculum, hosts field trip and learning experiences for students, provides internship opportunities for students and responds to requests from faculty. The Advisory Board is an integral part of assessing and providing feedback on program quality.

**S3** - Forest TEAM program has developed distance learning capabilities to deliver the program to the West Hawai`i campus and potentially to any neighbor island in the future.

**W1** – Students who want to go on for a 4 yr BA degree often have to repeat or take extra classes, so that it takes them a total of 5 - 6 years. In addition, many students enter the program underprepared for college-level mathematics and English and require an extensive number of remedial courses.

**W2** – Enrollment is not at full capacity

**W3 – Lack of administrative staff results in less time dedicated to students**

5. In the last Comprehensive Review, the TEAM program set the following goals:

1. Continue to assess the effectiveness of PLOs and modify coursework as necessary
2. Recruit at local high schools
3. Develop articulation with appropriate 4-year university programs
4. Hire a new office manager to facilitate the program's operation

Progress Towards Meeting Previous Goals:

1. We have continued to collect and assess artifacts that are designed to test the effectiveness of PLOs
2. We have a student employee who is charged with recruitment. She visits local high schools to give talks on the program and, in addition, runs a club based on the TEAM major that targets high school and Jr. high students.
3. We have developed an articulation agreement with Oregon State University.
4. Due to budget constraints, we have been unable to hire an office manager. However, we have hired a student employee to help with office management.

6. What are the program's goals/plans for the next Comprehensive Review period?

What evidence supports these goals/plans?

1. Continue to assess the effectiveness of PLOs and modify coursework as necessary. Assessment of PLOs is a system-wide mandate.
2. Continue to increase enrollment. Low enrollment has caused cancellation of some classes and affects student learning.
3. Develop an agroforestry, native plant, and edible plant garden. Hands-on experience in these areas will increase student retention of academic principles.
4. Develop articulation with appropriate 4-year university programs to facilitate continued education for our students.
5. Enhance community contact and student learning through service learning and student internships which is consistent with the College Mission.

**B. Action Plan for Program Improvement**  
**Complete Tables 1-4 to provide justification for program budget requests**

**Table 1—Top 6 Non-Cost Items** (add rows as needed; examples given in *italics*)

<b>Task:</b>	<b>Academic yr.</b>	<b>Who is responsible</b>	<b>Best Fits which ADP Goal</b>	<b>Addresses which strength or weakness</b>
1. Survey graduates	2011	Faculty	C	S2
2. Use survey results to revise Program Learning Outcomes	2011	Faculty	A	S1
3. Work with the Advisory Board to continue adapting and revising the program to meet the needs of the employers.	2010-2015	Faculty	C, D	S2
4. work with the Natural Resources Career Pathways program in increase enrollment	2010-2015	Program Coord.	D	W2
5. Continue to work with Jr Forest TEAM club throughout Hawaii Island	2010-2015	Faculty	D	W1, W2
6. Assess PLOs	2010-2015	Faculty	A	S1
7. complete articulation agreement UHH, UHM	2012-2016	Program Coord.	B	W1
8. Continue to work with potential employers to provide internship opportunities for students	2010-2015	Faculty	C	S2
9. Work with local organizations to provide service learning opportunities	2010-2015	Faculty	A, C, E	S2

**Key to abbreviations:**

**\*ADP Goals are: A, B, C, D, E**

Strengths/Weaknesses are numbered (S1, S2... W1, W2...--from A.4)

**Table 2 —Top 6 Cost Items** (add rows as needed; examples given in *italics*)

<b>Task:</b>	<b>Academic Yr.</b>	<b>Who is responsible</b>	<b>\$ amount &amp; budget category Except R/M</b>	<b>Best fits which ADP Goal</b>	<b>Supported by ADP Resource Requirement? Y/N</b>	<b>Addresses which strength or weakness</b>
1. hire 0.5 FTE-APT	2011	Program Coord.	\$24 K, P	E	Y	W3
2. Expand and update web site	2010-2015	Office manager/faculty	\$500, P, S1x	A, D	Y	W2
3. purchase slide scanner, update printers	2010-2013	Faculty	\$5 K, SE	A, E	Y	S3
4. update GIS computer programs	2010-2015	Faculty	\$20K, SE	A, C, E	Y	S2
5. Purchase new GPS hardware and software	2010-2015	Faculty	\$20K, SE, Eq	A, C, E	Y	S2
6. Hire West Hawaii 0.25-0.5 FTE APT	2010-2015	Faculty	\$50K, P	A, B, C, E	Y	S3

