Program Review

College of Tropical Agriculture and Human Resources
University of Hawaii

March, 2015

Review Team

Janet Anderson, Vice Provost, Utah State University

William Brown, Dean for Research, University of Tennessee, Institute of Agriculture

Kathleen Morgan, Chair, Family and Community Health Sciences, Rutgers University

Lee Yudin, Dean/Director, University of Guam
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Review Process

The Review Team members would like to express their sincere appreciation to Dr. Reed Dasenbrock, Vice Chancellor for Academic Affairs and the entire Vice Chancellor’s office including Ms. Lori Furoyama, Educational Specialist, Ms. April Goodwin, Academic Affairs Program Officer and Ms. Holli Kihara, Secretary Office of the Vice Chancellor for their hospitality and helpful input during the review. Appreciation is also expressed to Dr. Maria Gallo, Dean College of Tropical Agriculture and Human Resources (CTAHR), faculty and staff for the helpful background information provided along with the open and honest dialogue during the review.

The review was facilitated by the timely access to background information regarding the University of Hawaii, CTAHR and its academic departments, Research and Education Centers and county Extension offices along with information regarding the previous review which took place in 2008. These background and informational documents, along with useful website links, were conveniently placed on a special website for the Review Team by the Vice Chancellor for Academic Affairs Office.

Prior to the onsite review, the Review Team participated in three conference calls with the Vice Chancellor for Academic Affairs office for background, insight and to answer Review Team member questions. The Review Team also had a telephone conference call with Dr. Gallo, and some of the Review Team met with her in person at the APLU meeting in Washington, DC on March 3, 2015. Finally, the Review Team met once by conference call prior to the onsite review.

During the on-site review, the Review Team met with the interim Chancellor, Vice Chancellor for Academic Affairs, Vice Chancellor for Administration, Finance and Operations, the CTAHR Dean and Associate Deans, Department Heads, Faculty, County Administrators and Extension Agents, departmental and college staff, undergraduate students, graduate students and the CTAHR Advisory Council. Meetings were also held with the University assessment office, Office of Undergraduate and Graduate Education along with tours of departmental laboratories and facilities.

Overview

University of Hawaii. The University of Hawaii at Manoa was founded in 1907 and represents the flagship campus of the University of Hawaii System. It stands out among a unique group of institutions nation-wide as one of a few to hold the designation as a land-, sea- and space-grant institution. As a comprehensive institution, the University of Hawaii also has medical and law schools. The University of Hawaii is a top 50 public university in research expenditures as ranked by the National Science Foundation and is classified by the Carnegie foundation as having “very high research activity”. Campus-wide student numbers are approximately 14,000 undergraduates and 5,500 graduate students.

College of Tropical Agriculture and Human Resources (CTAHR). As one of 17 colleges and schools within the University of Hawaii, Manoa, CTAHR represents the Land Grant arm of the University of Hawaii. Integrated teaching, research and extension programs highlight CTAHR’s programs and are delivered to students and the public through the six departments of Family and Consumer Sciences,
Human Nutrition, Food and Animal Sciences, Molecular Biosciences and Bioengineering, Natural Resources and Environmental Management, Plant and Environmental Protection Sciences, and Tropical Plant and Soil Sciences. The College serves approximately 750 undergraduate students and 250 graduate students. CTAHR manages a network of Experiment Stations and Extension Offices operating in 27 locations across the state along with county extension agents, offering a wide range of research and learning environments.

Findings and Recommendations

Continuing Topics From the 2008 CTAHR Review

The last CTAHR review took place in 2008. The current Review Team studied the previous Review Team report as well as responses from the Vice Chancellor for Academic Affairs and the CTAHR Dean at that time. Important observations from that review and the current Review Team’s findings and recommendations include:

- **CTAHR Vision and Mission.** CTAHR’s vision and mission are well aligned with the University of Hawaii System’s strategic goals and objectives. The current Review Team supports the CTAHR Vision and Mission statements and believes that CTAHR can play a major role in ensuring that the entire University of Hawaii System is deeply engaged with Hawaii’s communities as well as serving as an economic engine for business development in the state and region. Although excellence is mentioned in the CTAHR mission statement, the current Review Team recommends that a stronger focus on delivering and maintaining excellence be articulated through the vision and mission statements. Further, it is recommended that the mission and/or vision statements include a mention of “mission integration” across teaching, research and extension as a critical component of the Land Grant philosophy.

- **Departmental Reorganization.** The current Review Team finds some lingering negative carryover effects of departmental reorganization in only a few CTAHR programs and departments. As new faculty and staff have been hired over the past 10 to 12 years, these negative impacts have diminished and as retirements and new hiring continues, it is felt that these impacts will continue to diminish over time. However, it is recommended that CTAHR administration continue to address mechanisms to foster transdisciplinary programmatic linkages within and among not only CTAHR departments but across other Colleges within the University of Hawaii System. The current CTAHR Strategic Planning exercise currently underway will help in this regard. The current Review Team does not feel that another departmental reorganization is called for at this time. With a new CTAHR administration in place and a strategic planning exercise underway it is suggested that additional time be allowed prior to the consideration of another departmental reorganization.

- **Funding/Budget Reductions.** Reductions in state allocation, with some degree of off-set through increased tuition is a challenge facing all public higher education institutions today. College funding allocation levels both within the University of Hawaii allocation to CTAHR and allocations within
CTAHR to departments and units have been historical. The new, proposed plan for augmenting these base allocations with funding incentives based on student credit hour generation will assist Colleges such as CTAHR which may be able to enhance student enrollment and course delivery. A perhaps unique challenge facing the University of Hawaii upper administration (Vice Chancellors for Academic Affairs, VCAA and Administration, Finance & Operations, VCAFO) and the CTAHR Dean in the implementation of this model is tied to: (1) the tripartite mission of integrated teaching, research and extension and (2) specific mission area faculty appointments which exists in CTAHR. Two mission areas (research and extension) do not generate student credit hour production yet CTAHR faculty appointments are specifically allocated to these mission areas.

- **Delivering the Land-Grant Mission.** At most Land Grant universities, the faculty appointment allocation model used within the “College of Agriculture” differs from that used in other Colleges such as Arts and Sciences or Engineering. In the College of Agriculture model, faculty appointments are typically 12 months (or 11 months), although some institutions are moving to a 9-month appointment model with new faculty hires. This differs from the 9-month faculty appointment typically seen in other academic Colleges where faculty may teach 3 to 4 courses per semester with an expectation of research during the summer. This difference is related primarily to the direct mission orientation of faculty members in the “College of Agriculture” and the need for their services on a year-round basis to meet the responsibilities of their appointment. Another unique feature of the “College of Agriculture” faculty member is the direct mission responsibilities of their program. Position descriptions for faculty members in “Agricultural Colleges” typically are very specific and are directly tied to the mission and clientele/public needs of the faculty line. These positions are developed from input based on discussion with clientele and other groups outside of the university as well as observed needs within the department, college and university. In these cases, appointments (percentages of teaching, research and extension) for a given faculty member are based on the need and responsibility of the position. Activity of a faculty member in the “College of Agriculture” does not vary greatly from responsibilities articulated in the position description; for example a plant breeder hired to conduct soybean breeding would not move her/his program to focus on breeding fruit trees unless the college administration in consultation with clientele agreed that the change was needed and justified.

- **Balancing the Land-Grant Mission.** The essentially “single pool” funding model at the University of Hawaii (state allocation plus tuition) draws special attention to the need for disciplined thought from University administration to ensure that the teaching, research and extension missions of CTAHR are fully realized. New funding models tied to student credit hour generation must be balanced with research and extension needs.

- **Recommendations.** The 2008 review along with responses in 2008 from Interim VCAA Peter Quigley and in 2010 from VCAA Reed Dasenbrock spoke to the need for a long-term faculty staffing plan based on a future vision for CTAHR as well as an evaluation of the “fractionation” of faculty appointments across instruction, research, and extension. The current Review Team recommends that:
• The VCAA, VCAFO and the CTAHR Dean work together to develop (as specific as possible) financial commitments for each of CTAHR’s three mission areas; the recommendation below will assist in determining an approximate commitment for teaching. These commitments can serve as a guideline to maintain consistent funding levels for each of CTAHR’s mission areas, but can be modified over time as funding levels change.

• The CTAHR Dean develop an academic programs workload formula to calculate the actual teaching activity for each CTAHR faculty member as related to their budgeted appointment. This approach will help to inform each department’s strategic thinking around curriculum development and future staffing plans, and can assist in establishing a CTAHR budget allocation to meet teaching needs.

• Based upon acceptable student enrollment and a compelling, relevant justification by CTAHR for a faculty position, all faculty lines which are opened by retirement or resignation be returned to CTAHR (the 2008 report mentioned that active discussion was underway which would call for a 1:2 return of faculty lines to CTAHR upon retirement or resignation, yielding a 50% refill rate on faculty positions).

• **Low Enrollment Programs.** Increasing reliance on tuition in today’s funding model at public institutions of higher learning necessitates greater scrutiny on individual student course enrollment as well as enrollment in various academic programs. University administrators must balance the need to generate increasing student credit hours per faculty FTE while at the same time understand and support the specific objectives of certain courses and programs that are very important to the university but may be limited in student credit hour generation. Information provided to the Review Team indicated that a program is classified as Low Enrollment if less than 10 students are enrolled or if the program has awarded 15 or fewer degrees in the preceding five years. Based on data provided to the Review Team, the following CTAHR programs are considered to be Low Enrollment:

<table>
<thead>
<tr>
<th>Program</th>
<th>Degree</th>
<th>Enrollment Trigger</th>
<th>Degrees Awarded</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food Science</td>
<td>MS</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>Nutrition</td>
<td>PhD</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>Biological Engineering</td>
<td>MS</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>Entomology</td>
<td>MS</td>
<td>Meets</td>
<td>10</td>
</tr>
<tr>
<td>Entomology</td>
<td>PhD</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>Tropical Plant Pathology</td>
<td>MS</td>
<td>6</td>
<td>8</td>
</tr>
<tr>
<td>Tropical Plant Pathology</td>
<td>PhD</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>Tropical Plant &amp; Soil Sciences</td>
<td>PhD</td>
<td>9</td>
<td>5</td>
</tr>
</tbody>
</table>

• **Recommendations:** The Review Team recommends that University administration review the threshold criteria used for classifying a program as Low Enrollment, specifically whether or not the same thresholds should be used for both undergraduate and graduate programs. Further, it is recommended that a proactive communications plan be developed which explains to faculty and staff that although the Low Enrollment issue is being directed from the state legislature, the University must continuously evaluate the efficient and effective use of state and federal
resources that are entrusted to it. Additionally, a comprehensive recruitment plan should be developed which focuses on the Low Enrollment programs. Graduate programs can be enhanced through the new international program which partners with institutions in China. Recommendations for addressing specific Low Enrollment programs can be found in the departmental sections later in the report.

- **Relationship with University Administration.** With his prior service at a Land Grant institution, the Review Team found VCAA Dr. Reed Dasenbrock to have a strong understanding of the Land Grant mission. The Review Team recommends that the VCAA meet individually with the CTAHR Dean on a regular basis to discuss how the Land Grant arms of CTAHR, especially extension, can serve as a front door to the University of Hawaii, Manoa to bring engagement of all University of Hawaii System programs to Hawaii’s citizens. Because the VCAA meets with all College Deans regarding academic programs, this individual meeting with the CTAHR Dean may focus on CTAHR’s extension and research missions. It is also recommended that the CTAHR Dean meet periodically with the Vice Chancellor for Research for discussion of ways in which CTAHR can add to the research mission of the University of Hawaii, Manoa. The Review Team also recommends that the Chancellor, VCAA and VCAFO attend various CTAHR field days and county events across the state to gain better insight into how CTAHR programs can benefit the entire University.

- **Curriculum.** The 2008 report indicated that most of the academic programs within CTAHR had recently undergone significant curriculum revision. Even with curriculum revisions, the review suggested that CTAHR may be trying to deliver too many academic programs given its resource allocation. The 2008 report goes on to say that in several departments, too many courses are being provided in support of programs that are too wide and diverse in their approach. At the time of the current review (2015), CTAHR is in the implementation phase of a Strategic Planning process. Faculty, staff and students have developed Action Plans around three priority areas: (1) Collaboration, (2) Funding (Resources), and (3) Education. Within the Education priority area, two Action Plans have been identified to: (a) define educational foci and (b) engage and support students.

- **Student Numbers.** A stated objective of the CTAHR Strategic Plan is to increase student enrollment. The proposed funding model based on student credit hour generation can support this objective. The current Review Team recommends that CTAHR calculate current teaching workload effort as compared to budgeted allocation and work with the VCAA and VCAFO to determine if additional funding based on the new model is sufficient to support additional student enrollment. It is the Review Team’s understanding that additional funding based on the new model will be recurring only to the extent that increases in student credit hour generation which led to the increased funding continues. This suggests that increases in faculty to teach the increased number of students will most likely be non tenure-track faculty or lecturers which is counter to the desire for tenure-track lines which also engage in cutting-edge research and extension outreach. The Review Team recommends that the VCAA, VCAFO and the CTAHR Dean investigate the possibility of adding permanency to at least a portion of these funds. The
strength of a leading, relevant Land Grant university, which sets it apart from regional college is that its students are being taught by faculty that are also engaged in cutting-edge research.

- **Interdisciplinary Instruction.** The 2008 report indicated a greater need for interdisciplinary approaches within the curriculum. The current Review Team sees an increase in engagement within CTAHR departments and across campus. For example, the MBBE curriculum is working collaboratively with biology, chemistry and the College of Engineering. It is recommended that the CTAHR departments continue to seek opportunities for interdisciplinary approaches within the curriculum not only among CTAHR departments but across appropriate curriculums at the University of Hawaii, Manoa and beyond. As the funding model moves toward incentives based on student credit hour generation, University of Hawaii Administration should develop mechanisms for shared credit to address the incentive.

- **Learning Outcomes and Assessment.** The 2008 report indicated that each of the CTAHR academic programs is guided by well-stated learning outcomes and that assessment protocols have been developed within each department. The current Review Team agrees that learning outcomes and assessment criteria are well documented for the various CTAHR academic programs. However, it appears that the direct application of the assessment process is not complete in some of the departments. It is recommended that the CTAHR Dean and Associate Dean for Academic and Student Affairs engage the departments to ensure that assessment data is being collected in an appropriate manner.

**University Wide Topics Affecting CTAHR**

**Topic: University Budget Shortfalls**

**Challenge:** CTAHR appears to be managing their budget well and appears to have maintained a balanced budget, but university shortfalls have had a negative impact on the operations of the college. Recently, recurring funds were removed from the CTAHR budget to meet a university-wide budget shortfall limiting the college in its ability to fill important faculty lines.

**Recommendation(s):** When budget shortfalls exist at the university or college level, efforts should be made to utilize nonrecurring funds when possible until recurring funds can be accumulated. Colleges should be held accountable for over-expending funds allocated to them.

