Associates in Science in Veterinary Technology

Self-Study

January 15th, 2013
## Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Title Page</td>
<td>1</td>
</tr>
<tr>
<td>Error! Bookmark not defined.</td>
<td>2</td>
</tr>
<tr>
<td>Introduction</td>
<td>3</td>
</tr>
<tr>
<td>I. Institutional Accreditation</td>
<td>4</td>
</tr>
<tr>
<td>II. Finances</td>
<td>5</td>
</tr>
<tr>
<td>III. Organization and Communications</td>
<td>6</td>
</tr>
<tr>
<td>IV. Physical Facilities and Equipment</td>
<td>7</td>
</tr>
<tr>
<td>V. Library and Informational Resources</td>
<td>8</td>
</tr>
<tr>
<td>VI. Admissions</td>
<td>9</td>
</tr>
<tr>
<td>VII. Students</td>
<td>10</td>
</tr>
<tr>
<td>VIII. Faculty and Staff</td>
<td>11</td>
</tr>
<tr>
<td>IX. Curriculum</td>
<td>12</td>
</tr>
<tr>
<td>X. Outcomes Assessment</td>
<td>13</td>
</tr>
<tr>
<td>Appendix A. Veterinary Technology Advisory Committee Roster and Minutes</td>
<td>14</td>
</tr>
<tr>
<td>Appendix B. Pictures of Windward Community College Facilities</td>
<td>15</td>
</tr>
<tr>
<td>Appendix C. Memorandum of Understanding for Shelters</td>
<td>16</td>
</tr>
<tr>
<td>Appendix D. IACUC Membership and Minutes</td>
<td>17</td>
</tr>
<tr>
<td>Appendix E. Inventory of Models, Skeletons, Manikins</td>
<td>18</td>
</tr>
<tr>
<td>Appendix F. Map of the Windward Community College Campus</td>
<td>19</td>
</tr>
<tr>
<td>Appendix G. Health Risk Acknowledgement and Pregnancy Policy</td>
<td>20</td>
</tr>
<tr>
<td>Appendix H. Liability Waiver</td>
<td>21</td>
</tr>
<tr>
<td>Appendix I. Suggested Course Sequencing</td>
<td>22</td>
</tr>
<tr>
<td>Appendix J. Core Veterinary Technology Course Descriptions</td>
<td>23</td>
</tr>
<tr>
<td>Appendix K. Graduate Employment Survey</td>
<td>24</td>
</tr>
<tr>
<td>Appendix L. Employer Survey</td>
<td>25</td>
</tr>
<tr>
<td>Appendix M. Graduate Facilities/Resources Survey</td>
<td>26</td>
</tr>
</tbody>
</table>
Report of Windward Community College- Associate in Science in Veterinary Technology Program

Address: 45-720 Keahala Road Kaneohe, HI 96744

Report by: John Kaya, DVM Program Director- Veterinary Technology

Signature of Author: _______________________

Date January 15th, 2013 Telephone Number: 808-236-9107 Email: johnkaya@hawaii.edu

Principal Administrative Officers

A. Chancellor: Doug Dykstra, MA, M. Ed

Signature: _______________________

B. Vice Chancellor: Richard Fulton, PhD

Signature: _______________________

C. Academic Dean: Brian Richardson, PhD

Signature: _______________________

D. Department Chairperson: Leticia Colmenares, PhD

Signature: _______________________

E. Financial Aid Officer: Steven Chigawa

Signature: _______________________

F. Director of Library Services- Tara Severns, MLIS

Signature: _______________________

G. Program Director- Veterinary Technology: John Kaya, DVM

Signature: ______________________
Introduction
A. Provide a brief history of the program

Background: Windward Community College

Established in 1972, Windward Community College is one of ten satellite campuses in the University of Hawaii System.

Windward Community College offers innovative programs in the arts and sciences and opportunities to gain knowledge and understanding of Hawaii and its unique heritage. With a special commitment to support the educational needs of Native Hawaiians, we provide lifelong learning opportunities in a supportive and challenging environment. Preparing students for their journey down the career path of their choice is our mission and responsibility.

The college currently offers Associate Degrees in Arts, Hawaiian Studies, and Veterinary Technology. Certificates can be obtained in subject areas listed below.

Agricultural Technology
Agripharmatech – Ethnopharmacognosy
Agripharmatech Plant Biotechnology
Applied Business and Information Technology
Art
Bio-Resource Development and Management
Business
Certified Nurse’s Aid
Geographic Information System and Global Positioning System
Hawaiian Studies
Marine Option Program
Plant Landscaping
Psycho-Social Developmental Studies
Subtropical Urban Tree Care
Veterinary Assisting
Web Support
Development of the Veterinary Technology Program
In 2006 local veterinarians approached administrators at Windward Community College expressing a need for a training program for veterinary assistants. An ad-hoc committee consisting of WCC faculty veterinarians, and technicians was created to evaluate the feasibility and need associated with creating a program in this area. Members of the committee examined curriculum for five existing vet tech programs and submitted grants to purchase equipment and fund curriculum development. In 2008, a licensed technician was hired to assist with curriculum development and to assess the need of trained veterinary personnel. The results revealed an overwhelming shortage mirroring national surveys that listed the veterinary profession as one of the fastest growing industries. With statistics in hand, the Certificate of Achievement in Veterinary Assisting was launched in the fall of 2009. Since then, the course offerings and staffing have expanded into the two year Associates in Science in Veterinary Technology. A table has been provided below to highlight important dates in this process.

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>June, 2006</td>
<td>First meeting of Veterinary studies ad-hoc committee</td>
</tr>
<tr>
<td>March, 2008</td>
<td>Veterinary technicians hired to assist with initial curriculum design</td>
</tr>
<tr>
<td>June 20, 2008</td>
<td>First Veterinary Advisory Board Meeting</td>
</tr>
<tr>
<td>December 2007</td>
<td>Local Veterinary Industry Survey</td>
</tr>
<tr>
<td>Fall 2009</td>
<td>Veterinary Assisting classes first offered at Windward Community College</td>
</tr>
<tr>
<td>December, 2009</td>
<td>Adjunct DVM and RVT faculty hired to teach program courses (RVT and DVM reach full-time equivalency as of Fall, 2011)</td>
</tr>
<tr>
<td>May, 2010</td>
<td>First Veterinary Assistant Class Graduates</td>
</tr>
<tr>
<td>July, 2012</td>
<td>RVT position is converted to Full-time, tenure-tracked</td>
</tr>
<tr>
<td>October 1, 2012</td>
<td>Full-time tenure-tracked DVM hired as director of the program</td>
</tr>
<tr>
<td>Spring 2013</td>
<td>First graduating class in Veterinary Technology</td>
</tr>
</tbody>
</table>

B. Note the strengths and challenges of the program
   1. Strengths
      a. The program has graduated a total of 20 students with a Certificate of Achievement in Veterinary Assisting. Greater than 70% of these students are employed and paving the way to a good reputation in the local community.
      b. Students have access to all types of animals as they go through the program. Local rescue groups make up the bulk of the live-animal training. They provide companion animals, of which most are cats and dogs. Stables, ranches, and farms have been incorporated to provide large animal experience.
      c. A total of 20 veterinary practices have participated in the internship program.
      d. The program has received over $380,000 in grant money to fund curriculum development, hire faculty, and purchase equipment and supplies.
e. A $1.4 million facility is budgeted and planned for construction during the spring of 2013. Once completed, this facility will provide a central location for valuable hands-on experience to augment our curriculum.

2. Challenges
   a. Windward Community College was not designed for technical programs and so facilities had to be adapted for the live-animal use.
   b. Matriculation through the program is proving to be a challenge for students that have difficulty with mathematics.
   c. Cohorts for class continuity have yet to be started. Since the veterinary technology program is in its first year, students entering this program have completed core requirements at WCC or at other institutions accredited by the AVMA. We anticipate this pool of students to fluctuate based on life circumstances (finances, health, military relocation, etc.) and WCC has an open door policy which makes enrolling cohorts from year one a challenge. As the program evolves and grows in popularity we hope to limit these variables and make cohorts a mainstay.
   d. Animals used in the program are located throughout the island and commuting is a constant struggle with Hawaii’s traffic.

I. Institutional Accreditation
   A. Which agency recognized by the United States Department of Education accredits the parent institution?

   Windward Community College is accredited by the Accrediting Commission for Community and Junior Colleges (ACCJC).
II. Finances

A. Fill out the following financial page. Be sure to include Total Institutional Operating budget.

<table>
<thead>
<tr>
<th></th>
<th>2010-2011</th>
<th>2011-2012</th>
<th>2012-2013</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total Institutional Operating Budget:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Program Revenue:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>State appropriated funds</td>
<td>29,118</td>
<td>27,472</td>
<td>273,223</td>
</tr>
<tr>
<td>Federal funds</td>
<td>0</td>
<td>0</td>
<td>81,596</td>
</tr>
<tr>
<td>Student tuition and fees</td>
<td>54,035</td>
<td>82,820</td>
<td>109,265</td>
</tr>
<tr>
<td>Grants</td>
<td>26,912</td>
<td>109,447</td>
<td>59,815</td>
</tr>
<tr>
<td>Other (Cash Donations)</td>
<td>0</td>
<td>0</td>
<td>2,000</td>
</tr>
<tr>
<td><strong>Total Revenue of Program:</strong></td>
<td>110,065</td>
<td>219,739</td>
<td>525,900</td>
</tr>
<tr>
<td>Program Expenditures:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Personnel</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Veterinarians (1-3 )</td>
<td>12,000</td>
<td>54,500</td>
<td>117,000</td>
</tr>
<tr>
<td>Credentialed veterinary technicians (1-3 )</td>
<td>18,000</td>
<td>41,500</td>
<td>83,344</td>
</tr>
<tr>
<td>Other technical personnel</td>
<td>20,630</td>
<td>19,050</td>
<td>61,160</td>
</tr>
<tr>
<td>Other instructional personnel (5 )</td>
<td>20,630</td>
<td>19,050</td>
<td>61,160</td>
</tr>
<tr>
<td>Non-academic personnel</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Benefits on salaries</td>
<td>16,693</td>
<td>46,431</td>
<td>92,250</td>
</tr>
<tr>
<td>Equipment</td>
<td>24,107</td>
<td>29,524</td>
<td>45,097</td>
</tr>
<tr>
<td>Supplies</td>
<td>2,893</td>
<td>11,338</td>
<td>27,084</td>
</tr>
<tr>
<td>Other (specify)</td>
<td>3,000</td>
<td>8,050</td>
<td></td>
</tr>
<tr>
<td><strong>Total Expenditures of Program:</strong></td>
<td>94,323</td>
<td>205,343</td>
<td>433,985</td>
</tr>
</tbody>
</table>

*Note: only core classes are included in the calculations (e.g. ENG, PSY are not included)*

B. What would be the theoretical total cost for student who is a resident of the state (if applicable) to complete the program, based on current tuition, fees, and equipment, books, and related costs.

<table>
<thead>
<tr>
<th>Costs Over 2 Year Period</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tuition</td>
<td>$7313</td>
</tr>
<tr>
<td>Books</td>
<td>$2000</td>
</tr>
<tr>
<td>Professional Fees</td>
<td>$1100</td>
</tr>
<tr>
<td>Uniforms</td>
<td>$100</td>
</tr>
<tr>
<td>Fieldtrips/Excursions</td>
<td>$100</td>
</tr>
<tr>
<td><strong>Total Costs Per Student</strong></td>
<td>$10,613</td>
</tr>
</tbody>
</table>
C. Are program-specific scholarships or grants available?

No program-specific grants are available at this time. The program is working with the colleges fundraising coordinator to solicit private donations to fund student scholarships. Scholarships are available through outside sources including the veterinary community and the students are encouraged to pursue them. Financial aid is available through the financial office though specific restrictions apply. At present approximately 55% of students receive financial aid.

D. Is the present budget adequate for program needs?

The present budget is adequate at this time. Initially the financial needs of the program were fulfilled with grant funds and tuition monies. With the realization that grant money will not be available throughout the life of the program, a professional fee for students declaring their major in veterinary assisting or veterinary technology has been approved. As of spring semester 2013, students with a declared major in veterinary assisting and veterinary technology will be assessed a professional fee of $100 and $300, respectively.

E. Are changes in the present budget needed? If so, what?

As the program evolves, budgetary concerns may emerge but none are foreseen at this time.

F. What provisions are made for emergency needs outside the established budget?

Emergency funds are available through the Chancellor’s office.
III. Organization and Communications

A. Program Mission and Values

The mission of the program is to increase the quality of veterinary care in Hawaii by providing students with essential skills and knowledge that will prepare them for successful careers in veterinary medicine.

After completing the program, students will be able to:

- Effectively communicate with clients and veterinary staff.
- Perform routine business transactions and maintain patient and facility records.
- Ensure the safety of patients, clients, and staff and maintain compliance with regulatory agencies.
- Identify common breeds of companion animals, list their nutritional requirements and husbandry needs, and describe the anatomy and functions of major body systems.
- Assist with physical exams and obtain patient histories.
- Perform routine nursing procedures including first-aid, wound-management, and administration of medications and vaccines.
- Develop a working knowledge of common companion animal diseases and their medical treatments.
- Collect biological samples and perform diagnostic laboratory tests.

Within the curriculum, values will be emphasized to encourage a well-rounded individual entering the animal-care workforce.

- Compassion – enhance the human animal bond and respect the genuine feelings of fellow pet owners.
- Integrity – ensure that animal care will be provided with honesty and in the best interests of the client and pet.
- Professionalism – dress and behave appropriately as we provide services
- Service – exceed expectations doing so with sincerity, enthusiasm and perpetuating high standards of care.
- Community – foster channels of open communication with the many partners in the veterinary industry.
- Diversity – create a hospitable, welcoming environment for people of all cultures, understanding the inherent differences embraced by individuals with unique backgrounds.

1. What is the primary focus of the program (companion animals, equine, food-producing animals, laboratory animal medicine)?

The primary focus of the program is companion animals. This is a reflection of the opportunities in Hawaii available to our graduates after completion of their degree. However the program does have all species and required skills as outlined by the AVMA.

B. Communications

1. Indicate organizational placement of the program within the institution and describe the line of communication between the program and the institution’s administration.
The Veterinary Technology program is a part of the Natural Sciences Department at Windward Community College and grouped in Division II. The hierarchy of communication between the program and administration is as listed below.

Program director: John Kaya, DVM
Department Chairperson: Leticia Colmenares, PhD
Academic Dean (Division II): Brian Richardson, PhD
Vice Chancellor: Richard Fulton, PhD
Chancellor: Doug Dykstra, M Ed.
University of Hawaii President: M.R.C. Greenwood, PhD

Due to the unique subject matter and specialization, the Program Director is responsible for all aspects of the program. However, these responsibilities are shared with other veterinary technology faculty and members of the WCC administration. Working with the academic dean, vice chancellor of student services, and veterinary technology advisory board, the director ensures that the program meets both student and workforce needs. The director and academic dean are responsible for the hiring and evaluation of adjunct faculty. The program director works with members of the WCC administration, including the fiscal officer to determine annual budget needs. Facilities matters are jointly overseen by the program director, academic dean, and vice chancellor of administrative services. Curriculum changes are reviewed by the Natural Sciences department, Credit Curriculum and Academic Affairs Committee (CCAAC) and Faculty Senate.

2. Provide membership of the advisory committee and copies of the minutes of the last two advisory committee meetings.

See Appendix A

3. Are improvements in communications needed? If so, what improvements are planned?

At this time, communication between program, advisory committee and administration is effective and sufficient for upcoming years.
IV. Physical Facilities and Equipment

A. Provide photographic or video picture of the facilities. Give a narrative description of facilities used by the program.

The facilities used by the Veterinary Technology program can be grouped into two categories: on-campus and off-campus.

The on-campus facilities are located in three buildings. Lecture classes are held in Hale Imiloa and Hale Palanakila. These classrooms are equipped with standard AV equipment and can easily accommodate 25-35 students. Labs are held in Hale Imiloa and Hale Iolani. Anatomy and clinical pathology labs are held in Hale Imiloa room 103 (capacity 22 students). This room is equipped with anatomical models, microscopes, and standard clinical equipment and supplies. Hale Iolani (capacity 10 students) is where students are introduced to companion animal handling and basic procedures like grooming and restraint. It also contains two wet tables, two anesthesia machines, patient monitoring equipment, an autoclave, and miscellaneous supplies (gloves, syringes, fluids, etc.) for the dentistry course.

The program utilizes numerous off-campus facilities in order to provide students with experience in surgical assisting as well as large animal and laboratory animal medicine. Students gain practical experience with the care and husbandry of large animals through fieldtrips to Koko Crater Stables, Kualoa Ranch, and the University of Hawaii Sheep Facility. The Kakaako lab animal facility is where hands on skills with mice and rats are developed. The surgical assisting and anesthesia course is taught at the Magoon laboratory on the University of Hawaii at Manoa campus. This facility is equipped with everything needed to perform routine spays and neuters.

See Appendix B for pictures of the facilities.

Please view the virtual tour of the WCC Veterinary Technology Facilities by following the link below:


You will need Adobe Reader to view this link.

B. Classrooms, laboratories, animal holding areas, and clinical facilities:

1. Discuss the adequacy of rooms and areas, including adequacy of lighting and ventilation.

   The current on-campus facilities do not have adequate ventilation for invasive surgeries or long-term animal boarding. To accommodate this, animals are kept on campus for less than 12 hours and the surgical assisting class is held at an approved off-campus facility on the UH Manoa campus. The new veterinary annex will have adequate HVAC ventilation and allow us to meet USDA requirements for animal boarding and surgical rooms.

2. What changes are needed, if any?

   The program has a 1950 sq. ft. veterinary annex designed and approved for construction. The anticipated construction start date is spring of 2013 and completion should be within a year’s
time. This facility will provide a central location for both instruction and hands-on education. See Appendix B.

3. Is the program registered with the U.S. Department of Agriculture (USDA)?

Windward Community College does not have an animal colony at this time. Animals are brought onto campus for “day use” only (less than 12 hours) and are returned to their shelter of origin at the end of the day. We plan to register with the USDA at the completion of our veterinary teaching annex.

C. Equipment for classrooms, laboratories, and clinics:
   1. What required equipment is not available, if any?

      The Windward Community College Veterinary Technology program owns all required equipment except for the cattle chute. This apparatus is available to our students at one of the clinical sites utilized for the Clinical Procedures for Large Animals course.

   2. What non-essential equipment is desired?

      With the recent accessibility of technology in the everyday practice, the Veterinary Technology program is currently exploring ways to purchase a digital radiographic machine and an ultrasound machine.

D. Office and program storage space:
   1. Is office space adequate for needs, including privacy of student counseling?

      All faculty members have offices provided for them. College counselors have individual offices and play a vital role in helping students with their concerns.

   2. Discuss or describe storage space provided for program.

      Adequate storage space is provided on campus for program equipment and supplies. Centralization of this storage will be accomplished when the veterinary annex is complete.

   3. What changes are needed, if any?

      At this time there is no changes needed.

E. Off-campus clinical sites for primary instruction of student skills (other than externships/practicums), if used:
   1. List and describe sites used.

      • University of Hawaii Magoon Research and Teaching Facility
      • Kakaako Lab Animal Facility
      • Koko Crater Stables
      • Kualoa Ranch
      • University of Hawaii Waialee Farm
2. Are memoranda of understanding in place with off-campus providers of instructional support that clearly indicate the responsibilities of the sites, the program, and program students?