**Key to abbreviations:**

\*ADP Goals are: A, B, C, D, E

Budget Categories: P=Personnel; S1x=Program Review Special Fund;

SE=Supplies Enhanced; Eq=Equipment

Strengths/Weaknesses are numbered (S1, S2, S3, W1, W2, W3—from A.4)

**Table 3.--Repair and Maintenance**

<b>Nature of Problem</b>	<b>Describe Location: e.g. Building(s) &amp; Room(s)</b>
Annual vehicle maintenance	Forest TEAM parking lot

**Table 4—Equipment Depreciation, if applicable** (add rows as needed; examples given in *italics*)

<b>Program Assigned Equipment (E) and Controlled Property (CP) (List in order of chronological depreciation date)</b>	<b>Category: CP or E</b>	<b>Expected Depreciation Date</b>	<b>Estimated Replacement Cost</b>
hp Hewlet packard color	CP	2010	2,189.00

<b>laster jet 4550N</b>			
<b>Geographic PositionSystem</b>	<b>CP</b>	<b>2012</b>	<b>2,182.70</b>
<b>Geographic PositionSystem</b>	<b>CP</b>	<b>2012</b>	<b>2,182.70</b>
<b>Geographic PositionSystem</b>	<b>CP</b>	<b>2012</b>	<b>2,182.70</b>
<b>Geographic PositionSystem</b>	<b>CP</b>	<b>2012</b>	<b>2,182.70</b>
<b>Microscope Binocular</b>	<b>CP</b>	<b>2020</b>	<b>1,031.88</b>
<b>Microscope Binocular</b>	<b>CP</b>	<b>2020</b>	<b>1,031.88</b>
<b>Microscope Binocular</b>	<b>CP</b>	<b>2020</b>	<b>1,031.88</b>
<b>Computer PDC</b>	<b>CP</b>	<b>2013</b>	<b>1,072.80</b>
<b>Computer PDC</b>	<b>CP</b>	<b>2013</b>	<b>1,072.80</b>
<b>Computer PDC</b>	<b>CP</b>	<b>2013</b>	<b>1,072.80</b>
<b>Computer PDC</b>	<b>CP</b>	<b>2013</b>	<b>1,072.80</b>
<b>Computer PDC</b>	<b>CP</b>	<b>2013</b>	<b>1,072.80</b>
<b>Computer PDC</b>	<b>CP</b>	<b>2013</b>	<b>1,072.80</b>
<b>Computer PDC</b>	<b>CP</b>	<b>2013</b>	<b>1,072.80</b>
<b>Computer PDC</b>	<b>CP</b>	<b>2013</b>	<b>1,072.80</b>
<b>Computer PDC</b>	<b>CP</b>	<b>2013</b>	<b>1,072.80</b>
<b>Computer PDC</b>	<b>CP</b>	<b>2013</b>	<b>1,072.80</b>
<b>Computer PDC</b>	<b>CP</b>	<b>2013</b>	<b>1,072.80</b>
<b>Computer PDC</b>	<b>CP</b>	<b>2013</b>	<b>1,072.80</b>
<b>Computer PDC</b>	<b>CP</b>	<b>2013</b>	<b>1,072.80</b>
<b>Computer PDC</b>	<b>CP</b>	<b>2013</b>	<b>1,072.80</b>
<b>Computer PDC</b>	<b>CP</b>	<b>2013</b>	<b>1,072.80</b>
<b>Computer PDC</b>	<b>CP</b>	<b>2013</b>	<b>1,072.80</b>
<b>Computer PDC</b>	<b>CP</b>	<b>2013</b>	<b>1,072.80</b>
<b>Computer PDC</b>	<b>CP</b>	<b>2013</b>	<b>1,072.80</b>
<b>Computer PDC</b>	<b>CP</b>	<b>2013</b>	<b>1,072.80</b>
<b>Computer Laptop Dell</b>	<b>CP</b>	<b>2013</b>	<b>2,025.29</b>
<b>Computer Laptop Dell</b>	<b>CP</b>	<b>2013</b>	<b>2,025.29</b>
<b>Computer Laptop Dell</b>	<b>CP</b>	<b>2013</b>	<b>2,025.29</b>
<b>Computer Laptop Dell</b>	<b>CP</b>	<b>2013</b>	<b>2,025.29</b>
<b>Visual Presenter[elmo]</b>	<b>CP</b>	<b>2015</b>	<b>2,311.92</b>