**Topic: CTAHR is Administratively Thin**

**Challenge:** Compared to other Land Grant institutions that administer Instruction, Extension and Experiment Station programs, CTAHR is administratively thin relative to its overall budget and programmatic responsibilities. Some of the challenges the Review Team noted were a lack of help with graduate student management/advising, pre-award help with grant proposal development, and statistical support for research projects.

**Recommendation(s):** Consider having a few faculty members take on administrative initiatives as part of their workload. For example, provide a small administrative appointment (20 or 30%) to a faculty member in the Associate Dean for Research office to administer a grantsmanship initiative. It is the
Review Team’s understanding that CTAHR is in the process of hiring a pre-award grant coordinator to assist faculty in proposal development. Other opportunities for a grantsmanship initiative might be a “Red Team” peer proposal review prior to submission, an internal grants program designed to leverage extramural opportunity, a new-faculty grantsmanship workshop series, among others. An administrative appointment might be provided to another faculty to serve in the Associate Dean for Academic and Student Affairs office to provide assistance to faculty in managing administrative issues relative to graduate students. This would allow CTAHR to ‘build’ faculty leaders as well as expand student services.

Topic: **Inefficiencies in Financial/Business Operations**

**Challenge:** The university is using two financial systems (UH system and RCUH system) which causes inefficiencies and delays in procurement, human resources, development and payment of purchase orders, among other business functions. These inefficiencies result in reduced effectiveness and productivity of the university which results in unhappy faculty, staff and students.

**Recommendation(s):** Investigate business systems in use at other institutions which seem to be working well. The Review Team understands that this may be a University of Hawaii System challenge and that a System solution may be required.

Topic: **Review of Research and Extension Needed**

**Challenge:** Although the primary responsibility of the current Review Team was to review CTAHR academic programs, several weaknesses were identified with the research and Extension functions of CTAHR. Extension faculty reported that they felt they had no voice and that their positions had become diluted because the integrity of Extension has not been given adequate attention.

**Recommendation(s):** Conduct separate reviews of the research and extension functions within CTAHR. Have regular meetings between the CTAHR Dean and the Vice Chancellor for Academic Affairs regarding Extension and research.

Topic: **Placement of Extension Agents in Departments**

**Challenge:** Extension Agents appointed to academic departments and reporting to the chair of the academic department is not a typical model as compared to other Land Grant institutions across the country and can cause administrative and programmatic inefficiencies.

**Recommendation(s):** University of Hawaii upper administration along with the CTAHR Dean should investigate this appointment structure. Please see the section on extension for a full discussion of the issues and recommendations. An Extension Review would help to shed light on this topic.

Topic: **Funding Model**

**Challenge:** CTAHR’s funding model from the University of Hawaii, Manoa is not consistent with that of other Land Grant institutions of which the Review Team is familiar. CTAHR’s “single pool” funding allocation challenges the three-part Land Grant mission of teaching, research, and extension.
**Recommendation(s):** The Review Team recommends that the university investigate other Land Grant funding models to explore the possibility of funding around teaching, research and extension. Please see the introductory section for a full discussion of the issues and recommendations.

**Topic:** Possible Instruction Inefficiencies

**Challenge:** Several department chairs and faculty members indicated that additional departmental faculty are required to teach the increased number of students in their programs. Also, several students indicated that many of the teachers do not fully utilize modern technology in their classroom delivery. The Review Team feels that some of this may be due to inefficiencies in instruction.

**Recommendation(s):** The proposed funding model which will incentivize increased student credit hour generation per faculty FTE will assist in addressing this challenge to some degree. However, the Review Team recommends that the CTAHR Dean investigate the implementation and full utilization of a course management system by CTAHR faculty. Utilization of hybrid courses and other new teaching approaches may increase efficiency of use of faculty time.

**Topic:** Alumni Tracking

**Challenge:** The University of Hawaii has no ability to track alumni making it difficult to assess the outcomes of the educational programs and maintain a linkage to a large base of possible donors.

**Recommendation(s):** Consider using permanent emails for students so they can be reached easily following graduation. Investigate alumni tracking systems currently in use at other institutions.

**Topic:** Low Enrollment Programs

**Challenge:** Some academic programs fall into the ‘Low Enrollment’ category used by the Vice Chancellor for Academic Affairs.

**Recommendation(s):** Communicate to faculty and staff that this is an initiative led by the state legislature. Although the University of Hawaii must continually evaluate the efficiency of its academic programs, faculty and staff should be reassured that University of Hawaii administration does not evaluate this issue with a one-size-fits-all mentality. For very appropriate reasons, student credit hour generation per faculty FTE may be limited for certain courses and programs. These situations should be clearly justified by the academic department. Faculty, staff and University of Hawaii administration should continually develop plans to be proactive instead of reactive to this issue. Efforts should be directed toward the development of a comprehensive recruitment plan focusing on under-enrolled programs. The international initiative with various institutions in China can assist in this regard and CTAHR should be very active in participation with this program. Additional 2+2 programs may be developed as feeder programs into low-enrollment programs. Please see the introductory section for a full discussion of the issues and recommendations.
Topic: **Inadequate Building Maintenance**

**Challenge:** The maintenance of the buildings and facilities is a source of great frustration to faculty and students. Some research facilities are decrepit, overcrowded and inoperable leaving researchers and graduate students to conduct research studies in hallways. As an example the Review Team observed greenhouses on top of Gilmore Hall that do not have a working ventilation system. Debris and inoperable remnants of former research projects were found in some of the facilities. A faculty member indicated that he has tried to have an inoperable piece of equipment removed from the hall for several years. There are inoperable greenhouses between St. John and Sherman Halls that were built and never occupied for many years. The problem of inadequate building maintenance seems to be tied up in a highly restrictive culture at the University of Hawaii where state/union regulations dictate what different support groups are allowed to do. The lack of attention/support in this arena is causing unhappy faculty and students and is impeding progress.

**Recommendation(s):** Establish a sense of community and pride in the facilities by asking everyone to maintain the cleanliness of their spaces. Bring faculty together and develop a master plan of needed repairs and maintenance. Prioritize requests. Seek support from within the organization as well as through the Advisory Council and industry. CTAHR and the University of Hawaii might consider developing a deferred maintenance fund that can be used to address maintenance issues on campus and at the Research and Education Centers and Extension Offices across the state.

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Topic: **Bottleneck Classes**

**Challenge:** Several students and faculty reported that students are often unable to reach completion of their academic program because courses are not always offered and/or because class or lab size is limited to small enrollments.

**Recommendation(s):** Identify specific classes that are bottlenecks to degree completion and address them. Investigate the use of online courses and hybrid courses to address bottleneck classes. Work to use laboratory spaces to full capacity.

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Topic: **Teaching Assistants**

**Challenge:** Faculty and students report the lack of teaching assistant support for classes. The Review Team also heard that in some cases teaching assistants hired for a given class have not taken the class previously and have limited knowledge of the course content. The Review Team was told that teaching assistants are hired on a semester by semester basis. This policy imposes a large challenge on graduate students toward timely completion of their graduate program.

**Recommendation(s):** the Review Team recommends that a complete study of the teaching assistant program take place. The CTAHR Dean should investigate whether or not CTAHR has a sufficient number of teaching assistants. Enhance the linkage of graduate student management and administration to the CTAHR Associate Dean for Academic and Student Affairs office.
Internal Topics Affecting CTAHR

Topic: Department Chairs

**Challenge:** Revolving Department Chairs have certain limitations in making critical decisions that are necessary for department stability and growth. The fear and possibility of repercussion can take place once revolving Department Chairs go back to their faculty role.

**Recommendation(s):** CTAHR should examine the possibility of implementing permanent Department Heads rather than rotating Department Chairs. Example of how this might work - faculty propose a few acceptable candidates to the Dean, who interviews the candidates and then selects. The Head remains Department Head until, (a) the Dean chooses to terminate, (b) the Head chooses to step down, or (c) faculty officially request the Dean for Head removal which can be turned down or accepted by the Dean.

Topic: Office and Lab Space Allotments

**Challenge:** As faculty generate additional grant and contract funding and have a greater number of graduate students, sufficient office and laboratory space becomes limiting and imposes a challenge on increasing program output.

**Recommendation(s):** Investgate the possibility of developing a CTAHR Space Committee for space allocations which would be approved by the CTAHR Dean. This committee should meet monthly or quarterly based on needs and requests. Final allocations would be approved by the Dean.

Topic: Comprehensive Student Recruitment Plan

**Challenge:** To ensure that CTAHR is proactive in recruiting the best students for their degree programs.

**Recommendation(s):** Develop a CTAHR-wide comprehensive student recruitment plan that provides a well-orchestrated set of objectives of how this task will be accomplished. A sub-committee of at least one member from each department should be placed on this sub-committee.

Topic: Large Pool of Lecturer Positions

**Challenge:** The hallmark of a leading Land Grant university is that students are taught by faculty conducting cutting-edge research. Students of the University of Hawaii, who pay full tuition, deserve tenure-track faculty devoted to their subject area, especially in upper-division classes. Full time, tenure-track faculty have a greater tendency to incorporate current research and extension endeavors into their curriculum.

**Recommendation(s):** The use of Lecturer Positions is appropriate in some situations. However, there seems to be an excess number of Lecturer Positions used by certain departments in CTAHR. The Review Team suggests that the CTAHR Dean evaluate the total number of Lecturer Positions being used to fill vacant tenure-track positions and perhaps use these data to advocate why tenure-track faculty would be a better use of these funds.
Topic: **Student Scholarships**

**Challenge:** Most students require some level of financial aid to attend the University of Hawaii and to achieve the 15-credit hour per semester goal that the University of Hawaii has established for on-time graduation in four years. There is a significant number of un-awarded scholarships within CTAHR, which should be fully optimized in future years.

**Recommendation(s):** *Current Department Chairs need to make better use of unspent and underutilized scholarship funding. Chairs should collectively work with the Associate Dean for Academic and Student Affairs to ensure that all scholarship funding is utilized. Comprehensive system review software such as STARS or AwardSpring might be used for this purpose.*

Topic: **Workplace Discrimination**

**Challenge:** Multiple faculty and staff from several departments pointed out to the Review Team that discrimination issues within CTAHR have occurred in the past and some may still be ongoing. Faculty and staff awareness of what constitutes discrimination is needed.

**Recommendation(s):** *Mandatory discrimination training for all faculty and staff every 3 to 5 years is strongly encouraged.*

Topic: **Department Reorganization**

**Challenge:** Nearly 12 years ago, CTAHR went through a major departmental reorganization process and although minimal, there still seems to be some concerns with current departmental structures.

**Recommendation(s):** *The Review Team strongly recommends that no further reorganization take place at this time. The current strategic planning process and implementation will help address this issue. Please see the introductory section for a full discussion of the issues and recommendations.*

Topic: **Magoon Facility**

**Challenge:** Most of the Research and Education Centers are at least an hour drive from the University of Hawaii campus. The Magoon facility, which is within walking or short driving distance from campus, provides upscale laboratories and field facilities for faculty and students. This facility provides an excellent opportunity for hands-on learning through classroom instruction within the lecture hall at the facility along with greenhouses and field-based projects to promote experiential learning. The facility also provides a resource for intensive research activity which requires specialized research procedures and applications on a daily basis. The Review Team found that these facilities were of equal or better quality as compared to those on their campuses and represents an invaluable resource for CTAHR faculty and students.

**Recommendation(s):** *Not to allow this land to be used for the development of new faculty housing and that these current upgraded facilities are fundamental to the current teaching and research programs found in numerous departments within CTAHR. Hands-on applications are critical for student learning success particularly in agriculture and natural resources teaching programs and CTAHR students cannot get that any other way in their courses.*
Topic: **Graduate Students and Academic Services**

**Challenge:** There seems to be a lack of a cohesive center for graduate students and graduate faculty advisors within CTAHR that deals specifically with academic services.

**Recommendation(s):** The Review Team recommends that the office of the Associate Dean for Academic and Student Affairs serve as the hub/catalyst on graduate policy, procedures, forms, graduation/degree requirements, thesis and dissertation policies. To assist in the implementation of this recommendation, a part time administrator or a load allocation be given to one CTAHR faculty to help this vital area of services (please see further description of this topic in the University Wide Topics Affecting CTAHR section of this document). The Review Team also recommends that current graduate advisors, from each department, meet on a regular basis with the Associate Dean for Academic and Student Affairs to discuss new policies/procedure and information. A policy should be developed in which Graduate Coordinators in each department are aware of all incoming graduate students and their major advisor.

Topic: **Professional Undergraduate Advisors**

**Challenge:** For many years, CTAHR has relied on individual faculty members to serve as advisers for undergraduates in their department. Some faculty are excellent advisors and some faculty are very poor in academic advisement.

**Recommendation(s):** The two new professional advisors that have recently been hired will help with retention and graduation rates and internship placement within each degree program. This will allow a uniform advisement strategy among all undergraduate students. The Review Team recommends that CTAHR be proactive in working with the university-wide units that have been established on campus regarding assessment, graduate education and undergraduate education.

Topic: **Intensive Writing Requirement for Undergraduates**

**Challenge:** Requiring undergraduate students to take five intensive writing courses seems a bit extensive and in fact is causing bottlenecks in the four-year degree completion rate.

**Recommendation(s):** To develop a strategic plan to deal with the ever-present bottlenecks these five (5) intensive writing requirement are causing undergraduate students. Only having 20 students per class is one bottleneck and the possible reduction of 5 to 3 required classes. Undergraduate students commented to the Review Team their desire to have classes associated with the intensive writing requirement more focused within their specific disciplines.

Topic: **County Agents**

**Challenge:** Finding a viable workforce that has the level of expertise required to meet Hawaii’s public needs within the salary structure of the University of Hawaii. It is the understanding of the Review Team that in order to be employed as an Extension County Agent in Hawaii, the individual must have a Masters degree and three years of work experience. These requirements are greater than those observed in most Land Grant institutions.

**Recommendation(s):** The Review Team recommends that CTAHR review the employment requirements and required work experience for county-agent hires. The requirement of a Masters degree plus three
years of work experience seems very high for an entry-level Extension Agent. Requirements for entry-level Extension Agents at many land grant institutions require a Bachelor’s degree with work experience used to rank applicants. Agents are then incentivized to receive a Masters degree within five years of employment and receive a salary increase. Further, at many Land Grant institutions, the Extension County Director must have the Masters Degree. The Review Team understands that the dispersed nature of Extension Agents across the five islands may necessitate greater requirements for entry-level Extension Agents.

Cooperative Extension System

Overview of CTAHR Cooperative Extension System

The CTAHR Cooperative Extension Service (CES) is a part of the world’s largest non-traditional education system, the Cooperative Extension System, which can be found in almost all of the 3,150 counties in the 50 states as well as all of the U.S. Territories. The Cooperative Extension System is one of three major components of Land Grant universities, along with instruction and research. It is termed “Cooperative” because of the unique partnership between federal, state, and local governments and has responsibility for delivering science-based information and educational programs in agriculture, natural resources, and human resources to the public.

The Cooperative Extension System brings evidence-based science and modern technologies to farmers, consumers, and families. Through extension, Land Grant institutions reach out to offer their resources to address public needs. By educating farmers on business operations and on modern agricultural science and technologies, extension contributes to the success of countless farms, ranches, and rural business. This evidence base extends to improve the lives of consumers and families through nutrition education, food safety training, and caregiving and youth leadership development.