MOUs are not necessary for the Magoon Research and Kakaako Lab Animal Facility as both are part of the University of Hawaii system. Memoranda of understanding are in place for all other off-campus sites. Sample MOUs are provided in Appendix C.

3. How are these sites used in the delivery of instruction?

- **University of Hawaii Magoon Facility**
  - Course: ANSC 271L Veterinary Anesthesia and Surgical Nursing
  - Maximum number of students per lab: 10 (groups of 3-4)
  - Total number of hours: 60
  - Skills: Dog and cat restraint, physical exam, venipuncture, IV catheterization, blood chemistry analysis, anesthesia monitoring, therapeutics, patient assessment, surgical assisting.

- **University of Hawaii Kakaako Lab Animal Facility**
  - Course: ANSC 263 Lab Animal Nursing
  - Maximum number of students per lab: 10 (groups of 4-5)
  - Total number of hours: 9
  - Skills: Mouse and rat restraint and husbandry, physical exam and venipuncture.

- **Koko Crater Stables**
  - Course: ANSC 262 Clinical Procedures for Large Animals
  - Maximum number of students: 20
  - Total number of hours: 6
  - Skills: Horse handling, physical exam, and husbandry.

- **Kualoa Ranch**
  - Course: ANSC 262 Clinical Procedures for Large Animals
  - Maximum number of students: 20
  - Total number of hours: 6
  - Skills: Cow handling, physical exam, and husbandry.

- **University of Hawaii Waialee Farm (sheep)**
  - Course: ANSC 262 Clinical Procedures for Large Animals
  - Maximum number of students: 20
  - Total number of hours: 12
  - Skills: Sheep handling, physical exam, hoof trimming, vaccinations, and wool shearing.

- **Oahu SPCA**
  - Course: ANSC 152L, 190, 266 Various Courses
  - Maximum number of students: 20 (groups of 5-10)
  - Total number of hours: 15
  - Skills: Dog and cat handling, physical exam, venipuncture, husbandry, vaccinations, microchipping, and therapeutics.
• Joey’s Feline Friends
  o Course: ANSC 152L, 190, 266 Various Courses
  o Maximum number of students: 20 (groups of 5-10)
  o Total number of hours: 15
  o Skills: Cat handling, physical exam, venipuncture, husbandry, and therapeutics.

• Hawaiian Humane Society
  o Course: ANSC 152L, 190, 266 Various Courses
  o Maximum number of students: 20 (groups of 5-10)
  o Total number of hours: 15
  o Skills: Cat, dog, and exotic animal handling, physical exam, venipuncture, husbandry, and therapeutics

4. How many students are at each site at a given time?

   The number of students at each site varies based on optimal student to teacher ratio, number of animals available, and equipment requirements. Students will be separated into smaller groups as necessary.

5. Who is responsible for validating the acquisition of requisite competencies at these sites, and how is that validation verified?

   The course instructor will be responsible for validating student competencies. All faculty will be equipped with an iPad and will use a computerized skill assessment checklist to assess and document essential skills. Passwords and security protocols will be in place to ensure the integrity of the skills tracker.

6. How are student learning activities at these sites monitored by program personnel?

   Windward Community College faculty will be present and directly oversee student performance at the off-campus facilities. Curriculum designed for each course will be carried out fulfilling the expectations outlined in the AVMA essential skills list. Faculty will be responsible for monitoring participation by all students and will adjust the class as necessary to meet the learning outcomes. Off-campus clinical sites will be staffed with handlers, typically employees of the facility, that will help ensure student and animal safety and augment instruction.

F. Briefly describe any emergency preparedness or disaster plans in place.

   Windward Community College has a Campus Safety and Security department that ensures the safety of faculty and students. Details of emergency procedures can be found on the security page of our website and includes an emergency management plan, hazardous materials and waste management program, emergency notification system, and a blood borne pathogen control plan. We ask that faculty be familiar with these protocols and to inform students of the proper procedures as it relates to the class or lab they are in.
Specific policies involving our veterinary technology program can be found in the Veterinary Technology Student Handbook. Radiology Safety, Student Pregnancy, Controlled Drugs, Aggressive Animal, and Injury/Bite Response policies are available to all students and discussed at new student orientation.
**Resources for Clinical Instruction**

A. List species of animals and numbers of each available for teaching purposes.

<table>
<thead>
<tr>
<th></th>
<th>OWNED BY THE PROGRAM</th>
<th>AVAILABLE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>COMPANION ANIMALS</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>*Cats</td>
<td>None</td>
<td>Unlimited</td>
</tr>
<tr>
<td>*Dogs</td>
<td>None</td>
<td>Unlimited</td>
</tr>
<tr>
<td>*Horses/ponies</td>
<td>None</td>
<td>40</td>
</tr>
<tr>
<td><strong>FOOD ANIMALS</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>*Cattle</td>
<td>None</td>
<td>10</td>
</tr>
<tr>
<td>Goats</td>
<td>None</td>
<td>10</td>
</tr>
<tr>
<td>Poultry</td>
<td>None</td>
<td>5</td>
</tr>
<tr>
<td>Sheep</td>
<td>None</td>
<td>72</td>
</tr>
<tr>
<td>Swine</td>
<td>None</td>
<td>0</td>
</tr>
<tr>
<td><strong>LABORATORY &amp; EXOTIC ANIMALS</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gerbils</td>
<td>None (illegal in Hawaii)</td>
<td>0</td>
</tr>
<tr>
<td>Guinea pigs</td>
<td>None</td>
<td>5</td>
</tr>
<tr>
<td>Hamsters</td>
<td>None (illegal in Hawaii)</td>
<td>0</td>
</tr>
<tr>
<td>*Mice</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Non-human primates</td>
<td>None</td>
<td>0</td>
</tr>
<tr>
<td>*Rabbits</td>
<td>None</td>
<td>5</td>
</tr>
<tr>
<td>*Rats</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>*Birds (Cockatiels)</td>
<td>None</td>
<td>200+</td>
</tr>
<tr>
<td>Fish (Tilapia and Koi)</td>
<td>None</td>
<td>Unlimited</td>
</tr>
<tr>
<td>Reptiles (Turtles, Tortoise, and Jackson Chameleons)</td>
<td>None</td>
<td>7</td>
</tr>
</tbody>
</table>
B. How does the program ensure that adequate numbers of animals are available to provide sufficient hands-on experiences for each student?

Depending on the course, labs have limited enrollment to ensure optimal teacher to student ratio as well as provide adequate hands on experiences with the animals. The program seeks out clinical sites with large numbers of animals available for students.

C. What is the student to animal ratio for laboratories with:

Windward Community College Veterinary Technology program established MOUs with facilities that provide an optimal student to animal ratio. In practice the students will often work in groups to allow for adequate restraint, sharing and feedback.

1. Canine/Feline 1:1
2. Horses/Sheep/Goats 1:1
3. Cattle 3:1
4. Mice 1:1
5. Rats 4:1
6. Fish 1:1
7. Avian 1:1
8. Rabbits/Guinea pigs 3:1
9. Reptile 3:1

D. From where are animals that are used in the program procured? If using sources such as animal shelters, do you have memoranda of understanding with these sources?

<table>
<thead>
<tr>
<th>Specie</th>
<th>Location</th>
<th>MOU</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dogs</td>
<td>Hawaiian Humane Society (HHS), Oahu SPCA (OSPCA)</td>
<td>Yes</td>
</tr>
<tr>
<td>Cats</td>
<td>Joey’s Feline Friends, HHS, OSPCA</td>
<td>Yes</td>
</tr>
<tr>
<td>Horses</td>
<td>Koko Crater Stables</td>
<td>Yes</td>
</tr>
<tr>
<td>Cattle</td>
<td>Kualoa Ranch</td>
<td></td>
</tr>
<tr>
<td>Sheep</td>
<td>Waialee Farm (part of UH system)</td>
<td>No</td>
</tr>
<tr>
<td>Mice/Rats</td>
<td>Kakaako Laboratory Facility (part of UH system)</td>
<td>No</td>
</tr>
<tr>
<td>Rabbits/Guinea Pigs</td>
<td>Private Owner</td>
<td>No</td>
</tr>
<tr>
<td>Birds</td>
<td>Private Breeder</td>
<td>Yes</td>
</tr>
<tr>
<td>Fish</td>
<td>Waimanalo Feed</td>
<td>No</td>
</tr>
<tr>
<td>Reptile</td>
<td>Private Owner</td>
<td>No</td>
</tr>
</tbody>
</table>

E. How are animals transported from the sources to the program?

Animals are transported to the college in appropriate enclosures by shelter personnel or WCC faculty (typically using a cargo van). Animals only remain on campus for the duration of the laboratory section for which they are needed (typically < 6 hours) after which they are returned to their shelter of origin. Transportation of animals is covered under the programs IACUC protocols.

F. Provide membership of the required institutional animal care and use committee (IACUC) and
copies of the minutes of the last two meetings.

**See Appendix D**

G. Who is in charge of animal care?

   The program director, Dr. John Kaya, DVM is ultimately in charge of animal care. Adjunct faculty members Dr. Joe Herzog, DVM and Dr. Zak Albudri, DVM are also involved in animal care for the courses they teach. Animal care is also overseen by the University of Hawaii Institutional Animal Care and Use Committee.

H. How are teaching models used in program instruction?

   Animal models and preserved cadavers are used to teach anatomy and give students preliminary training with manual dexterity skills (intubation, IV catheterization, etc.). This enables students to have a higher degree of competence when they finally work with live animals and reduces animal discomfort associated with these procedures. Skeletons, manikins, cadavers, and models are used to familiarize students with anatomy, restraint, venipuncture, intubation and patient restraint prior to work on live animals. Cadavers are used to teach anatomy and radiography. These teaching models are kept at Windward Community College and utilized in lecture and labs. A list is provided in **Appendix E**.

I. If clinical services are provided to the public, how are these used to enhance program student educational experiences?

   Clinical services are not provided to the general public. The majority of the animals participating in the program are from local shelters. They provide the hands on skills needed as outlined by the AVMA. On occasion, an animal from students or faculty may be used as the opportunity presents itself.
V. Library and Informational Resources

A. Library operations:
   1. How many hours per week is the library open? Provide total and daily hours.

<table>
<thead>
<tr>
<th>Day</th>
<th>Hours of operation</th>
<th>Total hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monday</td>
<td>7:45 am – 10:00 pm</td>
<td>14 hours 45 minutes</td>
</tr>
<tr>
<td>Tuesday</td>
<td>7:45 am – 10:00 pm</td>
<td>14 hours 45 minutes</td>
</tr>
<tr>
<td>Wednesday</td>
<td>7:45 am – 10:00 pm</td>
<td>14 hours 45 minutes</td>
</tr>
<tr>
<td>Thursday</td>
<td>7:45 am – 10:00 pm</td>
<td>14 hours 45 minutes</td>
</tr>
<tr>
<td>Friday</td>
<td>8:00 am – 4:00 pm</td>
<td>8 hours</td>
</tr>
<tr>
<td>Weekly</td>
<td></td>
<td>65 hours</td>
</tr>
</tbody>
</table>

2. What is the seating capacity?
   450 seats

3. How is the library staffed? What are the credentials of library personnel?
   4 librarians each with a Masters in Library Science (MLS)
   3 clerical staff
   2.5 student help
   1 faculty

4. Where is the library located in relation to the Program facilities?
   The library is located in a building adjacent to the projected veterinary annex. A map of the campus has been provided in Appendix F.

B. Library veterinary technology-specific holdings:
   1. How many books specifically relate to veterinary technology?

   The current collection has 165 books relating to veterinary technology. We’re currently canvassing the local veterinary community for contributions to our library. We hope to add more titles and will be seeking input from the Veterinary Technology Advisory Committee.

2. How many periodicals specifically relate to veterinary technology?

   The following periodicals are available in hardcopy for our students:
   - JAVMA
   - Today’s Veterinary Practice
   - Clinicians Brief
   - Veterinary Medicine
   - NAVTA Journal
3. What databases are available that pertain to veterinary technology?

   The library collection includes 214 veterinary technology eBooks.

   - JALAM
   - Compendium (via www.vetlearn.com)
   - Veterinary Technician Journal (via www.vetlearn.com)

   The library subscribes to Science Direct, an online science database. Through Science Direct there are 54 veterinary related journals available for our students.

4. What types of auto tutorial and/or other learning resources are available to the veterinary technology students, including space, materials, personnel, computers and other equipment?

   - 30 desktop computers
   - 7 laptops
   - 6 group study rooms
   - Math Tutorial Lab

C. How much money is allocated to veterinary technology-related acquisitions?

   At this time the Veterinary Technology program funds all resource material. Upon request however, the library has money to acquire books or periodicals.

D. Evaluation:
   1. Are library facilities adequate?

      Yes

   2. Are library holdings of reference books and periodicals current and adequate?

      - Reference books and periodicals are current and adequate.
      - The collection at the newly built Windward Community College Library Learning Commons is up to date and growing.
      - The on-site periodical collection related to veterinary technology is limited at this time but growing. The 54 veterinary journals available to our students through Science Direct supplements the collection and provides students with the resources necessary to research topics in veterinary technology.

   3. What changes in library services would benefit the program?

      Currently the library is closed on the weekends but administration is looking into the possibility of increased hours of operation.
4. What methods are used to encourage students to use the library?

Several courses in the veterinary technology program require a research project for students. Students are encouraged to utilize the library facilities as well as on-line sources for their research. Specific assignments based on periodicals in the library are also given so that students become familiar with the titles and content of magazines in the veterinary industry.

VI. Admissions
A. Maximum number of students to be admitted to program in each enrollment period.

Windward Community College Veterinary Technology program accepts a maximum of 25 students per academic year.

Year 1: Open admission based on space available (typically no more than 60 students)
Year 2: 25 students

B. Number of times students are enrolled in the program per year.

There is one enrollment period per year for first-year students. Upon successful completion of their first year, these students will acquire a Certificate of Achievement in Veterinary Assisting. Students wishing to continue their studies then apply for the Veterinary Technology program (year two).

There is one enrollment period per year for second-year students entering the Veterinary Technology program.

C. Number of qualified applicants for each enrollment period for the current first year of the program.

First-year students applying for Veterinary Assisting in Spring 2012: 54 applicants
Second-year students applying for Veterinary Technology in Spring 2012: 9 applicants

D. Number of students entering each enrollment period for the present first-year class.

Veterinary Assisting Fall 2012: 54 applicants admitted
Veterinary Technology Fall 2012: 9 applicants admitted

E. Describe procedure for selecting first-year students:
1. Minimal scholastic requirements, tests used, interview system, documentation required, and special provisions for out-of-state students, if applicable.

Windward Community College is a public open-access institution and admission is open to any person 18 years of age or older. A COMPASS placement test is mandatory for English and Math courses which are required for the veterinary assisting and veterinary technology courses. Students enroll in first-year classes on a first-come-first-serve basis based on class availability.
All qualified applicants will be ranked for admission based on combined scores in the five areas below:

GPR (minimum of 2.0)
Letters of recommendation
Veterinary-related work experience or training
Personal statement
Applicant interview

2. How are program personnel involved in the admissions process for program students?

An interview panel consisting of the program director and two other faculty members will conduct interviews during the month of March.

3. What changes in admission requirements would benefit the program?

The admission requirements reflect initial efforts to evaluate qualified candidates. As the program continues, changes may be warranted but none are foreseen at this time.
VII. Students

A. Institutional enrollment:

1. Total head count: 2741
2. Full-time equivalent: 1470 (based on 15 credits per student)

B. Number of students presently at each stage of the curriculum:

The following enrollment numbers is as of the submission of the self-study report.

As of August 2012:
1. First year (Veterinary Assisting Students): 54
2. Second year (Veterinary Technology Students): 11

C. Enrollment options:

1. What enrollment options do students have? (i.e. full-time only; part-time; evening, etc.)

   Students can join the Certificate of Achievement in Veterinary Assisting on either a full-time or part-time basis. Our goal is to create a cohort enrollment for veterinary technology students whereby students accepted at the same time into the program will be expected to graduate together. Currently however, students are allowed the option of full-time or part-time.

2. Full-time equivalent enrollment in the program.

   As of January 2013:
   1. First Year (Veterinary Assisting): 64% (16 of 25) full-time
   2. Second Year (Veterinary Technology): 73% (8 of 11) full-time

D. Do you anticipate enrollment numbers changing in the next two years? If yes, what is the anticipated maximum number in the next two years?

   We anticipate enrollment numbers to increase in the next two years. We’re planning to accommodate 60 students maximum in the first year Veterinary Assisting program and 25 students in our Veterinary Technology program.

E. What percentage of incoming students has previous college experience? Degrees?

   # of students with college-level experience: 78% (28 of 36)
   # of students with degrees: 27% (10 of 36)

F. If enrollment takes place at more frequent intervals, please show current enrollment in each academic term.

   Enrollment is restricted to the fall semester.
G. Provide retention information for current and past two academic years by completing the table below.

The information presented below represents statistics for the Certificate of Achievement in Veterinary Assisting. Statistics for Veterinary Technology is not yet available.

<table>
<thead>
<tr>
<th>Effectiveness Indicators</th>
<th>Program Year</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2009-2010</td>
</tr>
<tr>
<td>Successful Completion (Equivalent C or Higher)</td>
<td>78%</td>
</tr>
<tr>
<td>Withdrawals (Grade = W)</td>
<td>13</td>
</tr>
<tr>
<td>*Persistence (Fall to Spring)</td>
<td>63%</td>
</tr>
<tr>
<td>*Unduplicated Degrees/Certificates Awarded</td>
<td>4</td>
</tr>
</tbody>
</table>

H. Provide number of graduates for each of the past five years including, the current year based on a July 1\textsuperscript{st} to June 30\textsuperscript{th} year.

Windward Community College is applying for first time accreditation and do not have graduates in veterinary technology at this time. Graduates in the one year veterinary assisting program are presented in the table above (section VIII G)

I. For new programs, when will the first class graduate and with how many students?

The first Veterinary Technology class will graduate spring 2013. Four students are scheduled to be completed with their coursework.

J. How are safety issues addressed? (see Statement on Safety, Appendix A)

- In the first year of class, students receive an overview of safety issues in ANSC 140, Introduction to Veterinary Technology. Prior to working with chemicals or sharps, students and faculty are also required to participate in lab safety training provided annually by the University of Hawaii Environmental Health and Safety Office.
- In addition, instructors of laboratory/animal use classes give a comprehensive overview of risks, PPE and safety equipment at the beginning of each semester with periodic refreshers during each lab. Students enrolled in radiology classes must pass a safety exam prior to taking radiographs.
- The Natural Sciences department has a dedicated lab manager who ensures safety of laboratory and equipment use.
- Labs and clinical facilities are periodically inspected by EHSO personnel (see link for example of an inspection report).
1. Provide program policy for student pregnancy.

**Student Pregnancy Policy**

Upon confirmation of pregnancy, a student must notify the instructors so that precautions can be taken to ensure safety of the student and unborn child. If needed, the pregnant student can take a leave of absence if recommended by her physician and approved by the Program Director. The details involved with resuming coursework (make-up classes, assignments, clinical hours, etc.) will be decided after meeting with the Program Director. The priority is the health and welfare of the student and unborn child.

Risks associated with VETA/VETT program include:

- **Radiological:**
  X-ray exposure can be detrimental to the proper development of the unborn child. A student who is pregnant will not be allowed to take radiographs to prevent inadvertent exposure. Accommodations can be made to provide experience in this area without harmful exposure.