<b>Camera Video Panasonic Camcorder</b>	<b>CP</b>	<b>2012</b>	<b>1,399.00</b>
<b>Relaskop</b>	<b>CP</b>	<b>2050</b>	<b>1,691.11</b>
<b>Computer PDC</b>	<b>CP</b>	<b>2013</b>	<b>1,072.80</b>
<b>Computer PDC</b>	<b>CP</b>	<b>2013</b>	<b>1,072.80</b>
<b>Computer PDC</b>	<b>CP</b>	<b>2013</b>	<b>1,072.80</b>
<b>Computer PDC</b>	<b>CP</b>	<b>2013</b>	<b>1,072.80</b>
<b>Computer PDC</b>	<b>CP</b>	<b>2013</b>	<b>1,072.80</b>
<b>Computer PDC</b>	<b>CP</b>	<b>2013</b>	<b>1,072.80</b>
<b>Computer PDC</b>	<b>CP</b>	<b>2013</b>	<b>1,072.80</b>
<b>Visual Presenter[elmo]</b>	<b>CP</b>	<b>2015</b>	<b>2,311.92</b>
<b>Sony Bra Via [flat screen tv]</b>	<b>CP</b>	<b>2017</b>	<b>1,778</b>
<b>hp designjet 800ps [Plotter]</b>	<b>CP</b>	<b>2015</b>	<b>3,200</b>
<b>Polycam</b>	<b>E</b>	<b>2015</b>	<b>7,240.00</b>
<b>Microscope</b>	<b>CP</b>	<b>2020</b>	<b>1,131</b>
<b>Microscope</b>	<b>CP</b>	<b>2020</b>	<b>1,131</b>
<b>Microscope</b>	<b>CP</b>	<b>2020</b>	<b>1,131</b>
<b>Green House</b>	<b>E</b>	<b>2050</b>	<b>20,000</b>
<b>Dell Computer[ordered last semester april]</b>	<b>CP</b>	<b>2014</b>	<b>1,580.33</b>
<b>Dell Computer[ordered last semester april]</b>	<b>CP</b>	<b>2014</b>	<b>1,580.33</b>
<b>Dell Computer[ordered last semester april]</b>	<b>CP</b>	<b>2014</b>	<b>1,102.06</b>
<b>Dell Computer[ordered last semester april]</b>	<b>CP</b>	<b>2014</b>	<b>1,102.06</b>
<b>Truck Ford F350 4WD 2003</b>	<b>E</b>	<b>2012</b>	<b>34,666.98</b>
<b>Van Ford E-350 4WD 15 Pax 2003</b>	<b>E</b>	<b>2012</b>	<b>37,424.43</b>
<b>Van Chevrolet Express 4WD 15 Pax 2003</b>	<b>E</b>	<b>2012</b>	<b>34,747.00</b>
<b>Van Chevrolet Express 2WD 15 Pax 2006</b>	<b>E</b>	<b>2015</b>	<b>26,856.00</b>
<b>Tractor PTO HP-31.5 Max 2600 RPM</b>	<b>E</b>	<b>2016</b>	<b>23,470.68</b>



<b>Flail Mower - Gearmore GCF 69</b>	<b>E</b>	<b>2016</b>	<b>3,815.00</b>
<b>Post Hole Digger - Gearmore F8</b>	<b>E</b>	<b>2016</b>	<b>2,387.00</b>
<b>Wagon Cherokee Jeep 1989</b>	<b>E</b>	<b>2010</b>	<b>5,000.00</b>
<b>Trailer Spectrum</b>	<b>E</b>	<b>2016</b>	<b>6,813.00</b>

**Key to abbreviations:**

**CP=Controlled Property w/item value \$1K-\$5K**

**E=equipment w/item value >\$5K;**

C. Table 5—Data Elements

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

<b>Overall Program Health</b>					<b>Unhealthy</b>
<b>Demand Indicators</b>		<b>Academic Year</b>			<b>Demand Health Unhealthy</b>
		<b>Fall 06</b>	<b>Fall 07</b>	<b>08-09</b>	
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	
<b>Efficiency Indicators</b>		<b>Academic Year</b>			<b>Efficiency Health Unhealthy</b>
		<b>Fall 06</b>	<b>Fall 07</b>	<b>08-09</b>	
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	
<b>Effectiveness Indicators</b>		<b>Academic Year</b>			
		<b>2006</b>	<b>2007</b>	<b>08-09</b>	
17	Successful Completion (Equivalent C or Higher)	n/a	n/a	92%	
18	Withdrawals (Grade = W)	n/a	n/a	2	