CTAHR Cooperative Extension is the Community Outreach arm of the University to the State of Hawaii. Cooperative Extension represents a “front door” to the University of Hawaii (not just CTAHR) in every community in the state. This variety of outreach programs delivered to the community at large provides excellent exposure to the University of Hawaii at Manoa as “our” university. Most of the extension agents and many of the specialists are University of Hawaii faculty members who work from off-campus extension offices.

Strengths of CTAHR Cooperative Extension

- Cooperative Extension is the Community Outreach arm of the University to the State. Cooperative Extension along with CTAHR’s Agricultural Research and Education Centers and other field facilities represents a “front door” to the University of Hawaii (not just CTAHR) in every community in Hawaii;
The variety of outreach programs delivered to the community at large provides excellent exposure to the University of Hawaii at Manoa as well as the entire University of Hawaii System and represents the University as “Hawaii’s University”;

- The 4-H Youth program is supported by key stakeholder groups in the state;
- County agents are available for individual consultations with Hawaii’s citizens and provide educational workshops and short-courses covering topics in agriculture, family resources, family living, 4-H and other youth activities, nutrition, and health. Educational materials such as brochures, publications, and videos are also available at county extension offices for use by the general public;
- The community outreach through these long enduring programs has promoted the University of Hawaii and in particular, CTAHR. Thousands of youth and adults have participated in and benefited from these programs;
- The Cooperative Extension Service has the ability to understand the needs (new and emerging) of their various clientele and stakeholders. Their county base gives them the advantage of knowing their county/community and to develop integrated programs to meet those needs.

**Topic:** Cooperative Extension Five Year Vision  
**Challenge:** Cooperative Extension’s five year future vision is severely affected by the reorganization of the past six to ten years. Many of the Cooperative Extension faculty positions that were left vacant due to retirements and resignations were not refilled due to budgetary constraints. Further faculty retirements are expected in the next five years, thereby diminishing the Cooperative Extension System programs even more.

**Recommendation(s):** As reiterated above, Cooperative Extension programs bring great value and usefulness to the citizens of Hawaii. The non-formal education utilized by individuals, families and youth has the ability to improve and transform lives. Financial and other resources should be dedicated to assist in determining how best to develop an effective statewide structure. This will require a commitment of CTAHR administrators to thoughtfully reflect on what strategies can bring a win/win resolution.

**Topic:** CTAHR Reorganization  
**Challenge:** In Review Team meetings consensus comments were made by CTAHR faculty and county agents, relative to the original vision that the CTAHR reorganization in 2000 would result in an integration of programs and outputs. The faculty and county agents believe that this vision has not materialized and may have resulted in the loss of Extension faculty in academic departments. Many departments do not feel as though they have adequately recovered due to faculty retirements and resignations. Extension faculty and County Agents in many CTAHR units feel marginalized by their lack of needed faculty positions and resources.

**Recommendation(s):** The Progress Report of 2012 referred to a Priority Staffing Process. If this Process is still being utilized, it might be useful to review it with Extension faculty and Chairs, for a better understanding of how faculty positions are prioritized and filled.
Topic: Absence of Adequate Extension Staffing in Departments and Counties Renders the Cooperative Extension Service as Very Vulnerable

Challenge: When campus departments and counties across the state have decreased county agents, faculty, classes, and the fallout that occurs with decreased programmatic staffing, it can render the programs as very vulnerable. The decrease of Cooperative Extension Service programs in the counties will directly impact the delivery of community-based programs directed to the well-being of Hawaii individuals, families and youth. In several instances, the Review Team heard the comment that many individuals in communities around Hawaii believe that the outreach education programs taught by CTAHR Extension are delivered by the specific University of Hawaii campus in their counties rather than from the University of Hawaii, Manoa which is the Land Grant College.

Recommendation(s): The Review Team recommends that new administrative models for Cooperative Extension be investigated. Currently County Agent appointments are located in academic departments, with the Agents reporting to the Department Chair. Consideration might be given to the possibility of a model where County Agents report to the County Administrator in their county, with input from the Department Chair of the Agent’s academic appointment during the Agent’s annual review. In this model, the County Agents and County Administrators work with the CTAHR Associate Dean for Extension and the CTAHR Dean to administer Cooperative Extension programs within Hawaii.

Topic: Providing Access to University Facilities Through the County/Field Offices Located Throughout the Islands Enables all the Citizens of Hawaii to Benefit From Their Land Grant Public Institution.

Challenge: The continuity of valuable evidence based programs for the citizens of Hawaii is important for ensuring that modern agricultural production practices and new approaches to natural resource management and family/community programs are available to the public. To accomplish these goals, Extension Specialists must be continually engaging with County-based Extension Agents. In some, but not all cases, the current Review Team observed a need for greater engagement between Extension Specialists and Agents.

Recommendation(s): It is recommended that Cooperative Extension faculty and staff have a yearly face to face meeting. Such a meeting will promote collaboration, synergy and cohesiveness and will allow a time for development of programs and activities for the upcoming year. It is further recommended that CTAHR investigate the possibility of developing a robust Extension In-Service Training Program similar to that observed in many states.

Topic: Developing a Culture of Health for Hawaii Citizens.

Challenge: Due to lack of faculty/staff, providing evidence based non-formal health education that can improve the lives of individuals and communities is a real challenge.

Recommendation(s): Cooperative Extension can launch an interdisciplinary initiative for individuals, families and communities in the support of wellness and healthy lifestyles, including the promotion of health and social well-being among the elderly and at risk populations.
Faculty Distribution and Workload

Part of the materials provided to the Review Team prior to the onsite review included short CVs of each CTAHR faculty member. Format and information provided in the CVs varied greatly, but for many of the CVs, the Review Team could determine the faculty member’s title and calculate the number of years that each faculty member has resided in their current title (not total years of service).

To evaluate each faculty member’s teaching effort along with department totals and for CTAHR as a whole, the Review Team requested additional information from the CTAHR Dean’s office including each faculty member’s budgeted appointment across teaching, research and extension. The CTAHR Dean’s office also provided a three-year average of each faculty member’s actual yearly student credit hour teaching activity.

From the budgeted appointment and actual workload activity information, a simple calculation was made in an attempt to convert actual student credit hour teaching activity to teaching FTE for each faculty member. An assumption was made (based on Review Team member’s experience) that a typical three-credit, lecture-based class with an average number of students, plus advising a moderate number of undergraduate students represents 15% teaching FTE. This is supported by the use of a 3 x 3 teaching model (3 classes per semester) for a nine-month faculty appointment yielding a value of 17% FTE per class (100%/6).

Constraints of the Approach
- Although much of the needed information could be obtained by the Review Team through materials provided prior to the onsite review, along with additional information provided by the CTAHR Dean’s office following the onsite review, missing data remained. The table in Appendix A was provided to the CTAHR Dean’s office prior to submission of the final report so that the CTAHR Dean’s office could provide missing information or correct inaccuracies. Due to the Review Team’s desire to submit the final report on a timely basis, the table in Appendix A represents a good start and demonstrates the important concepts, but still needs additional work.

- It should be clearly understood that the calculated teaching FTE in Appendix A is a gross estimate and definitely underestimates actual teaching workload in some (or most) cases. Reasons for this include the teaching of classes with large student enrollments, laboratory sections (including multiple laboratory sections for large classes), advising large numbers of undergraduate students, departmental/college/university committee activity, undergraduate or graduate curriculum committee activity, graduate student mentoring, among others.

- Complete data regarding individual faculty member’s title were not available at the time of report submission, so a full analysis of faculty distribution across Assistant, Associate and Full titles was not possible. A further complicating factor is the variation across tenure-track faculty categories including instructor, researcher and specialist and questions by the Review Team as to whether or not there are Assistant, Associate and Full titles within each of these categories.
Findings & Recommendation(s):

- The Review Team recommends that the CTAHR Dean’s office continues to refine the table in Appendix A and add additional information that CTAHR might find helpful in managing faculty appointment and workload across teaching, research and extension.

- Although difficult to make definitive statements due to the need for further clarification of faculty titles, it appears that many CTAHR faculty are ten years or less in their current title. This comment is not related to total years of service, but it does suggest that there are not a large number of long-term Associate Professors. The Review Team recommends that the CTAHR Dean’s office engage in further analysis of these data to determine more precisely the distribution of faculty across the ranks.

- The Review Team recommends that CTAHR develops a teaching workload formula to more accurately reflect the actual as compared to budgeted teaching effort by each faculty member. Adjustments in faculty appointment can then be made to balance effort and appointment. Some of the Review Team member’s institutions have developed formulas such as this and would be happy to share this information.

- When observing all CTAHR faculty in a single table, it appears that many faculty have small appointments (20% or less) in research or extension. This is less of a concern with teaching appointments, assuming that teaching one class per year represents an approximately 15% appointment. Very little meaningful research or extension productivity can be achieved at appointment levels less than approximately 25 to 30%. The Review Teams believes that CTAHR’s overall efficiency, effectiveness and output will be greater with very few to no faculty member having a small appointment in research or extension. Greater output can be expected and achieved with research or extension appointments greater than 25 to 30%. The Review Team recommends that the CTAHR Dean’s office evaluate current faculty appointments and make adjustments where appropriate. There may be situations where it is appropriate for a faculty member to have a less than 20% appointment in research or extension; however, these appointments should be very minimal.

- The Review Team recommends that teaching appointments be placed on faculty that actually teach. If a faculty member has a teaching appointment there should be an expectation of teaching in line with the appointment. As meaningful research and extension appointments are placed on faculty, there should be an expectation of productivity consistent with the appointment.

- It does appear that the constraints identified above have impacted the information provided in Appendix A. For five of the six departments, the allocated teaching FTE is greater than the actual teaching effort, with the exception of Family and Consumer Sciences. Again, the Review Team recommends that information in Appendix A serve as a starting point for additional work by the CTAHR Dean’s office to develop a workload formula designed to match faculty teaching appointment with actual workload.
Family and Consumer Sciences
Departmental Review

The Department of Family and Consumer Sciences has roots in the founding of the University of Hawaii system in 1907 with a rich legacy of over 100 years in the Hawaiian Islands. The Mission of the Family and Consumer Sciences (FCS) Department is to contribute to developing resilient families, businesses and communities. The Department of Family and Consumer Sciences has two of the largest academic undergraduate programs in CTAHR, a B.S. in Family Resources with over 200 student majors and a B.S. in Fashion Design and Merchandising with over 100 student majors. It also fosters Cooperative Extension System programs, including 4-H Youth Development, Community Education and Leadership, Intergenerational programs and it works in collaboration with the Center on the Family.

Family Resources (FAMR)

The Family Resource (FAMR) degree program provides students with a comprehensive study of human development, family development, and family resource management. Students are prepared for positions in family service agencies; family life and parenting education programs; child care and early childhood education centers; children’s, youth, and gerontology programs, child care and early childhood education centers; and consumer affairs agencies. Learning outcomes of the FAMR program are:

- **Goal 1: Acquire a knowledge base in human development.**
  - (1. Know -- Breadth and Depth of Knowledge)
  - Objective. The FAMR graduate will demonstrate adequate knowledge of stages, processes, and ranges of typical human development.

- **Goal 2: Acquire a knowledge base in family science and resource management.**
  - (1. Know -- Breadth and Depth of Knowledge)
  - Objective 1. The FAMR graduate will demonstrate adequate knowledge of family diversity in the global community.
  - Objective 2. The FAMR graduate will demonstrate adequate knowledge of family resource management processes.

- **Goal 3: Acquire a knowledge base of the community context in which family functioning and development take place.**
  - (2. Do -- Intellectual and Practical Skills)
  - Objective. The FAMR graduate will demonstrate adequate knowledge of the effects of context (social, economic, political, historical, and cultural environment) on family functioning and development.

- **Goal 4: Acquire professional skills.**
  - (2. Do -- Intellectual and Practical Skills)
  - Objective 1. The FAMR graduate will demonstrate adequate skills in written communication.
  - Objective 2. The FAMR graduate will demonstrate adequate skills in oral communication.
  - Objective 3. The FAMR graduate will demonstrate a basic level of computer literacy.
  - Objective 4. The FAMR graduate will demonstrate basic competence in “helping” skills.
  - Objective 5. The FAMR graduate will demonstrate basic research skills.
- **Goal 5: Apply knowledge and professional skills to address issues encountered in professional settings.**
  
  (3. Value -- Personal and Social Responsibility)
  
  Objective 1. The FAMR graduate will demonstrate critical thinking and problem solving skills.
  
  Objective 2. The FAMR graduate will demonstrate commitment to professional values and ethical behavior.
  
  Objective 3. The FAMR graduate will demonstrate a satisfactory level of preparation for the world of work and responsibility for continued professional growth.

**Strengths of the Family Resources Program**

- Core faculty are actively engaged in research that supports the Land Grant mission and objectives of the CTAHR strategic plan that reflects the health, wellness, and resiliency of Hawaii’s citizens.
- FAMR has strong, committed faculty.
- The number of faculty receiving external grants has grown since the last review.
- Students are exposed to, and actively engaged in, faculty research projects.
- FAMR was ranked 2nd in CTAHR for both number and dollar amount of grants received per research FTE.
- Program attracts bright students and the instructional program is thriving.
- Enrollment and graduation rates are notably high.
- FAMR has a considerable number of journal articles from 2008-2014.
- The undergraduate internship program is effective and well-organized.
- Students are winning awards and scholarships.
- The two recently hired Professional Advisors are improving the quality of student advising;
- The assessment process has been updated in 2013 and pilot tested in 2014 to include objective measures of student achievement.
- FAMR has continued its tradition of excellence in professional and community outreach.
- FAMR faculty are receiving university wide and national recognition for their work.
- FAMR has become more visible at all levels. This is partly due to the new Dean of CTAHR. Public relation efforts of the faculty and their programs also contribute to this.
- FAMR has increased the number of online classes to continue to use innovative approaches to teaching.

**Topics for the Family Resources Program to Consider**

- There is an ongoing challenge to manage faculty members’ time so they can manage the numerous responsibilities they have; conduct their research, advise an average of 45 students each semester, teach large classes, and engage with the community.
- The Family Resources Program has 8 tenure-track faculty members. Despite this, they graduate a large number of students yearly.
For ten years, there has been a planning request for a graduate program. The planning request is awaiting approval from CTAHR, Graduate Education, and the OVCAA. A Family Resources Program graduate program will greatly enhance the department, CTAHR and the Family Resources Program.

Approximately half of Family Resources Program courses are taught by lecturers (this was 63% in 2012-2013) who are well-regarded, yet do not contribute to the service load of the department, thus some faculty members are burdened with heavy service loads. This is an extremely high percent and is this a reasonable expectation for students arriving at CTAHR assuming they will be taught by faculty? (during student interviews they were very vocal about this issue).

Quality and quantity of facilities affects productivity. The wide campus dispersion of the Family Resources Program faculty and staff is a great barrier to communication and collaboration. Past reviews have noted the conditions of the buildings. The third floor is not handicap accessible thereby denying equal opportunity to all Family Resources Program students.