- **Chemical:**
  There are a variety of chemicals and therapeutic drugs used in the veterinary facility. Each has its own risks associated with use and exposure. The following is a representative sampling of harmful substances: chemotherapeutic agents, gas anesthetics, pesticides, x-ray developing chemicals, and cleaning compounds. Exposure to these chemicals can lead to congenital defects and miscarriage.

- **Biological:**
  Interaction with animals is an integral part of the VETA/VETT curriculum and comes with risks associated with zoonotic diseases. Parasites, bacteria, protozoa, and viruses can pose a danger to both student and fetus. Points of transmission include exposure to feces, physical contact with wounds, bites/scratches, and inhalation of particulate matter. Strict hygiene principles should be practiced to eliminate any chance of contracting a contagious or zoonotic disease.

- **Physical:**
  The rigors associated with veterinary technician responsibilities can be strenuous and taxing. Pregnant students should avoid lifting heavy objects and refrain from over exertion. Instructors and fellow students should be recruited for assistance whenever possible.

As an added precaution all pregnant students will be handed copies of Material Safety Data Sheets to show their primary physician. A written letter of consent will be required from the student’s doctor in order to participate in class. Other consent forms may be required as needed.

The Program Director will make accommodations as necessary so that the student’s curriculum can be completed. Changes may affect projected graduation date.

2. Provide program student rabies vaccination policy.

   Hawaii is a rabies free state and as such, rabies vaccination is not required.

3. Have any student injuries or accidents occurred that required medical assistance beyond first aid?
To date there have been no injuries or accidents that required medical assistance beyond first aid.

K. Briefly describe student support services, including academic and personal counseling.

Windward Community College has many support services available to students. The counselor’s office employs eight counselors who are available to assist students with questions about transfer credits, registration, on-campus resources, and disability accommodations. Peer mentors are current students or graduates of Windward Community College that offer tutoring, website navigation, campus tours, peer counseling and registration help.

L. Describe the activities of the student veterinary technician organization.

1. How do the organization’s activities contribute to the quality of the program?

Under the guidance of faculty member John Kaya DVM, the veterinary technician student organization is set to become a reality in 2013. The early planning stages set in motion an organization that will be rooted in education and community service. Upcoming events planned for 2013 include:

- Participation in Hawaii’s 24th Annual Pet Expo
- A behind the scenes tour of Sea Life Park
- Aquaponics clean-up for one of our community partners
- Volunteering at the Hawaiian Humane Society community microchip event

2. Is the student organization an institutional member of the National Association of Veterinary Technicians in America (NAVTA) and the state veterinary technician organization?

- Upon recognition by the Windward Community College Student Government, the Veterinary Technician Student Organization plans to become an institutional member of NAVTA.
- At this time the state of Hawaii does not recognize or license veterinary technicians. Recently there has been interest in forming a state organization. Faculty member Sam Craddock, RVT is currently assessing interest in the veterinary technician community.

3. What percentages of students are active in the organization?

Since the student organization has yet to be approved by the Windward Community College Student Government there are no active members at this time. A recent poll of the students showed that 25 students are interested in joining which represents 69% of the current students in the veterinary assisting and veterinary technology program.

M. Through what channels do students have input to the program’s policies and curriculum?
At the end of each semester, students are asked to complete an electronic course survey provided by Windward Community College (click on the following links for examples of surveys for DVM, RVT, and PhD faculty). The results of these surveys are reviewed by the faculty member, Vice Chancellor of Academic Affairs and the Program Director and changes made as needed. In addition, two students serve on the Veterinary Technology Advisory Committee.

VIII. Faculty and Staff

A. Number of faculty/staff and full-time equivalents (FTE) devoted to the veterinary technology program and salary information. Only include faculty/staff from other departments who teach core veterinary technology courses to program students:

<table>
<thead>
<tr>
<th>Rank</th>
<th>Head Count</th>
<th>FTE</th>
<th>Maximum Salary</th>
<th>Minimum Salary</th>
<th>Average Paid Current Year</th>
<th>Length of Contract</th>
</tr>
</thead>
<tbody>
<tr>
<td>Program Director (Asst. Prof., tenure-tracked)</td>
<td>1</td>
<td>1.0</td>
<td>$83,455</td>
<td>$83,455</td>
<td>$83,455</td>
<td>11 month</td>
</tr>
<tr>
<td>Veterinarian (Adjunct)</td>
<td>2</td>
<td>0.7</td>
<td>$1818 per credit</td>
<td>$1295 per credit</td>
<td>$12,600</td>
<td>Per semester</td>
</tr>
<tr>
<td>Non-veterinarian (Adjunct)</td>
<td>1</td>
<td>0.1</td>
<td>$1818 per credit</td>
<td>$1295 per credit</td>
<td>$4,200</td>
<td>Per Semester</td>
</tr>
<tr>
<td>Credentialed Veterinary Technician (Instructor)</td>
<td>2</td>
<td>1.5</td>
<td>A: $55,344 B: $51,000</td>
<td>A: $55,344 B: $51,000</td>
<td>A: $55,344 B: $25,500 (B hired mid-year)</td>
<td>A: 11 month, tenure-tracked B: 9 month non-tenure-track</td>
</tr>
<tr>
<td>Other Program Instructors</td>
<td>A: 1</td>
<td>B: 1</td>
<td>A: 0.2 (6 credits) B: 0.2 (6 credits) C: 0.1 (6 credits)</td>
<td>A: $3,175/cr B: $3,175/cr C: $2,130/cr</td>
<td>A: $3,175/cr B: $3,175/cr C: $2,130/cr</td>
<td>A: 19,050 B: 19,050 C: 12,780</td>
</tr>
</tbody>
</table>

Note: the salary schedule above does not include compensation for curriculum design or other non-instructional tasks. Adjuncts are compensated for these tasks at a rate of $26.50/hr (or approximately $5,000 for design of a four credit class). Approximately $26,000 was paid to adjunct DVM, VT, and “other” faculty for these tasks over the 2012-2013 period.
B. Provide the following information for each faculty/staff member assigned one-quarter time or more to the veterinary technology program:

<table>
<thead>
<tr>
<th>Name</th>
<th>Credentials and Education</th>
<th>Title or Rank</th>
<th>Date of Original Appointment</th>
<th>Full/Part-Time or Adjunct</th>
<th>Average Teaching Load Per Semester</th>
<th>Professional Association Memberships</th>
</tr>
</thead>
<tbody>
<tr>
<td>John Kaya, DVM</td>
<td>DVM - University of Minnesota, 1999 BEd Elementary Education - University of Hawaii, 1989</td>
<td>Program Director/Asst. Prof.</td>
<td>October 1st, 2012</td>
<td>Full-time</td>
<td>4-6 credits/term</td>
<td>AVMA, HVMA, HVS, AEMV, NAVTA, AVTE, VIN</td>
</tr>
<tr>
<td>Sam Craddock, RVT</td>
<td>AAS – Central Carolina Community College, 2008</td>
<td>Instructor</td>
<td>January 1st, 2010</td>
<td>Full-time</td>
<td>10-15 credits/term</td>
<td>AVTE</td>
</tr>
<tr>
<td>Dani Carico, CVT</td>
<td>AAS Veterinary Technology, Bel-Rea Institute</td>
<td>Instructor</td>
<td>January 1st, 2013</td>
<td>Full-time</td>
<td>8-10 credits/term</td>
<td></td>
</tr>
<tr>
<td>Zak Albudri, DVM</td>
<td>DVM – Ross University, 2006 BA Cell Biology and Neuroscience – Rutgers, 2001</td>
<td>Lecturer</td>
<td>August 20th, 2012</td>
<td>Part-Time Adjunct</td>
<td>5-6 credits/term</td>
<td>AVTE</td>
</tr>
<tr>
<td>Joe Herzog, DVM</td>
<td>DVM – University of Wisconsin, 1997 BA Human Biology with a minor in Philosophy – Stanford University, 1996</td>
<td>Lecturer</td>
<td>January 2012</td>
<td>Part-Time Adjunct</td>
<td>3-4 credits/term</td>
<td>AVMA, HVMA, HVS, AVTE, VIN</td>
</tr>
<tr>
<td>Ross Langston, PhD</td>
<td>PhD – University of Hawaii, 2004 BS Biology – College of Charleston, 1997</td>
<td>Assistant Professor of Biology</td>
<td>January 2005</td>
<td>Full-Time</td>
<td>3-4 credits/term</td>
<td>NAVTA, AVTE, Sigma Xi, AALAS</td>
</tr>
</tbody>
</table>
C. Is the program instructional staffing adequate for program needs? If not, what are those needs?

At this time the instructional staffing is adequate for program needs. During times of increased enrollment, additional adjunct faculty can be hired using revenue from tuition.

D. Describe clerical support available to program.

Secretaries, available through the Vice Chancellor’s office, assist with purchasing, memos, letters, and communication with other departments. The Media Production Center is a full service printing department that takes care of all printing and duplication needs for classroom instruction as well as mailers and surveys. They also provide audiovisual materials, equipment expertise, and technology assistance. A testing center is available for proctoring exams and administering placement tests.

E. Are institutional policies for retirement, consultation or outside work by faculty, etc. adequate? If not, explain: *(Do not include the faculty handbook)*

Yes.

1. Are program personnel supported, either financially or otherwise, to attend scientific meetings?

All faculty members are encouraged to seek out continuing education. The WCC staff development committee provides funding for travel or other continuing education needs. Awards are typically $1,000/faculty member.

2. Briefly describe College support and requirements for professional education and self-improvement of faculty and staff.

Windward Community College has a specific committee devoted to staff development. In addition, assigned-time and sabbatical leave are available. Contract renewal, tenure and promotion require significant professional development.
F. Personnel issues:

1. Are salaries adequate?

   Salaries as well as employee benefits are adequate and are comparable to industry standards.

2. Discuss faculty and staffing continuity and stability.

   Although the Veterinary Assisting and Veterinary Technology program at Windward Community College is still in its infancy, there has been minimal attrition.

3. Describe the policy and financial provision for part-time faculty, the number currently used in the program, and how they are used in the program.

   Adjunct faculty are paid by the number of credits that they teach. They receive $1400-$1600 (based on experience) per credit hour taught. Funds are also available for the development of courses by these instructors at a rate of $26.50/hr. In most cases, adjunct faculty are paid 4,000-5,000 to develop a 3 credit class.

4. Who is responsible for hiring and dismissal of program faculty members and support personnel?

   Windward Community College is a state institution of higher education and all employees are hired with the authority of the UH Board of Regents, as delegated to the college Chancellor. The Program Director is responsible for evaluating the performance of the program faculty members and support personnel. If disciplinary actions need to be enforced, the Program Director would make recommendations to the Dean of Academic Affairs, Division II, who would then report to the Chancellor’s Office and the Office of Human Resources, as appropriate.

5. How is teaching effectiveness evaluated?

   Windward Community College has an online instructor evaluation program in place. At the conclusion of each semester students are encouraged to participate in the evaluation process. The results of the survey is reviewed by administration and provided to the faculty member to encourage self-improvement.

6. Describe any changes needed in personnel policies.

   At this time personnel policies need no changes.
IX. Curriculum

A. Total number of credit hours:

Windward Community College has a semester based curriculum.

Certificate of Veterinary Assisting (Year 1): 31 credits

Associates in Science in Veterinary Technology (Year 2): 38 credits

Total credit hours: 69

B. What degree(s) (or certificate) is/are granted?

A Certificate of Achievement in Veterinary Assisting will be awarded after completion of year 1. Graduates of the two year program will receive an Associate in Science in Veterinary Technology.

C. Provide the program curriculum showing suggested course sequencing.

See Appendix I

D. Student time involved in classes:
   1. Hours per week: 15-20 (excluding internships)
   2. Weeks per term: 15 weeks (10 weeks during summer)
   3. Terms per year: 2 for Veterinary Assisting and 3 for Veterinary Technology
   4. Externship/preceptorship (hours required): 240 hours

E. College calendar:
   1. Date present academic year began: August 20, 2012
   2. Date present academic year will end: August 15, 2013

F. Provide a brief catalog-style (outline) description for each core veterinary technology course.

   See Appendix J

G. Provide two examples of standardized criteria used for evaluating student acquisition of skills.

The following criteria are used for the ANSC 263 Course (Laboratory Animal Nursing) and were adapted from skills task checklists from the Purdue Veterinary Technology Program.
1. Describe how standardized criteria are used to ensure that all students have completed all required tasks and have been assessed using the defined criteria.

The program uses standardized, step-by-step criteria (see above) to assess student mastery of all hands-on skills. These criteria ensure that the student performs skills safely, humanely and effectively. In most cases, the students are required to successfully demonstrate the skills multiple times to ensure that they are proficient in the assigned task. Because we are a new veterinary technology program, we have adapted many of the criteria from existing programs (e.g., Purdue or other who have posted their checklists on the AVTE website). As the program develops, we will continue to revise these criteria to better fit our curriculum. All student skills are documented using the skills tracker database.
2. Who is responsible for evaluating skills acquisition in the program?

The course instructor (DVM, RVT or CVT) is responsible for evaluating and documenting all skills performed by students in their course. The Program Director will meet with each instructor annually to determine whether the criteria used to evaluate the skills needs modification and to set the minimum number of satisfactory demonstrations required for a student to be “signed off” as completing a particular skill.

H. Describe off-campus assignments (preceptorships, internships, externships, affiliations, practicums, field trips).

1. Are memoranda of understanding used that delineate the expectations of all parties?

The Windward Community College MOUs have gone through a rigorous evaluation and have been approved by the University of Hawaii legal counsel. MOUs have been created for partnerships with animal shelters and off-campus clinical instruction sites. See Appendix B and C.

Looking forward, as the diversity of participating off-campus sites increases, specific MOUs will need to be created to match the individuality inherent to the facility.

2. Are there criteria in place for onsite supervisors to assess student performances?

Site supervisors will have an iPad issued to them so that access to the AVMA required skills list and performance standards is readily available.

The computer application utilized by our program was developed in cooperation with The Salt House LLC. Appropriately named The Veterinary Technology Accreditation Manager, it is an online application that has a record for instructors, students, and courses. Each course has a record for the skills that are typically taught as outlined by the AVMA essential skills list. When an instructor teaches a skill during class, he/she then logs into the application and records the skill as completed for each student in the class. Documentation includes the date as well as any relevant notes for the student. A summary of each student can be accessed to see which skills have been learned and has yet to be learned. As there is some variation in techniques based on training and experience, the program allows for some flexibility by site supervisors. Basic tenets for each skill are provided to maintain performance standards as agreed upon by faculty members.

3. How are student learning activities at these sites monitored by program personnel?

Skills associated with large animals (horses, sheep, etc.) are incorporated into the Clinical Procedures for Large Animals course (ANSC 262). The instructor for this course will be present at each field trip and accompanied by another faculty member in the program. The activities planned for each site reflects a conscious effort to fulfill the AVMA required skills.

The skills taught in off-site clinical facilities are overseen by the internship coordinator Sam Craddock, RVT. Students go through an orientation with the internship coordinator prior to
starting their internship. At this orientation, expectations and performance standards are reviewed to optimize the experience gained out in the field. A one on one meeting is also conducted by the internship coordinator to familiarize the site supervisor these same expectations and performance standards.

I. What changes in the curriculum, if any, are being considered?

The curriculum was recently modified during the fall of 2012 based on programmatic needs. As the veterinary technology program continues to evolve, classes will be adjusted to meet the needs of the students and improve program outcomes.

Future changes being considered include:
- Expanding the lab animal course to include more exotic animals
- Incorporating radiology into the curriculum for veterinary assisting students (year 1)

J. Describe use of distance learning (if any) or any anticipated use (if not a DLP).

Windward Community College uses a Sakai-based course management system to provide an online learning environment. Currently, three classes utilize significant online components.

- HLTH 125: Survey of Medical Terminology (Entirely DE)
- ANSC 253: Applied Pharmacology for Veterinary Technicians (Entirely DE)
- ANSC 262: Clinical Procedures for Large Animals (Hybrid: Lectures offered DE, labs face-to-face)

Windward Community College is one of 10 campuses in the University of Hawaii system. As such, our goal is to provide educational opportunities to the students of Hawaii. Since we are an island state, distance learning would be a necessity to offer options to those living on another island.

K. Describe efforts to instill habits of life-long learning, including continuing education offerings.

We do not currently offer continuing education; however, the program instills a sense of professionalism in its students and encourages them to attend meetings and events of the Hawaii Veterinary Medical Association.

X. Outcomes Assessment

A. Submit copies of summary sheets and domain scores of VTNE information as provided by PES for the last five years.

The first graduating class will be in the spring of 2013 and so no VTNE information is available at this time.

B. If a state veterinary technician examination is used, report data for the past five years, including current year to date.
The state of Hawaii does not license veterinary technicians at this time and so there is no state examination in place.

C. Provide summaries of assessments of:
   1. Surveys of graduates indicating educational preparedness and employment satisfaction.
      
      Each graduating class will complete a survey upon completion of the program as well as a date in the future. Since Windward Community College’s first graduates will be in the spring of 2013, no surveys are yet available. The sample survey is in Appendix K.

   2. Surveys of employers of graduates indicating satisfaction with graduates.
      
      Please see Appendix L.

   3. Evaluation of faculty and staff related to adequacy of clinical resources, facilities and equipment, library resources, and preparedness of graduates.
      
      Please see Appendix M.

   4. Any other method of assessment used.
      
      An annual program review is submitted to the college and the UH system which contains comparative data the program director can use to assess the health of the program. A sample report for the Veterinary Assistant Program is available at the following link.

D. Provide numbers of surveys sent out and numbers received.

   No survey numbers are available. Surveys will be distributed after the first class graduates.

E. Have representative samples of surveys available for site team perusal at the site visit.

F. How is collected data from graduates and employers used to improve the program?

   As stated above, completed employer surveys will be available once the first cohort of Veterinary Technology students graduates (May, 2013). We have conducted surveys of clinics that have hired our Veterinary Assistant graduates and used the results to improve our curriculum. For example, a 2010 survey of veterinary preceptors and internship locations indicated that the clinics were unsatisfied with the students’ animal handling skills. To remedy this situation, we required that students complete an animal restraint and nursing class (ANSC 152L) prior to completing the assistant program. The addition of this class ensures that students will be proficient in these skills prior to enrolling in internship classes.

G. How is feedback from the advisory committee used for program improvement?

   The advisory committee has been instrumental in the evolution of the veterinary assisting and veterinary technology program at Windward Community College. Members come from a diverse background that brings a well-appreciated comprehensive view on topics dealing with program
H. How is data from VTNE results and applicable state examinations used for program improvement?

National results of the VTNE currently represent a benchmark for our first graduating class as they prepare to perform to industry standards. No data are yet available for Windward Community College but will be essential for the future of the program. High pass rates would indicate a program that effectively prepares students for the rigors and expectations of the veterinary field.

There is currently no state examination for veterinary technicians.