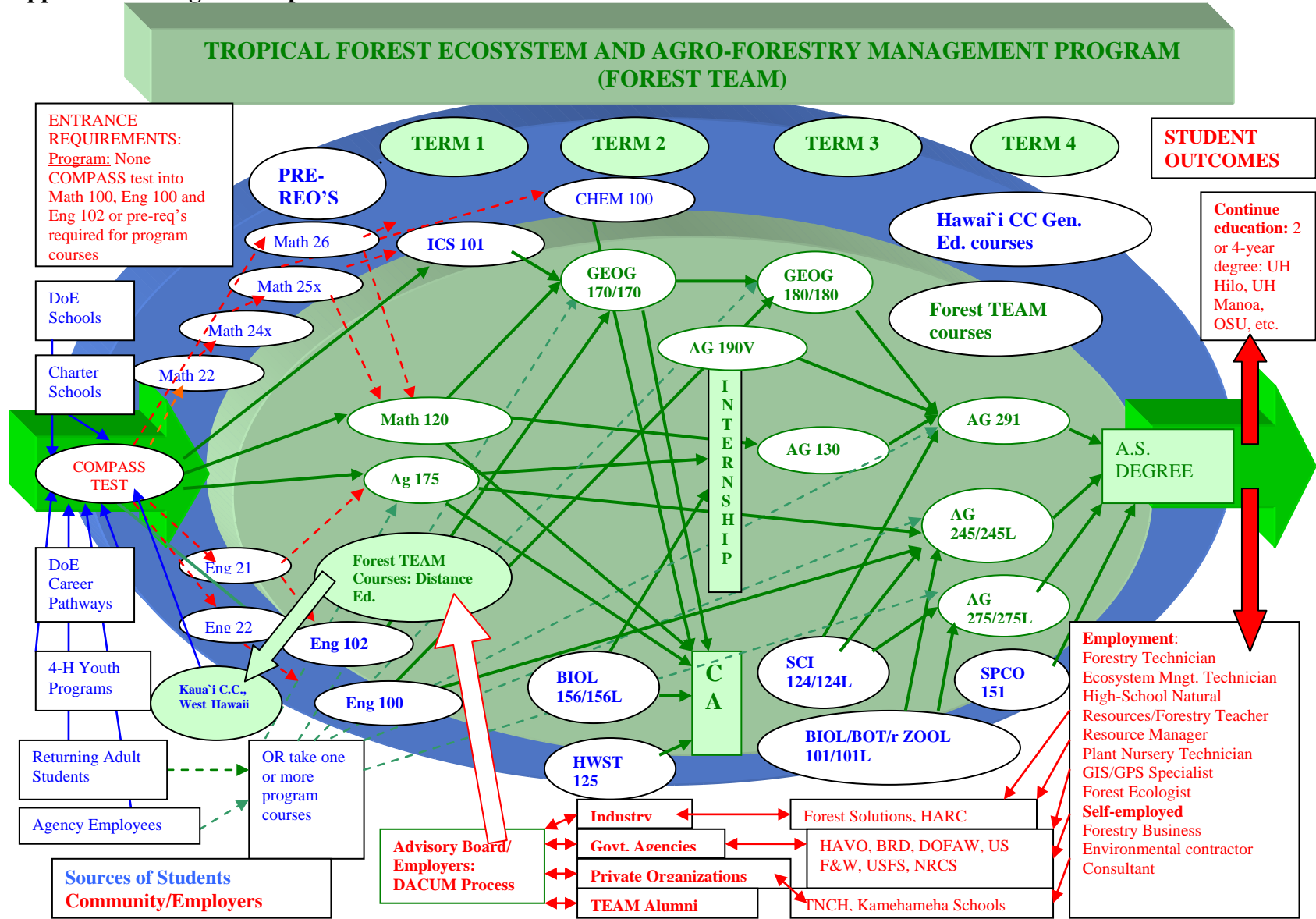
19	Persistence (Fall to Spring)	76%	71%	77%	<b>Effectiveness Health Cautionary</b>
20	Unduplicated Degrees/Certificates Awarded	n/a	n/a	5	
20a	Number of Degrees Awarded	4	10	4	
20b	Certificates of Achievement Awarded	3	4	3	
20c	Academic Subject Certificates Awarded	n/a	n/a	0	
20d	Other Certificates Awarded	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	

C/P denotes that the measure is provided by the college, if necessary.