Not all faculty are as technologically current as they should be. All faculty should be technologically up to date and familiar with the STAR system and Laulima.

Many students don’t come in as freshman which often pushes their graduation time to 5+ years as they struggle to get the courses they need.

There needs to be a comprehensive recruitment plan for CTAHR and specifically the Family and Consumer Sciences Department. Many undecided high school and community college students can benefit greatly from the Family and Consumer Sciences Academic program.

Students often have great difficulty in getting the classes they need for their major. Students voiced the concern of having to choose between their internship and capstone project which made it even more difficult to graduate on time.

**Recommendations for the Family Resources Program**

- After reading the assessment from previous reviews, it was stated that “CTAHR cannot be all things to all people and it is important that areas of excellence be identified and nurtured at both the college level and within units.” Some areas are still lingering from past reviews.
- Develop an equitable plan for the distribution of resources between the Family Resources Program and other Programs within CTAHR.
- Continue to look for collaborative and interdisciplinary opportunities within the Family Resources Program and other CTAHR units.
- Develop a plan to address adequate student class offerings to ensure a timely graduation.
- Continue to support time and space needed for the Family Resources Program faculty members to conduct research. Tenure-track faculty members are producing a record number of peer-reviewed publications.
- Encourage more Family Resources Program faculty members to become graduate level faculty in other departments. This is also essential in order to provide sufficient graduate faculty members within the program, before the proposed Human Development and Family Science graduate program can be approved.
Support the authorization (under review) to plan the Family Resources Program M.S. degree. This effort has been underway for over ten years and Hawaii is one of only three states in the country that does not have a graduate program in Family Resources or a related topic.

Work with CTAHR and the University of Hawaii, Manoa Facilities Planners to improve the workspace for classrooms, offices, storage, gardens and computer labs. Encourage grant writing that includes facilities and maintenance of program equipment and space.

Faculty and staff should share contiguous space, as recommended in 2007.

As mentioned, the program faculty and staff have less space, and are farther away from each other than during the previous review. Increased proximity would increase communication and collaboration among faculty that work in the Family Resources Program.

If possible, train and hire more office staff to aid with fiscal matters, advising management, graduate assistance, grant management and record keeping.

Continue to develop/refine tools to measure student’s learning objectives. Faculty and all who are engaged in the teaching process should play an active role in the assessment and curriculum development methods.

Make a concentrated effort to align all efforts, instruction, research, extension, with CTAHR’s strategic planning.

Develop a strategic recruiting plan for high schools and community colleges.

There is a critical need to address the lack of faculty technology expertise within the department. When most students are highly skilled in this area, faculty need to be as well.

Building and facilities status with little to no change has been in the review since 2008.

There is a new budget model for CTAHR. Hopefully this budget model will be beneficial to the Family Resources Program.

Within UHM/CTAHR, Diversity/Discrimination training should be offered every 3-5 years.

A substantial challenge for every academic unit is effective communication within the unit. Some units feel marginalized; it is no surprise that these barriers have led some groups to feel disconnected or unassociated. Improving communication between all units of the university will go a long way to improve this issue.

Fashion Design and Merchandising

In the Fashion Design and Merchandising (FDM) Program, students learn fashion industry operating methods; develop buying and merchandising plans; study textile fibers and fabrics; create fashion apparel lines, examine Hawaiian, Asian, and western costumes, and study social, ethical and environmental issues that impact fashion business and consumers. Textiles and apparel is a multidisciplinary field that supports research, creativity, and other forms of scholarly inquiry in all domains wherein clothing, appearance and/or the materials from which clothing and appearances play a role (FCS Self-Report). Research skills are developed in courses wherein students put their research findings to use in predicting how social, economic, political, technological and environmental changes will influence the direction of consumers. (FCS Self-Report).
The Fashion Design and Merchandising Program Assessment Plan, which includes the program’s Student Learning Outcomes, is based on core competencies identified by the International Textile and Apparel organization – the discipline’s professional association. Coursework addressed to the outcomes includes 10 Outcomes which are measured on a scale of 1-5 with 5 = to Excellent and 1 = to Poor. Learning outcomes of the Fashion Design and Merchandizing Program include:

- **Industry Processes**
  - **Outcome #1**: The student can integrate knowledge of industry operations, theories of consumer behavior and quantitative skills to prepare comprehensive research-based manufacturing and merchandising plans that include creative design components and typical industry documents based on quantitative data.
  - **Outcome #2**: The student can conduct evaluations of apparel product quality using industry standards, regulatory agency criteria, and appropriate industry terminology.
  - **Outcome #3**: The student can conduct professional ASTM or AATCC industry tests for textile performance.
  - **Outcome #4**: The student can discuss current issues and concerns in the textile and apparel industries, including global issues regarding labor conditions, social responsibility, and environmental impacts, and can evaluate the social and ethical consequences of these.

- **Appearance and Human Behavior**
  - **Outcome #5**: The student can conduct, interpret and present the results of research that integrates historic and socio-cultural data with knowledge of the role of dress in human behavior.

- **Aesthetics and the Design Process**
  - **Outcome #6**: The student can conduct systematic assessments of the use and significance of design elements and other aesthetic factors in fashion-related products and personal appearances, and in industry promotion and brand image-related materials.

- **Global Interdependence**
  - **Outcome #7**: The student can integrate current political, cultural, and economic data with economic theories, practices and policies to produce research-based reports on international trade conditions and practices.

- **Ethics and Social Responsibility**
  - **Outcome #8**: The student can distinguish between professional and unprofessional behaviors and can describe and critique ethical and unethical industry practices.

- **Critical and Creative Thinking**
  - **Outcome #9**: The student can employ critical thinking, creativity, and technical skill mastery to prepare a substantive pre-employment portfolio appropriate for an emerging industry professional.

- **Professional Development**
  - **Outcome #10**: The student can prepare and deliver a well-organized oral presentation that exhibits textiles and apparel subject matter knowledge; utilizes presentation tools common to the profession; and that demonstrates poise, confidence, and effective use of visuals.
Strengths of the Fashion Design and Merchandising Program

- The Fashion Design and Merchandising Program has viable, strong connections with a unique, dynamic and highly visible sector of Hawaii's economic community.
- The Fashion Design and Merchandising Program has dedicated, committed faculty.
- The program is highly successful in providing students with a quality education for professional positions in fashion, business and industry.
- Faculty readily engage students in their research projects as research assistants.
- The job market is extremely lucrative for CTAHR Fashion Design and Merchandising Program graduates in careers related to fashion, and design.
- Undergraduates with a love of fashion and design including the Hawaiian cultural environment will find this program and the potential of a professional career very appealing.
- The program's focus on dress and appearance in the whole of life, with a focus on economic, family, interpersonal, social, cultural, historic, and artistic – is a unique and tremendous contribution to undergraduate studies at the University (FCS Self Report).
- The program has high community, state and international visibility. Fashion Design and Merchandising Program students are highly recognized for their designs, and the students have been awarded for their contributions to the field of design.
- The Fashion Design and Merchandising Program’s Fashion Show is a tremendous University of Hawaii marketing and student recruitment opportunity.
- Fashion Design and Merchandising Program students have received local, national and international recognition for their research as well as for their creative efforts.

Topics for the Fashion Design and Merchandising Program to Consider

- As in the Family Resources Program, the reliance on part-time lecturers is essential to course coverage and is a serious program weakness. This program has only 4 tenure-track faculty. Students pay for and come to the university to be taught by tenure-track faculty. They awarded 103 degrees in 2013-2014; this is the second highest amount of graduates in CTAHR.
- Appropriate assessments and learning outcomes need to be identified. According to the Annual Assessment Report (2008-2012) – for three consecutive years, outcomes showed that students needed more work in the areas of current issues involving quality evaluations and terminology, analysis of design elements, current labor issues, environmental impacts and integrating data to produce reports about international trade practices. Assessments results indicate that students are exiting the program with little tangible evidence of familiarity with current apparel business and industry issues regarding current labor issues, responsibility, sustainability and global independence. It does appear that in 2013-2014 a new assessment tool was used and is being refined and pilot tested concurrently;
- According to the Family and Consumer Sciences - Fashion Design and Merchandising Program Self Report - Facilities and equipment for fashion design classes are inadequate and outdated;
- There are no faculty positions to support the fashion design program – this leaves this program in a very vulnerable position;
• College directives regarding minimum class enrollment figures seem to disregard issues of adequate physical and faculty resources;
• According to the departmental self-report – the merchandising component of the program is strong and healthy. The design component is seriously endangered by their inability to garner college support and resources for laboratory spaces, additional equipment and a tenure line or full time positions dedicated to fashion design;
• Fashion design programs are expensive; they are expensive in all higher education programs;
• Several students commented that there needed to be more equity in the method of grading student papers and projects. Several students were very vocal about the disparate grades;
• Utilizing the strategic plan, both the Family Resource and Fashion Design and Merchandising Programs need to establish a staffing plan based on current and future needs.

Recommendations for the Fashion Design and Merchandising Program:
• The issue of an excess number of lecture positions is prevalent in several departments. The Review Team suggests that the Dean evaluates the total number of outside lecturers being used to fill vacant positions and use this data to advocate why non-tenure or tenure-track permanent faculty would be a better use of available funds.
• Continue to develop/refine tools to measure student’s learning objectives. Faculty and all who are engaged in the teaching process should play an active role in the assessment and curriculum development methods.
• Having a targeted recruitment plan to high schools and community colleges is integral to the maintenance and sustainability of the Fashion Design and Merchandising Program.
• The value in the Fashion Design and Merchandising Program’s fashion design program cannot be measured strictly in economic terms; students who are successful in the program are able to bring recognition to the University and CTAHR.
• The two new advisors will be a tremendous asset to this department.
• Continue to look for collaborative and interdisciplinary opportunities within the Fashion Design and Merchandising Program and other CTAHR units.
• Develop a plan to address adequate student class offerings to ensure a timely graduation.
• Continue to expand, fortify and sustain your external fashion/design/merchandising networks and partners.
• Continue to be vigilant about being seeking private/public funding opportunities.
• Be aware of new opportunities for student engagement within community.
• Encourage the exploration and potential of the Fashion Design and Merchandising Program as part of the Shidler College of Business. The Business School prepares students for leadership positions in the global marketplace. The College is recognized in international business with an Asia-Pacific focus and offers a multicultural learning environment. These foci would greatly benefit the Fashion Design and Merchandising Program.
• Explore new fashion program options.
• At CTAHR, create a culture that recognizes and encourages excellence. A sense of low morale was determined among the Family Resources and Fashion Design and Merchandising Program students because of the many issues cited above. All individuals, particularly students, thrive on success. It doesn’t take much to make a faculty/student feel valued.
• There is a new budget model for the University of Hawaii. Hopefully this budget model will be beneficial to the Fashion Design and Merchandising Program.
• Within UHM/CTAHR, Diversity/Discrimination training should be offered every 5 years.
• Utilizing the strategic plan, both the Family Resources and Fashion Design and Merchandising Programs need to establish a staffing plan based on current and future needs.
• A substantial challenge for every academic unit is effective communication within the unit. Some units feel marginalized; it is no surprise that these barriers have led some groups to feel disconnected or unassociated. Improving communication between all units of the university will go a long way to improve this issue.
• Building and facilities status with little to no change has been in the review since 2008.
• Develop a vision and strategic planning process that cuts across the teaching and research and provides a realistic road map for the department’s future.
The Center on the Family is a unit within the College of Tropical Agriculture and Human Resources (CTAHR) at the University of Hawaii. The mission of the Center is to enhance the well-being of Hawaii’s families through interdisciplinary research, education and community outreach.

**Strengths of the Center on the Family**

- New Center Director, Dr. Marianne Berry is doing an excellent job.
- Extramural funding and support, from 2008-2014, the faculty in the Center on the Family obtained a total of $16,457,234 in extramural funds and support.
- Their extramural funding includes long-term projects, e.g., Kids Count – 20 years, Learning to Grow – 15 years, Homeless Service Utilization Study – 10 years.
- The extramural funds go toward funding positions that exceed faculty lines such as staff positions that provide community liaison and service.
- From 2008-2014, the Center on the Family employed a total of 11 faculty members.
- The Center has demonstrated success in attracting and hiring quality faculty candidates and has been successful at the promotion and retention of its quality faculty.
- The Center on the Family has been recognized and nominated for numerous awards from 2008-2014. They were honored with 9 awards.
- The Center on the Family faculty are often sought after to serve on various state and national committees or boards.
- The Center on the Family participates with numerous community partnerships with state agencies and non-profit agencies.

**Topics for the Center on the Family to Consider**

- The Center on the Family currently has 3 vacant faculty positions.
- The faculty and staff are divided among three buildings – does not provide a sense of cohesiveness and collaboration.
- As with other departments, the Center on the Family has a minimal operating budget, no travel, no funding to keep staff in between grants, faculty savings accounts.
- CTAHR administration as it relates to fiscal/personnel issues, e.g., delayed contract implementation.
- Inequities in regard to soft funds as it relates to the two funding streams: RCUH vs. UH.
- In a season of transition after a three year Director search. Little to no guidance during those three years. Now trying to come together under the new Director.
- Restoring shared vision and organizational culture, engage in new CTAHR strategic planning.
Recommendations for the Center on the Family

- While doing excellent work in the area of Early Childhood Education, watch for a NIFA RFA that comes out usually around February/March. Look to partner with someone on the West coast. NIFA likes multi-state projects. California is doing great work; check out what their faculty are doing in the area of early care education.
- The Center on the Family is doing tremendous work. Try building into your grants, the opportunity to travel to present your work at a national conference when you can.
- The Center on the Family faculty has some nice published manuscripts that will increase awareness for the Center. All of the Technical Reports sound fantastic, but if they never get off of the island..... Hence the need to present your outstanding work at national conferences.
- Continue to look for collaborative and interdisciplinary opportunities within Family and Consumer Sciences and other CTAHR units.
- A substantial challenge for every college unit is effective communication within the unit. Since your Center is dispersed among three buildings, effective communication among all faculty and staff is important.
- Within UHM/CTAHR, Diversity/Discrimination training should be offered every 5 years.
- There is a new budget model for CTAHR. Hopefully this budget model will be beneficial to the Center on the Family.

Cooperative Extension Within Family and Consumer Sciences

Extension Family and Consumer Sciences faculty are located in offices on five islands: Kauai- State Office Building; Maui-Kahului Extension Office, located on the campus of Maui College; Oahu-UH Manoa Campus; Wahiawa at the Wahiawa Civic Center; Hawaii County: at the Komohana Agricultural Complex; Kona at the Agricultural Research Farm.

This current staffing plan will provide easy access to faculty, publications, participation in the variety of educational programs conducted at these island sites. It is not adequate to meet the current and emerging needs of Hawaii’s population. No convenient locations have been established in rapidly growing communities (Kapolei, Puna, Kapaa, Kau, Kohala, and Kihei). There are three major organized outreach programs that have been supported by Extension Family and Consumer Sciences faculty: the 4-H Youth Development Program, the Family Community Leadership Program and the Family Community Education Program.