I. Are Program graduates prepared with entry-level skills?

Because the first cohort of veterinary technology students has not yet completed the program, we do not have adequate data to assess whether or not our students are proficient in all skills needed for employment. We have conducted surveys of our veterinary assistant students who interned in clinics, and the results appear promising (see survey below).
Windward Community College Veterinary Assisting Program
Summary of Clinical Performance Evaluations

# Clinics: 13  Survey Period: 2010-11
# Students: 16
# Surveys: 22

Table 1. Summary of preceptor responses to yes/no questions.
1) Did the student show interest in the daily operation of your facility? YES 22 (100%) NO 0 (0%)
2) Was the student able to understand the role/duties of a vet assistant? YES 22 (100%) NO 0 (0%)
3) Did the student show improvement during the rotation? YES 22 (100%) NO 0 (0%)
4) Would you consider this student for employment? YES 19 (86%) NO 2 (14%)

Table 2. Summary of preceptor responses to open-ended questions:
"List 3 student strengths and 3 areas for improvement"

<table>
<thead>
<tr>
<th>Student Strengths</th>
<th>Frequency</th>
<th>Suggestions for Improvement</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enthusiastic/Willing to Learn</td>
<td>8</td>
<td>Animal Restraint &amp; Handling</td>
<td>9</td>
</tr>
<tr>
<td>Ability to work as part of a team</td>
<td>6</td>
<td>Technical/Lab Skills</td>
<td>5</td>
</tr>
<tr>
<td>Interested</td>
<td>3</td>
<td>Work on confidence level</td>
<td>4</td>
</tr>
<tr>
<td>Excellent Listening Skills</td>
<td>3</td>
<td>Venipuncture/Syringe Handling</td>
<td>4</td>
</tr>
<tr>
<td>Ability to follow directions</td>
<td>3</td>
<td>Ask more questions!</td>
<td>2</td>
</tr>
<tr>
<td>Shows Compassion</td>
<td>3</td>
<td>Knowledge of Exotic Animal Medicine</td>
<td>2</td>
</tr>
<tr>
<td>Shows Initiative</td>
<td>2</td>
<td>Be more proactive/lend a hand when needed</td>
<td>1</td>
</tr>
<tr>
<td>Dedicated/ Good Work Ethic</td>
<td>2</td>
<td>Be more outgoing</td>
<td>1</td>
</tr>
<tr>
<td>Excellent Communication Skills</td>
<td>1</td>
<td>Increase Awareness of Gen Vet Info</td>
<td>1</td>
</tr>
<tr>
<td>Asks questions</td>
<td>1</td>
<td>Be more prompt!</td>
<td>1</td>
</tr>
<tr>
<td>Exhibits Professionalism</td>
<td>1</td>
<td>Grooming (Nail Trims)</td>
<td>1</td>
</tr>
<tr>
<td>Technical Knowledge</td>
<td>1</td>
<td>Vital Signs Measurement</td>
<td>1</td>
</tr>
<tr>
<td>Ability to apply knowledge</td>
<td>1</td>
<td>Fecal Smears (Direct)</td>
<td>1</td>
</tr>
<tr>
<td>Good Attitude</td>
<td>1</td>
<td>X-Ray Positioning</td>
<td>1</td>
</tr>
<tr>
<td>Quick Learner</td>
<td>1</td>
<td>Familiarity with veterinary software</td>
<td>1</td>
</tr>
</tbody>
</table>
Table 3. Preceptor assessments of student skills  
(1= Poor, 2 = Fair, 3 = Good, 4 = Excellent)

<table>
<thead>
<tr>
<th>Task</th>
<th>Count</th>
<th>Min</th>
<th>Max</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Make Appointment</td>
<td>14</td>
<td>3</td>
<td>4</td>
<td>3.79</td>
</tr>
<tr>
<td>Check-in Appointment</td>
<td>16</td>
<td>3</td>
<td>4</td>
<td>3.94</td>
</tr>
<tr>
<td>Check-out Appointment</td>
<td>16</td>
<td>3</td>
<td>4</td>
<td>3.94</td>
</tr>
<tr>
<td>Bathe/Dip</td>
<td>12</td>
<td>4</td>
<td>4</td>
<td>4.00</td>
</tr>
<tr>
<td>Cleaning Kennel Area</td>
<td>16</td>
<td>4</td>
<td>4</td>
<td>4.00</td>
</tr>
<tr>
<td>Canine Cephalic Venipuncture</td>
<td>14</td>
<td>3</td>
<td>4</td>
<td>3.86</td>
</tr>
<tr>
<td>Canine Jugular Venipuncture</td>
<td>13</td>
<td>3</td>
<td>4</td>
<td>3.81</td>
</tr>
<tr>
<td>Canine Saphenous Venipuncture</td>
<td>12</td>
<td>3</td>
<td>4</td>
<td>3.75</td>
</tr>
<tr>
<td>Feline Jugular Venipuncture</td>
<td>13</td>
<td>2</td>
<td>4</td>
<td>3.46</td>
</tr>
<tr>
<td>Feline Femoral Venipuncture</td>
<td>11</td>
<td>3</td>
<td>4</td>
<td>3.64</td>
</tr>
<tr>
<td>SQ Injection</td>
<td>2</td>
<td>4</td>
<td>4</td>
<td>4.00</td>
</tr>
<tr>
<td>IV Injection</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0.00</td>
</tr>
<tr>
<td>IM Injection</td>
<td>2</td>
<td>4</td>
<td>4</td>
<td>4.00</td>
</tr>
<tr>
<td>Obtain Patient History</td>
<td>1</td>
<td>4</td>
<td>4</td>
<td>4.00</td>
</tr>
<tr>
<td>Administer Vaccines</td>
<td>1</td>
<td>4</td>
<td>4</td>
<td>4.00</td>
</tr>
<tr>
<td>Feline Towel Restraint</td>
<td>13</td>
<td>2</td>
<td>4</td>
<td>3.65</td>
</tr>
<tr>
<td>IV Catheter Placement</td>
<td>14</td>
<td>3</td>
<td>4</td>
<td>3.79</td>
</tr>
<tr>
<td>Nail Trim</td>
<td>15</td>
<td>3</td>
<td>4</td>
<td>3.77</td>
</tr>
<tr>
<td>Anal Gland Expression</td>
<td>12</td>
<td>3</td>
<td>4</td>
<td>3.54</td>
</tr>
<tr>
<td>Hand Pilling</td>
<td>13</td>
<td>3</td>
<td>4</td>
<td>3.81</td>
</tr>
<tr>
<td>Physical Exam</td>
<td>14</td>
<td>3</td>
<td>4</td>
<td>3.79</td>
</tr>
<tr>
<td>Vital Signs</td>
<td>15</td>
<td>3</td>
<td>4</td>
<td>3.63</td>
</tr>
<tr>
<td>Prepare Vaccines</td>
<td>15</td>
<td>4</td>
<td>4</td>
<td>4.00</td>
</tr>
<tr>
<td>Apply Muzzle</td>
<td>14</td>
<td>3</td>
<td>4</td>
<td>3.82</td>
</tr>
<tr>
<td>Radiology Assist</td>
<td>13</td>
<td>3</td>
<td>4</td>
<td>3.69</td>
</tr>
<tr>
<td>Urinalysis</td>
<td>15</td>
<td>3</td>
<td>4</td>
<td>3.80</td>
</tr>
<tr>
<td>Fecal Analysis</td>
<td>16</td>
<td>3</td>
<td>4</td>
<td>3.88</td>
</tr>
<tr>
<td>Heartworm Test</td>
<td>17</td>
<td>4</td>
<td>4</td>
<td>4.00</td>
</tr>
<tr>
<td>Complete Blood Count/Chem</td>
<td>13</td>
<td>3</td>
<td>4</td>
<td>3.88</td>
</tr>
<tr>
<td>Ear Cytology</td>
<td>13</td>
<td>3</td>
<td>4</td>
<td>3.92</td>
</tr>
<tr>
<td>Observe Surgery</td>
<td>15</td>
<td>3</td>
<td>4</td>
<td>3.93</td>
</tr>
<tr>
<td>Observe Dentistry</td>
<td>17</td>
<td>3</td>
<td>4</td>
<td>3.94</td>
</tr>
<tr>
<td>Observe Anesthesia Induction</td>
<td>15</td>
<td>3</td>
<td>4</td>
<td>3.87</td>
</tr>
<tr>
<td>Prepare Patient for Surgery</td>
<td>2</td>
<td>4</td>
<td>4</td>
<td>4.00</td>
</tr>
<tr>
<td>Assist Monitoring in Surgery</td>
<td>2</td>
<td>4</td>
<td>4</td>
<td>4.00</td>
</tr>
<tr>
<td>Sterilize Instruments</td>
<td>1</td>
<td>4</td>
<td>4</td>
<td>4.00</td>
</tr>
</tbody>
</table>
## Appendix A. Veterinary Technology Advisory Committee Roster and Minutes

<table>
<thead>
<tr>
<th>Name</th>
<th>Affiliation</th>
<th>Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eric Ako, DVM</td>
<td>Pet Doctor</td>
<td>HVMA Vice President</td>
</tr>
<tr>
<td>Zak Albudri, DVM</td>
<td>VCA Family</td>
<td>Veterinarian, Adjunct Faculty</td>
</tr>
<tr>
<td>Kathleen Baxter, RVT</td>
<td>Veterinary Emergency Referral Center</td>
<td>Veterinary Technician</td>
</tr>
<tr>
<td>Mark Caspers, DVM</td>
<td>Feather and Fur</td>
<td>Veterinarian</td>
</tr>
<tr>
<td>Dani Carico, RVT</td>
<td>Windward Community College</td>
<td>Full-time Adjunct Faculty</td>
</tr>
<tr>
<td>Patricia Chong, M.Ed.</td>
<td>Windward Community College</td>
<td>College Counselor</td>
</tr>
<tr>
<td>Lisel Coles</td>
<td>Haiku Veterinary Clinic</td>
<td>Head Technician</td>
</tr>
<tr>
<td>Sam Craddock, RVT</td>
<td>Windward Community College</td>
<td>Faculty</td>
</tr>
<tr>
<td>Joe Herzog, DVM</td>
<td>Makai Animal Clinic</td>
<td>Veterinarian, Adjunct Faculty</td>
</tr>
<tr>
<td>John Kaya, DVM</td>
<td>Windward Community College</td>
<td>Program Director</td>
</tr>
<tr>
<td>Stacie Kissel</td>
<td>Student</td>
<td>Veterinary Assisting Alumnus</td>
</tr>
<tr>
<td>Sylvia Kondo, DVM</td>
<td>University of Hawaii, IACUC</td>
<td>Staff Veterinarian</td>
</tr>
<tr>
<td>Ross Langston, PhD</td>
<td>Windward Community College</td>
<td>Faculty (Anatomy/Physiology)</td>
</tr>
<tr>
<td>Darriel Miller</td>
<td>Student</td>
<td>Veterinary Assisting Alumnus</td>
</tr>
<tr>
<td>Shannon Nakamura, LVT</td>
<td>Animal Clinic of Honolulu</td>
<td>Veterinary Technician</td>
</tr>
<tr>
<td>Peggy Regentine, M.Ed.</td>
<td>Windward Community College</td>
<td>Faculty (Business)</td>
</tr>
<tr>
<td>Brian Richardson, PhD</td>
<td>Windward Community College</td>
<td>Dean, Division II</td>
</tr>
<tr>
<td>Ashley Stokes, DVM, PhD</td>
<td>University of Hawaii</td>
<td>Associate Extension Veterinarian</td>
</tr>
<tr>
<td>Whitney Watanabe</td>
<td>Windward Community College</td>
<td>Student</td>
</tr>
<tr>
<td>Michael Wong, DVM</td>
<td>University of Hawaii, Lab Animal</td>
<td>Staff Veterinarian</td>
</tr>
</tbody>
</table>


I. Minutes from December 16, 2011

Veterinary Technology Advisory Committee
Meeting Notes
Dec 16, 2011, Alakai 118
Start: 12:00 pm End: 1:53 pm

Present:
Peggy Regentine, M.Ed. (Business Faculty)          Michael Wong, DVM (LAS)
Sam Craddock, RVT (Vet Assist Faculty)            Shannon Nakamura, LVT (Island Vet)
Darriel Miller (Vet Assist Alumnus)               Lisa Coles (Haiku Vet)
Patti Chong, M. Ed. (Student Services)            Ashley Stokes, DVM, PhD (UH Manoa)
Eric Ako, DVM (HVMA)                              Zachary Albudri, DVM (Vet Assist Faculty,
Kathleen Baxter, RVT                              VCA Family)
Joe Herzog, DVM (Vet Assist Faculty)              Jan Chouljian, DVM (Vet Assist Faculty)
Mark Caspers, DVM (Feather & Fur)                Stacie Kissel (Vet Assist Alumnus)
Sylvia Kondo, DVM (UH IACUC)                      Ross Langston, PhD (Vet Assist Coordinator)

Excused:
Cathy Todd (VCA Kaneohe)
Brian Richardson, PhD (Dean)

1) Vet Assisting Program Stats for 2010-2011
   Over the 2010-2011 Academic Year, the Certificate of Achievement in Veterinary Assisting
   (CAVETA) program offered 13 classes (427 Student Semester Hours= SSH) and had a total of 34
   declared majors (477 SSH). Class fill- and completion rates were 72% and 79%, respectively,
   and fall-to-spring persistence was 70%. During this time, nine students (26.5% of majors)
   received the certificate and >70% of graduates were offered employment. The overall health
   score for the program was 4.5/6 (cautionary). Program weaknesses include: low # of full-time
   faculty allocated to the program (0 full-time faculty) and high number of majors relative to EMSI
   estimators of local workforce demand (= 4 positions available). However, based on the high
   employment rate of program graduates, we believe the EMSI data may underestimate the number
   of annual job openings. Program strengths included: sustained levels of student demand, high
   employment rate of program graduates, and recent allocation of funds to purchase equipment,
   design classes, and renovate program facilities. In response to the program analysis we plan to
   implement the following changes during the 2011-2012 academic year: 1) Hire 2 FTE faculty to
   administer the program and teach program classes, 2) continue efforts to more-accurately track
   program students, 3) reduce duplicate offerings of low-enrolled classes and increase offerings of
   gatekeeper classes (e.g., Math 101), 4) investigate the feasibility of tutoring or Supplemental
   Instruction for gatekeeper classes, 5) conduct additional surveys of local workforce demand, 6)
   roll-out an Associate of Science in Veterinary Technology, and 7) pursue AVMA accreditation
   for the A.S. degree.

2) Math Roadblock:
   Course completion data indicate that Math 101 (Clinical Calculations for Veterinary Assistants &
   Technicians) has the lowest overall enrollment among declared program majors. The following
factors are believed to contribute to this: 1) Many students have a "Math Phobia" and therefore postpone enrollment in this as long as possible 2) Math 101 is typically offered only once a year and has a maximum capacity of 20 students 3) Placement test: Many students do poorly on the math placement test and are therefore required to take remedial math classes before they can take Math 101. Some students have to take Math 22, Math 25 then Math 101 which substantially extends the time-to-completion for the Certificate of Achievement in Veterinary Assisting (CAVETA). Not only is proficiency in mathematics necessary for student success in future classes and clinical practice (e.g., dosage calculation, weight conversions, etc) but Math credit is also required for the Program to meet the UH requirements for an Associate of Science degree. Program faculty will meet with members of the Math department to discuss the problem. Potential solutions include: 1) Creating a short, non-credit "primer" class that students can complete before they take the placement test 2) Asking if we could create a separate ANSC class to cover the material (would still have to have the blessing of the Math department) 3) Requesting tutoring for ANSC students enrolled in the remedial math courses.

3) **New Faculty Hires**

The Chancellor has approved reallocation of two vacant faculty positions to for the use of the program. These positions will be used to hire two full-time (11 month) tenure-track faculty, including a DVM director and credentialed Veterinary Technician instructor. Advertisements for these positions have been posted on the WorkAtUH website and AVTE list serve. The positions have also be advertised in the local newspaper (Star Advertiser). The positions close on December 30th, after which the applications will be reviewed by a hiring committee. It is expected that the committee will conduct interviews of finalists in February (2012) and that the positions will be filled by the end of March.

The program will continue to utilize adjunct faculty on an as-needed basis. Current adjunct faculty is listed below:

- Jan Chouljian, DVM
- Mike Wong, DVM
- Joe Herzog, DVM
- Zachary Albudri, DVM
- Sam Craddock, LVT
4) **New Course Design & Modification:**
The following courses are being developed or modified as part of the proposed A.S. in Veterinary Technology:

**ANSC 140- Introduction to Veterinary Technology (Sam Craddock)**
This course introduces students to the field of veterinary technology and describes the responsibilities and expectations for students enrolled in the program. Topics include: roles of the veterinary team members, legal and ethical aspects of veterinary practice, breeds of companion animals, safety, sanitation and waste-disposal protocols, and career fields in veterinary medicine.

**ANSC 151- Clinical Lab Techniques (Dr. Chouljian)**
Provides students with the background knowledge needed to perform and interpret laboratory techniques commonly used in veterinary practice. Topics include: Homeostatic relationships, cytology, histology, parasitology and clinical physiology of major body systems. Includes a discussion of common disorders affecting major body systems and the techniques used for diagnosis. This course was previously offered but has been substantially revamped by Dr. Chouljian, who is also working on an online version of this course.

**ANSC 152- Companion Animal Diseases & Nutrition (Dr. Chouljian)**
An introduction to the husbandry and medical care of companion animals. Topics include canine and feline life cycles (including breeding, pregnancy and parturition), housing and nutritional needs, exam procedures and medical recording, nursing and wound management, and identification and treatment of common diseases.

**ANSC 152L- Companion Animal Nursing (Sam Craddock)**
This course provides students with hands-on training in basic companion-animal exam and nursing skills. Topics include: animal restraint methods, medical charting and patient exam procedures, specimen collection, administration of medications, grooming and husbandry. NOTE: This course will replace ANSC 190 (Internship) as part of the CAVETA certificate. This will allow students to obtain proficiency at basic exam and nursing skills before they begin their internship classes.

**ANSC 253-Pharmacology for Veterinary Technicians (Dr. Herzog)**
This course is designed to give students a practical knowledge of drugs used in veterinary medicine. Topics include drug classification, methods of action, calculations, administration, effects and side effects. Also includes a discussion of client education, drug safety, and federal regulations governing the purchase and storage of controlled drugs. Upon successful completion, students will be able to properly calculate, dispense, and administer medications, recognize adverse reactions and maintain pharmaceutical inventory and administrative records.

**ANSC 252- Diagnostic Imaging for Veterinary Technicians (Sam Craddock)**
This course trains students to safely and effectively use X-Ray technology to obtain diagnostic radiographs of the skeletal- and soft anatomy of companion animals. Students are also given an overview of alternative imaging techniques (ultrasound, CT Scans, and digital radiography) as well as an introduction to the radiography of large animals and exotics.

**ANSC 258- Clinical Lab Techniques II (TBA)**
A continuation of ANSC 151& 151L, this course provides students with additional instruction and hands-on experience with laboratory tests commonly used in veterinary practice. Topics include: 1) identification of internal parasites 2) performance and evaluation of microbiologic and serologic tests, 3) collection & evaluation of cytological samples 4) veterinary necropsy procedures. Included in this course are a review of the anatomy and physiology of major body systems and an overview of common diseases seen in veterinary practice.
ANSC 261- Anesthesiology & Surgical Nursing for Veterinary Technicians (Dr. Albudri)
This course will focus on the clinical skills necessary for safe and effective anesthesia and surgery of companion animal patients (dogs and cats). Skills such as intravenous catheter placement, proper endotracheal intubation, patient and surgical site preparation, and patient monitoring under general anesthesia will be stressed. The use and side effects of commonly used sedatives, analgesics and anesthetics will also be covered. Postoperative procedures include patient monitoring and charting as well as client education for postoperative care.