Data current as of: 8/19/2009 - 3:30:PM

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

# Appendix A. Program Map



## Appendix B Program Assessment Plan

**Semester: Spring 09**

**Student Learning Outcome (program level) for Assessment (taken from Appendix):**

SLO #5 Recognize collect and interpret field data

**Step 1. Identify the artifact(s) (i.e., student work) for assessment and course(s) from which selected:**

Name/Description of artifact:
Survey of a native forest in East Hawaii GEOG 170
Data collection from a tropical tree plantation AG 245
Forest pest identification and assessment of forest health AG 275
Forest Ecosystem Management plan AG 291

**Step 2. Develop the assessment tool (e.g., rubric) to be used with 3 levels of assessment, if applicable—Level 1=does not meet expectations; Level 2=meets expectations; Level 3=exceeds expectations. Attach the assessment tool.**

**Step 3. Set the Performance Rate**

75% of the artifacts assessed by the Assessment TEAM will meet or exceed expectations

**Step 4. Describe the method used to collect the artifacts:**

Where or from whom artifacts will be collected: In class from the students
When will artifacts be collected: Collected by May 15 <sup>th</sup> 2009, Assessment Team evaluation by October 1 <sup>st</sup> 2009

**Step 5. Describe the sampling method used to collect the data:**

Because AG 245, 275, 291 and GEOG 170 are small classes (<10), artifact will be collected from all of the students in each course
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**Step 6. Describe the composition of the Assessment Team (AT) (add more rows as needed):**

Evaluator(s):
1 One science faculty member from Math and Natural Science
2 One employer of Forest TEAM graduates
3 One Forest TEAM advisory board member

**Step 7. The Assessment Team uses the assessment tool(s) (e.g., rubric) to evaluate the data.**

**Step 8. The Program will summarize and interpret the results, and determine the implications for program improvement.**

**Student Learning Outcomes (program level):**

1. Apply basic eco-system concepts to natural resources.
2. Use an understanding of general science concepts to apply
3. Use knowledge of applicable laws and regulations to make decisions about managing ecosystems.
4. Apply effective interpersonal and communication skills.
5. Recognize, collect, and interpret field data.
6. Apply effective management practices to commercial or conservation efforts.

**Matrix of Student Learning Outcomes (program level) by Course (add more columns and rows as needed)**

Course	SLO 1	SLO 2	SLO 3	SLO 4	SLO 5	SLO 6
Ag 130				X	X	X
Ag 175	X	X		X		X
Ag 175L	X	X		X		X
Ag 190V	X			X		X
Ag 192	X	X			X	
Ag 245	X				X	X
Ag 245L	X				X	X
Ag 275	X				X	X
Ag 275L	X				X	X
Ag 291	X		X		X	X
Geog 170		X			X	
Geog 170L		X			X	
Geog 180		X			X	
Geog 180L		X			X	

**Student Learning Outcomes (program level) to be assessed for each year of the program review cycle.  
Identify the learning outcomes by number only taken from above**

Fall semester		Spring semester	
Year 1 (2008/09)	2	5	
Year 2 (2009/2010)		6	
Year 3 (2010/2011)	1		3
Year 4 (2011/2012)			

**Appendix C**  
**Assessment Results**  
**FOREST TEAM ARTIFACT ASSESSMENT RESULTS**

**Evaluation Team Members:**

1. TEAM Instructor: Orlo Steele
2. TEAM Instructor: Pamela Scheffler
3. MNS Lecturer: Russell Ili

**Program Learning Outcome to Be Assessed:**

PLO#2 Use an understanding of general science to apply experimental design.

**Artifact Sampling:**

Five (5 of 5) Koa seed germination experimental reports were used to assess this PLO for Agroforestry (AG 175) and five randomly selected (5 of 6) ecosystem experimental designs were used to assess GIS in Ecosystems Management (GEOG 180).

**Evaluation Team Members Results:**

Out of the five artifacts for AG 175 four were assessed as to meeting the overall expectations of the program and one was assessed as exceeding the expectations. Three of the 10 rubric components were not applicable. For GEOG 180, all 5 experimental designs were evaluated as overall meeting the expectations. However, one design was border line with 2 out of 6 rubric components evaluated as not meeting expectations. For this artifact 5 of the 10 rubric components were not applicable.

All 3 members agreed that the koa seed germination experiments and the ecosystem experimental designs were adequate assessment tools for measuring PLO 2.

**Course of Action Using the Assessment Results;**

The evaluators of this PLO believe that some of the rubric components unnecessarily evaluate data collection, transcription and analysis while the learning outcome is for designing experiments. The evaluation team agreed that rubric components numbers 5-9 should not be used next time this course is evaluated as they are more adequately measured in other classes