Strengths of Cooperative Extension System Within Family and Consumer Sciences

- Cooperative Extension is the Community Outreach arm of the University to the State. Cooperative Extension represents a “front door” to the University of Hawaii (not just CTAHR) in every community in Hawaii.
- The Family and Consumer Sciences program has a well-organized, effective undergraduate internship program.
- The 4-H Youth program is supported by key stakeholder groups in the state.
• County agents are available for individual consultations and can provide educational workshops and short-courses covering topics in agriculture, home economics, family living, 4-H and other youth activities, nutrition, and health. Educational materials such as brochures, publications, and videos are also available at county extension offices for use by the general public.

• The community outreach through these long enduring programs has promoted the University of Hawaii and in particular, the CTAHR and the Family and Consumer Sciences Department. Thousands of youth and adults have participated in, and benefited from, their programs.

• Extension Family and Consumer Sciences faculty have served as mentors for their department’s students and have provided opportunities for internships.

• Extension Family and Consumer Sciences Educators have received national recognition through their professional organizations.

• The Cooperative Extension Service has the ability to understand the needs (new and emerging) of their various clientele and stakeholders. Their county base gives them the advantage of knowing their county/community and to develop integrated programs to meet those needs.

**Topics for Cooperative Extension Within Family and Consumer Sciences**

• Since the re-organization in 2001, it has been difficult for County Extension Faculty to accomplish all of their necessary programmatic efforts to serve the needs of their county/community.

• In an earlier model, the County Administrator was the direct Supervisor of the County Extension Agents.

• In the next five years, six Extension retirements are anticipated. Reviewing the Priority Staffing Plan with the Dean of CTAHR, faculty/staff may help to begin planning for those retirements.

• There is consensus among many in Extension that the vision of integration that was promoted as a part of the CTAHR reorganization in 2001 has not materialized and may have resulted in the loss of Extension faculty in academic departments.

• The outreach education programs taught by Extension are most often perceived by the public as coming from the University of Hawaii campuses in the counties where they reside and rarely are connected to UH Manoa which is the Land Grant University of Hawaii.

• Due to the declining Extension FTE resources, there has been a significant decline in the youth outreach program. Special interest and after school programs have also dropped significantly. This is a tremendous loss to the youth on the islands. Anyone familiar with the 4-H Youth Development knows the strengths, skills, confidence that the program instills in youth.

• As Extension positions have been lost and increasing responsibilities have been shifted to remaining Extension personnel, the result has contributed to a dysfunctional, ineffective structure. The Extension faculty/staff deserve to have a critical review of their program with a well-intentioned planned outcome.

• If the Family and Consumer Sciences department does not receive significant staffing gains in the Extension area in the near future, it should develop a plan to discuss state and county programmatic goals, priorities and strategic approaches.
• Extension programs critical to youth development, and learning new knowledge and skills that will contribute to them becoming productive citizens are in serious jeopardy of being dismantled.
• The decrease of Cooperative Extension Service programs in the counties will directly impact the delivery of community-based programs directed to the well-being of Hawai’i individuals, families and youth.

Recommendations for Cooperative Extension Within Family and Consumer Sciences

• A Cooperative Extension System statewide approach, with resource commitments from the CTAHR administrators will enable Extension to develop and sustain a synergistic programmatic system that promotes integration of instruction, research and extension program functions across the department, the counties and other CTAHR department units.
• Face to face yearly meetings for Extension staff will go a long way to promote collaboration, synergy and cohesiveness.
• Continue to encourage Extension faculty to seek extramural funds to continue their educational outreach and develop new partnerships.
• Faculty need pre/post award assistance if they are going to be successful in seeking extramural funds. Many colleges today are recognizing this as a critical need to the success of proposals.
• Utilize technology and other delivery methods to continue meeting the needs of Hawaii’s youth and adults.
• A substantial challenge for every academic unit is effective communication within the unit. Some units expressed that they felt marginalized; it is no surprise that these barriers have led some groups to feel disconnected or unassociated. Improving communication between all units of the university will go a long way to improve this issue.
• There are rapidly growing communities including an influx of Pacific Islanders who need the information educational programs that Cooperative Extension has to offer.
• Support the expansion of a Volunteer Development Specialist. The role of this Specialist will be to provide leadership in recruiting and retaining volunteers in the 4-H Youth Development program and Master Gardener programs. With so few state Extension faculty, CTAHR needs to explore new frameworks that will be equitable for all. A model suggested by Family and Consumer Sciences is to hire para-professionals to assist in organizing and delivering programs. Thoughtful consideration needs to occur as there are so many critical needs, the university, the faculty, the program, and the citizens of Hawaii who benefit from the programs.
• Through STEM (Science, Engineering, Technology & Math), the 4-H Youth Program aims to grow the next generation of scientists, inventors, problem solvers and entrepreneurs by giving youth an opportunity at real world science. These are the very students that would most likely enroll at the UH. Programs like the “Hawaii Sustainable Communities Project” need to remain viable to support these efforts.
Human Nutrition, Food and Animal Sciences (HNFAS)
Departmental Review

The department of Human Nutrition, Food and Animal Sciences (HNFAS) was established in 2000 when CTAHR was reorganized. The department exists to “enhance nutrition and health by educating people and developing and disseminating science-based information to promote sustainable food production and animal systems appropriate for the Pacific Region”. HNFAS mission is in alignment with CTAHR to “create and deliver knowledge that supports and strengthens families, agricultural and food systems”.

The CTAHR Review Team was charged with conducting a review of the department as part of the college process, with the primary charge of evaluating academic programs. Collectively the disciplines conduct essential research, educate students and disseminate the research to the people. The three discipline areas share this work in the following ways:

- Human Nutrition – supports families through providing research, instruction and extension to ensure a healthy, well-nourished population, especially in the Pacific Region.
- Animal Sciences Program- supports the livestock and aquaculture industries, which in turn support the agricultural, and food systems in Hawaii and the Pacific Region.
- Food Sciences – provides a safe and secure food supply through research, instruction and extension.

HNFAS has strong undergraduate programs with good enrollment and smaller graduate programs. The programs fill a genuine student and community need.

The review consisted of a self-assessment conducted by the unit, and separate meetings with faculty, graduate and undergraduate students. The Review Team noted that attendance was taken at all meetings, which may have impacted open dialogue. Strengths of the department and topics to be considered were identified.

**Strengths.** The CTAHR Program Review Team collectively believes that the work conducted by HNFAS is essential to Hawaii and the Pacific Region. Strengths identified throughout the various meetings include:

- The department appears to have embraced the self-study process and has already been in conversations with multiple groups and are making changes as a result of the study. For example, they are working with the MBBE department to streamline courses for HNFAS. They are also looking to grow the aquaculture program and are working with MBBE to consider an aquaculture biotechnology program. The two recently hired CTAHR Professional Advisors will free up faculty time for teaching and research.
- The faculty and administration report that the Dean is supportive of the department and they have received more help and attention than in the past.
- The faculty report HNFAS has a good administrative structure.
The faculty members appear to be collegial following the merger, however, it was pointed out to the Review Team that the nutrition and animal science faculty do not work together but their graduate students do.

The faculty has a strong relationship with industry, which is critical to their success in educating students and conducting research.

Grant funding has been increasing.

The faculty report good teaching facilities.

The department includes diverse faculty and students and the courses cover diverse ideas.

The enrollment in the undergraduate animal science program has increased from 66 majors to 136 majors in the past five years.

The number of students in the pre-vet program has increased dramatically with the number of graduates accepted into Schools of Veterinary Medicine from 1 to 15 over the past five years.

There has been an increase in the undergraduate human nutrition programs with a large didactic program in dietetics.

HNFAS has a strong supervised practice (internship) for up to 12 of the students, which provides a dietetics workforce for Hawaii. This is the only program in Hawaii.

All undergraduate students are required to complete a one-semester field experience.

The graduate students reported the following strengths of HNFAS:

- They have had the opportunity to be collaborative with other graduate students in the department and have a combined seminar hence improving their education by learning from each other and other disciplines. They are involved in each other’s research. They appreciate having shared space and equipment to conduct their research.
- They value that the faculty have good relationships amongst themselves making the working environment pleasant.
- The university provides them with other needed support such as good computer labs, IT and library services.
- The global perspective of the programs and the Pacific-based research opportunities is important to them.
- Tuition waivers are critical to graduate education and they are appreciative of having them.

The undergraduate students reported the following strengths of HNFAS:

- The smaller class size allows them to make friends and know their instructors.
- The faculty members are well connected with industry and professional contacts thus helping them find meaningful internships and jobs. Faculty are personable and approachable and “have good intentions”.

Although the review identified numerous departmental strengths, the Review Team identified topic areas that need to be considered.
Topic: **Low Enrollment Programs**

**Challenge:** The Vice Chancellor for Academic Affairs office has established criteria to identify low enrollment programs. Criteria include the number of students enrolled in programs and degrees awarded during the previous five years. The following HNFAS programs fit into the low enrollment category:

<table>
<thead>
<tr>
<th>Program</th>
<th>Degree</th>
<th>Enrollment Trigger</th>
<th>Degrees Awarded</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food Science</td>
<td>MS</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>Nutrition</td>
<td>PhD</td>
<td>4</td>
<td>1</td>
</tr>
</tbody>
</table>

**Recommendation(s):**

- The Review Team recommends that the upper administration at UHM review the threshold criteria to determine if the same criteria should be used for undergraduate and graduate programs.
- Continue to be proactive with low enrollment programs. Work with faculty and staff to help them understand that recruitment is everyone’s job.
- Continue to find creative ways to enhance and improve your programs. The Review Team was impressed with the initiatives already taking place including the 2+2 Culinology program and the 3+2 MS China program to grow food science students.
- Develop a comprehensive recruitment plan for both undergraduate and graduate programs, focusing on California where students can come on a WUE.
- The increased growth in the Didactic program and other nutrition programs may help as feeders into the low enrolled PhD program. This is a fairly new program and should be given more time to produce graduates.
- The department chair indicated they are seeking summer funding for a faculty member in nutritional sciences to develop a recruitment plan for the MS degree.

Topic: **Use of Lecturer Positions**

**Challenge:** The department chair and students report that the department has had to rely on lecturers to cover courses for a variety of reasons including lack of permanent faculty positions and enrollment increases. The time and effort required to request the temporary positions and make the adjustments in the department is excessive. It requires much effort to ‘regroup’ and adjust to lecturers coming in to teach. It takes time to orient and train lecturers. The lecturers are also negatively impacted by this process in that they have no job security, voice in departmental issues, faculty governance and have low salaries. The current method of covering courses is not sustainable. Faculty and students indicate the following courses as problematic due to ‘revolving lecturers’: the animal science anatomy course and lab; medical nutrition therapy 1 & 2; nutrition counseling skills; science of human nutrition; and experimental design.

**Recommendation(s):** The Review Team feels that the current process needs to be discontinued and resources need to be pooled to provide more stability to the academic programs.
Topic: **Maintenance of Research Facilities**  
**Challenge:** Faculty and students reported a problem with research equipment maintenance. Examples included inoperable hoods, autoclaves, and ice machines. The lack of a technician to maintain equipment was also voiced as a concern. There is a lack of state-of-the-art equipment in the department due to lack of funding. This problem was consistent in many of the departments that were reviewed in CTAHR.  
**Recommendation(s):** *Equipment maintenance needs to become a priority. A master list of equipment should be developed and a maintenance schedule developed.*

Topic: **Bottleneck Courses Delaying Completion**  
**Challenge:** This issue was repeated throughout the review. The department chair identified the anatomy and experimental food labs as problems. The pre-vet students were angry and indicated that the lack of seats in the biochemistry lab had delayed their completion by a year. They indicated that no veterinary schools require this lab as a prerequisite. Another issue of concern was the reluctance of faculty to increase course caps as they prefer to teach in their building. Graduate students voiced frustration that courses are offered every 2-3 years making it difficult to complete their plan of study.  
**Recommendation(s):**  
- Conduct a comprehensive review of the courses to identify the bottlenecks and work to find solutions.  
- Increase the number of TAs to increase seats.  
- Reevaluate the need for the biochemistry laboratory for pre-vet students. If needed, work with the MBBE department to come up with a solution for more seats.  
- Find efficiencies in teaching. Identify redundancies and consider combining courses.

Topic: **Support for Teaching Assistants**  
**Challenge:** Teaching assistant positions are invaluable at a university, allowing graduate students teaching experience in the classroom or lab and by lowering teaching load responsibilities by faculty. There appears to be inadequate support of TA in HNFAS as well as college-wide that needs to be addressed. Students reported frustrations with the current teaching assistant program in that the TA may not have taken the class they are working in and are often not able to attend class in order to provide consistent information to students.  
**Recommendation(s):**  
- Teaching assistant funding should be a top priority by university administrators.  
- TAs need to be matched to their academic discipline

Topic: **Inadequate Graduate Student Support**  
**Challenge:** The graduate students reported challenges in the application process; application forms are confusing; and non-responsive graduate chairs.  
**Recommendation(s):**  
- Consider providing support at the college level to guide students through the process.
• The graduate students recommended using the graduate seminar to introduce students to the graduate process, including help with forms. They felt there was no need to cover PowerPoint anymore which would allow time for other support.

**Topic: Hands-on Training of Animal Science Majors**

**Challenge:** There appears to be a disconnect between what administration and faculty report regarding the animal science undergraduate programs and what students think of the programs. The faculty report the program is “distinctive because we provide a tropical animal agriculture perspective” and that the webpage is one of their strengths. Students were very frustrated with the webpage indicating that HNFAS is using “false advertising to lure students here”. The webpage shows and talks about exotic animals, horses and companion animals and shows a student with a giraffe. The students complained about the lack of training facilities and animals. Two students reported transferring to UH believing they would work with animals, including tropical animals.

**Recommendation(s):** The animal science program should consider redefining who they are and what they do best and marketing the real program. Consider finding ways to incorporate more animal experiences into the program.

**Topic: Number of Faculty**

**Challenge:** The department has identified several positions that they would like to have filled. They voiced concern over the impending retirements and are concerned the positions will be taken.

**Recommendation(s):**

- One example of a position that may help the department move forward is a food scientist. Currently they are lacking one faculty member to meet accreditation requirements with IFT. Given the importance of food safety and the continued growth and development of new foods in Hawaii, it would seem this to be an important position. The department is working to grow the number of students by adding the 2+2 culinology program and the 3+2 MS food science program.

- Identify teaching efficiencies such as hybrid courses, flipped classrooms, and online courses.

**Topic: Kitchen Utilization**

**Challenge:** Multiple disciplines and levels of students need to use the kitchen for their labs and research projects. The food science graduate students indicated the lack of access to the kitchen to conduct their research as delaying their graduation. “The chef thinks he is the owner of the kitchen”.

**Recommendation(s):**

- Conduct a comprehensive review of the kitchen use.