ANSC 262- Clinical Procedures for Large Animals (TBA)
The student will learn techniques in large animal restraint, husbandry and clinical procedures and be provided some introduction to relevant large animal diseases. Biosecurity and public health will be discussed as they apply to large animal health care and husbandry.

ANSC 263- Lab Animal Nursing (Dr. Wong)
Introduction to the care and use of laboratory animals. Includes training in restraint, nursing, and husbandry of common laboratory animal species (rats, mice and rabbits). This course is intended for students entering lab animal medicine, veterinary technology, veterinary assisting or other animal-related fields.

ANSC 266- Veterinary Clinical Practices & Internship II (Sam Craddock)
A continuation of ANSC 190, this course provides veterinary technology students with additional instruction and practical experience in a clinical setting. Topics covered include: advanced sample collection & handling techniques, dentistry, administration of medications, anesthesiology & surgical assisting, and advanced nursing techniques. Emphasis is placed on integrating classroom learning with practical work experience.

ANSC 290- Veterinary Technician Exam Review (1 credit)
This course prepares students for the Veterinary Technician National Exam (VTNE). Topics include test-taking strategies, formation of a study plan, and a review of topics from previous veterinary technology courses. Students enrolled in this course will develop essential test-taking skills by completing practice exams covering all major topics of the WCC veterinary technology curriculum.

BUSN 191- Veterinary Office & Computer Skills (Peggy Regentine)
Veterinary Office and Computer Skills covers the support skills needed in a veterinary office. Because veterinary office skills are critical in the success or failure of a practice, this course will emphasize the following: client communication, public relations, ethical and legal procedures, bookkeeping functions, scheduling, records management, and telephone skills. Students will be introduced to one or more industry-standard veterinary software programs as well as word processing and spreadsheet software.

5) Grants Received
- Perkins Grant: $56,000 awarded to design classes and purchase surgical supplies and equipment.
- Rural Development Grant (Online Education): $50,000 to develop distance education classes to eventually expand the program to the neighbor islands. The face-to-face program must be approved and accredited first before we look into offering an accredited DE program. At present, the majority of classes will be offered face-to-face on the WCC campus.
- C3T Grant: $350,000 The Vet Tech portion of this grant was written by Dr. Richard Fulton (Vice Chancellor of Academic Affairs). It includes funding for two positions for 2-3 years. This grant was written before the two permanent positions were allocated to the program. Result is that we may be able to hire two additional VT faculty to help-out during the first few years of the program.
6) **Facilities**

- **New Vet Lab**: UH has allocated $1.4 million for the construction of a new vet lab facility to be constructed in the maintenance yard behind Imiloa. The new building (1,800 gross sf/1,500 net) will contain an exam/treatment area, surgery, x-ray room, faculty office, kennel facility, and laundry and dry storage rooms. We have met with the architects a couple of times, and a tentative floor-plan has been created. One problem that has arisen is that, as proposed, the facility will spill-over onto the back lanai area adjacent to the physics classrooms. This may pose a problem with the campus aesthetics committee. Members of the advisory committee will meet again with the architects on January 10th (9AM) to discuss the layout of the facility and discuss alternatives to the proposed floor plan. Dr. Caspers suggested that the architects visit his clinic (Feather and Fur) to discuss specifics of furnishing the facility, particularly the kennel areas.

- **Temporary Vet Lab**: In October of 2011, the Chancellor approved the use of Iolani 116 as a temporary treatment and animal storage facility until the new lab is completed. At present, this facility contains three exam tables, two surgery tables, laundry facilities, supplies storage, and animal cages (donated from VCA Kaneohe). This facility is currently being used to teach animal nursing classes (e.g., ANSC 190 and ANSC 152L). This facility has been outfitted with WAG and O2 systems, so can be used for non-invasive anesthetic procedures (e.g., canine dental prophylaxis). Radiology facilities have been temporarily located in Imiloa 137B and anatomy and clinical lab classes (ANSC 142L & ANSC 151L) currently use Imiloa 103 for instruction. The program is in need of a 24x24 shoreline cage to complete a moveable bank of recovery cages.

7) **Workforce Needs Assessment:**

Based on the low numbers of anticipated job openings by suggested by EMSI data, it is suggested that the program conduct another workforce needs assessment. Based on current employment statistics for graduates (70-75%), there is a very good chance that the EMSI data may greatly underestimate the number of positions available for veterinary assistants and technicians statewide. This may be because positions offered and filled by local veterinary clinics may use several job titles which were not included in the EMSI database (e.g., kennel help, receptionist, animal technician, vet assistant, and veterinary technician). Also, according to Dr. Caspers and Lisel Coles, many clinics do not actively advertise openings, but hire serendipitously based on the availability of qualified personnel. According to Shannon Nakamura, the program last conducted a workforce survey of Oahu clinics (by mail) four or five years ago. The response rate for the previous survey was about 20%. It was suggested that the program might administer the new survey online and advertise it in the Hawaii Mega Corps bulletin and at HVMA meetings. Dr. Ako cautioned that we should be very careful about the wording used in the survey so that the program can get an accurate estimator of the number of technicians and assistants hired each year.

8) **Program Promotion**: Over the past year, program personnel and students have manned promotional booths at the following venues:

- WCC Ho'olaulea
- Island Dog Festival
- HVMA Meetings
- Hawaii Career and Technical Education Conference

During July, 2011 Ross Langston attended the biannual meetings of the Association of Veterinary Technician Educators (Cincinnati, OH). During the four day meeting he was able to speak to several
program directors, AVMA personnel, and tour a new clinical facility on one of the Cincinnati CC campuses.

9) **Veterinary Technology Program:**
   In Fall, 2011 the Program submitted a proposal to create an Associate of Science in Veterinary Technology to the WCC Curriculum Committee and Faculty Senate. This proposal has been approved by the campus and also vetted by the system-wide Chief Council of Academic Officers (CCAO). The next step will be to submit amended the program proposal to the UH Board of Regents (BOR) for approval. This is expected to take place in January or February. As currently constituted, the program consists of 23 classes and 67 credit hours. The Certificate of Achievement in Veterinary Assisting (CAVETA) constitutes the first year of the program. There is no special admissions requirement for this portion of the program. Students who satisfactorily complete the first semester of CAVETA classes and enroll in the second semester of classes will be eligible to apply for formal admission to the Veterinary Technology Program (admissions requirements are discussed below). Shannon Nakamura asked why the CAVETA program is being retained, now that the campus will be offering an A.S. in Veterinary Technology (the CAVETA was originally envisioned as a temporary program until the A.S. was created). Ross Langston explained that Certificate graduates still count towards the College's required quota of STEM graduates, and that the success of the CAVETA program has been the catalyst which has led to increased College funding and support (both in terms of supplies and FTE positions) for the proposed Veterinary Technician Program. Also, because students applying to the A.S. program must complete many of the CAVETA classes before they can apply to the A.S. program, the admissions committee will have much more information with which to evaluate applicants to the Vet Tech program. Thus, it is suggested that the CAVETA program be retained as a stepping-stone towards the A.S. in Veterinary Technology. Once the A.S. program is approved, the college will adjust its promotion of the CAVETA program so that potential students and employers will clearly recognize the certificate as a stepping stone to the VT degree.

10) **Next Steps:** After the program is approved by the BOR, the next steps will be to:
   - File a program application with the AVMA CVTEA (including $3000 application fee- January, 2012)
   - Hire full-time DVM Program Director and Full Time Veterinary Technician (Feb-March, 2012)
   - Advertise A.S. Program (Feb-March, 2012)
   - Begin accepting student applications (March, 2012)
   - Admit first cohort (April, 2012)
   - DVM Director will complete Self-Study (Summer, 2012)
   - Begin classes for A.S. in Vet Tech (August, 2012)
   - Set date for AVMA CVTEA Site Visit (usually conducted when first cohort of students are 2/3 way through program)

11) **Questions/Problems to Consider Regarding the New Program:**
   - Will the program be ready to admit students into year two of the program in August, 2012?
   There are several students (20+) who have already completed the first year of the program (Certificate of Achievement in Veterinary Assisting) and are eager to begin the second round of classes. Are we ready to offer year 2 in the fall? It is the consensus of the Committee that the
program should begin year 2 of the program in the fall, if possible. For this to happen, the program will need to overcome the following obstacles:

- **Equipment Needs:** Although the program already has >95% of the required equipment and supplies, it still lacks some equipment required by the AVMA. Big-ticket items include: digital tonometer and portable x-ray for use in equine/livestock animal classes. Ross will include these items in future Perkins Grant submissions (due in March, 2012 and typically awarded in Summer) and will work with the new Program Director to obtain access to loaners from local practices until the new items are purchased.

- **Animal Needs:** The current practice of the program is to utilize both shelter and personal animals for clinical instruction (under approved IACUC guidelines). The new Program Director will need to expand relationships with local shelters to guarantee an adequate supply of animals for clinical instruction. Once the new facility is in place (which should meet USDA requirements for lab animal facilities), the program may want to investigate the purchase of colony animals.

- **Facility Needs:** Although WCC currently has facilities for teaching Anatomy Labs, Clinical Lab Techniques, Animal Nursing, Radiology, and non-invasive anesthetic procedures (e.g., dental prophylaxis) it does not have a dedicated surgery space for performing invasive procedures (e.g., spays and neuters). The AVMA CVTEA requires that students participate in invasive surgical procedures as part of their training. The college may be able to allocate temporary space for such a facility until the permanent vet lab and surgical facility is completed but this will depend on the extent and cost of needed renovations. Dr. Kondo stressed that surgical facilities must meet both IACUC and USDA requirements for air exchange, etc, and that modifications to existing space may be quite costly. Another option is to allow students to complete several non-invasive anesthetic procedures on campus, then send them out to WCC’s 20+ participating preceptor clinics for experience with spays, neuters and other procedures. A third option, proposed by Dr. Stokes, is to utilize approved surgical facilities on the UH Manoa campus for invasive procedures. Ross and/or the new Director will work with Dr. Kondo (UH IACUC) and Dr. Stokes (UH Animal Science Dept) to determine which scenario is most feasible.

- **Skills Checklists** All AVMA accredited Veterinary Technology Programs are required to teach and evaluate student skills using the Veterinary Technology Student Essential and Recommended Skills List. The college is also required to maintain an inventory of completed skills for each student. Most schools compile somewhat bulky booklets for each student which must be presented to the instructor for signature each time a required skill is performed. Sam Craddock proposed that WCC look into digitizing these checklists and possible creating an "App" so instructors can record student skills using ipads or other mobile devices. The Program will pursue grant funding to develop and institute a digital skills checklist.

- **AVMA Site Visit:** Normally, the AVMA CVTEA site visit is conducted when students are approximately 2/3-3/4 way through the program. If we begin year two of the program in the Fall, we would need to be ready for a site visit within 10-12 months. This is a very tight turnaround. It was suggested that the program film its facilities ahead of time and send a copy to the AVMA ahead of time so that the Program could correct any "glaring" deficiencies before the inspection committee arrives. Although the majority of the committee feels that this schedule would be feasible, the decision will ultimately be up to the new Program Director and members of the CVTEA.

12) **Admissions Criteria:**

The first year of the program (Certificate of Achievement in Veterinary Assisting= CAVETA) will continue to be open to all interested students under the College's open-enrollment policy. Students who wish to pursue the A.S. in Veterinary Technology will need to have completed the first semester of the CAVETA classes before they can apply to the A.S. program. The committee agreed that students be admitted to the A.S. in Veterinary Technology on a competitive basis.
(Kathleen Fine and Dr. Herzog, both of whom have taught for other VT programs, agreed that competitive admission was key to student success in the program and passing the VTNE). It was also the consensus of the committee that students selected for admission into the A.S. program should expect attend classes on a full-time basis (no part-timers). Applications to the Program will be due in February or March. This means that the committee will likely have only one semester of grades to evaluate in making their decision. As currently envisioned, the admissions committee would consist of the program director, program faculty members, student services representative, and 1-2 members of the advisory committee. Ross said that the admissions requirements must be clearly spelled out in the Program Proposal (to be submitted to UH BOR in January-February, 2012). He suggested that the Program not make the minimum requirements too restrictive as this could potentially reduce the number of applicants below that needed to fill a cohort/class (typically, 20-25 students). If the Program sets moderate minimum requirements, it will receive a larger pool of applicants. The committee can then rank the applicants based on previously agreed upon criteria to select the best 20 or so applicants for admission.

The committee discussed the following criteria for admissions:

- **Prerequisites:** Patti Chong suggested that students should have satisfactorily completed ENG 100, Math 101. Ross cautioned that Math 101 was not offered during all semesters and, given that the math department often requires students to take remedial classes before attempting Math 101, this might substantially restrict the pool of applicants.

- **GPA in CAVETA & General Education (GE) classes** (ideally 3.0 or above?)

- **# of CAVETA classes satisfactorily completed** (At least ANSC 141, 142, 142L+ HLTH 125 to be completed at time of application?).

- **# of GE Classes satisfactorily completed**

- **Instructor or Clinic Assessments** Dr. Caspers suggested that clinical aptitude should be part of the evaluation process as some applicants may excel at traditional coursework, but may have little aptitude for clinical tasks. Ross noted that no clinical classes are taught during the first semester of the CAVETA program, so the committee may have to use instructor assessments from the first part of the second semester in making their decisions. At this point, there should be objective data available from the students' skills-task-checklists for evaluation. Previous clinic experience should count in favor of the applicant.

- **Student Essay** Can be used to assess motivation and writing skills.

- **Letters of recommendation** Narrative-only letters can be difficult to interpret. The committee will probably need to create a template for recommendation letters which asks the recommender to objectively assess the candidate in 4-5 categories.

- **Interview** Some of the committee members thought requiring student interviews would be a good way for the committee to assess maturity and motivation of the applicant as well as evaluating their "fit" in veterinary practice. Others on the committee felt that interviews may be unnecessary as the instructors (who will be on the committee) will already have experience with the students.

- **Background Checks** Dr. Caspers said that several clinics conduct background checks of potential employees because they will have contact with controlled substances. It may be futile for students with drug convictions to enroll in the Program, since they could have a hard time finding employment once they have graduated. It is unclear if the Program will be permitted to conduct background checks as part of its screening process. Ross remarked that nursing students, CNAs, and hospital volunteers are all required to undergo background checks before they are allowed to work in a hospital. He will check
with legal council to see if the Program can require background checks as part of the screening process.

At the advice of the UH Chief Council of Academic officers, the Program will consult admissions policies and criteria for existing health science programs in the UH system. Links to these programs are available below.

KCC Associate Degree in Nursing
KCC Medical Lab Technician Degree
KCC Radiologic Technology Program
II. Minutes from November 26, 2012

Windward Community College
Veterinary Technology Advisory Board Minutes
November 26th, 2012

Start: 10:38 am End: 12:22 pm

Attendance:
Eric Ako, DVM (HVMA) John Kaya, DVM (Program Director)
Dani Carico, RVT (WCC Faculty) Stacie Kissel (Vet Assist Alumnus)
Patricia Chong, M.Ed. (WCC Counselor) Sylvia Kondo, DVM (UH IACUC)
Lisel Coles (Haiku Veterinary Clinic) Ross Langston, PhD (WCC Faculty)
Sam Craddock, RVT (WCC Faculty) Darriel Miller (Vet Assist Alumnus)
Joe Herzong, DVM (Makai Animal Clinic) Brian Richardson, PhD (Dean)
Yuki Horikiri (in place of Peggy Regentine) Whitney Watanabe (WCC student)

Excused:
Zak Albudri, DVM (VCA Family)
Kathleen Baxter, RVT (Veterinary Emergency Referral Center)
Mark Caspers, DVM (Feather and Fur)
Shannon Nakamura, LVT (Animal Clinic of Honolulu)
Ashley Stokes, DVM (UH Extension Vet)
Michael Wong, DVM (UH Lab Animal Vet)

A. Welcome and Introductions: Attendees introduced themselves
B. Overview of 2011-2012 Program Data
   a. Veterinary Assist majors: 55
   b. Veterinary Technology majors: 8
C. Current Faculty: The Chancellor has appointed two full-time tenure-track faculty and one full-time adjunct faculty member. Dr. Ross Langston, although an associate professor in Biology, will continue to assist with the Veterinary Technology program.
   a. Two new full-time faculty:
      • Sam Craddock, RVT: hire date July 1st, 2012
      • John Kaya, DVM Program Director: hire date October 1st, 2012
   b. Adjunct Faculty: The program will continue to rely on adjunct faculty to provide hands-on expertise and invaluable lectures. Current adjunct faculty are listed below:
      • Dani Carico, RVT (Full-time)
      • Zachary Albudri, DVM
      • Joe Herzog, DVM
      • Elise Jang-Hashimoto, LVT
      • Mike Wong, DVM
   c. Community Guest Lecturers: The local veterinary community has been very supportive of the Veterinary Technology program and many have volunteered to be a guest lecturer or participate in wet labs. Veterinarians Mellissa Yuen, Shannon Nagasako, Cordell Chang, Allen Miyahara, Leianne LeeLoy, Russell Shoji, and Vance Kawakami have expressed an interest.
   d. Veterinary Industry Partners: VCA (Veterinary Centers of America), Merial, Pfizer, Heska, Hills, Royal Canin, MERCK Animal Health, and Novartis have volunteered resource materials, supplies, and guest lecturer opportunities.
### D. Curriculum Changes:

As the program continues to evolve, changes need to be initiated to meet the desired learning outcomes and fulfill the AVMA essential skills list. The table below contains the recent changes approved by the Credit Curriculum and Academic Affairs Committee. Sam Craddock, RVT discussed the changes in detail.

<table>
<thead>
<tr>
<th>Course</th>
<th>Currently</th>
<th>Change</th>
<th>Rationale</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANSC 151 Clinical Lab Techniques</td>
<td>Credit for ANSC 142 and 142L and credit for or registration in ANSC 151L</td>
<td>Pre-requisite “C” or better in 142 and 142L</td>
<td>Uphold standards necessary for student competency and success. A simple passing grade in ANSC 142 and 142L did not prepare students for this course.</td>
</tr>
<tr>
<td>ANSC 152 Companion Animal Disease &amp; Nutrition</td>
<td>Credit for ANSC 142 and ANSC 142L</td>
<td>Pre-requisite “C” or better in 142 and 142L</td>
<td>Uphold standards necessary for student competency and success. A simple passing grade in ANSC 142 and 142L did not prepare students for this course.</td>
</tr>
<tr>
<td>ANSC 190 Internship I</td>
<td>4 credits</td>
<td>3 credits</td>
<td>Removing classroom component, so students only out in the field. Frees up credit space for new course 271</td>
</tr>
<tr>
<td>ANSC 252 Diagnostic Imaging for Vet Techs</td>
<td>4 credits</td>
<td>3 credits</td>
<td>Separated lecture and lab.</td>
</tr>
<tr>
<td>ANSC 252L Diagnostic Imaging for Vet Techs Lab</td>
<td>Not available</td>
<td>1 credit</td>
<td>Multiple sections to allow for smaller class sizes</td>
</tr>
<tr>
<td>ANSC 261 Anesthesiology and Dentistry</td>
<td>5 credits</td>
<td>3 credits</td>
<td>ANSC 261 contained too many skills condensed into 1 course. 271 created to divide skills into two classes for increased proficiency in anesthetic procedures.</td>
</tr>
<tr>
<td>ANSC 261L Anesthesiology and Dentistry Lab</td>
<td>Not available</td>
<td>2 credits</td>
<td>Smaller class sizes for optimal instructor student ratio and to allow more flexible scheduling options.</td>
</tr>
<tr>
<td>ANSC 263 Laboratory Animal Procedures</td>
<td>3 credits</td>
<td>4 credits</td>
<td>Error in inputting when course created</td>
</tr>
<tr>
<td>ANSC 266 Internship II</td>
<td>4 credits</td>
<td>3 credits</td>
<td>Removing classroom component, so students only out in the field. Frees up credit space for new course 271</td>
</tr>
<tr>
<td>ANSC 271 Anesthesiology and Surgical Nursing</td>
<td>Not available</td>
<td>3 credits</td>
<td>ANSC 261 contained too many skills condensed into 1 course. 271 created to divide skills into two classes for increased proficiency in anesthetic procedures.</td>
</tr>
<tr>
<td>ANSC 271L Anesthesiology and Surgical Nursing Lab</td>
<td>Not available</td>
<td>2 credits</td>
<td>Smaller class sizes for optimal instructor student ratio and to allow more flexible scheduling options.</td>
</tr>
</tbody>
</table>

**a. Internship update:** Students will be required to take two internship courses ANSC 190 and ANSC 266. Each of the internships will involve 120 hours at participating veterinary clinics. Lisel Coles mentioned that one of the hurdles preventing veterinary clinics from taking part in the internship program might be liability. She informed the committee that the AVMA provides affordable liability coverage at $10 per year. The student would just need to fill out the required waivers.

**E. Application process and admissions criteria:** Students applying for admission into the Veterinary Technology program will be required to fill out an application. This application was the collaborative result of representatives from administration, admissions, counselors, and the Veterinary Technology faculty. Applications will be accepted from January 1st to March 1st of the entrance year. Interviews will then be conducted during the month of March so that acceptance letters can be sent out by April 1st. It was suggested that a letter be sent to all veterinary clinics announcing the selectees of the program. A sample application is provided below.
Aloha and thank you for considering the Associate in Science degree in Veterinary Technology at Windward Community College. To ensure that your application is completed properly, please be sure to read and follow all of the instructions within the application packet.

Application Assistance:
If you need assistance with completing your application, contact the Windward Community College counselors at (808) 235-7413 to schedule an appointment. For specific questions about the Veterinary Technology program, contact Sam Craddock, RVT (scraddoc@hawaii.edu) or John Kaya, DVM (johnkaya@hawaii.edu) at (808) 236-9107.

Academic Transcripts:
If you’ve completed any of the Veterinary Technology (VETT) prerequisite and co-requisite courses outside of the University of Hawai‘i system, be sure to complete the steps below as part of your application to the VETT program.

1. **For college coursework completed outside of the UH System**, have official transcripts sent from your previous college(s) to the WCC Admissions and Records Office prior to March 1st of the year you are applying for.

2. In addition, attach a student copy of your transcripts to your VETT application. This will expedite the review of your application by the WCC Veterinary Technology program faculty.

Students that are currently enrolled in the Windward Community College Veterinary Assistant (VETA) program will not need to submit academic records since your performance is on record with the Veterinary Technology program.

Selection Process:
All qualified applicants will be ranked for admission based on combined scores in the five areas below.

- Grade point ratio (GPR) for prerequisite general education courses. Applicants with a GPR below 2.0 will not be considered for selection or admission to the program;
- Letters of recommendation
- Veterinary-related work experience or training
- Personal statement
- Strength of applicant interview

For more information, please contact the WCC Veterinary Technology Department at (808)236-9107 or visit the WCC website at [http://windward.hawaii.edu/veterinary_studies/](http://windward.hawaii.edu/veterinary_studies/)

---

**UNIVERSITY OF HAWAI‘I • Windward COMMUNITY COLLEGE**  
45-720 Keahala Road Kaneohe, HI 96744 [http://windward.hawaii.edu](http://windward.hawaii.edu)  
Associate in Science in Veterinary Technology  
ADMISSIONS APPLICATION Fall 2013

**Directions:** Complete each item carefully and submit this application and all required documents to the WCC Admissions and Records Office by the application deadline: **March, 15th 2013**. Additional information on the application and acceptance process is provided on page 4. Incomplete applications may delay processing and/or acceptance into the VETT program.
I. APPLICANT INFORMATION

Application Year: ___________

Name: ___________________________________________ Date: ____________

Last Name   First Name     Middle

Mailing Address: _______________________________________

Phone: Home: _______________________ Cell: ________________________ Work: ______________________

Email Address: ______________________________________

II. ACADEMIC INFORMATION FOR TRANSFER STUDENTS

1. Transfer Credits for courses in the WCC Veterinary Technology Program: A faculty member in the department may be consulted to determine the suitability of courses for transfer. Although credits may be granted for skills-intensive classes, WCC will require that the student provide documentation of the completed skills. Attach additional sheet if necessary.

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
<th>Grade</th>
<th>School Where Completed</th>
<th>Term/Year</th>
</tr>
</thead>
</table>

2. For applicants who have completed courses within the UH System, please attach a copy of your STAR academic transcripts. To access and print out your STAR academic transcripts go to https://myuh.hawaii.edu.

3. For applicants who have completed courses outside of the UH System, please attach a student copy of your transcripts to this application. Upon acceptance into the VETT program an official copy of your transcripts must be sent to the WCC Admissions and Records Office.

4. AVMA Essential Skills List Documentation of Completed Skills (to be verified by the WCC Veterinary Technology Program Faculty) Total skills completed: ________________

III. VETERINARY RELATED WORK EXPERIENCE OR TRAINING

Briefly describe any experience or training completed within the animal care field. You may be asked to provide a letter from a previous employer to verify work experience or academic transcripts from a training agency.

<table>
<thead>
<tr>
<th>Position/Experience</th>
<th>Responsibilities</th>
<th>From: (month/year)</th>
<th>To: (month/year)</th>
</tr>
</thead>
</table>

IV. PERSONAL STATEMENT

Briefly describe your interest in veterinary technology and your goals in the veterinary field. Limit your essay to 500 words and attach additional sheets if necessary.

APPLICANT CERTIFICATION: I certify that the answers and responses provided for all of the items on this Admissions Application (on pages 1 and 2) are true to the best of my knowledge. I understand that providing incorrect or false information will subject me to the discipline measures as outlined under the University’s Student Conduct Code. I understand that if I am not accepted into the program, I must submit a new application and all
required documents for any subsequent semester. I have read and agree to abide by the application policies on page 4.

Signature: __________________________________________ Date: __________

APPLICATION INSTRUCTIONS –Associate in Science Degree in Veterinary Technology

Section II Item 1 Transfer of credits for courses in the WCC Veterinary Technology Program:
WCC counselors, with the assistance of faculty members in the veterinary technician program, will evaluate all transfer courses.

Section II Item 2: Transcripts from another institution
For required courses completed at a campus outside of the University of Hawai‘i system, you must have official transcripts sent directly to the WCC counselors office. This includes courses that may have previously been evaluated by UH system schools other than Windward Community College.

Section II Item 3: Transcripts within the UH system
For required courses completed at a campus within the UH System, you do not have to have transcripts sent to WCC, nor will you need to complete a Transcript Evaluation Request Form since course credits completed within the UH System will automatically be evaluated and transferred accordingly.

Section II Item 4: AVMA Essential Skills Documentation
If you are a student transferring from another veterinary technology program, you must submit documentation of the skills that you completed at your previous institution. For clarification please contact Sam Craddock, RVT or John Kaya, DVM at (808) 236-9107. Please attach documentation of your AVMA essential skills list with your application.

Section III Veterinary Work Experience or Training
Additional consideration will be given for those applicants completing veterinary work experience or training prior to application. The letter of reference should document the applicant’s experience in the veterinary field as evidenced by completion of a training program, work experience, or volunteer opportunity. Official academic transcripts or a copy of certification should be submitted to document the applicant’s completion of a training program.

Section IV Personal Statement
Consideration will be given for content and organization.

Explanation for Acceptance:

1. Acceptance Criteria
   a. All applicants who have met the minimum requirements are considered for acceptance. Applicants are ranked on a point scale based on the following criteria:
      i. GPR for completed VETA Core and General Education courses. GPR is calculated by multiplying a grade point (g.p.) value to the number of semester hours (s.h.) for a course (e.g. a grade of A in a 4 credit course would be worth 4 g.p. x 4 s.h. = 16 grade points). The total grade points will be divided by the total semester hours to calculate GPR.
      ii. Letters of recommendation;
      iii. Veterinary work experience or training;
      iv. Personal statement;
      v. Interview with Veterinary Technology Program Selection Committee

2. C. Post-Acceptance Requirements
   a. Health Requirements for Accepted Students: Accepted students will be sent a health packet that must be completed prior to the start of classes. The health requirements include:
      i. **Tetanus** vaccination within the past 10 years.
      ii. Verification of personal health insurance (continuous).
iii. Health Risk Acknowledgement form.
iv. Internship Liability Waiver
b. Obtain and print a recent (within last 30 days) Criminal Clearance Check.
c. Attend new student orientation and advising session.

Windward Community College VETT Program Course Schedule for New Students Fall 2013

Minimum requirements for application to VETT program:

- ANSC 140 Introduction to Veterinary Technology
- ANSC 142 Anatomy and Phys. of Domestic Animals
- ANSC 142L Anatomy of Domestic Animals Laboratory
- ENG 100 Expository Writing

The student must also have completed the following courses OR be enrolled in these courses with satisfactory progress during the semester in which they apply to the program.

- ANSC 151 Clinical Laboratory Techniques
- ANSC 151L Clinical Laboratory Techniques Laboratory
- ANSC 152 Companion Animal Diseases & Nutrition
- ANSC 152L Companion Animal Nursing
- BUSN 191 Veterinary Office and Computer Skills
- MATH 101 Mathematics for Veterinary Assisting
- HLTH 125 Survey of Medical Terminology
- PSY 100 Survey of Psychology
- SP 151 Personal and Public Speech or SP 181 Interpersonal Communication

Once admitted, students will be required to complete the following courses with a "C" grade or better to graduate from the program.

Summer (1st semester of VETT program)

- ANSC 252 Diagnostic Imaging for Veterinary Technicians
- ANSC 252L Diagnostic Imaging for Veterinary Technicians Lab
- ANSC 261 Anesthesia & Dentistry for Veterinary Technicians
- ANSC 261L Anesthesia & Dentistry for Veterinary Technicians Lab

Fall (2nd semester)

- ANSC 190 Clinical Practices & Internship I
- ANSC 253 Pharmacology
- ANSC 271 Anesthesia & Surgical Nursing for Veterinary Technicians
- ANSC 271L Anesthesia & Surgical Nursing for Veterinary Technicians Lab

Spring (3rd semester)

- ANSC 258 Clinical Lab Tech II
- ANSC 263 Lab Animal Nursing
- ANSC 266 Clinical Practices & Internship II
- ANSC 290 Veterinary Technician Exam Review
- ANSC 262 Clinical Procedures for Large Animals
- Humanities Elective (diversification code DH, DL, and DA)

Rev.11/24/2012
F. Facilities update: The plans for the Veterinary Annex teaching facility is complete and awaiting the bid process. The delay is attributed to a controversy over adequate parking. An additional 10 parking spaces must be created for the Veterinary Annex to be built.

G. Finances
   a. Grants: Dr. Ross Langston reported that the last of the Perkins grant money has been used to purchase equipment and supplies. Four anesthetic stations, 10 IPADs, a tonometer, and a portable x-ray unit are some examples of where the money was invested.
   b. Professional Fees: As of the spring semester 2013, students in Veterinary Assisting and Veterinary Technology will be assessed a professional fee. The fee amount is $100 for VETA and $300 for VETT. This fee will help to pay for the supplies used in the curriculum.

H. MOUs with Shelters and Veterinary Clinics: Currently the program has MOUs with over 20 veterinary hospitals. MOUs with OSPCA, Joey’s Feline Friends, and the Hawaiian Humane Society make up the list of animal shelters.

I. AVMA accreditation site visit: The AVMA CVTEA will be conducting an accreditation visit from March 13th – March 15th 2013. The site visit team will be comprised of 2 representatives from the mainland, and 3 residents from Hawaii: one AVMA member, one certified veterinary technician, and one community member. Members of the Veterinary Technology Advisory Board were encouraged to attend the welcome dinner on March 13th at a location to be announced. Director John Kaya will be traveling to Hillsborough Community College to “shadow” an accreditation site visit from February 20-22, 2013. This trip will be in preparation for WCC’s accreditation.

J. Future directions: Tuskegee University has contacted WCC about a possible partnership between the two institutions. Specifics have yet to be worked out.

K. Comments/Questions: Dr. Eric Ako suggested the formation of a student and state veterinary technician association. Darriel Miller volunteered to start a student association and Sam Craddock, RVT volunteered to start the state association.

L. Next meeting: A poll will be sent soon to schedule the next meeting. At this time, the week of February 25th is likely.
Appendix B. Pictures of Windward Community College Facilities

Figure 1 Instructional facilities utilized by the WCC Veterinary Technology Program. Classrooms used for lecture classes (A) are typically > 1,000 ft² in area, allowing for a capacity of 30-35 students. Lecture rooms are equipped with standard AV equipment including digital- and overhead projectors. The Anatomy/Clinical Techniques Laboratory (B) is 960 ft² in area and can accommodate 20 students. The room is equipped with anatomical models (C) and standard clinical laboratory equipment (D-F).
Figure 2. The x-ray & developing room (A) is approximately 200 ft² in area and can accommodate 3-5 students. The room contains an analog x-ray unit (B), automatic developer (C) and x-ray viewer (D). Adjacent to the radiology suite is a storage/prep room (E). This room is 650 ft² in area and contains dry storage, two -80°C freezers, and a high-capacity steam sterilizer (F) used for autoclaving surgical instruments.
Figure 3. The treatment room (Iolani 116) is 650 ft² in area and can safely accommodate up to 10 students and two instructors. This room is used primarily to teach anesthesia administration and monitoring (ANSC 261), dental prophylaxis, and nursing skills (ANSC 152L). The room includes exam tables (A) and sufficient anesthesia (B) and dental equipment (C) so that three prophys can be performed simultaneously. Also included in the room is a clinical lab station (E) and recovery cages (F). Surgeries are not performed in this room.
Figure 4. Off-campus University of Hawaii facilities utilized by the program include the surgery room at the Magoon Research station (A & B), Waialee farm (C & D) and Kakaako Lab Animal Facility (E & F).
Figure 5. Floorplan for a proposed veterinary technology annex, slotted to be constructed during 2013-2014. The $1.4 M annex will be 1950 ft$^2$ in area and will contain dedicated radiology suite, surgery room, treatment area, and animal boarding rooms. Please click on the link below to view the complete construction plans.
Appendix C. Memorandum of Understanding for Shelters

MEMORANDUM OF UNDERSTANDING FOR USE OF SHELTER ANIMALS BY THE WINDWARD COMMUNITY COLLEGE VETERINARY ASSISTANT and VETERINARY TECHNOLOGY PROGRAM

This memorandum of understanding has been created to document the relationship between the __________________________ (hereinafter referred to as the Organization) and Windward Community College Veterinary Assisting and Veterinary Technology Program (hereinafter referred to as the Program). The memorandum of understanding will lend further credibility to the Program as a training institution for Veterinary Assistants and Technicians with respect to the American Veterinary Medical Association as well as the local veterinary community.

Specifically, the parties agree to the following terms:

- The Organization may assist the Program by providing stray and surrendered or abandoned animals, when available, to be utilized in a classroom setting. To the best of its knowledge, the Organization will provide only animals that have been surrendered or abandoned by the animals’ owners.

- The Program agrees to advocate discretion in accordance with its Institutional Animal Care and Use Committee relative to the use of animals obtained from the Organization.

- The Program agrees to perform select medical exams and diagnostic procedures, in accordance with state and federal regulations relative to veterinary medicine, on animals obtained from, and at no charge to, the Organization.

- The Program will not take ownership of animals obtained from the Organization. Should an animal require veterinary care beyond what can be provided on campus, it is understood that a representative from the organization will transport the animal to an appropriate veterinary facility and that the Organization will be responsible for subsequent costs. Prior to transporting the animal to another veterinary facility for treatment, the Program shall notify the Organization. The Organization shall be entitled to decline any such treatment.

- The Organization agrees that, should a provided animal die or develop illness or injury requiring euthanasia, the Program is not liable for claims made for the value of said animal, and the Organization agrees to indemnify and hold harmless the Program from any such claims.

- The Program is not legally obligated to perform any medical procedure that does not directly pertain to the class lesson or course objectives.

- The Organization agrees to abide by state and USDA regulations regarding ten day holding periods on newly procured animals prior to providing them to the Program.

- Bite incidents may require that the animal be quarantined or euthanized, especially if the animal’s vaccination history is unknown. The Organization agrees that the Program's veterinary staff will intervene to protect the animal handler’s welfare or to euthanize the animal where deemed necessary by a state public health official.

- After treatment, the Program shall return the animals to the Organization.

- This agreement may be dissolved by either party with thirty calendar day’s written notice.

Windward Community College    Organization:  ____________________________

Signature   Date    Signature   Date
FACILITY AGREEMENT
For OFF-CAMPUS CLINICAL INSTRUCTION SITES

Name of Facility___________________________________________________________

Address_________________________________________________________________

To be approved as acceptable clinical instruction sites, veterinary care facilities must meet certain minimum standards regarding hospital staff, equipment, and practice quality. The following pages list the requirements necessary for approval. These minimum standards must be met in order to assure that students receive adequate exposure to quality veterinary medical practices and equipment.

Veterinary care facilities may be approved as acceptable for courses relating to companion animals, food and farm animals, or both. Please indicate below the approval you are requesting:

- ☐ Companion animal veterinary care facility
- ☐ Food and farm animal veterinary care facility
- ☐ Both companion and food/farm animal veterinary care facility

I certify that the above named veterinary care facility has the equipment that I have verified by completing and submitting the Required Equipment Checklist. I also certify that the equipment and materials will be made available to Veterinary Assisting (VETA) and Veterinary Technology (VETT) students for use in completion of assigned coursework while participating in this program.

Printed Name of Facility Veterinarian, Owner or Agent

_____________________________________________________
Printed Name of Facility Veterinarian, Owner or Agent

_____________________________________________________
Signature                    Date

Off Campus Clinical Instruction facilities are approved in perpetuity unless there are significant changes in physical structure of the facility, such as relocation, fire, etc. If there are significant changes, please notify the VETA/VETT staff.