- Identify other kitchens on campus that could prove to be a backup for some of the work that needs to be done (ie dining services kitchens).
**Topic: Curricular and Faculty Issues**

**Challenge:** Although the department has made great strides in identifying student learning outcomes, there appear to be issues with curriculum and some of the faculty members. Examples provided by the students included:

- Redundancies in curriculum, particularly through the courses taught by the chef. “We take four classes, which could be condensed into one. The teacher cancels 1/3 of the classes, does not get through the curriculum and fills lectures with fluff. His courses are not rigorous.”
- “Several faculty members teach outdated material, using overhead projectors, and reading off of slides”.
- Dietetic students: “We are taught inappropriate cooking techniques for our discipline – cookies, truffles, French fries, pizza with no mention of the new trends we need to be prepared to address such as plant-based diets, gluten-free, natural/organic foods, use of whole grains, increase vegetable consumption, exploring local ingredients, ethnic cuisines, dairy-free, etc”.
- “The nutrition courses are taught by underqualified instructors with little or no experience in the field they are teaching about. Because they are not connected to the discipline, there are no mentorship opportunities to work with graduate students, working professionals or professors”.
- The self-study indicates the nutrition curriculum needs to be ‘modernized’.
- Faculty advisors office is not professional
- Faculty speak down to us.

**Recommendation(s):**

- Require mid-semester evaluations.
- Make the eCafe a formal process. Inform students how the information is used. Conduct exit interviews of graduating students.

**Topic: Advising**

**Challenge:** The Review Team applauds CTAHR for hiring two academic advisors. This will help to turn around some of the concerns voiced by students:

- The animal science undergraduate students report that their advising ‘sucks’.
- Advisors are not up to date with university issues
- “I was advised from a 2009 degree plan”.
- Gen Ed requirements not clear
- “Need better advising in nutrition. Faculty members are difficult.”

**Topic: Webpage**

**Challenge:** Graduate student reported that the webpage is not current and that it lists faculty members who have been gone for over two years. Faculty reported the webpage to be a strength.
The mission of the Department of Molecular Biosciences and Bioengineering (MBBE) is to:

- Provide strong educational programs emphasizing biochemistry, biotechnology and bioengineering for undergraduate and graduate students, students actively participate in research and experiential learning in the laboratories and in the field.
- To conduct innovative research in the biomolecular and bioengineering sciences that contributes new knowledge to the fields.
- To collaborate with other UH departments and to effectively transmit scientific knowledge to benefit Hawaii.

Degree programs in MBBE at the undergraduate level include Bachelor of Science degrees in Biological Engineering (BE) and Molecular Biosciences and Biotechnology (MBB). At the graduate level, Masters degrees are awarded in Biological Engineering and Molecular Biosciences and Bioengineering. One Ph.D. degree is offered in Molecular Biosciences and Bioengineering. The MBBE department has embraced and incorporated modern technology such as synthetic biology, genomics and bioinformatics into their teaching and research programs. The department is the leader of biochemistry instruction at the University of Hawaii at both the undergraduate and graduate levels. The department offered the first and main courses in biotechnology and the courses are very well subscribed by students from other Colleges. A strength of the curriculum is its flexibility allowing undergraduate and graduate students the opportunity to customize their program of study to their individual interests. Strong linkages and course cross-listings have been developed with the Biology program and the College of Engineering which is consistent with suggestions from the previous CTAHR review calling for increased interdisciplinary curriculum development and delivery.

Strengths of the Molecular Biosciences and Bioengineering Department

- The department is distinguished by its large graduate program with exceptional student support and career outcomes.
- MBBE department offered the first and main courses in biotechnology at the University of Hawaii, Manoa and is the leader in biochemistry instruction at the University.
- Faculty within the MBBE department are very competitive in securing extramural funding to drive their programs. Over 90% of the faculty have grants, many from highly competitive federal agencies such as NSF, USDA, DOE and NIH. Extramural funding levels are at the top as compared to CTAHR departments. MBBE is a leader among CTAHR departments with regard to generation of indirect cost funding per faculty FTE. A significant amount of scientific equipment as been purchased through extramural funding.
- Faculty publish the results of their research in prestigious, high impact factor, peer-reviewed scientific journals, with staff scientists and students as co-authors. Since the last review over 170 peer-reviewed journal articles have been published in journals such as Nature, Proceedings of the National Academy of sciences, Science, and The Plant Cell.
• A unique niche teaching biochemistry and biotechnology that allows students the opportunity to customize their program through interdisciplinary approaches. These interdisciplinary concepts and technologies will allow faculty and students in the department to combine an understanding of biological processes and the mechanisms of biochemical interactions to the physical design principles of engineering.

• All MBBE undergraduate students experience directed research for multiple semesters. Students meet regularly with faculty and post-doctoral researchers and are mentored by graduate students. This provides an experiential learning opportunity for undergraduate students and provides graduate students a teaching opportunity.

• The MBBE department has strong undergraduate and graduate programs including 62 undergraduates, 56 Masters students and 41 Ph.D students. MBBE has one of the largest graduate programs on campus. Of the graduate students, 45% are female. 88% of MBBE graduate students are on an assistantship with tuition waiver.

• The average faculty appointment within the department is approximately 75% research and 25% teaching. A few faculty have a small extension appointment. This appointment structure seems to be serving the department well. Faculty are engaged in undergraduate teaching, including undergraduates in research opportunities, training graduate students, and conducting cutting-edge research. Tenure-track faculty teach all courses within the department; adjunct and part-time faculty provide no core courses.

Undergraduate Programs

• Approximately ten undergraduate students attended the on-site review session. These students were quite impressive and were very supportive of the MBBE department along with the faculty and the quality of the education they are receiving.

• Programs leading to the Bachelor of Science (BS) degree in Molecular Biosciences and Biotechnology and Biological Engineering are offered in the MBBE department. Due to concerns over low enrollment courses, several classes within the BE program are cross listed in the College of Engineering.

• Course requirements and tracking for both Bachelor’s degrees are well defined from the standpoint of required and elective course options. All undergraduate students are accepted into the BE and MBB programs if they designate the respective program as their preferred major. This can be challenging for some students due to the lower GPA and standardized testing scores as compared to other institutions across the country.

• Students commented on how much they appreciated being exposed to excellent experiential learning opportunities through extensive interactions with faculty and their post-doctoral associates and graduate students. All MBB students are required to enroll in directed research for multiple semesters and many work in faculty member laboratories.

• Significant curriculum revision has recently taken place and faculty have evaluated and updated course content to provide students with knowledge consistent with today’s employment opportunities.
Graduate Programs

- Approximately 20 graduate students attended the on-site review session. The students were quite engaging and very supportive of the MBBE department along with their major professors and the quality of their research.
- Excellent diversity exists among the faculty and graduate students; they work in a collaborative manner with graduate students assisting each other and sharing laboratory space and scientific equipment.
- Graduate students commented in a very positive manner on the flexibility of the program and their ability to take classes in other departments and other colleges and to have faculty from other departments serve on their graduate committees.

Although numerous departmental strengths were identified, the Review Team noted topic areas for discussion and consideration by MBBE faculty and CTAHR administration.

Topic: Intensive Writing Requirement

Challenge: Critical thinking and a significant writing requirement is a positive aspect of CTAHR undergraduate programs. Implementing the requirement in a manner that stimulates student participation will add strength to this requirement.

Recommendation(s): Undergraduate students accept and appreciate the intensive writing requirement within CTAHR. Their suggestion is to develop intensive writing courses that are more in line with their discipline of study. For example, students in MBBE suggested that intensive writing courses in areas such as grant proposal preparation, journal article preparation and other scientific areas associated with biology and engineering would enhance their undergraduate experience.

Topic: Low Enrollment Programs

Challenge: According to information provided by the Vice Chancellor for Academic Programs, the Masters degree in Biological Engineering is defined as a low enrollment program.

Recommendation(s): The Review Team recommends that the University of Hawaii administration consider whether the same criteria should be used to identify low enrollment programs for undergraduate and graduate programs. In many cases, different thresholds are applied to graduate as compared to undergraduate programs. Departmental faculty should investigate the possibility in participating with the new graduate program opportunities with institutions in China; this may help to increase graduate student numbers. In addition, it appears that discussion is currently underway with the College of Engineering to merge the undergraduate and/or graduate program. Faculty from MBBE and the College of Engineering should engage jointly in discussion of this possibility.

Topic: Student Learning Outcomes and Assessment

Challenge: The faculty have seriously engaged in curriculum review and modification. They have also evaluated individual course content and made modification based on needs of the discipline. Significant explanation of student learning outcomes and assessment criteria were included in the departmental
review material. However, it appears that student learning outcomes and specific course assessments are not being conducted at the basic course level.

**Recommendation(s):** The Review Team recommends that the departmental faculty place greater emphasis on quantifying student learning outcomes and assessment at the individual course and faculty member level.

**Topic:** Facilities

**Challenge:** The MBBE department is located in facilities with a wide range of quality. Some excellent office and laboratory facilities are available for some programs, while other programs are in lower-quality space. This is not unlike many institutions across the country. The “MBBE Shop” is a very large space, but is suffering from deferred maintenance needs.

**Topic:** New Faculty Lines

**Challenge:** Departmental faculty have developed a very logical staffing plan to meet the teaching needs of their undergraduate and graduate students as well as addressing future research needs. Priority for new faculty lines include: (1) biochemistry and the integration of molecular and cellular scale analyses, genomic technologies and bioinformatics, and (2) molecular biology and bioengineering.

**Recommendation(s):** Investment in the MBBE department yields an excellent return on investment. Undergraduate and graduate education is highly effective and extramural support for research is significant. Several pending faculty retirements are planned in 2015. The Review Team recommends that these positions be refill, not necessarily in the same area. Faculty should consider new and emerging teaching and research areas in which they would like to place future programmatic focus. In addition, the Review Team recommends that as funding becomes available priority be given to faculty hires in this department.

**Topic:** Graduate Tuition Waivers are a Positive but Semester-by-Semester Teaching Assistantships Cause Uncertainty

**Challenge:** A very positive aspect of the University of Hawaii graduate programs is that graduate students are awarded a true tuition waiver for their studies. Graduate students commented to the Review Team that a high level of uncertainty to the timely completion of their graduate program rests with the fact that stipends associated with a teaching assistantship are awarded on a semester-by-semester basis. In some cases this results and graduate students having to take outside employment to support their graduate program thereby delaying graduation.

**Recommendation(s):** The Review Team recommends that University of Hawaii administration developed a mechanism whereby graduate student assistantships, whether research or teaching are awarded for a given length of time; for example, two years for a Masters degree and three years for a PhD degree.
Natural Resources and Environmental Management (NREM)  
Departmental Review

As the 2014 self study reports, “NREM was created in 2000 by merging the existing Department of Agricultural and Resource Economics with part of the Department of Agronomy and Soil Sciences. The resulting department has evolved to be an integrated mixture of faculty with a wide range of expertise in multiple disciplines, comprising soil science, water, forestry, ecology, agricultural and resource economics, community development, human dimensions of resource use, and environmental policy.”

Strengths. The CTAHR Program Review Team collectively believes that one of and perhaps the most important strength of NREM is that their faculty has worked extremely hard to ensure that these collective disciplines, listed above, have allowed them to build a strong and relevant academic program at both the undergraduate and graduate level. NREM has turned out some very proud and successful students at both the graduate and undergraduate levels. When comparing NREM to other departments in CTAHR, the Review Team has found them to have a very collaborate faculty with a nice mixture of senior, mid-careered, and extremely talented young faculty that have mutually built a vibrant academic program. Neither the undergraduate nor graduate programs fall into low enrollment program matrix outlined by the Associate Vice Chancellor for Academic Affairs office. Their own 2014 self-study reports “student enrollment from 2008 to 2013 increased by 38% overall with a 70% increase in undergraduate, 15% increase in M.S. and 14% increase in PhD students. Undergraduate and graduate programs in 2013-2014 have 75 and 71 students, respectively.” Currently over one half of the NREM graduate students are enrolled in the Master Plan B degree (Professional M.S.) the department faculty are moving forward with renaming this program to a “Master in Environmental Management (M.E.M) to better differentiate the professional form the thesis-based M.S. and to make students more marketable upon graduation.” The Program Review Team collectively supports this idea.

We found no evidence that would support any lack of program quality with respect to placement rate, time-to-degree, graduation rates, or any negative evidence of the quality of student work while in the program. The cost of the program (i.e., Instructional FTE of 4.8) is low when compared to other units in and outside CTAHR and we found no evidence that either undergraduate or graduate programs should be discontinued. The Review Team strongly feels that NREM’s with all its supporting evidence in numbers of grants, publication record and student enrollment fills a genuine student and community need to UH (Manoa) and its mission. Furthermore, NREM represents an unique area of multicultural disciplines which is important for the university, college and department’s mission, reputation and identity.

The Department Chair has strong ownership of her department and it was quite obvious cares a great deal about her faculty, students and staff. She understands the tri-mission of a land-grant institution and that it takes all components (i.e., research, extension and instruction) to create a dynamic department that is relevant to the needs of students and the community at large.
There is a great amount of diversity and strength that lie within the current composition of faculty members within NREM. Over the next few months the three new positions will be added into the department (i) Ecohydrology, (ii) Human Dimensions, and (iii) Agroecosystem Sustainability. This will make a total FTE of seventeen (17). Within the last five years the number of peer-reviewed journal articles is 140 and 26 publications in either books or book chapters; research emphasis is extremely well covered. Faculty are very enthusiastic and outwardly seem to be very collegial and believe they are working for the betterment of the department and its students.

The Program Review Team collectively believes that the work conducted in NREM is essential for the State of Hawaii and relative at both national and international settings of natural resource and environmental management. Faculty have noted that their graduates are successful and are employable upon completion of their degree. Other strengths identified included:

- Annual retreats where faculty discuss and determine priority staffing
- Department activities are highly applicable to tropical and subtropical regions
- Faculty have been innovative in creating an educational pathway to meet the needs of students and industry. For example they renamed Professional M.S to a Master in Environmental Management (M.E.M) to better differentiate the professional tract from the thesis-based tract and increase student marketable upon graduation.
- Faculty are engaged in both undergraduate and graduate programs.
- Courses offered can be utilized by numerous non-majors to increase their choices of electives
- 20 students attended conference and/or workshops to showcase their work between 2013-2014
- UH Regents Medal for Excellence in Teaching was awarded to Dr. Litton in 2013
- CTAHR excellent in teaching was awarded to Dr. Lepczyk in 2014
- NREM has a very diverse group of students at both the graduate and undergraduate degree programs
- NREM website is hosted by the CTAHR server and is facilitated by a part-time hire in the department.
- NREM maintains current undergraduate and graduate program pages, course offerings and faculty directory on their website.

The graduate students reported the following strengths of the department:

- Close to home
- Tropical forest not found in other US entities
- Multi-interdisciplinary degree
- They rated NREM at 8.5 (where 10 was high marks and 1 was low)
- They felt that current curriculum provided them with the right training and skill set they would need upon graduation
- Noted that they communicated with their chair of their committee almost on a daily basis
- Committee chairs were always accessible
- Would highly recommend this program to other students
They are a ‘family’ and support each other in many ways
Funds are available to graduate students which are essential to live in high cost Hawaii
They are encouraged and supported to attend conferences, nationally and internationally
There are internal grants available to conduct research

Note: Undergraduate students
No undergraduate student showed up for discussion when given the opportunity to do so. However, after talking with a few faculty members they noted that time allotted was during a period in the day where most undergraduate students were in class or had left campus. The department chair was willing to round up a few students but time did not permit this to take place.

The graduate students reported the following weaknesses of the department:
- Limited number of electives
- Not enough faculty to teach some classes so students must take electives outside of NREM to complete their degree program.
- Sometimes the strength in small class size can be a weakness as well
- Bring back more emphasis in agriculture economics
- We become jack-of-all trades and not experts in any particular subjects
- Natural resources are mostly focused on terrestrial topics NMEMS could have more aquatic and marine emphasis

Although the meetings identified numerous departmental strengths, the Review Team identified topic areas that need to be addressed.

Topic: Timely Support for Grants
Challenge: Younger faculty reported that the bureaucracy in running grants within the College has gotten so bad that a few stated they will “no longer be applying for external grants” until the system is fixed. No department can afford to lose young faculty to other institutions due to the inefficiency of paperwork bound by rules and regulations that inhibit the daily flow of paperwork.
Recommendation(s): The Review Team has recommended that CTAHAR, UHM and UH spend the time and money necessary to fix a system of red-tape formalities that seem to be imploding on its self and the moral of its faculty and graduate students.

Topic: Space and Building Organization
Challenge: While touring some of the offices and laboratories that the NREM’s faculty, staff and students inhabit, it is apparent that Sherman Laboratory is still in pretty good physical condition. However, the biggest issue observed was spaced occupied by other departments. If additional faculty
hires are to take place, with an increasing number of graduate students, and an increasing number of soft-money employees - there will be huge space issue at Sherman Laboratory.

**Recommendation(s):** Conduct a physical audit of who is housed in Sherman Laboratory and see if other arrangements can be made for those personnel not associated with NREM. Develop a master plan for space allocation that can be realistically met now and over the next 5-years.

**Topic:** Number of Extension Faculty Supported by Soft Money

**Challenge:** Extension programs within the College and within NREM is vital for community engagement and the lack there of will only diminish the ability to make a difference in communities that have issues regarding natural resources and environmental management.

**Recommendation(s):** The Review Team, strongly supports that an external review of the entire CTAHR be conducted over the next year. In doing so the total number of Extension faculty that are supported on soft money be one key area of investigation.

**Topic:** Low Enrollment Programs

**Challenge:** To ensure that NREM does not fall into low enrollment programs, it is essential that current department chair work with both undergraduate and graduate faculty members to come up with an overall and ongoing recruitment plan.

**Recommendation(s):**
- Produce a strategic plan that is reviewed yearly to showcase NREM to prospective students in local high schools, mainland student-recruitment centers, and international student-recruitment centers.
- To actively participate in the UHM Chinese 2 plus 2 program, to increase Chinese graduate students in NREM
- Request that UHM review their threshold criteria and determine if undergraduate and graduate programs should be using the same thresholds.

**Topic:** Student Learning Outcomes and Assessment

**Challenge:** NREM’s faculty appear to have embraced the need for student learning objectives, degree mapping and assessment yet there were few examples of actual data showing how assessment activity was been collected and utilized to improve courses or programs.

**Recommendation(s):**
- NREM needs to show concrete examples of how faculty are assessing individual class SLO’s to produce outcomes and changes implemented because of the data collected
- Highlight specific examples of excellence in assessment and how they plan to use this evidence to improve academic quality in their classes or programs.
- Identify three to five assessment activities, results of which contributed produced a change in degree programs, teaching methods or pedagogy.
Topic: **Support for Teaching Assistantships**

**Challenge:** One method for allowing graduate students teaching experience in the classroom or laboratory is through well-funded teaching assistants. This also helps in lowering teaching load responsibilities by faculty. There seems to be inadequate funds for instructional TA’s in NREM.

**Recommendation(s):** The Review Team believes this is a college-wide issue that needs to be discussed with both the Dean and Associate Dean of Academics and Student Affairs. A consensus among department chairs and top college administrators in ways to put aside funds for graduate teaching assistantships is definitely needed.

Topic: **Inadequate support for graduate students**

**Challenge:** Several areas of concern here include:
- Difficulty in educating PIs on graduate student management
- Additional challenge with faculty who are in outlying centers
- Lack of assistantships for graduate students
- Information for graduate students is hard to find
- A recent audit indicated there were 35 students in degree noncompliance in CTAHR.

**Recommendation(s):**
- *The committee highly recommends that the office of Associate Dean of Academic & Student Affairs serve’s as the hub/catalyst on graduate policy, procedures, forms, graduation/degree requirements, thesis and dissertation policies;*
- *To ensure this recommendation is followed, a part time administrator or a load allocation be given to one CTAHR faculty to help this vital area of services;*
- *That current graduate advisors, from NREM, meet on a regular basis with Associate Dean of Academic & Student Affairs to discuss new policies/procedure and information*
- *The program graduate advisors need to be aware of who the incoming graduate students are and who their major advisor is.*

Topic: **Academic Advising at the Undergraduate level**

**Challenge:** One key component to a 4-year undergraduate completion rate is early and advisement. Without this goal many students take classes that are either not needed or miss essential classes to graduate in a timely manner.

**Recommendation(s):** Faculty seem to be very interested in the newly hired academic advisors. NREM needs to support these individuals and the Chair needs to periodically meet with them to see where some of the bottlenecks in 4-year graduation rates may be occurring.
Plant and Environmental Protection Sciences (PEPS)
Departmental Review

The Department of Plant and Environmental Protection Sciences (PEPS) was established in 2000 when CTAHR was reorganized. The mission of the department is to “conduct research on invasive pest species and their effects on crops and native ecosystems in Hawaii, with emphasis on the development of environmentally appropriate management practices, contributing high-quality research and discovery, extension and education opportunities to benefit the people of Hawaii and elsewhere”.

The Review Team was charged with conducting a review of the department as part of the college evaluation, with the primary charge of appraising academic programs. However, through the process it was apparent that PEPS has impressive research outcomes including numbers of publications and extramural grants, especially considering 38% of the FTE in the department is designated as research faculty. They are one of the highest grant producing departments in the University of Hawaii System. They pride themselves at being particularly good at detecting new plant diseases. PEPS also has a significant extension outreach component which accounts for 45% of the departmental FTE. Their work to assist commercial plant growers and homeowners with the latest research-based integrated disease and pest management programs and their research work on pest and pathogen management is critical to Hawaii’s agriculture and urban landscape.

The review consisted of a self-assessment of the unit, and separate meetings with faculty, graduate students and one undergraduate student and a tour of the facilities. Strengths and topics to be considered were identified through the process.

Strengths. The CTAHR Program Review Team collectively believes that the work conducted in PEPS is essential for the state of Hawaii and surrounding areas. PEPS provides a strong and relevant graduate training program, with less emphasis on undergraduate education. Faculty report that graduates are successful and get great jobs upon completion. Other strengths identified through the various meetings include:

- Faculty have been innovative in creating new educational pathways to meet the needs of students and industry. For example, they identified a niche for a non-thesis MS degree that could be completed in three semesters. They are also exploring the creation of a certificate in agrosecurity and are exploring a non-thesis agrosecurity and food safety degree.
- They have more graduate students than they can handle. The only limiting factor is funding.
- They have a strong graduate faculty.
- The courses offered in the department are popular across campus, both within and beyond CTAHR.
- Their academic programs are very hands-on.
- They provide 6 credits of directed research for all undergraduate students.
- They have good ties with industry which strengthens all missions of the department.
- They have a diverse group of students – especially graduate students.
• The graduate students employed as GRAs receive tuition waivers

Graduate students report the following strengths of the department:
• They are provided a positive environment to work in that is full of positive energy.
• They are allowed an open laboratory policy with no barriers in communication between faculty member’s laboratories.
• Their advisors are friendly and helpful.
• They are provided with resources, including access to extension agents, farmers, field plots and greenhouses which are essential to their research.
• They are a ‘family’ and support each other in many ways including by providing manpower for research projects.
• The faculty are supportive and tolerant of English as a Second Language students.
• They love the curriculum and feel that it is science-based and challenging.
• They are able to take classes online while living on another island while they complete their research.
• They include each other in their cultural diversity activities – recently the celebration of Chinese New Year.
• They are encouraged and are provided support to attend professional scientific conferences.
• There are internal grants available to conduct research.

Undergraduate students reported the following departmental strengths:
• They love the curriculum.
• They enjoy their small classes and know their professors – who are experts in their fields.
• The classes are interactive, applied and include field trips.
• The 6 credits of directed research is the best part of the program.

Although the meetings identified numerous departmental strengths, the Review Team identified topic areas that should be considered:

Topic: **Faculty are Openly Divided and do not Function in a Collaborative Manner**

**Challenge:** In discussions with the Review Team, faculty were open in their comments and indicated their unit is divided and at odds with each other (Entomology and Plant Pathology). The Department Chair confirmed this. One faculty member reported being “bullied” in the unit and one reported that working in the unit is a “freaking nightmare”. Graduate students also brought this up, but indicated they refused to let it influence their relationships amongst themselves. The undergraduate student did not mention this issue, indicating that the faculty division may not be obvious to undergraduate students. Faculty reported they have no social experience in the department and asked for a shared vision with transparency. Specific comments illustrating this point were:
• “There is too much inbreeding in this department”
• “The plant pathologists have meetings prior to departmental faculty meetings to strategize their approach”
• “We are governed in the old way”
• “We want to be combined with TPSS”

The graduate students reported the department needs more communication between entomology and plant pathology to make their programs more effective.

**Recommendation(s):**

• Work with human resources to develop a plan for bringing the faculty together. This should be a high priority item for the CTAHR Dean and Department Chair.
• Set the expectation for collegiality at the forefront of everything done in the department.
• Encourage those faculty who feel bullied to bring their allegations forward so that the issue can be addressed.
• Although some PEPS faculty suggested a merger of PEPS and TPSS, the Review Team recommends that no departmental mergers take place at this time.
• Consider having a Department Head instead of a Department Chair in order to provide continuity and to support the mission of CTAHR. Rotating Department Chairs do not have time to fully understand and contribute to the larger mission of CTAHR.

**Topic:** Low Enrollment Programs

**Challenge:** The Vice Chancellor for Academic Affairs office has established criteria to identify Low Enrollment programs. Criteria include number of students enrolled in a program and degrees awarded during the previous five years. The following PEPS programs fit into the low enrollment category:

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<td>MS</td>
<td>Meets</td>
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<tr>
<td>Entomology</td>
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<td></td>
<td>5</td>
</tr>
<tr>
<td>Tropical Plant Pathology</td>
<td>MS</td>
<td>6</td>
<td>8</td>
</tr>
<tr>
<td>Tropical Plant Pathology</td>
<td>PhD</td>
<td>3</td>
<td>6</td>
</tr>
</tbody>
</table>

**Recommendation(s):**

• The Review Team recommends that the University of Hawaii upper administration review their threshold criteria and determine if undergraduate and graduate programs should be using the same thresholds.
• Consider combining the MS and PhD programs in PEPS: MS in Tropical Entomology and Plant Pathology; PhD in Tropical Entomology and Plant Pathology. Determine if the transcript could list the emphasis as either entomology or plant pathology.

**Topic:** PEPS Primary Focus is on Research and Outreach—Less Focus on Undergraduate Education

**Challenge:** It is apparent from reviewing the mission statement and from visiting with faculty, graduate and undergraduate students that PEPS is aligned to conduct research, train graduate students and provide outreach, with less emphasis on educating undergraduate students. Seventeen percent of the
departmental FTE is allocated for instruction. The research and outreach that is conducted by the unit is critical to Hawaii and the surrounding area and provides a strong education to graduate students.

**Recommendation(s):**
- The Review Team recommends that conversations continue with other departments to grow the undergraduate program.
- Consider strengthening the importance of undergraduate education in the mission statement.

**Topic:** Desire of Faculty to Create a Combined Undergraduate Academic Degree

**Challenge:** In response to the scrutiny over Low Enrollment programs and an impending college review, a committee was assembled to consider offering a joint undergraduate degree between PEPS and TPSS which would be enhanced to include agricultural production plus environmental management. Faculty in both departments seemed excited about this joint venture and felt it was in the best interest of students. While visiting with the undergraduate student in the program, she indicated that this was a good idea because most of her classes include the TPSS students anyway.

**Recommendation(s):** The Review Team applauds both academic units for being open and willing to work together on this proposal. The Review Team recommends that CTAHR establish follow-up conversations between the two departments to investigate this possibility.

**Topic:** Space and Building Maintenance, Repair and Organization

**Challenge:** While touring some of the facilities that the PEPS faculty, staff and students utilize, it was apparent that the buildings are old and in disrepair. The biggest issue observed was the greenhouse and laboratories in Gilmore Hall. The greenhouses on the top of the building are cluttered, dirty, and have a non-functioning ventilation system. Several pieces of equipment were pointed out as not working or not efficient due to their age. Faculty reported problems with freezer systems, equipment removal, plumbing issues and lack of functional greenhouses. There were insect cages and what appeared to be deserted pieces of equipment scattered throughout the halls of the buildings. Graduate students report that they have inadequate space to conduct their work. Several individuals reported that there is inadequate laboratory space within the entomology division of PEPS. Students also wanted to know why they can’t use the greenhouse that was built and never completed. The undergraduate students report that the facilities are old and in need of repair.

**Recommendation(s):** Make laboratory cleanup a priority and part of everyone’s responsibility. Conduct an audit of equipment in the buildings and develop a master plan for replacement.

**Topic:** Inadequate Support for Teaching Assistants

**Challenge:** The department chair, faculty and students all indicated that there are inadequate funds for instruction with TAs being the greatest problem. The department reports they receive ½ FTE of a TA for the entire department and that the allocation is used for lab classes only.

**Recommendation(s):**
- Inadequate funding for teaching assistants appears to be a college wide problem and should be evaluated closely by administration.
Provide transparency in TA and graduate assistantship hiring.

Topic: Inadequate Support for Graduate Students

Challenge: Several areas of concern include:
- There is a great need for assistantships for graduate students to complete the research and to teach labs.
- The graduate students indicated they were concerned because there is “no transparency in fellowship awarding and indicated there were “shady dealings going on”.
- Information for graduate students is hard to find and “is splattered all over the place”
- A recent audit indicated there were 35 students in degree noncompliance in the college.
- There is difficulty in educating PIs on graduate student management with an additional challenge working with faculty who are in outlying centers on other islands.

Recommendation(s):
- The Review Team highly recommends that the office of Associate Dean of Academic & Student Affairs serve as the hub/catalyst on graduate policy, procedures, forms, graduation/degree requirements, thesis and dissertation policies in collaboration with the graduate school.
- Consider a part-time administrator or a load allocation be given to a CTAHR faculty to help this vital area of services.

Topic: Bottleneck Courses

Challenge: Although the department chair and faculty indicated they have no problem with bottleneck courses, the students reported that classes are often not offered or cancelled.

Recommendation(s): Conduct a review of the courses to identify the bottlenecks and work to find solutions. Increase the number of TAs to increase seats.