REQUIRED EQUIPMENT CHECKLIST

The following equipment items must be present at all clinical instruction sites and available for use by the VTDLP student. A clinic must have at least 75% of the following equipment to be approved as a clinical instruction site. Items in bold MUST be present for approval. Items followed by an asterisk are optional but desirable.
Anesthesia equipment

☐ Anesthetic machine
  ☐ Inhalant anesthetic agent(s) available:
    ☐ Halothane
    ☐ Isoflurane
    ☐ Sevoflurane
    ☐ other _____________________
  ☐ Non-rebreathing system
  ☐ Endotracheal tubes
  ☐ Waste gas scavenging system present

Surgical Instrumentation, related equipment, and supplies

☐ Autoclave
☐ Autoclave indicator tape or other verification method
☐ Basic surgical instruments (spray pack, etc.)
☐ Controlled drug cabinet
☐ Defibrillator*
☐ Electrosurgical equipment*
☐ Electric clippers
☐ Emergency Crash kit with drugs and materials for emergency intervention
☐ Endotracheal tubes
☐ Gas Sterilizer
☐ Orthopedic equipment
☐ Surgical table
☐ Surgical lights’
☐ Surgical suction
☐ Ventilator
☐ Warm water blanket or other hypothermia prevention device

Monitoring Equipment

☐ Blood pressure monitoring equipment please specify type:____________________________
☐ Cardiac Monitor please specify type:__________________________________________
☐ Electrocardiograph please specify type:__________________________________________
☐ Esophageal stethoscope
☐ Pulse oximeter* or capnograph
☐ other monitoring device(s) please specify type(s):_______________________________

Dentistry

☐ Dental instruments
  ☐ Dental polisher
  ☐ Oral speculum – small animal
  ☐ Ultrasonic scaler

Examination and Treatment Equipment

☐ Animal gurney or stretcher
☐ Bandaging and splinting supplies
☐ Bathing equipment
☐ Cages complying with federal regulations
☐ Examination table
☐ Fiber-optic endoscope
☐ Ophthalmoscope
☐ Oral dosing equipment – small and lab animal
☐ Otoscope
☐ Scales
☐ Stethoscope
☐ Syringes and disposable
☐ Tonometer
☐ Tourniquet
☐ Tubes – feeding and gavage
☐ Vaginal Speculum
Radiology Equipment
- Aprons and gloves, lead lined
- Automatic film processor
- Calipers
- Cassette holders
- Digital film processor
- Film
- Film identification markers
- Hand dark room an developing
- High speed/rare earth screens
- Lead eyeglasses
- Lead thyroid collar
- Radiation safety badges
- Storage racks for gloves and aprons
- X-ray machine - fixed
- X-ray machine - portable
- X-ray viewer

Laboratory Equipment
- Automated analyzer
- Automated dilutor
- Blood mixer/rocker
- Centrifuge
- Microhematocrit centrifuge
- Clinical chemistry analyzer
- Differential blood cell counter (e.g. QBC auto-reader)
- Hand tally cell counter
- Electronic blood cell counter*
- Hemacytometer
- Incubator
- Microhematocrit centrifuge
- Microscope
- Refractometer
- Scales, laboratory

Other Essential Equipment
- Elizabethan collars
- Muzzles (nylon, leather, etc)
- Nail trimmers
- Restraint equipment
- Restraint pole

Additional Equipment Required for Food and Farm Animal Locations
The following equipment must be present or available at sites wishing to be approved for food and farm animal clinical training.
- Cattle chute
- Dehorners
- Dental Instruments – large animal – dental floats
- Emasculators
- Equine stocks*
- Hog snare
- Hoof trimmers and picks
- Nose tongs
- Ropes for restraint
- Stomach tubes
- Obstetric equipment
- Oral speculum – large animal please specify type:_______________________________
- Oral dosing equipment please specify type:_______________________________
- Twitch
Appendix D. IACUC Membership and Minutes

University of Hawaii
Institutional Animal Care and Use Committee (IACUC)
Modified by Titles Only
1/25/12

1. Non-biological scientist with expertise in Library Science
2. Biological Scientist with expertise in wild birds and zoology
3. Veterinarian (with expertise in equine) Representing Community Interest (Chairman)
4. Biological Scientist with expertise in fish
5. Attending Veterinarian representing University of Hawaii
6. Biological Scientist with expertise in marine mammals
7. Biological Scientist with expertise in reproductive biology using rodent models
8. Community Member with expertise in shelter management, veterinary technology
9. Biological Scientist with expertise in agricultural animals and animal science
10. Staff Veterinarian (Alternate for Attending Veterinarian)
11. Biological Scientist with expertise in wild birds and immunology
12. Community Member with expertise in shelter management
13. Biological Scientist with expertise in immunology using rodent models
14. Community Member with expertise in neonatology
15. Biological Scientist with expertise in metabolic disease utilizing natural remedies in rodent models
16. Biological Scientist with expertise in cancer models using rodent models
17. Biological Scientist with expertise in neuroscience using rodent models

Compliance Staff:
   1. Compliance Staff Member
   2. Regulatory Compliance Officer and Executive Secretary
   3. Post Approval Monitoring Staff Member

Ad Hoc:
   1. Biosafety Representative
   2. Environmental Health and Safety Representative
   3. Laboratory Animal Service Operations Manager

For security reasons, the UH IACUC committee does not release names of committee members. Site team members will have an opportunity to meet with members of the IACUC during the site visit.
Quorum Requirement = 9

Animal Care & Use Committee
October 18, 2012

Members Present: 

Members Absent: 

Guests Present: 

A. Call to Order

A quorum of members was present when the IACUC meeting was called to order by Chairman Dr. Manuel Himenes, Jr., in the Agricultural Sciences Building Conference Room at 1:35 PM. The first order of business was the approval of the September 20, 2012 meeting notes. The members unanimously voted to approve the meeting minutes as submitted.

B. New Business:

1. Semiannual Facility Inspection Reports

The committee approved the subcommittee reports for the following facilities:

- Snyder Hall Laboratory
- CTAHR Aquaponics Project
- JABSOM Kakaʻako Laboratory
- JABSOM Kakaʻako Laboratory
- JABSOM Kakaʻako Vivarium
- JABSOM Kakaʻako ABSL3 Facility

A sign-off sheet was provided for each member’s vote for approval, disapproval, or abstention. No minority opinions were noted or filed as of this meeting.

C. Old Business: None

D. Other Business:

1. Veterinary Report

a. Veterinary Facility Reviews

Veterinary reviews were conducted at the following facilities:

- JABSOM Kakaʻako Lab
- JABSOM Kakaʻako Lab
b. Checklist for Veterinary Review

The committee was informed that the veterinary staff will use the PHS semiannual checklist when conducting veterinary inspections of facilities to ensure that the requirements of the Guide are met.

c. Phenotype Report

The AVG staff veterinarian reported the majority of mice that display phenotypic traits have no adverse health effects.

d. Streamlining the IACUC Protocol Review Process

It was proposed that the IACUC protocol review process be streamlined by moving up the submission deadline by three weeks. This would allow approximately one week for veterinary review, followed by a week of subcommittee review. All reviews and modifications would be completed by the week prior to the committee meeting. An alternate schedule proposed submission 10 days prior to the meeting with concurrent veterinary and subcommittee reviews. In addition, it was suggested that modifications to protocols be limited to a maximum of two times. The decision on this was tabled.

e. Vivarium Incident Report – Tabled

f. Tribromethanol Policy Update – Tabled

g. CITI Modules (Beef Cattle, Sheep, & Goats) Update – Tabled

h. Kahalā Fish Mortalities

Fish mortalities were reported at an aquaculture facility in Hilo. The cause of the mortalities is unknown.

i. Pseudorabies at UH-Hilo Farm

The test results for pseudorabies in the swine herd at the UHH farm were negative. The quarantine was lifted.

j. Sea Turtle Mortality

A sea turtle with buoyancy and GI problems reported last month, died on August 27, 2012.

E. Review of New Protocols, Renewals, and Revisions:

Chairman’s Call for Executive Session – Pages (4-10) contain information identified as intellectual property and are considered protected by Executive Session Order.

95-072-12 [1538], 97-064-15 [1043], 03-057-10 [1546], 04-037-9 [1062], 06-062-6 [1040], 07-059-6 [1077], 07-061-6 [1079], 08-422-5 [1270], 09-611-5 [1271].
09-681-5 [1363], 09-806-4 [1532], 09-820-4 [1553], 09-871-4 [1543], 10-1039-3 [1038],
10-1046-3 [1048], 10-1049-3 [1049], 11-1219-2 [1219], 11-1248-2 [1248],
11-1249-2 [1249], 11-1254-2 [1254], 11-1265-2 [1265], 11-1279-2 [1278],
11-1284-2 [1284], 12-1446 [1446], 12-1491 [1491], 12-1494 [1494], 12-1534 [1534],
12-1541 [1541] and 12-1566 [1566] were granted full approval.

05-026-7 [1530] was not approved until additional information or clarification is provided.

F. Previously Reviewed Protocols and Project Personnel Changes - Approved

Approved protocols – 09-899-4 [1526], 10-999-3 [999], 12-1510 [1510] and
12-1525 [1525].

Approved Personnel Changes – 06-032-7 [1499], 08-389-5 [1138], 09-682-4 [1379],
09-775-4 [1409], 11-1144-2 [1144], 12-1410 [1410] and 12-1469 [1469].

G. Adjournment: The meeting was adjourned at 3:00 PM.
Quorum Requirement = 9

Animal Care & Use Committee
November 20, 2012
(Rescheduled from November 15, 2012)

Members Present: 

Members Absent: 

Guests Present: 

A. Call to Order

A quorum of members was present when the IACUC meeting was called to order by Chairman Dr. Manuel Himeres, Jr., in the Agricultural Sciences Building Conference Room at 1:40 PM. The first order of business was the approval of the October 18, 2012 meeting notes. The members unanimously voted to approve the meeting minutes as submitted.

B. New Business:

1. Semianual Facility Inspection Reports

The committee approved the subcommittee reports for the following facilities:

- Biomedical Sciences Building Animal Colony
- Biomedical Sciences Building Laboratories
- Henke Hall Laboratory
- Gilmore Hall Laboratory
- CTAHR Aquaculture Program – Solar Dehydration Facility
- St. John Laboratory
- Hawaii Fish Company
- Hawaii Institute of Marine Biology (HIMB)
- Marine Mammal Research Program (MMRP)
- Waimanalo Research Station Aquaponics Project

A sign-off sheet was provided for each member’s vote for approval, disapproval, or abstention. No minority opinions were noted or filed as of this meeting.

C. Old Business:

1. Streamlining the IACUC Protocol Review Process

In an effort to improve the protocol review process, the committee discussed and approved new submission and review procedures. Beginning January 2013, two protocol submission deadlines will be implemented; an early but optional deadline for
A second deadline period is implemented for annual renewals and minor amendments. The first submission deadline is 12:00 PM (noon) of the Monday two weeks prior to the scheduled IACUC meeting and is primarily for new protocols and full renewals. The second deadline is 12:00 PM (noon) of the following Monday. At the second deadline, subcommittees will be assigned and reviews will begin. Two cycles of reviews and modifications will be allowed. All reviews and PI responses will be due at 12:00 PM (noon) of the Monday prior to the scheduled IACUC meeting.

D. Other Business:

1. Veterinary Report
   a. Veterinary Facility Reviews

   Veterinary reviews were conducted at the following facilities:
   - Hanke Hall Laboratory
   - Gilmore Hall Laboratory
   - CTAHR Aquaculture Program – Solar Dehydration Facility
   - St. John Laboratory
   - Hawaii Fish Company

   No problems were reported.

   b. CITI Species Specific Training Modules

   Species specific training modules for marine mammals, beef cattle, sheep and goat are either currently on-line or being worked on. The AVS staff veterinarian's contribution to the creation of the modules was acknowledged.

   c. Kaka’ako Vivarium Events

   - Tsunami Alert on October 27, 2012. An actual tsunami wave did not occur, therefore, the alert was used as a drill.

   - Natural gas leak on October 28, 2012. The leak caused problems with heat source equipment. Temperatures in the ABL3 were recorded at 59 degrees. There were no animals being housed in the ABL3 at the time.

   d. Notes from AALAS Conference (November 5 – 8, 2012)

   - An example of how an IACUC subcommittee handled departures, deviations, exemptions, and exceptions to the Guide 8th edition was explained. The subcommittee assigned action items to individuals and kept a spreadsheet to track the items. The items were specifically addressed and documented exceptions to the Guide, AWR, and IACUC were categorized as protocol specific vs. general system-wide exceptions.

   - Developed performance measures reviewed and approved by the IACUC in justifying variations in the Guide, e.g. performance standards to justify variance from mouse cage density, growth
rate of pupa, litter size at weaning, cage dimension, husbandry practices, ammonia level in cages.

e. Status of Vivarium Grant

The committee was informed that the grant to improve the Biostream vivarium was not approved. However, the UH administrators will still provide financial support for improvements. The cagewash project will be delayed until January 2013. The relocation of the IBR group of investigators to Manoa will also be delayed. Mouse Parvo Virus clean-up and decontamination of the facilities will be postponed until all renovation and relocation projects are completed.

f. Vivarium Incident Policy

The committee unanimously voted to approve the Vivarium Incident Policy. The policy provides a means for documenting, reporting, and fining for rule infractions and incidents occurring in the vivarium. The committee requested a progress report in 6 months.

g. Noncompliant PI

The committee was informed that one PI is responsible for over 50% of overcrowded cages. After meeting with the IACUC Chairman, the AVS Director and the Department Chair, the PI indicated that he would work with AVS to be compliant. AVS has been advised to continue to document and report incidents of overcrowding and any intimidation of staff so that appropriate measures can be taken before animals care is impacted. If the overcrowding incidents continue, the IACUC may opt to not approve the PI's protocols.

h. Animal Death

The committee was informed that a captive Hawaii Amakihi died. The bird's leg became entangled in the cage. The bird was treated by a veterinarian but died.

2. Gilmore SOPs

The committee unanimously voted to approve the Gilmore Laboratory SOPs Evaluation of Sick Fish and Vermicul Control (with minor modifications).

3. Variance Request

The committee unanimously voted to approve a variance request to withhold food from newly transported fish to a lab at UH Manoa. It was explained that the fish become stressed during transport and will not eat for a short period of time. Therefore, withholding food serves to prevent the fish's environment from becoming fouled with uneaten food.

E. Review of New Protocols, Renewals, and Revisions:

Chairman's Call for Executive Session – Pages (5-7) contain information identified as intellectual property and are considered protected by Executive Session Order.
07-023-6 [1059], 09-673-4 [1329], 10-1916-3 [1018], 11-1285 [1285], 11-1288-2 [1288], 12-1410 [1410], 12-1541 [1541], and 12-1548 [1548] were granted full approval.

12-1486 [1486] and 12-1565 [1565] were not approved until additional information or clarification is provided.

F. **Previously Reviewed Protocols and Project Personnel Changes - Approved**

Approved protocols – 05-026-7 [1530].

Approved Personnel Changes – 09-863-4 [1527], 11-1272 [1272], 12-1390 [1390], and 12-1496 [1496].

G. **Adjournment:** The meeting was adjourned at 3:30 PM.
**Appendix E. Inventory of Models, Skeletons, Manikins**

<table>
<thead>
<tr>
<th>Skeletons</th>
<th>Models</th>
<th>Manikins</th>
<th>Cadavers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canine: 4</td>
<td>Heart: 2</td>
<td>Canine (plush)</td>
<td>Feline: 20 per anatomy</td>
</tr>
<tr>
<td>Feline: 3</td>
<td>Kidney: 2</td>
<td>Feline (plush)</td>
<td>Feline: 2-3 for radiology</td>
</tr>
<tr>
<td>Equine</td>
<td>Lungs: 3</td>
<td>Rabbit (plush)</td>
<td>Preserved brain: 20</td>
</tr>
<tr>
<td>Bat</td>
<td>Brain: 4</td>
<td>Rat (plush)</td>
<td>Preserved eyes: 50-100</td>
</tr>
<tr>
<td>Snake</td>
<td>Eye: 3</td>
<td>Mouse (plush)</td>
<td></td>
</tr>
<tr>
<td>Turtle</td>
<td>Spinal cord: 2</td>
<td>Intubation manikin</td>
<td></td>
</tr>
<tr>
<td>Frog</td>
<td>Blood cells</td>
<td>Venipuncture manikin: 2</td>
<td></td>
</tr>
<tr>
<td>Bird</td>
<td>Skin cross section: 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rat</td>
<td>Mitosis models: 8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cow Skull</td>
<td>Fetal Pig</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Deer Skull</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pig Skull</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Quantity is one unless noted otherwise.*
Appendix F. Map of the Windward Community College Campus
Appendix G. Health Risk Acknowledgement and Pregnancy Policy

HEALTH RISK ACKNOWLEDGEMENT
for CLINICAL INSTRUCTION SITES

Assumption of risk: All Veterinary Assisting (VETA) and Veterinary Technology (VETT) students working in a veterinary facility encounter animals that may cause traumatic injury and/or expose them to infectious agents that cause disease. They will also be exposed to ionizing radiation (e.g. X-rays), volatile anesthetic gases, and chemical substances which can cause bodily harm. By enrolling in VETA/VETT courses, students voluntarily accept that these risks exist and assume the responsibility to act safely and responsibly at all times.

Pregnancy: Pregnancy shall be considered a condition for which there are definite health concerns, for which the student needs additional information about these concerns, and for which Windward Community College, the University of Hawaii, and the State of Hawaii (collectively referred to as the “University”) and the clinical preceptor(s) need assurance that the student has received this information from her physician. In the event of pregnancy, the student must provide written assurance to the VETA/VETT and the clinical preceptors that she has received this information from her physician, understands the risks involved, agrees to take all reasonable precautions, and still desires to continue with her educational program.

Tetanus: If a student has never received tetanus immunization, the student should receive such immunizations as advised by his/her physician. If the student has had the initial series, they should consult with their physician as to whether a booster immunization is required.

I have read the above information of the potential health risks involved with my participation in the VETA/VETT. I understand that the University is not responsible for paying medical bills, costs, or expenses for injuries sustained by me while participating in VETA/VETT. I understand that all medical bills, costs, or expenses are my responsibility.

___ I am currently covered by health insurance that will cover treatments for potential injuries and illnesses resulting from my participation in VETA/VETT.

___ I am not presently covered by health insurance. I understand that the University is not responsible for paying medical expenses for injuries sustained by me while participating in VETA/VETT.

_______________________________
Printed Name

_______________________________
Signature

(Notary Certificate on next page)
STATE OF HAWAI’I )

) ss.

CITY AND COUNTY OF HONOLULU )

On this ____ day of ________________, before me appeared ____________________, to me known to be the person described in and who executed the foregoing instrument and acknowledged the he/she executed said instrument as his/her free act and deed.

________________________________________
Notary Public, ________ Circuit

State of Hawai‘i

My Commission expires _______

Notary Seal Affixed:

NOTARY CERTIFICATION

Doc. Date: ____________ # Pages: ______

Notary Name: ________________ ______Circuit

Doc. Description _________________

________________________________________

Notary Signature                        Date
Appendix H. Liability Waiver

AGREEMENT AND RELEASE OF LIABILITY

By enrolling in the Veterinary Assisting (VETA) or Veterinary Technology (VETT) program, I recognize that I am cognizant of all the dangers inherent in the veterinary medical profession and of the basic safety rules for activities conducted in association with this program.

I further acknowledge that I have familiarized myself with any additional dangers associated with the site that I have chosen to perform my clinical instruction. I acknowledge that my decision to choose this Clinical Instruction Site was not influenced by Windward Community College, the University of Hawaii, and the State of Hawaii (collectively referred to as the “University”).

I understand that it is not the purpose of the University to serve as guardians of my safety while enrolled in VETA/VETT. I further understand and agree that the University or any of their officers, members, agents or employees may NOT be held liable in any way for any occurrence which may result in injury, death or other damages to me or my family, heirs, or assigns in connection with my participation in VETA/VETT.

In consideration of my enrollment in VETA/VETT, I hereby personally assume all risks in connection with them, and I further release and discharge the University and any of their officers, members, agents or employees (the “Released Parties”) for any injury or damage, including death, that may befall me while I am enrolled as a student in the VAC, including all risks connected therewith, whether foreseen or unforeseen and further to save and hold harmless the Released Parties from any claim by me, or my family, estate, heirs or assigns, arising out of my enrollment and participation in VETA/VETT.