Topic: General Feeling That There is no Internal Reward for Good Teaching

Challenge: Several faculty members indicated they feel there is no reward for good teaching on the UHM campus but rather it is felt that research, including publications and grants, are rewarded.

Recommendation(s): Increase visibility of good teaching. Require use of the course evaluation system, utilize the data for decision-making and for faculty development plans when needed, and communicate to students that their input is valued. Create a campaign to inform faculty that good teaching is critical and essential for Promotion & Tenure.

Topic: Academic Advising

Challenge: Faculty members have been charged with academic advising of students taking them away from teaching and research responsibilities. The undergraduate student indicated that advising has not been good in the past and that her advisor “was scatterbrained”. The Review Team applauds CTAHR for their recent hire of two academic advisors.
**Recommendation(s):** Fully support and train the advisors. Ask for their help in identifying bottleneck courses and other obstacles to completion.

**Topic:** Student Learning Outcomes and Assessment

**Challenge:** PEPS faculty appear to have embraced the need for student learning objectives, degree mapping and assessment yet there are few examples of actual data showing how assessment activity was collected and utilized to improve courses or programs.

**Recommendation(s):**
- PEPS needs to show concrete examples of how faculty are assessing individual class SLOs to produce outcomes and changes implemented because of the data collected.
- Highlight specific examples of excellence in assessment and how they plan to use this evidence to improve academic quality in their classes or programs.
Tropical Plant and Soil Sciences (TPSS)
Departmental Review

As the 2014 self-study reports, “The Department is comprised of an unusually diverse faculty and expectations, in part, from the combination of previous Departments of Horticulture and Agronomy and Soil Science. This diversity can be a strength or a challenge depending on one’s perspective. We seek to improve awareness of the common concerns and vision in dealing with this diversity. The Department deals with a wide range of plants, for use from basic food to improvement of quality of life and improved management of our increasingly urban environment. Faculty research, teach, and provide expert assistance throughout the State, Pacific Basin, and Tropical World on food crops, ornamentals, landscape plants and designs, and in the management of soils to sustain livelihoods and improve the quality of the environment, which is under stress from the increased urbanization.”

The CTAHR Review Team was charged with overseeing a review of the department as part of the college process, with the primary charge of looking thoroughly at the academic programs in both the undergraduate and graduate programs. However, it is difficult to separate the tripartite mission of any Land Grant institution without commenting on its extension and research programs. Therefore, this review touches on a few key issues regarding both research and extension.

Strengths. It was very obvious when meeting the Department Chair that he was well versed with the ongoings of the department. His years of being a faculty member in the department both current and past provided that underlining knowledge. It was obvious that he had a great deal of concern about TPSS and wanted only the best for its faculty, staff and especially for TPSS students.

The same holds true with the numerous faculty that were most generous in offering their opinions and support of their professions. They spoke of their great interest in their students and the community that have engaged themselves in over the many years at CTAHR. The agriculture which most of them found themselves hired into 15, 20 and 30 years ago is not the same agriculture that is present in Hawaii today. It is sometimes difficult to make that nexus from the old to the new but it must be done. The students will demand it and will leave the department if they see it not taking place. Hence the academic programs must meet the new Hawaii of today.

The CTAHR Program Review Team found some evidence that supported a lack of program quality with respect to placement rate, time-to-degree and graduation rates, however none of which can’t be overturned with a stronger commitment by instructional faculty. The cost of the program (i.e., Instructional FTE of 3.15) is very low when compared to other units in and outside CTAHR and we found no evidence that either undergraduate or graduate programs should be discontinued.

The CTAHR Program Review Team collectively believes that one of and perhaps the most important strength of TPSS is their vision in “Shaping a vibrant agricultural future rooted in Hawaii’s rich cultural heritage.” The Program Review Team collectively believes that the work conducted in TPSS is essential for the State of Hawaii and relative at both national and international settings of tropical plant and soil
sciences. Faculty noted that their graduates are successful and are employable upon completion of their degree. Other strengths identified included:

- TPSS faculty are the primary users of state agricultural experimental stations
- The department is engaged in a wide range of subject matter that is highly applicable to tropical and subtropical regions
- The department has a strong and relevant relationship with the community
- Faculty in the TPSS department have viable ties with international groups and universities
- TPSS faculty and staff are proud of the quality of their students
- The department provides excellent vegetable support, ornamental support soil and environmental support to their clientele
- Many undergraduates from the TPSS department are being placed in jobs within Hawaii
- TA’s within the department are great but are worked to death
- Three new faculty positions were identified to be filled within TPSS, they include Soil and Water Systems (Researcher - Water management based on meteorological conditions); Agri-business/Marketing (Specialist-Ag-business management); and Urban Horticulture Agent on Kauai."

The graduate students reported the following strengths of the department:

- Born and raised here happy to be at home
- Open door policy with faculty
- Faculty have a wide diversity of skills
- Some of the faculty are pioneers in their field of expertise
- They felt that current curriculum provided them with the right training and skill set they would need upon graduation
- Noted that they communicated with their chair of their committee almost on a daily bases
- Committee chairs were always accessible
- Would highly recommend this program to other students
- Great networking among graduate students and faculty members within TPSS
- They are encouraged and supported to attend conferences both nationally and internationally
- Utilization of Research and Education Centers for graduate research
- More opportunities to work with undergraduate students as mentors and peers
- Provides visiting faculty the experience in what Hawaii has to offer
- They rated TPSS at 8.0 (where 10 was high marks and 1 was low)

The graduate students reported the following weaknesses of the department:

- Want to be exposed to more conferences and professional organizations
- Want more hands on seminars with how to set up research material for journal publications
- TPSS seminar series is very repetitive and graduates would like this requirement to be revamped and allow students update their resumes with more practical material that they can used after graduation
• Numerous classes no longer available makes it difficult to graduate in a timely manner
• The students would like to have more classes to choose from
• Better graduate advisement in TPSS and at UHM
• Dedicated stats class for graduates so they can apply information to their data
• Web site could use some improvement
• More topics in class that have a Hawaiian focus and experience in Hawaiian culture
• Ability to collaborate both college and industry

The undergraduate students reported the following strengths of the department:
• Some of the faculty are truly interested in our program and want to make a difference in our lives; faculty are willing to assist them
• Department has a diverse research interest
• Many Professor will take you under their wing
• Have faculty who excel in their field of study
• They rated TPSS at 8.0 (where 10 was high marks and 1 was low)

The undergraduate students reported the following weaknesses of the department:
• Some of the facilities need funds and lack updated equipment
• Aging curriculum
• Aging faculty
• Increase awareness in specific crops like tropical fruits and vegetables
• Certain GMO biases
• Should speak with one voice about GMO; too many conflicting stories out in the public

Although the meetings identified numerous departmental strengths, the Review Team identified topic areas that need to be addressed.

Topic: Overall Department Weaknesses

Challenge: It appears that TPSS lacks a central purpose that all, or most, faculty have agreed upon to and are willing to follow direction from the Department Chair. As a result, TPSS is a group of faculty who share the same building but don't seem to be on the same page to move the department into the 21 century. Perhaps this is because of the longevity of the current faculty and the fact that a number of new faculty came from inside the college and not recruited from other land grant universities. Status quo can be detrimental to the unit and the college under certain circumstances. The lack of focused and cohesive energy and dedication results in the missed opportunity to attract Hawaii-based and international students to a new, in-demand, tropical agriculture curriculum. The skill sets possessed by current TPSS faculty are in demand in the marketplace and need to be passed along to willing students.

Recommendation(s):
• The current Department Chair needs to have a conversation that would foster a unified direction of the current faculty.
One solution is to hire a new dynamic Chair from outside of Hawaii who will take a fresh look at what needs to move this department into a vibrant and energetic unit. The solution may be to get a new, dynamic chair from outside of Hawaii. This person needs to be mostly done making their name in academia and will focus a majority of their time in reshaping the behaviors and goals of the remaining faculty and setting new faculty on a cohesive course that rebirths a once critical department into a significant player in tropical agriculture.

TPSS need to conduct an undergraduate program assessment on their academic programs.

Topic: **Low Enrollment Programs**

**Challenge:** The Vice Chancellor for Academic Affairs has established criteria to identify Low Enrollment programs. Criteria include number of students enrolled in a program and degrees awarded during the previous five years. The single TSPP program fits into the low enrollment category:

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**Recommendation(s):**

- The Review Team recommends that the University of Hawaii upper administration review their threshold criteria and determine if undergraduate and graduate programs should be using the same threshold.
- Produce a strategic plan that is reviewed yearly to showcase TPSS to prospective students in local high schools, mainland student-recruitment centers, and international student-recruitment centers.
- To actively participate in the UHM Chinese 3 plus 2 program, to increase Chinese graduate students in TPSS.

Topic: **Desire of Faculty to Create a Combined Undergraduate Academic Degree**

**Challenge:** In response to the scrutiny over Low Enrollment programs and an impending college review, a committee was assembled to consider offering a joint undergraduate degree program between TPSS and PEPS which would be enhanced to include agricultural production plus environmental management. Faculty in both departments seemed excited about this joint venture and felt it was in the best interest of students. Both undergraduate students in TPSS and PEPS seem pleased that this joint degree program may soon take place. It is our understanding that both curriculum committees have even planned out the SLO’s of this merger.

**Recommendation(s):** The Review Team applauds both academic units for being open and willing to work together on this proposal. The Review Team recommends that CTAHR establish follow-up conversations between the two departments to investigate this possibility.
**Topic:** Loss of Tropical and Subtropical Agricultural Research (TSTAR) Funds  
**Challenge:** One of the most important sources of funding with respect to tropical and subtropical crops was an “earmark” funded out of the US Congress. Researchers in tropical plant and soil sciences in fields like horticulture, agronomy and soil science were offered a unique funding opportunity and did not have to compete with temperate food crops like wheat, corn, soy and citrus. Unfortunately these earmarks are no longer in place.  
**Recommendation(s):** In the latest Farm Bill and in this year’s Presidential budget there has been a large set of funds set aside specifically to support “Specialty Crops.” It is the recommendation of the Review Team that TPSS and PEPS combine their efforts and apply for these funds to support tropical and subtropical agriculture in the State of Hawaii. Acquiring these funds could add much needed work in the areas of tropical and subtropical food production for both faculty and graduate students.

**Topic:** Timely Support for Grants  
**Challenge:** Faculty reported that the formalities in running grants within the University of Hawaii has gotten so bad that it produces a mood of despair and apathy of trying to go after more grants.  
**Recommendation(s):** The Review Team has recommended that CTAHR, the University of Hawaii, Manoa and the University of Hawaii System investigate their grant and contract policies and procedures, pre-award process and support and post-award functions and ensure that these activities are service based to facilitate faculty success while maintaining proper compliance functions.

**Topic:** Space and Building Organization  
**Challenge:** While touring some of the offices and laboratories that the TPSS faculty, staff and students inhabit, it is apparent that St. John is an older building with some physical and structural needs.  
**Recommendation(s):**  
- Conduct a physical audit of who is housed in St. John’s and see what upgrades could be prioritized to fit the current and future needs of TPSS.  
- Develop a master plan for space allocation that can be realistically met now and over the next 5-years.

**Topic:** Magoon facility  
**Challenge:** All of the agricultural experimental stations are least an hour drive from the UH campus. Magoon facility, which is walking distance from campus, provides both upscale labs for both faculty and students. To close this facility would alter student teaching lab, community outreach demonstrations and faculty-student-research projects.  
**Recommendation(s):** CTAHR departments utilizing these newly renovated-facilities are strongly opposed to the sale of this land for the development of faculty housing. Present day facilities are fundamental to the current teaching and research programs found in numerous departments within CTAHR. Hands-on applications are critical for student learning success.
**Topic:** TPSS is a Department with a Very High Proportion of Extension Specialists  
**Challenge:** How to best utilize Extension Specialists and Agents to their fullest capacity.  
**Recommendation(s):** The Review Team strongly supports that an external review of the entire Extension System in Hawaii be conducted over the next year and pay critical attention to duties and responsibilities within departments and across the college.

**Topic:** Student Learning Outcomes and Assessment  
**Challenge:** TPSS faculty appear to have embraced the need for student learning objectives, degree mapping and assessment yet there were few examples of actual data showing how assessment activity was been collected and utilized to improve courses or programs.  
**Recommendation(s):**  
- TPSS needs to show concrete examples of how faculty are assessing individual class SLO’s to produce outcomes and changes implemented because of the data collected.  
- Highlight specific examples of excellence in assessment and how they plan to use this evidence to improve academic quality in their classes or programs.  
- Identify three to five assessment activities, results of which contributed produced a change in degree programs, teaching methods or pedagogy.

**Topic:** Support for Teaching Assistantships  
**Challenge:** One method for allowing graduate students teaching experience in the classroom or laboratory is through well-funded teaching assistants. This also helps in lowering teaching load responsibilities by faculty. There seems to be inadequate funds for instructional TA’s in TPSS.  
**Recommendation(s):** The Review Team believes this is a college-wide issue that needs to be discussed with both the Dean and Associate Dean of Academic and Student Affairs. A consensus among department chairs and top college administrators in ways to put aside funds for graduate teaching assistantships is definitely needed.

**Topic:** Inadequate Support for Graduate Students  
**Challenge:** Several areas of concern here include:  
- Difficulty in educating PIs on graduate student management.  
- Additional challenge with faculty who are in outlying centers.  
- Lack of assistantships for graduate students.  
- Information for graduate students is hard to find.  
- A recent audit indicated there were 35 students in degree noncompliance in CTAHR.  
**Recommendation(s):**  
- The Review Team highly recommends that the office of Associate Dean of Academic & Student Affairs serves as the hub/catalyst on graduate policy, procedures, forms, graduation/degree requirements, thesis and dissertation policies.  
- To accomplish this goal, a part time administrator or a load allocation could be given to one CTAHR faculty to help this vital area of services.
• That current graduate advisors, from TPSS, meet on a regular basis with Associate Dean of Academic & Student Affairs to discuss new policies/procedure and information
• The program graduate advisors need to be aware of who the incoming graduate students are and who their major advisor is.

Topic: **Academic Advising at the Undergraduate Level**

**Challenge:** One key component to a 4-year undergraduate completion rate is early advisement. Without this goal many students take classes that are either not needed or miss essential classes to graduate in a timely manner.

**Recommendation(s):** Faculty seem to be very interested in the newly hired academic advisors. TPSS need to support these individuals and the Chair needs to periodically meet with them to see where some of the bottlenecks in 4-year graduation rates may be occurring.
### Appendix A. CTAHR Faculty Workload and Appointment

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### Appendix A. CTAHR Faculty Workload and Appointment

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#### Family and Consumer Sciences

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## Appendix A. CTAHR Faculty Workload and Appointment

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**Molecular Biosciences and Bioengineering**

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* Actual Teaching Effort estimated based on the assumption that teaching one 3-credit course plus advising a moderate number of undergraduate students and mentoring graduate students representing 15% teaching FTE. Also, a typical 3 x 3 teaching load by a 9 month faculty appointment (representing 100% effort) represents approximately 17% FTE per class (100/6).