I further state that I am of lawful age and legally competent to sign this affirmation and release, and I understand that the terms herein are contractual. I have fully informed myself of the contents of this affirmation and release by reading it before I signed it. I am aware that this is a release of liability and a contract drawn between myself and the University and any of their officers, members, agents or employees. I have signed this affirmation of my own free will.

Policy on Student Professional Liability

Procurement of professional liability insurance for students and preceptors participating in VETA/VETT is the responsibility of the student and their preceptor(s). The University, and their officers, members, agents or employees cannot be held liable for student liability arising out of real or alleged wrongful acts or for payment of court costs, expert legal counsel, and claims adjusters from such acts.

I further state that I have read and understood the policy on student professional liability insurance and responsibilities and agree to the terms of that policy.

__________________________________________  __________________________  ______________
Printed Name of Student                                                Signature

Date

__________________________________________  __________________________________
Street Address

City          State          Zip Code

(Notary Certificate on next page)
On this _____ day of _____________, before me appeared ______________________, to me known to be the person described in and who executed the foregoing instrument and acknowledged the he/she executed said instrument as his/her free act and deed.

__________________________________________
Notary Public, ________ Circuit

State of Hawai‘i

My Commission expires _______

Notary Seal Affixed:

NOTARY CERTIFICATION

Doc. Date: ______________ # Pages: ______

Notary Name: ________________________ Circuit

Doc. Description ________________________

_____________________________________

Notary Signature                      Date
## Appendix I. Suggested Course Sequencing

### Fall (1<sup>st</sup> semester of Veterinary Assisting program)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANSC 140</td>
<td>Introduction to Veterinary Technology</td>
<td>3</td>
</tr>
<tr>
<td>ANSC 142</td>
<td>Anatomy and Physiology of Domestic Animals</td>
<td>3</td>
</tr>
<tr>
<td>ANSC 142L</td>
<td>Anatomy of Domestic Animals Lab</td>
<td>1</td>
</tr>
<tr>
<td>HLTH 125</td>
<td>Survey of Medical Terminology</td>
<td>1</td>
</tr>
<tr>
<td>ENG 100</td>
<td>Expository Writing</td>
<td>3</td>
</tr>
<tr>
<td>PSY 100</td>
<td>Survey of Psychology</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Credits: 14**

### Spring (2<sup>nd</sup> semester of Veterinary Assisting program)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANSC 151</td>
<td>Clinical Laboratory Techniques</td>
<td>3</td>
</tr>
<tr>
<td>ANSC 151L</td>
<td>Clinical Laboratory Techniques Lab</td>
<td>1</td>
</tr>
<tr>
<td>ANSC 152</td>
<td>Companion Animal Disease and Nutrition</td>
<td>3</td>
</tr>
<tr>
<td>ANSC 152L</td>
<td>Companion Animal Nursing</td>
<td>1</td>
</tr>
<tr>
<td>BUSN 191</td>
<td>Veterinary Office and Computer Skills</td>
<td>3</td>
</tr>
<tr>
<td>MATH 101</td>
<td>Mathematics for Veterinary Technicians</td>
<td>3</td>
</tr>
<tr>
<td>SP 151</td>
<td>Personal and Public Speech</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>(or SP 181 Introduction to Interpersonal Communication)</td>
<td></td>
</tr>
</tbody>
</table>

**Total Credits: 17**

### Summer (1<sup>st</sup> semester of Veterinary Technology program)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANSC 252</td>
<td>Diagnostic Imaging for Veterinary Technicians</td>
<td>3</td>
</tr>
<tr>
<td>ANSC 252L</td>
<td>Diagnostic Imaging for Veterinary Technicians Lab</td>
<td>1</td>
</tr>
<tr>
<td>ANSC 261</td>
<td>Anesthesia &amp; Dentistry for Veterinary Technicians</td>
<td>3</td>
</tr>
<tr>
<td>ANSC 261L</td>
<td>Anesthesia &amp; Dentistry for Veterinary Technicians Lab</td>
<td>2</td>
</tr>
</tbody>
</table>

**Total Credits: 9**

### Fall (2<sup>nd</sup> semester Veterinary Technology program)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANSC 190</td>
<td>Clinical Practices &amp; Internship I</td>
<td>3</td>
</tr>
<tr>
<td>ANSC 253</td>
<td>Pharmacology for Veterinary Technicians</td>
<td>3</td>
</tr>
<tr>
<td>ANSC 271</td>
<td>Anesthesia &amp; Surgical Nursing for Veterinary Technicians</td>
<td>3</td>
</tr>
<tr>
<td>ANSC 271L</td>
<td>Anesthesia &amp; Surgical Nursing for Veterinary Technicians Lab</td>
<td>2</td>
</tr>
</tbody>
</table>

**Total Credits: 14**

### Spring (3<sup>rd</sup> semester Veterinary Technology program)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANSC 258</td>
<td>Clinical Lab Tech II</td>
<td>4</td>
</tr>
<tr>
<td>ANSC 263</td>
<td>Lab Animal Nursing</td>
<td>3</td>
</tr>
<tr>
<td>ANSC 266</td>
<td>Clinical Practices &amp; Internship II</td>
<td>3</td>
</tr>
<tr>
<td>ANSC 290</td>
<td>Veterinary Technician Exam Review</td>
<td>1</td>
</tr>
<tr>
<td>ANSC 262</td>
<td>Clinical Procedures for Large Animals</td>
<td>4</td>
</tr>
</tbody>
</table>

**Total Credits: 15**
Appendix J. Core Veterinary Technology Course Descriptions

ANSC 140- Introduction to Veterinary Technology (3 credits)
This course introduces students to the field of veterinary technology and describes the responsibilities and expectations for students enrolled in the program. Topics include: roles of the veterinary team members, legal and ethical aspects of veterinary practice, breeds of companion animals, safety, sanitation and waste-disposal protocols, and career fields in veterinary medicine.

ANSC 142- Anatomy & Physiology of Domestic Animals (3 credits)
Introduction to the anatomy and physiology of domestic animals. Compares the anatomy and function of major body systems for the cat, dog and horse, with lesser emphasis on birds, reptiles and amphibians. This course is intended for students entering veterinary technology, veterinary assisting or other animal-related fields.

ANSC 142L- Anatomy of Domestic Animals Laboratory (1 credit)
Laboratory to accompany ANSC 142. This course is designed to acquaint the student with the body systems of common domestic species (e.g., cats, dogs, horses and birds) through dissections, examinations of models, laboratory exercises, and other hands-on activities. This course is intended for students entering veterinary technology, veterinary assisting or other animal-related fields.

ANSC 151- Clinical Lab Techniques (3 credits)
Provides students with the background knowledge needed to perform and interpret laboratory techniques commonly used in veterinary practice. Topics include: Homeostatic relationships, cytology, histology, parasitology and clinical physiology of major body systems. Includes a discussion of common disorders affecting major body systems and the techniques used for diagnosis. This course is intended for students entering veterinary technology, veterinary assisting or other animal-related fields.

ANSC 151L- Clinical Lab Techniques Laboratory (1 credit)
Laboratory to accompany ANSC 151. Provides students with the knowledge and skills necessary to perform common veterinary lab tests including urinalysis, hematology, blood chemistry, cytology and parasitology. This course is intended for students entering veterinary technology, veterinary assisting or other animal-related fields.

ANSC 152- Companion Animal Diseases & Nutrition (3 credits)
An introduction to the husbandry and medical care of companion animals. Topics include canine and feline life cycles (including breeding, pregnancy and parturition), housing and nutritional needs, exam procedures and medical recording, nursing and wound management, and identification and treatment of common diseases. This course is intended for students entering veterinary technology, veterinary assisting, or other animal-related fields.

ANSC 152L- Companion Animal Nursing (1 credit)
This course provides students with hands-on training in basic companion-animal exam and nursing skills. Topics include: animal restraint methods, medical charting and patient exam
procedures, specimen collection, administration of medications, grooming and husbandry. This course is intended for students entering veterinary technology, veterinary assisting or other animal-related fields.

**ANSC 190- Veterinary Clinical Practices & Internship I (3 credits)**
Practical animal experience at veterinary clinics, zoos, research labs or other animal facilities. Topics covered may include restraint procedures, venipuncture, obtaining vital signs, radiological techniques, surgical assisting and animal husbandry. This course is intended for students entering veterinary technology, veterinary assisting or other animal-related fields.

**ANSC 252- Diagnostic Imaging for Veterinary Technicians (3 credits)**
This course trains students to safely and effectively use X-Ray technology to obtain diagnostic radiographs of the skeletal- and soft anatomy of companion animals. Students are also given an overview of alternative imaging techniques (ultrasound, CT Scans, and digital radiography) as well as an introduction to the radiography of large animals and exotics. This course is intended for students entering veterinary technology, veterinary assisting or other animal-related fields.

**ANSC 252L- Diagnostic Imaging for Veterinary Technicians Lab (1 credits)**
This course trains students to safely and effectively use X-Ray technology to obtain diagnostic radiographs of the skeletal- and soft anatomy of companion animals. Students are also given an overview of alternative imaging techniques (ultrasound, CT Scans, and digital radiography) as well as an introduction to the radiography of large animals and exotics. This course is intended for students entering veterinary technology, veterinary assisting or other animal-related fields.

**ANSC 253-Pharmacology for Veterinary Technicians (3 credits)**
This course is designed to give students a practical knowledge of drugs used in veterinary medicine. Topics include drug classification, methods of action, calculations, administration, effects and side effects. Also includes a discussion of client education, drug safety, and federal regulations governing the purchase and storage of controlled drugs. Upon successful completion, students will be able to properly calculate, dispense, and administer medications, recognize adverse reactions and maintain pharmaceutical inventory and administrative records. This course is intended for students entering veterinary technology, veterinary assisting, or other animal-related fields.

**ANSC 258- Clinical Lab Techniques II (4 credits)**
A continuation of ANSC 151& 151L, this course provides students with additional instruction and hands-on experience with laboratory tests commonly used in veterinary practice. Topics include: 1) identification of internal parasites 2) performance and evaluation of microbiologic and serologic tests, 3) collection & evaluation of cytological samples 4) veterinary necropsy procedures. Included in this course are a review of the anatomy and physiology of major body systems and an overview of common diseases seen in veterinary practice. This course is intended for students entering veterinary assisting, veterinary technology or other animal-related fields.

**ANSC 261- Anesthesiology & Dentistry for Veterinary Technicians (3 credits)**
This course will focus on dental anatomy, common dental diseases, and basic dental procedures. Topics will include proper charting, routine periodontal care, anesthesia, patient monitoring,
analgesia, post-op concerns, and home care for clients. Dental equipment and instruments will be reviewed in preparation for the concurrent lab (ANSC 261L).

**ANSC 261L- Anesthesiology & Dentistry for Veterinary Technicians Lab (2 credits)**
This course will focus on the clinical skills necessary for safe and effective anesthesia and dental prophylaxis of companion animal patients (dogs and cats). Skills such as intravenous catheter placement, endotracheal intubation, patient preparation and monitoring, and dental prophylaxis under general anesthesia will be stressed. The use and side effects of commonly used sedatives, analgesics and anesthetics will be covered. Postoperative procedures include patient monitoring and charting as well as client education for postoperative care. (6 hours lab).

**ANSC 262- Clinical Procedures for Large Animals (4 credits)**
The student will learn techniques in large animal restraint, husbandry and clinical procedures and be provided some introduction to relevant large animal diseases. Biosecurity and public health will be discussed as they apply to large animal health care and husbandry. The course is appropriate for those entering animal husbandry, veterinary assisting, veterinary technology or animal science fields.

**ANSC 263- Lab Animal Nursing (4 credits)**
Introduction to the care and use of laboratory animals. Includes training in restraint, nursing, and husbandry of common laboratory animal species (rats, mice and rabbits). This course is intended for students entering lab animal medicine, veterinary technology, veterinary assisting or other animal-related fields.

**ANSC 266- Veterinary Clinical Practices & Internship II (3 credits)**
A continuation of ANSC 190, this course provides veterinary technology students with additional instruction and practical experience in a clinical setting. Topics covered include: advanced sample collection & handling techniques, dentistry, administration of medications, anesthesiology & surgical assisting, and advanced nursing techniques. Emphasis is placed on integrating classroom learning with practical work experience.

**ANSC 271- Anesthesiology & Surgical Nursing for Veterinary Technicians (3 credits)**
This course will focus on the clinical skills necessary for safe and effective anesthesia and surgery of companion animal patients (dogs and cats). Skills such as intravenous catheter placement, proper endotracheal intubation, patient and surgical site preparation, and patient monitoring under general anesthesia will be stressed. The use and side effects of commonly used sedatives, analgesics and anesthetics will be covered. Postoperative procedures include patient monitoring and charting as well as client education for postoperative care.

**ANSC 271L- Anesthesiology & Surgical Nursing for Veterinary Technicians Lab (2 credits)**
This course will focus on the clinical skills necessary for safe and effective anesthesia and surgery of companion animal patients (dogs and cats). Skills such as intravenous catheter placement, proper endotracheal intubation, patient and surgical site preparation, and patient monitoring under general anesthesia will be stressed. The use and side effects of commonly used sedatives, analgesics and anesthetics will be covered. Postoperative procedures include patient monitoring and charting as well as client education for postoperative care.
ANSC 290- Veterinary Technician Exam Review (1 credit)
This course prepares students for the Veterinary Technician National Exam (VTNE). Topics include test-taking strategies, formation of a study plan, and a review of topics from previous veterinary technology courses. Students enrolled in this course will develop essential test-taking skills by completing practice exams covering all major topics of the WCC veterinary technology curriculum.

BUSN 191- Veterinary Office & Computer Skills (3 credits)
Veterinary Office and Computer Skills covers the support skills needed in a veterinary office. Because veterinary office skills are critical in the success or failure of a practice, this course will emphasize the following: client communication, public relations, ethical and legal procedures, bookkeeping functions, scheduling, records management, and telephone skills. Students will be introduced to one or more industry-standard veterinary software programs as well as word processing and spreadsheet software.

HLTH 125- Survey of Medical Terminology (1 credit)
HLTH 125 familiarizes the student with medical terminology used in both human and animal medicine through analysis of prefixes, suffixes, and word roots. This course covers the pronunciation, spelling, and definitions of selected medical words dealing with mammalian body systems. Commonly used medical abbreviations and pharmacological terms are also discussed.

MATH 101- Mathematics for Veterinary Assistants & Technicians (3 credits)
An introduction to clinical calculations used in veterinary medicine. Topics include the application of mathematical skills to solve applied problems in veterinary nursing and pharmaceutical dispensing with emphasis on dosage, concentration, dilution and drip rates. Also included is mathematical and laboratory terminology. This course is intended for students entering veterinary technology, veterinary assisting or other animal-related fields.
Appendix K. Graduate Employment Survey

Windward Community College Veterinary Technology Program

Graduate Employment Survey

Windward Community College constantly seeks to improve programs that are offered. As a graduate of the veterinary assisting and/or veterinary technology program, you have a unique opportunity to shape the curriculum for future students with your feedback. Please take a moment to answer the questions below and provide comments to clarify your responses.

Name: ____________________________________ Grad year: _________ Degree received: _________

Employment status:
___ Unemployed   ___ Employed in a veterinary or animal related field   ___ Employed another field

Employer Information:

Name: _______________________________________________________
Address: ____________________________________________________ Phone: _______________

Questions
Upon graduation did you feel ready to join the workforce?

Comments:

Did the program provide you with the skills needed to fulfill your duties?

Comments:

Were you properly prepared with the knowledge needed to succeed in your job?

Comments:

Is the veterinary field everything you hoped it would be?

Comments:

Were all facets of veterinary care covered adequately in the curriculum at Windward Community College?

Comments:

Were the faculty and staff helpful in your job placement?

Comments:

Did you acquire your job while attending classes at Windward Community College?

Comments:

Would you recommend Windward Community College to a family member or friend?

Comments:

<table>
<thead>
<tr>
<th>Questions</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upon graduation did you feel ready to join the workforce?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comments</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Did the program provide you with the skills needed to fulfill your duties?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comments</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Were you properly prepared with the knowledge needed to succeed in your job?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comments</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Is the veterinary field everything you hoped it would be?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comments</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Were all facets of veterinary care covered adequately in the curriculum at Windward Community College?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comments</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Were the faculty and staff helpful in your job placement?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comments</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Did you acquire your job while attending classes at Windward Community College?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comments</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Would you recommend Windward Community College to a family member or friend?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comments</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Appendix L. Employer Survey

Windward Community College Veterinary Technology Program

Employer Survey

Our records indicate that you recently hired one of our graduates. Please take a moment to fill out the survey below. Your response will help us evaluate our program and its graduates. This will help to ensure a curriculum that meets the needs of employers. Thank you for your cooperation.

Employer: ___________________________________________________________________________
Address: _____________________________________________________________________________
City: __________________________ State: ______________ Zip code: __________________
Name of Graduate: _____________________________ Position: _______________________________
Date of hire: __________________________

Rate the following performance standards using a scale of 1 to 5 
1= poor  2= below average  3= average  4= good  5= outstanding

<table>
<thead>
<tr>
<th>Performance standard</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professional attire</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>Comments:</td>
<td></td>
</tr>
<tr>
<td>Fundamental knowledge of veterinary science</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>Comments:</td>
<td></td>
</tr>
<tr>
<td>Technical skills (i.e. blood draws, IV catheter placement, etc.)</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>Comments:</td>
<td></td>
</tr>
<tr>
<td>Communication and writing skills</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>Comments:</td>
<td></td>
</tr>
</tbody>
</table>
Ability to solve problems encountered on the job

Comments:

Time management and ability to work unsupervised

Comments:

Intangibles: enthusiasm, sincerity, compassion, honesty

Comments:

Overall preparedness for career

Comments:

Additional Comments:

Would you hire another veterinary technology graduate from Windward Community College?

List any areas of weakness noted in our graduates.

List any areas that our graduates exceed expectations.

Name: __________________________________________________ Title: ____________________

Signature: _______________________________________________ Date: _____________________
Appendix M. Graduate Facilities/Resources Survey

Windward Community College
Veterinary Assisting/Veterinary Technician Graduate Questionnaire

Name: ________________________________ Grad year: ________ Degree received: _______

Rate WCC and the program in the following areas. Circle one: 1-excellent…5-poor

<table>
<thead>
<tr>
<th>Windward Community College Campus</th>
<th>Animal Science Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Admissions Process</td>
<td>Faculty</td>
</tr>
<tr>
<td>Student counseling</td>
<td>Curriculum</td>
</tr>
<tr>
<td>Financial aid office</td>
<td>Facility</td>
</tr>
<tr>
<td>Student services</td>
<td>Externships</td>
</tr>
<tr>
<td>Library resources</td>
<td>Overall experience</td>
</tr>
<tr>
<td>Computer availability</td>
<td></td>
</tr>
<tr>
<td>Faculty</td>
<td></td>
</tr>
<tr>
<td>Cleanliness/Safety</td>
<td></td>
</tr>
</tbody>
</table>

Are you satisfied with your education at WCC?

Would you recommend WCC’s veterinary technology program to a friend?

Why did you choose WCC for veterinary technology training?

Please describe a positive experience on campus:

Additional comments: