

UNIVERSITY OF HAWAII
CODE REQUEST FORM FOR ACADEMIC PROGRAM CODES

REQUESTOR CONTACT INFORMATION	
Date: 5/23/12	Effective term of request (Semester-Year): Fall 2012
Name: Richard Fulton / Erin Mattos Harrell	Title: Vice Chancellor for Academic Affairs / Secretary
Campus: Windward Community College	Office/Department: Office of Academic Affairs
Phone: (808) 235-7445 (Secretary, Erin Mattos Harrell)	Email: mattose@hawaii.edu

1. PROGRAM CODE, MAJOR CODE, CONCENTRATION CODE		Banner forms: SMAPRLE, SOACURR, STVMAJR	
Institution: Windward CC (WIN) <input type="checkbox"/>	College: IN	Department: NATS	
<input checked="" type="checkbox"/> New program code <input type="checkbox"/> Change/replace existing program code:			
Level: <input checked="" type="checkbox"/> Undergraduate <input type="checkbox"/> Graduate <input type="checkbox"/> First-Professional <input type="checkbox"/> Post-Baccalaureate <input type="checkbox"/> Other:			
Degree: Associate in Science Veterinary Technology		Certificate:	
If requesting an existing Major code and/or Concentration code in Banner:			
Existing Major:		Existing Concentration:	
Code	Description	Code	Description
If requesting a new <input checked="" type="checkbox"/> Major code or <input type="checkbox"/> Concentration code that does not exist in Banner:			
New Code [4 char/space limit]: VETT		Description [30 char/space limit]: AS Science Vet. Technology	
If a similar major/concentration code exists in Banner, please list the code:			
Is this major/concentration code being used the same way at other UH campuses?			
Is 50% or greater of the classes in this program offered at a location other than the Home Campus? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (Please consult your Financial Aid Officer on Program Participation Agreement impact)			
Is this program/major/certificate financial aid eligible? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (Financial Aid Officer consultation required for all new program codes)			
Should this program be available for applicants to select as their planned course of study on the online application? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (If yes, students may select the code as their <u>only</u> program of study.)			

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Replacing or eliminating an existing program code:

If replacing an existing program code, are current students "grandfathered" under the old code? Yes No

Should the old program code be available for use in Banner? Yes No

Will the old program code be available for:	Banner Module	Yes	No	Ending Term (Semester-Year)
	Online Application	<input type="checkbox"/>	<input type="checkbox"/>	_____
	Recruitment	<input type="checkbox"/>	<input type="checkbox"/>	_____
	Admissions	<input type="checkbox"/>	<input type="checkbox"/>	_____
	General Student	<input type="checkbox"/>	<input type="checkbox"/>	_____
	Academic History	<input type="checkbox"/>	<input type="checkbox"/>	_____

2. CERTIFICATES ONLY:

Does this certificate qualify as a Gainful Employment Program (Title IV-eligible certificate program)? Yes No
(Please consult your Financial Aid Officer or see: <http://www.ifap.ed.gov/GainfulEmploymentInfo/index.html>)

For new certificates approved by the Chancellor, the related BOR authorized academic program is:

3. NEW CAMPUS, COLLEGE, DIVISION, OR DEPARTMENT CODE

Banner forms: STVCAMP, STV_COLL, STVDIVS, STVDEPT

Campus code [3 char]:	Campus description [30 char/space limit]:
College code [2 char]:	College description [30 char/space limit]:
Division code [4 char/space limit]:	Division description [30 char/space limit]:
Department code [4 char/space limit]:	Department description [30 char/space limit]:

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4. NEW COURSE SUBJECT CODE (Subject Alpha)		Banner form: STVSUBJ
College:	Department:	
Subject code [4 char/space limit]:	Subject description [30 char/space limit]:	

5. NEW MINOR (Minor codes are listed on the Major code table)		Banner form: STVMAJR
Minor Code [4 char/space limit]:	Minor Description [30 char/space limit]:	

Please briefly describe your request and explain why you are requesting the code(s):

SUPPORTING DOCUMENTATION
<p>Please see the Code Request Guide for the required supporting documents to be submitted. Documents submitted with this form:</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Board of Regents meeting minutes and supporting documents provided to the BOR <input type="checkbox"/> Memo from UH President <input checked="" type="checkbox"/> Memo from Chancellor <input checked="" type="checkbox"/> Curriculum (required for requests for new programs/majors/minors/certificates) <input type="checkbox"/> Gainful Employment Program notification to the US Department of Education <input type="checkbox"/> Other: _____

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CAMPUS VERIFICATION		
Requestor Signature <u><i>Richard T. Imaizumi</i></u>	Date <u>5/24/2012</u>	
Registrar (If different from Requestor)		
Geri Imai	<u><i>Geri Imai</i></u>	<u>5/24/12</u>
Print name	Signature	Date
Email/memo in lieu of Registrar's signature may be attached		
Financial Aid Officer (Financial Aid Officer consultation required for all new program codes)		
Steven Chigawa	<u><i>Steven Chigawa</i></u>	<u>5/24/12</u>
Print name	Signature	Date
Email/memo in lieu of Financial Aid Officer's signature may be attached		
For Community Colleges, verification of consultation with OVPCC Academic Affairs:		
Cheryl Chappell-Long	_____	_____
Print name	Signature	Date
Email/memo in lieu of signature may be attached		

Send completed form and supporting documentation to:

Institutional Research and Analysis Office (IRAO)	
1633 Bachman Place	Email: iro-mail@lists.hawaii.edu
Sinclair Annex 2, Room 4	Fax: 808-956-9870
Honolulu, HI 96822	Phone: 808-956-7532

After all required forms and supporting documents have been submitted, please allow at least two weeks for processing by IRAO and Banner Central.

FOR INTERNAL USE ONLY	Date form/docs received:
Program code [12]:	Program Description [30]:
CIP code [6]:	CIP description [30]:

Regent Holzman asked what the tuition rates are, and if they are the same for the first and second years. Dr. Zulich said that tuition is graduate rate tuition (\$366/hour), and they would be charged for one course in the second year.

Regent Baxa asked about the expected minimum number of students to start the program. Dr. Zulich said that UH Hilo is aiming for 45, but if there were 20 students, they would still make it. Regent Baxa asked if UH Hilo had enough interest, and Dr. Zulich said that they have no doubt that they have enough interest.

Regent Gee asked about the 3% increase for the Collective Bargaining Agreement, and 4% inflation factor reflected in the expected budget. Dr. Zulich said that it is a system template.

Regent Gee asked if UH Hilo could still financially support the program if it doesn't have a full cohort. Dr. Zulich said that they could.

Upon inquiry from Regent Baxa, Dr. Zulich said that none of the students entering the program would have their licenses; they are aiming to become licensed as teachers.

Regent Holzman asked about the difference between a synchronous format and an asynchronous format. Dr. Zulich said that the asynchronous program is a purely online program where a student can do the work on their own time. A synchronous program has one component where a student has to sign up to be a part of an online class at a specific time. It is necessitated by the specialization of the study.

Regent Gee asked if there is enough faculty and resources for students who are in an area of specialized research. Dr. Zulich said that the research in MAT is more structured and prescribed, in that it is a model aimed at classroom teaching and student outcomes.

Regent Gee moved and Regent Baxa seconded the motion to Authorization the Establishment as a Provisional Program a Master of Arts in Teaching, Effective July 1, 2012, which was unanimously approved.

Community Colleges

Windward Community College

Approval of Program Proposal, Provisional Associate of Science in Veterinary Technology

WCC Chancellor Dykstra introduced Vice Chancellor of Academic Affairs, Dr. Richard Fulton, and Ross Langston, the Program Coordinator. Vice Chancellor Fuller said that seeds for the program were planted in 2006 when several Windward area veterinarians approached WCC to see if there was interest in initiating a program that trained people to help them in their practices. No such program existed in Hawai'i at that time. The Board of Regents approved a veterinary assisting program three years ago

(began Fall 2009), and the vet assist program was given established status in Spring 2011.

The difference between the vet assist program and veterinary technology includes as follows: Vet assistants take a year of classes and learn how to do some of the skilled work in veterinary offices and clinics, such as animal handling and X-Rays, office operations, medical terminology, and some lab techniques. Vet technologists go through a two-year program and take a national licensing examination. WCC's Veterinary Advisory Board, composed of practicing veterinarians and veterinary technologists, has urged WCC to take this step in upgrading its program to an accredited veterinary technology degree. Members of that board have offered resources such as training, facilities, and student internship opportunities. WCC plans on taking the program across the state, and are planning to have all or most of the classes online.

The two faculty positions will be transferred from the former Employment Training Center (ETC) program, which was discontinued in December 2010.

Upon inquiry from Regent Baxa, Langston clarified that there is no other existing Vet Technology program within the UH System; Hawai'i is one of three states in the nation that lacks an accredited program.

Regent Baxa asked why WCC is the best campus to establish the program. Langston said that WCC is planning a state-of-the-art USDA-approved facility where surgery and anesthesia can be performed.

Regent Hirota moved to approve the item, and Regent de la Peña seconded the motion.

Regent Rasmussen asked how students will get their practical experience if they participate in the program via distance learning. Langston said that WCC is considering doing most of the classes online, and then visiting WCC for a weekend or Spring Break for intensive, hand-on experience. WCC would also rely on local veterinary clinics on other islands to provide the facilities.

Upon inquiry from Regent Rasmussen, Langston confirmed that the program does not practice on animals from the Humane Society.

Regent Matayoshi asked if the jobs require state licensure. Langston said that they do not in Hawai'i, however, in other states there is a practice act that governs what a non-credentialed technician or a vet assistant can do versus a credentialed technician.

Regent Gee asked if the vet assisting program was layered with the vet technology program. Langston said that the vet assisting program essentially becomes the first year of the two-year vet technology program.

Upon inquiry by Regent Gee, President Greenwood said that the program is provisional.

Regent Holzman asked about the job market for vet technology positions. Langston said that there is a 70-75% employment success rate for the vet assist certificate graduates. It is a high-demand field. It is an area with a lot of turnover, because a lot of students are military dependants who stay for a couple of years and leave.

With a motion on the floor the Regents approved WCC's Program Proposal of a Provisional Associate of Science in Veterinary Technology.

IX. PERSONNEL ACTIONS

Regent de la Peña moved and Regent Hirota seconded the approval of Attachment B-1, which was unanimously approved. Note: Regent Dahilig was absent for the vote.

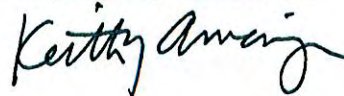
X. ANNOUNCEMENTS

Chair Martinson announced that the next Board of Regents Meeting would be on March 15, 2012, at the University of Hawai'i at Mānoa.

XI. ADJOURNMENT

There being no further business, on the motion of Regent de la Peña and second by Vice Chair Lee, and with unanimous approval, the meeting was adjourned at 3:54 p.m.

Respectfully Submitted,



Keith Y. Amemiya, Esq.
Executive Administrator and
Secretary of the Board of Regents

BOR APPROVED 2/23/12

c: J.Itano
P.Imada Iboshi
D.Mongold



UNIVERSITY of HAWAII
WINDWARD
COMMUNITY COLLEGE

January 31, 2012

MEMORANDUM

To: Eric Martinson, Chairperson, Board of Regents

Via: M.R.C. Greenwood, President

Via: John Morton, Vice President for Community Colleges

From: Douglas Dykstra, Chancellor, Windward Community College

Subject: WCC Program Proposal, Associate of Science in Veterinary Technology

UNIVERSITY OF HAWAII
BOARD OF REGENTS

12

UNIVERSITY OF HAWAII
PRESIDENT'S OFFICE

12 FEB 13 P1:10

RECEIVED

ACTION REQUESTED:

Windward Community College requests Board of Regents approval to establish the Associate of Science degree program in Veterinary Technology.

ADDITIONAL COST:

Annual costs to implement the program are estimated at \$165,429, including salary for two faculty members (one FTE veterinarian at \$70,000, and 1 FTE veterinary technician at \$55,000), two lecturers each year (\$12,800), and supplies, equipment, service contracts, liability insurance, accreditation fees etc. (\$21,827). First year revenues from student tuition (\$101/SSH) and professional fees (\$100/semester for first-year students and \$300/yr. for second-year students) is estimated at \$84,770. In subsequent years, and assuming a persistence rate of 70%, revenue from tuition and professional fees should be about \$203,830/yr.

It should be noted that the two faculty positions identified for this programs are existing, funded positions that are being transferred from a canceled program.

RECOMMENDED EFFECTIVE DATE:

Fall 2012

PURPOSE:

The AS in Veterinary Technology will prepare veterinary paraprofessionals to perform essential tasks in the veterinary hospital and lab animal facilities (e.g., administer anesthesia, take and develop radiographs, assist with surgical procedures, dispense medications, perform vital lab tests, and provide client education). Further, the program will allow students to obtain industry-recognized credentials that will enable them to obtain employment at veterinary hospitals, lab animal facilities, and research laboratories throughout the United States. Finally, it will meet the current and anticipated workforce

needs in the veterinary field in Hawai'i; the state does not offer training opportunities for veterinary technicians.

BACKGROUND

In accordance with Board of Regents policy governing Academic Affairs, Section 5-1a, and Executive Policy E5.201, Approval of New Academic Programs and Review of Provisional Academic Programs, as well as Board of Regents Policy Section 6-1, Authority to Set Tuition and Fees, Windward Community College requests the Board's approval to establish the Associate of Science degree program in Veterinary Technology, along with the proposed student fees explained hereafter.

Windward Community College has been offering a Certificate of Achievement in Veterinary Assisting since 2009; that program was moved from provisional to established status by the Board of Regents in Spring 2011, and currently enrolls 37 students. The proposed program builds on the one year CA to provide more technical training for students whose goal is to move beyond assisting in veterinary facilities to performing essential tasks in labs and operating theaters.

The CA in Veterinary Assisting continues to serve a purpose in preparing students for the animal help workforce, but the College's Veterinary Assistant Advisory Board and several leading industry practitioners have urged the College to move to the next step in paraprofessional training, the AS in Veterinary Technology. Over 20 O'ahu veterinary clinics, shelters, and lab animal facilities have signed up to serve as preceptor locations for student interns. A recent survey of O'ahu veterinary clinics (n=21 respondents) indicates that on average, each clinic plans to hire 3.4 assistants or technicians a year. Given that there are almost 100 clinics in the state of Hawai'i (62 on O'ahu alone) the veterinary community would be expected to hire several hundred assistants and technicians each year; the clinics should be easily able to place the 16-25 estimated annual AS graduates. In addition to work in veterinary hospitals, technicians can find employment in agriculture, animal quarantine facilities, lab animal facilities, veterinary pharmaceutical sales, military service, and teaching. Demand for the program is further supported by the Bureau of Labor Statistics report that nationally, "excellent job opportunities will stem from the need to replace veterinary technologists and technicians who leave the occupation and from the limited output of qualified veterinary technicians from 2-year programs, which are not expected to meet the demand over the 2008-18 period. Employment is expected to grow much faster than average" (<http://www.bls.gov/oco/ocos183.htm>). Veterinary technology is among the top five fastest-growing occupations nationwide, with employment in the field expected to grow 36% in the next nine years.

Most states require Veterinary Technicians to pass a credentialing exam in order to gain licensure or certification; this program will prepare graduates to pass such an exam. In addition, many states require that certain tasks (e.g. the administration of anesthesia) be performed only by credentialed technicians or veterinarians.

There are currently 191 American Veterinary Medicine Association accredited Veterinary Technology Programs in the United States. Hawai'i is one of only four states that lack an AVMA accredited Vet Tech program. As a result, students wishing to obtain an AVMA accredited degree are forced to attend out-

of-state schools, and veterinary professionals in Hawai'i wishing to hire an accredited technician must recruit on the mainland.

WCC plans to offer the AS program statewide through online classes and flexible clinic and lab experiences made available as appropriate either on neighbor islands or on weekends in Kane'ohe.

Rationale for Institution of Professional Fees:

The AS in Veterinary Technology is a technology-intensive STEM Program. In order to become accredited by the AVMA, the program must train students in several areas including radiology, nursing, lab techniques, surgical assisting, lab animal nursing, and livestock animal nursing. Many of these classes have large supplies- and equipment maintenance costs. In addition, the program will incur several unique program costs including accreditation and facilities inspection fees. (Appendix 12). As these costs cannot be sustained on the "normal" supplies funds typically allotted to natural science disciplines, (typically \$3,000/yr), we propose to recover the majority of these costs by instituting professional fees for students in the program (\$100/semester for vet assisting students & \$300/semester for veterinary technology students). These fees are comparable to other health sciences programs in the UH system including Radiologic Technology (\$300/semester) and Nursing (\$500) semester. The remainder of program costs will be covered internally or by grant funding.

WCC, its industry partners, and a variety of granting agencies have shown support for the program by allocating resources for curriculum development, including online development; new faculty positions; equipment, including x-ray and other clinical equipment; supplies; and facilities, including \$1.4 million for the renovation of Hale Imiloa (WCC's science building) to include a veterinary clinic, office space, and animal boarding. Support has come from a Rural Development Grant, Perkins funding, the Department of Labor, a number of veterinarians and veterinary facilities, and the State of Hawai'i.

ACTION RECOMMENDED:

It is recommended that the Board of Regents approve the establishment of a New Associate of Science degree in Veterinary Technology at Windward Community College, as well as the proposed student fees for the degree program to be effective Fall 2012.

Attachment
New Program Proposal dated February 2012

C: Executive Administrator and Secretary of the Board



New Program Proposal

Associate in Science
Veterinary Technology

Date of Proposal: February 2012

Proposed Date of Program Implementation: August 2012

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1. Program Objectives

Windward Community College proposes to develop an Associate in Science degree in Veterinary Technology. This program builds on the success of WCC's Certificate of Achievement in Veterinary Assisting (CAVETA) by providing additional coursework and clinical experience necessary for students to take the Veterinary Technician National Exam (VTNE) and obtain an American Veterinary Medical Association (AVMA) accredited degree. This nationally recognized credential will enable graduates to obtain employment in veterinary clinics, animal shelters, animal quarantine facilities, and lab animal facilities throughout the US and Canada. It will also allow them to obtain significantly higher wages (>35%) than vet assistants or workers who receive only on-the-job training. This is the first program of its kind in the state of Hawaii.

The A.S. in Veterinary Technology combines traditional classroom instruction with intensive hands-on laboratory and practical experience utilizing live animals in a clinical setting. Students enrolled in the program will receive didactic and practical training in pharmacology, radiology, anesthesiology, surgical assisting, dentistry, nutrition, and veterinary office procedures and will learn how to perform over 130 skill sets deemed essential by the AVMA. During the final year of the program, students will intern at three of WCC's 20 + preceptor clinics and shelters where their skills will be evaluated and critiqued by industry professionals. Not only does this experience allow students to hone and apply their skills in a real world setting, it will also serve as a bridge to future employment.

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 enable them to obtain rewarding, living-wage jobs in the animal care field.

The major objectives for this program are to:

- 1) Train Hawaii's veterinary paraprofessionals to perform essential tasks in the veterinary hospital and lab animal facilities (e.g., administer anesthesia, take and develop radiographs, assist with surgical procedures, dispense medications, perform vital lab tests, and provide client education).
- 2) Allow students to obtain industry-recognized credentials that will enable them to obtain employment at veterinary hospitals, lab animal facilities, and research laboratories throughout the United States and Canada.
- 3) Meet the current and anticipated workforce needs in Hawaii. There are currently no training opportunities available in Hawaii for students wishing to become veterinarian technicians.

2. Relationship of Objectives to WCC Mission and Strategic Plan

Windward Community College Mission

Windward Community College offers innovative programs in the arts and sciences and opportunities to gain knowledge and understanding of Hawai'i and its unique heritage. With a special commitment to support the access and educational needs of Native Hawaiians, we provide O'ahu's Ko'olau region and beyond with liberal arts, career and lifelong learning in a supportive and challenging environment — inspiring students to excellence.

The proposed Associate of Science in Veterinary Technology will fulfill the following goals outlined in the WCC mission statement and Strategic Plan (Action Outcomes listed in parentheses):

- Contribute to the development of a high-skilled workforce through the establishment of at least one new specific, career-focused degree, certificate or career pathway per year that leads to employment in emerging fields (4.1).
- Establish partnerships with employers to create internships and job placements (4.2).
- Expand the curriculum that prepares students for critical workforce shortage areas (4.3).
- Create internships and service learning opportunities in the community (4.4).
- Promote the knowledge, skills, and opportunities that support current and emerging STEM fields and careers (4.5).
- Increase the number of degrees and certificates awarded in STEM fields (4.6).

3. Need for Program

National and Local Need

Veterinary technology is among the top five fastest-growing occupations nationwide, with employment in the field expected to grow 41% in the next nine years¹ (Appendix 1). The nationwide shortage of skilled veterinary technicians has been widely discussed in academic and trade journals and has received attention in the media (Appendix 2). CBS News has also featured veterinary technology as one of its fastest-growing “recession-proof” jobs².

¹ “Occupational employment projections to 2016,” published in the 2010 BLS Monthly Labor Review.

² <http://www.cbsnews.com/stories/2009/02/20/eveningnews/main4816818.shtml>

This workforce need is also evident on a local level. There are currently around 90 veterinary clinics and shelters in the state (50+ on the island of Oahu alone). In a 2007 poll of Hawaii Veterinarians³, 80% of respondents recognized the need for additional training for technicians and assistants. The majority of respondents also stated that they would be willing to pay higher salaries for trained personnel. Furthermore, a 2009 survey of Oahu's veterinary clinics (n = 22 respondents) indicates that credentialed technicians account for less than 10% of new hires. This low number reflects a shortage of credentialed technicians rather than a lack of need. In contrast, the surveyed clinics hired an average of 4.7 veterinary assistants or "non-credentialed technicians" during 2008. Assuming these numbers are representative of the remaining clinics, industry demand for trained veterinary assistants and technicians may exceed 100 individuals per year for Oahu alone.

Currently, there are 191 AVMA accredited Veterinary Technician programs in the United States, with an additional 20 expected to be rolled-out in the next five years⁴. Despite intense national and local demand, Hawaii is one of only four states that lack any sort of formal training for veterinary technicians. As a result, local veterinary clinics must expend valuable time and resources training their staff "from the ground up."

To help meet the need for additional training for Hawaii's veterinary paraprofessionals, WCC created the **Certificate of Achievement in Veterinary Assisting (CAVETA)**. This two-semester certificate trains students to perform many essential tasks in the veterinary clinic, including providing animal restraint, assisting with physical exams, conducting clinical laboratory tests, and helping with front-office tasks. Student demand for the certificate program remains high; since its first offering (Fall, 2009) over 100 students have enrolled in the core ANSC classes, with introductory classes typically filling to capacity within a few weeks of open registration. As of December, 2012, 18 students have earned the certificate, and an additional 12 students are expected to complete the certificate requirements by May, 2012. The CAVETA program has received considerable support from the local veterinary industry. As a result, over 70% of its graduates have obtained gainful employment in veterinary practice, and many others have been offered employment while they are still enrolled in the program.

Despite the success of the CAVETA program, graduates do not receive an AVMA accredited degree, nor are they trained in all necessary aspects of veterinary medicine. For example, CAVETA students do not receive training in anesthesiology, pharmacology, surgical assisting, livestock medicine, lab animal medicine, or radiography. This lack of industry-recognized credentials and comprehensive training means that our students will remain ineligible to apply for many federal jobs (at the USDA & FDA, for instance) and may face limited job prospects when moving out-of-state (approximately 20% of our students are military dependents who will eventually move to the mainland). Those who do remain in Hawaii can expect to make wages 35% lower than that of credentialed technicians (Appendix 3), and are unlikely to rise to management or supervisory positions because of their lack of credentials. In addition, recent surveys of veterinary clinic preceptors indicate that our graduates could use additional training and experience in the areas of animal restraint, venipuncture, and technical lab skills before they intern or pursue employment in a veterinary clinic.

³ Hawaii Veterinary Medical Association 2007 Survey

⁴ Association of Veterinary Technician Educators 2011 Conference

The next logical step is to develop the remaining curricula and resources needed to offer an AVMA accredited **Associate of Science in Veterinary Technology**. Not only will this program increase the skill-base, earning potential and employability of our graduates, but it will also vastly improve the standard of care in Hawaii's veterinary clinics and animal shelters.

4. Proposed Curriculum & Admissions Requirements

The Associate of Science in Veterinary Technology will consist of four semesters of coursework. Students will begin the degree track by enrolling in the Certificate of Achievement in Veterinary Assisting (CAVETA) during year 1. Enrollment to this part of the program will be open (i.e., no special admissions requirements) and sufficient sections of classes will be offered so as to allow for at least 35 students to enroll in the certificate classes during each fall semester. During the spring semester of year 1, students who have a GPA of 2.5 or higher in first-semester Core- and General Education classes will be eligible to apply for formal admission to the Veterinary Technology Program.

Students will be admitted to the second year of the program on a competitive basis (Appendix 4). Applications to the program (due March 1st) will be evaluated by an admissions committee which will include the veterinary faculty (2 members), a WCC counselor (1 member), and two other members of WCC's Veterinary Technology Advisory Committee. The committee will rank applications based on the following criteria: GPR, number of CAVETA and general education classes successfully completed, clinical aptitude (as determined by a clinical skills assessment administered in ANSC 151L & ANSC 152L), instructor evaluations, letters of recommendation, and strength of student interviews (to be conducted by the committee between the last week of March and first week of April). The committee will submit its recommendations to the program director by the second Friday in April. The director will inform applicants of the committee's decision in writing during the second week of April, allowing those admitted to the program to register for classes beginning May 1st. Due to the credit requirements for the program, students will be required to enroll in one of the core veterinary technology courses during the summer term following their admission. Students who fail to gain admission to the program will be permitted to complete the CAVETA and will be eligible to apply to the A.S. program the following spring. All students admitted to year two of the program will be expected to attend classes on a full-time basis.

Year 1: Certificate of Achievement in Veterinary Assisting

I. General Education and Preparatory Classes (9 Credits)

ENG 100- Expository Writing

PSY 100-Survey of Psychology

SP 151- Personal and Public Speech OR SP 181- Interpersonal Communication

II. Veterinary Assisting Core Classes (22 Credits)

ANSC 140- Introduction to Veterinary Technology & Assisting

ANSC 142- Anatomy & Physiology of Domestic Animals

ANSC 142L- Anatomy of Domestic Animals Laboratory

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
HLTH 125- Survey of Medical Terminology
MATH 101- Mathematics for Veterinary Assistants & Technicians

Year 2: Associate of Science in Veterinary Technology

- I. General Education Classes (3 credits)**
Humanities Elective (3 credits)
- II. Veterinary Technology Core Classes (33 Credits)**
ANSC 190- Clinical Practices & Internship I
ANSC 252- Diagnostic Imaging for Veterinary Technicians
ANSC 253- Pharmacology for Veterinary Technicians
ANSC 258- Clinical Lab Techniques II
ANSC 261- Anesthesiology & Surgical Nursing for Veterinary Technicians
ANSC 262- Clinical Procedures for Large Animals
ANSC 263- Lab Animal Nursing
ANSC 266- Clinical Practices & Internship II
ANSC 290- Veterinary Technician Exam Review

Total Credit Hours: 67

Total Contact Hours: 104

(See Appendix 5 for course descriptions. A suggested course sequence is included in Appendix 6.)

5. Enrollment Projections

As stated previously, the college will offer sufficient sections of CAVETA lecture and lab courses to allow a minimum of 35 students to enter year 1 of the program (open enrollment). The college proposes a maximum enrollment of 25 students (admitted on a competitive basis) for year 2 of the program. This number reflects the maximum capacity of WCC science laboratories, projected number of internship locations available, and maximum student-to-instructor ratio for skills-intensive veterinary technology classes. Thus, total enrollment for year 2 and subsequent years of the program would be 35 new + 25 continuing students (60 students total). The first cohort will enter in fall 2012 and complete all degree requirements by spring 2014.

6. Resources Required for Program Implementation

Development of the WCC Veterinary Technology Program is currently funded through grant funding (Perkins Funds & a Rural Development Grant). These funds (\$106,032 in total) are being used to purchase necessary equipment and supplies, design curriculum for core classes and develop online sections of select introductory courses. In addition, the program will receive C3T funding to cover additional personnel costs for the first three years of the program.

- a. **Equipment:** Windward Community College already owns the majority of equipment and supplies needed to offer an Associate of Science in Veterinary Technology (Appendix 8). In order to complete the inventory of required items, we will need to purchase two costly pieces of equipment: a digital tonometer (\$3,800) for determining intraocular pressures and a portable x-ray machine (approximately \$8,000) which will be used for taking radiographs of equine limbs. In addition, we will need to purchase duplicates of some clinical exam items (ophthalmoscopes, otoscopes, thermometers & stethoscopes) to accommodate a class size of 25 students (\$6,000 total). We intend to purchase these items with future Perkins Grants.
- b. **Faculty:** AVMA regulations require each program to be staffed with 1 FTE Veterinarian and 1 FTE veterinary technician. These individuals will be responsible for teaching classes, administering the program, and maintaining compliance with AVMA and local agencies. The WCC Chancellor has already allocated two full-time (11 month) positions for use by the program. These positions were reallocated from the now-defunct Employment Training Center. We expect these positions to be filled by March, 2012. In addition to the two full-time veterinary faculty, veterinarian or veterinary technician lecturers may be hired to teach two specialty courses (e.g., ANSC 262-Clinical Procedures for Large Animals & ANSC 263-Lab Animal Nursing). Lecturers will be paid on a per-credit-hour basis (8 credits total * \$1,600). Finally, existing business and math faculty will teach a total of 8 credits per year (approximately 0.22 FTE or \$18,469/year). Total FT and PT faculty costs are estimated at \$133,469 per year.
- c. **Facilities:** The AVMA requires that most live-animal classes are taught in a clinical setting that meets USDA requirements. The facility should include: a treatment area, working surgery, x-ray & developing, animal-holding facility, & surgical scrub room. WCC is currently designing a suitable facility to be constructed in the back of the current Natural Sciences building. Funds for design and construction of this facility (\$1.4M) have already been allocated. The facility is expected to be completed by fall, 2013. In the interim, animal nursing classes will be taught in existing science lab space.
- d. **Supplies Costs:** Although the majority of equipment and supplies have already been purchased using Perkins funding, the program will require approximately \$10,000/year to cover consumables including animal cadavers, lab & surgical supplies, purchase of lab animals (rabbits and mice), dosimetry badges, x-ray film, drugs and anesthetic agents. These

funds will also be used to purchase liability policies for students interning at off-campus clinics.

- e. **Equipment Maintenance & Replacement Costs:** The program will require funds to cover maintenance contracts for high-tech equipment (x-ray machine & developer, microscopes, anesthetic machines, hematology & blood-chemistry machines). In addition, we will periodically need to repair or replace small pieces of equipment (e.g., vital signs monitors, stethoscopes, anesthetic vaporizers and refractometers) which are not covered by such contracts. Total annual costs are estimated at \$5,000 per year.
- f. **Inspection Fees:** Quarterly IACUC (Institutional Animal Care and Use Committee) inspections are required for all University of Hawaii animal care facilities. Programs not offered at UH Manoa are assessed a fee for each inspection. Based on a September 11th memo from Dr. Sylvia Kondo (UH Lab Animal Services), the estimated cost for inspection of WCC's veterinary facilities is \$1,160 per year.
- g. **Accreditation Costs:** In order to become accredited by the AVMA, WCC will need to pay a one-time application fee (\$3,000) and host a site inspection visit (c.a. \$6,000) every five years. In addition, we will be expected to pay annual program certification costs (\$500 per year).

On average, the program will incur \$21,827 in unique program costs per academic year. The A.S. in Veterinary Technology is a technology-intensive STEM Program. In order to become accredited by the AVMA, the program must train students in several areas including radiology, nursing, lab techniques, surgical assisting, lab animal nursing, and livestock animal nursing. Many of these classes have large supplies and equipment maintenance costs. In addition, the program will incur several unique program costs including accreditation and facilities inspection fees (Appendix 12). As these costs cannot be sustained on the "normal" supplies funds typically allotted to natural science disciplines, (typically \$3,000/yr), we propose to recover the majority of these costs by instituting professional fees for students in the program (\$100/semester for vet assisting students & \$300/semester for veterinary technology students). These fees are comparable to other health sciences programs in the UH system including Radiologic Technology (\$300/semester) and Nursing (\$500/semester). The remainder of program costs will be covered internally or by grant funding.

7. Existing Infrastructure and Support

WCC already has much of the infrastructure and support necessary to offer a Veterinary Technology degree. These include:

- An advisory committee consisting of local veterinarians, veterinary practice managers, veterinary technicians, WCC faculty and HVMA representatives;
- A substantial inventory of veterinary equipment and supplies (\$170,000 +), acquired through Perkins grants and private donations. The current inventory (Appendix 8) meets 95% of that required for AVMA accreditation;
- IACUC approval for current program activities: The Veterinary Assistant Program has already obtained approval for all current animal-use activities (radiography, animal nursing, and clinical lab exercises) from the UH IACUC committee. If the A.S. in Veterinary Technology is approved, we will also need to seek approval for surgical components of the curriculum;
- Industry buy-in: over 20 Oahu veterinary clinics, shelters, and lab animal facilities have signed up to serve as preceptor locations for student interns;
- Sources of Animals: Two local shelters (OSPCA and Hawaii Cat Foundation) have expressed interest in providing animals for hands-on portions of the curriculum. MOUs with these organizations will be obtained once the program is approved;
- Current class offerings: The current Veterinary Assisting classes were designed using AVMA guidelines for veterinary technology programs. As such, these classes will require little to no modification in order to be incorporated into a veterinary technology program. Essentially, a whole year of the program is already being offered at WCC; and
- Student interest: The existing veterinary science classes continue to fill quickly. First-semester classes (e.g., ANSC 141, 142 & 142L) typically fill to capacity within a few weeks of open-registration. In addition, most veterinary assisting students say they would enroll in a veterinary technology program if one were offered. Finally, the CAVETA program already has a modest pool of certificate graduates (approximately 30 as of May, 2012) who will be ready to begin the second year of classes once the program begins.

8. Measures of Program Efficiency

Program efficiency will be measured using the following indicators. Goals for each indicator are listed in parentheses:

- 1) Number of students applying for admission to program (>25 students/year)
- 2) Course fill rate (>75% for core courses)
- 3) Number of core courses taught per year (Year 1: 10 courses; Year 2: 19 core courses)
- 4) Percent of students placed in internships (100%)
- 5) Number of students meeting degree requirements within 30 months (>15 students)

9. Measures of Program Effectiveness

Program effectiveness will be measured by the following indicators. Goals for each indicator are listed in parenthesis:

- 1) Pass rate on Veterinary Technician National Exam (80% or greater).
- 2) Placement of degree-holders into industry related positions (80% within 12 months of degree completion).

- 3) Increase in mean wage for those already working in the field (mean wage >20% within 12 months of program completion).
- 4) Performance and retention of degree-holders in industry related fields (mean performance of “satisfactory” or better; retention of one year or greater; both measurements will be evaluated by employer surveys).
- 5) Satisfaction rating of graduates, veterinary preceptors, and employers with the quality of the program (> 80% satisfied with training).

Program outcomes will be measured by:

- 1) Veterinary Technician National Exam (VTNE) Scores
- 2) Student evaluations
- 3) Course completion rates
- 4) Follow-up surveys of student, preceptors, and employers

10. Proposed Timeline for Program Offering

Performance Measure	Proposed Completion Date
Program Proposal Submitted to WCC Curriculum Committee	October-11
Program Proposal Submitted to WCC Faculty Senate	October-11
Program Proposal Submitted to UH CCAO for Comments	November-11
Program Proposal Presented to UH BOR for Approval	February-12
Submit Initial Accreditation Application to AVMA	February-12
Hire 1FTE Veterinarian & 1 FTE Technician	March-12
Formal Roll-out of Vet Tech Program	March-12
Obtain IACUC approval for year 2 classes	April-12
Complete Purchase of Required Equipment and Supplies	May-12
Submit AVMA Self Study Documents	July-12
Complete Design of Program Classes	July-12
Begin year 1 of A.S. Degree	August-12
Begin year 2 of A.S. Degree	August-13
Construction of Veterinary Facility Completed	September-13
AVMA Site Visit	October-13
AVMA Accreditation Decision	February-14
First Cohort of Students Graduates Program	May-14
Graduates Sit for Veterinary Technician National Exam	June-14
Complete Student/Employer Satisfaction Surveys	August-14

Appendix 1. Job Outlook for Veterinary Technicians

(From 2010 Bureau of Labor Statistics Survey)

Job Opportunities: Excellent job opportunities will stem from the need to replace veterinary technologists and technicians who leave the occupation and from the limited output of qualified veterinary technicians from 2-year programs, which are not expected to meet the demand over the 2008-18 period. Employment is expected to grow much faster than average.

Employment change. Employment of veterinary technologists and technicians is expected to grow 36 percent over the 2008-18 projection period, which is much faster than the average for all occupations. Pet owners are becoming more affluent and more willing to pay for advanced veterinary care because many of them consider their pet to be part of the family. This growing affluence and view of pets will continue to increase the demand for veterinary care. The vast majority of veterinary technicians work at private clinical practices under veterinarians. As the number of veterinarians grows to meet the demand for veterinary care, so will the number of veterinary technicians needed to assist them.

The number of pet owners who take advantage of veterinary services for their pets is expected to grow over the projection period, increasing employment opportunities. The availability of advanced veterinary services, such as preventive dental care and surgical procedures, also will provide opportunities for workers specializing in those areas as they will be needed to assist licensed veterinarians. The growing number of cats kept as companion pets is expected to boost the demand for feline medicine and services. Further demand for these workers will stem from the desire to replace veterinary assistants with more highly skilled technicians in animal clinics and hospitals, shelters, boarding kennels, animal control facilities, and humane societies.

Continued support for public health, food and animal safety, and national disease control programs, as well as biomedical research on human health problems, also will contribute to the demand for veterinary technologists, although the number of positions in these areas is fewer than in private practice

Job prospects. Excellent job opportunities are expected because of the relatively few veterinary technology graduates each year. The number of 2-year programs has recently grown to about 160, but due to small class sizes, fewer than 3,800 graduates are anticipated each year, a number that is not expected to meet demand. Additionally, many veterinary technicians remain in the field less than 10 years, so the need to replace workers who leave the occupation each year also will produce many job opportunities.

Veterinary technologists also will enjoy excellent job opportunities due to the relatively few graduates from 4-year programs—about 500 annually. However, unlike veterinary technicians who usually work in private clinical practice, veterinary technologists will have better opportunities for research jobs in a variety of settings, including biomedical facilities, diagnostic laboratories, wildlife facilities, drug and food manufacturing companies, and food safety inspection facilities.

Despite the relatively few number of graduates each year, keen competition is expected for veterinary technician jobs in zoos and aquariums, due to expected slow growth in facility capacity, low turnover among workers, the limited number of positions, and the fact that the work in zoos and aquariums attracts many candidates.

Employment of veterinary technicians and technologists is relatively stable during periods of economic recession. Layoffs are less likely to occur among veterinary technologists and technicians than in some other occupations because animals will continue to require medical care.

Appendix 2. Selected Articles Regarding the Shortage of Veterinary Technicians

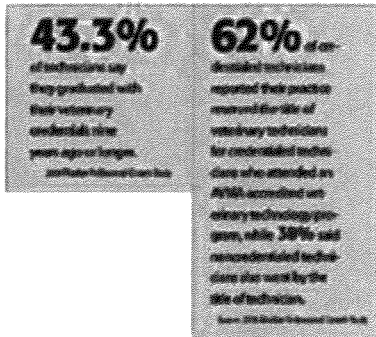
The truth about the technician shortage

SOURCE
firstline

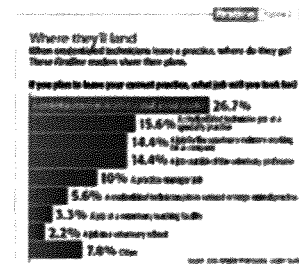
Will low salaries and high turnover threaten this career?

Aug 1, 2008

The Bureau of Labor Statistics (BLS) ranks veterinary technology as one of the fastest growing careers. In fact, it estimates a 41 percent growth by 2016. Yet AAHA's newly released *Compensation and Benefits, Fifth Edition*, indicates turnover may take a bite out of the profession. Their research shows turnover is almost 30 percent in veterinary practices, compared to a national average of between 12 percent and 15 percent across all industries in the United States. And when they focused on technicians, the rate of turnover climbs to 35 percent.



About 83 percent of NAVTA members say they'll probably or definitely stay in the profession, according to the 2007 NAVTA National Demographic Survey. And about 15 percent report they'll probably or definitely change to another field. This mirrors the results from the 2008 *Firstline* Professional Growth Study (see Figure 1). Yet 79 percent of NAVTA members and 85 percent of nonmembers agree or strongly agree that veterinary technicians are so underpaid that the feasibility of staying in the profession is declining (see Figure 3).

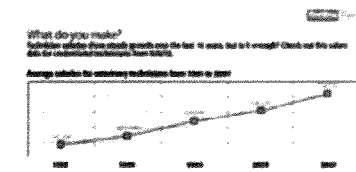


For those who plan to leave, where do they plan to go? See Figure 2 to learn more about technicians' intentions.

Will technicians stay?

Where will they work?

As the BLS notes, it may be difficult to make up the difference with new graduates. A look at the numbers of technician candidates taking the Veterinary Technician National Exam shows growth is flat. The American Association of Veterinary State Boards, the organization that administers the test, reports 5,425 candidates in 2006 and 4,664 in 2007. 2008 estimates put the number of candidates at 5,200.



So what does this all mean? "We've got some great jobs, but we've got to step it up," says *Firstline* Editorial Advisory Board member Sheila Grosdidier, BS, RVT, a partner at VMC Inc. in Evergreen, Colo. "We're not just competing with other veterinary clinics for good personnel. We're competing with all other industries for good personnel."

Technician salaries



**Karen Felsted,
CPA, MS,
DVM, CVPM**

"If we're going to fill this large gap, we're going to have to pay people a living wage and give them something interesting to do. And we're not doing that in many hospitals."

Letters to the Editor

Concerned about increasing veterinary technician shortage

Because veterinary technicians are essential personnel in private and academic veterinary practices and there is a nationwide shortage of veterinary technicians, we are alarmed by the decision of the American Association of Veterinary State Boards (AAVSB) to limit eligibility for the Veterinary Technician National Examination (VTNE). On-the-job-trained technicians will be prohibited from taking the VTNE starting in 2011. Coupled with state laws that permit only licensed technicians to perform essential duties, the AAVSB's action may substantially limit the ability of veterinary hospitals to serve patients' and clients' needs.

According to the AAVSB,¹ about 5,000 people will take the VTNE this year, some of whom are from the United States and some of whom are from Canada. The pass rate is 64%. According to Drs. Leff and Sabin, who work with the AVMA's Committee on Veterinary Technician Education and Activities, the approximately 160 AVMA-accredited schools of veterinary technology graduate fewer than 3,000 students annually (averaging 18 graduates/school annually). When the AAVSB's rules come into effect in 2011, the number of people eligible to take the VTNE will be reduced from the already inadequate number.

How many technicians does it take to support veterinarians? There are approximately 58,000 veterinarians¹ in clinical practice in the United States. Most practices need at least 1.5 to 2 technicians/veterinarian. Approximately 15% of technicians drop out of the field annually, so we need to train and hire approximately 20,000 new technicians/yr just to stay as we are and more if we want to grow. The Bureau of Labor Statistics projects that demand for graduate technicians will significantly outstrip the number of new graduates over the next 10 years.²

Technicians perform essential hospital (and research and public health) functions. They deserve wages, benefits, and respect commensurate with the vital work they do. It behooves veterinarians to work to enhance the skills, education, professional stature, and career longevity of veterinary technicians. The number of veterinary technician schools must increase, and the graduation rate of programs must improve. The high cost of a technical degree, which bars many worthy people from pursuing this great career, is also an issue.

Now and for the foreseeable future, there are not enough technician school graduates to serve the public and the health needs of animals. Where passing the VTNE determines licensure or certification, and licensure or certification determines eligibility to perform veterinary technician duties, there is and will be an increasingly severe shortage of technicians. These shortages may lead veterinarians to violate state law by using unlicensed technicians or force them to perform all the technical duties themselves. Either situation is unacceptable.

We urge the AVMA and other veterinary organizations to work with technician organizations

and the AAVSB to further technician excellence and develop an adequate and rewarded workforce. We urge the AVMA and the AAVSB to consider the mathematical impossibility of graduating and licensing a sufficient number of technicians until the number of AVMA-accredited schools increases 5- to 10-fold, which cannot happen by 2011. Alternative training and licensure pathways must remain viable past 2011.

David Schwarz, DVM

President, Massachusetts Veterinary Medical Association

Laurie Klein, DVM

Chair, MVMA Veterinary Technician Committee

Susan Weinstein, JD

Executive Director, MVMA

Susan Rabaut, DVM

Past President, MVMA

Marlborough, Mass

Bob Murtaugh, DVM, DACVIM, DACVECC

Holliston, Mass

Timothy Smith, DVM, DABVP

Woburn, Mass

a. Daniels C. Administrator, Veterinary Technician National Examination, Kansas City, Mo: Personal communication, 2008.

1. Market research statistics, US veterinarians—2007. Available at: www.avma.org/reference/marketstats/usvets.asp. Accessed Aug 25, 2008.

2. Bureau of Labor Statistics. Available at: www.bls.gov. Accessed Sept 4, 2008.

The AVMA responds:

The AVMA Committee on Veterinary Technician Education and Activities (CVTEA), and staff of the AVMA Education and Research Division that support the CVTEA, share concerns raised by the representatives from the Massachusetts Veterinary Medical Association. A minor correction: the letter states, "according to Drs. Leff and Sabin, who work with the AVMA's Committee on Veterinary Technician Education and Activities, the approximately 160 AVMA-accredited schools of veteri-

Instructions for Writing a Letter to the Editor

Readers are invited to submit letters to the editor. Letters may not exceed 500 words and 6 references. Not all letters are published; all letters accepted for publication are subject to editing. Those pertaining to anything published in the JAVMA should be received within one month of the date of publication. Submission via e-mail (JournalLetters@avma.org) or fax (847-925-9329) is encouraged; authors should give their full contact information, including address, daytime telephone number, fax number, and e-mail address.

Letters containing defamatory, libelous, or malicious statements will not be published, nor will letters representing attacks on or attempts to demean veterinary societies or their committees or agencies. Viewpoints expressed in published letters are those of the letter writers and do not necessarily represent the opinions or policies of the AVMA.

Appendix 3. 2010 Wages for Veterinary Office Personnel

Mean and median hourly and annual income for veterinary office personnel. Data from Bureau of Labor Statistics 2010 National Compensation Survey.

Position	Hourly		Annual	
	Mean	Median	Mean	Median
Veterinarian	\$44.51	\$39.44	\$92,570	\$82,040
Veterinary Technicians/ Technologists	\$14.92	\$14.28	\$31,030	\$29,710
Veterinary Assistants	\$11.38	\$10.60	\$23,660	\$22,040

Appendix 4. Proposed Admissions Procedures

A. Admission Application Period

Applications to the WCC Veterinary Technology Program are due by March 1st of each year. Application forms are available on the program website. Completed applications should be emailed to the program director at vetttech@hawaii.edu.

B. Minimum Requirements

- 1) In order to meet the minimum requirements for admission, the student must complete a minimum of 10 credits of the Certificate of Achievement in Veterinary Assisting (CAVETA) Core Courses and three credits of the required General Education Courses by the admissions deadline.
- 2) All of the Core courses and General Education courses must be completed with a “C” grade or better.
- 3) A cumulative grade point ratio (GPR) of 2.5 for all Core and General Education courses taken is required.
- 4) All courses transferred to Windward Community College that have a credit/no credit or pass/fail will be given a grade of “C” for ranking purposes when applying to the Veterinary Technology Program.
- 5) Applicants who have not yet completed all Core CAVETA courses must be enrolled in these courses during the semester in which the application is submitted.
- 6) Applicants who have not yet completed all required General Education Classes must be enrolled in these classes during the Spring or following Summer semester.
- 7) Applicants are required to submit two letters of recommendation along with their application.
- 8) All applicants who meet the minimum requirements for admission will be interviewed by the Veterinary Technology Admissions Committee between the last week of March and first week of April.

C. Acceptance Criteria

Applications that meet the minimum admissions requirements will be evaluated on a best-qualified basis by the program admissions committee. The admissions committee will include veterinary technology program faculty (2 members), a WCC counselor (1 member), and two members of WCC’s Veterinary Technology Advisory Committee. Applicants will be ranked on a point scale based on the following criteria:

- 1) Number of CAVETA Core and General Education courses completed with a grade of C or better by the application deadline;
- 2) GPA for completed CAVETA Core and required General Education courses;
- 3) Letters of recommendation;
- 4) Clinical Aptitude (as determined by skills performance in ANSC 151L and ANSC 152L or equivalent);
- 5) Documentation of previous veterinary-related work experience or training;
- 6) Strength of applicant interview.

The program director will inform applicants of their admission status in writing during the second week of April.

D. Post-Acceptance Requirements

Accepted students will receive a program packet which includes forms and procedures that must be completed prior to registration. These steps include:

- 1) A **tuberculosis clearance** within the past 12 months.
- 2) **Tetanus** vaccination within the past 10 years.
- 3) Verification of personal **health insurance**.
- 4) Health Risk Acknowledgement form.
- 5) Internship Liability Waiver.
- 6) Acknowledgement of ability to perform program technical standards.
- 7) Obtain and print a recent (within last 30 days) Criminal Clearance Check.
- 8) Purchase a program uniform and dosimetry badge.
- 9) Attend new student orientation and advising session.

Once all requirements have been met, the student will be cleared to register for Veterinary Technology classes. Accepted students who have not yet completed all CAVETA requirements will be admitted on a provisional basis. These students are expected to complete all remaining Core- and General Education CAVETA requirements by the first day of the fall semester. Failure to do so may result in dismissal from the program. Please keep in mind that Veterinary Technology Students are expected to enroll in at least one Veterinary Technology Core Course (e.g., ANSC 252- Diagnostic Imaging) during the summer semester following admission, thus it is unlikely that a student will have adequate time to make-up more than one course deficiency during the summer session.

Appendix 5. Descriptions of Core Courses

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 (4 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 (4 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 & Surgical Nursing for Veterinary Technicians (5 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 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 (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 (4 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 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 6. Proposed Course Sequence

	Alpha	Course Name	Credits	Contacts	Faculty
Fall	ENG 100	Expository Writing	3	3	Language Arts
	HLTH 125	Survey of Medical Terminology	1	1	Biology
	ANSC 142	Anatomy & Physiology of Domestic Animals	3	3	Vet or Tech
	ANSC 142L	Anatomy of Domestic Animals Laboratory	1	3	Vet or Tech
	ANSC 140	Introduction to Veterinary Technology	3	3	Vet or Tech
	MATH 101	Mathematics for Veterinary Technicians	3	3	Math
			14	16	
Spring	SP 151	Personal and Public Speech	3	3	Speech
	PSY 100	Survey of Psychology	3	3	Psychology
	BUSN 191	Veterinary Office and Computer Skills	3	3	Business
	ANSC 151	Clinical Laboratory Techniques	3	3	Vet
	ANSC 151L	Clinical Laboratory Techniques Lab	1	3	Tech or Vet
	ANSC 152	Companion Animal Diseases & Nutrition	3	3	Vet
	ANSC 152L	Companion Animal Nursing	1	3	Tech
			17	21	
Summer					
	ANSC 252	Diagnostic Imaging for Veterinary Technicians	4	6	Tech
			4	6	
Fall	ANSC 262	Clinical Procedures for Large Animals	4	6	Vet
	ANSC 253	Pharmacology for Veterinary Technicians	3	3	Vet
	ANSC 261	Anesthesiology & Surgical Nursing	5	9	Tech & Vet
	ANSC 190	Veterinary Clinical Practices & Internship I	4	12	Tech
			16	30	
Spring	ANSC 258	Clinical Lab Techniques II	4	6	Vet & Tech
	ANSC 263	Lab Animal Nursing	4	9	Vet
	ANSC 266	Veterinary Clinical Practices & Internship II	4	12	Tech
	ANSC 290	Veterinary Technician Exam Review	1	1	Tech or Vet
		Humanities Elective	3	3	Humanities
			16	31	
	Total		67	104 TOTAL	

Appendix 7. Letter of Support from the HVMA



HAWAII VETERINARY MEDICAL ASSOCIATION

P.O. BOX 61309, HONOLULU, HAWAII 96839-1309

1 November 2011

Board of Regents
University of Hawaii

Dear Board Members,

On behalf of the Hawaii Veterinary Medical Association, may I extend our sincere thanks for your support for the Windward Community College veterinary assistant CA program, and planning for a full fledged AVMA accredited veterinary technician program. By your actions, the quality of veterinary services provided to the community has made a leap forward for the future. We now have dedicated, trained paraprofessionals educated right here in our state, making significant contributions to our teams. Their value has also challenged the profession to raise pay scales for our team members.

Today consumers demand increased quality and volume of services for their new family members, their pets. On Oahu alone, we have 4 or 5 new practices in 2011. In addition, established practices continue to hire more staff. Furthermore, veterinary assistants and technicians have increasing roles in public health, food safety, bioterrorism and other issues. This month, the Hawaii Department of Health will address participation in the Medical Reserve Corps along these lines.

Personally, I have hired one of your CA graduates, Amanda Patoc. She is doing very well, and by her example, I look forward to a larger team of WCC students.

Sincerely yours,

Eric Ako, D.V.M.

Appendix 8. Inventory of Required and Essential Equipment

From CVTEA Required and Recommended Equipment list for Veterinary Technology Programs. Missing "Required" items are highlighted in red. Missing "Recommended" items are highlighted in yellow.

Category	Item	Required?	# At WCC	Purchase Date	Notes
AUDIOVISUAL	LCD projector/power point	Y	3	1/1/10	
AUDIOVISUAL	Television/monitor	Y	2		Available from Media
AUDIOVISUAL	Video Camera	Y	1		Available from Media
AUDIOVISUAL	VCR	Y	4		Available from Media
CLINICAL EQUIPMENT	*Anesthesia machine - small animal	Y	2	5/1/10	VMS Plus w/dual O2 manifold
CLINICAL EQUIPMENT	*Isoflurane	Y	2	5/1/10	VMS Plus w/dual O2 manifold
CLINICAL EQUIPMENT	*Non-rebreathing system	Y	2	5/1/10	VMS Plus w/dual O2 manifold
CLINICAL EQUIPMENT	*Waste anesthetic gas exhaust system	Y	1	10/15/11	
CLINICAL EQUIPMENT	*Autoclave	Y	2	7/1/05	1 large capacity, 1 office-type
CLINICAL EQUIPMENT	*Bandaging/casting material	Y	20	4/1/10	
CLINICAL EQUIPMENT	*Bathing equipment	Y	1	5/1/09	Grated Procedure Tub
CLINICAL EQUIPMENT	*Blood pressure monitoring equipment	Y	2	5/1/10	Doppler and NB
CLINICAL EQUIPMENT	*Cages complying with federal regulations	Y	20	10/6/11	At VCA
CLINICAL EQUIPMENT	*Cardiac monitor	Y	2	5/1/10	1 BMS Vet and 1 Vet Ox Plus 4600
CLINICAL EQUIPMENT	*Controlled drug cabinet	Y	1	9/15/11	MPG 24"x 30" H x 10" D
CLINICAL EQUIPMENT	*Dehorers	Y	1	5/1/10	dehorner
CLINICAL EQUIPMENT	animal—dental floats	Y	2	5/1/10	MWI Thompasons Float 002902
CLINICAL EQUIPMENT	animal—ultrasonic scaler and polisher	Y	1	5/1/09	IMS 42-12
CLINICAL EQUIPMENT	*Electric clippers	Y	1	5/1/10	Oster
CLINICAL EQUIPMENT	*Emasculator	Y	1	4/15/10	Castrators
CLINICAL EQUIPMENT	drugs, supplies and equipment	Y	1	11/5/11	Butler Schein
CLINICAL EQUIPMENT	*Endotracheal tubes	Y	30	5/1/10	Various
CLINICAL EQUIPMENT	*Esophageal stethoscope	Y	1	5/1/10	Bickford APM
CLINICAL EQUIPMENT	*Examination tables	Y	3	5/1/09	Folding Exam Table, + Used table
CLINICAL EQUIPMENT	*Hoof trimmers and picks	Y	4	5/1/10	5 hoof picks, Knives, 2 hoof shears
CLINICAL EQUIPMENT	*Microchip Scanner	Y	1	9/30/11	Avid Minitracker I
CLINICAL EQUIPMENT	*Nail trimmers	Y	6	9/30/10	large and small dog
CLINICAL EQUIPMENT	*Ophthalmoscope	Y	2	5/1/10	Welch Allyn Diagnostic Set
CLINICAL EQUIPMENT	*Oral dosing equipment	Y	12	9/15/11	Jorgenson Oral Dosing Syringes
CLINICAL EQUIPMENT	*Laboratory Animal	Y	4	5/1/10	rodent dosing needles
CLINICAL EQUIPMENT	*Large animal	Y	1	5/1/10	Stomach Tube and Pump, Equine
CLINICAL EQUIPMENT	*Small animal	Y	1	5/1/10	Various
CLINICAL EQUIPMENT	*Orthopedic equipment	Y	1	10/15/11	Spectrum Surgical Instruments
CLINICAL EQUIPMENT	*Otoscope	Y	2	5/1/10	Welch Allyn Diagnostic Set
CLINICAL EQUIPMENT	*Oximeter/capnograph	Y	3	5/1/10	SpO2
CLINICAL EQUIPMENT	*Scales, animal	Y	2	9/15/11	1 walk-on scale, 1 pediatric scale
CLINICAL EQUIPMENT	*Stethoscope	Y	8	9/1/07	Student quality only
CLINICAL EQUIPMENT	*Surgical instruments, basic	Y	2	7/15/11	picks, 2 feline spay packs
CLINICAL EQUIPMENT	*Surgical lights	Y	1	5/1/08	Midmark Ritter 355
CLINICAL EQUIPMENT	*Surgical tables	Y	2	10/15/11	(heated) w/hydraulic base
CLINICAL EQUIPMENT	*Syringes, multiple dose	Y	1	10/5/11	Hauptner Syringe (50 CC); 4 barrels
CLINICAL EQUIPMENT	*Tourniquet	Y	2	5/1/10	Jorgenson Labs
CLINICAL EQUIPMENT	*Tubes – feeding and gavage	Y	2		large animal and lab animal
CLINICAL EQUIPMENT	*Vaginal speculum	Y	2	10/5/11	Jorgenson Labs
CLINICAL EQUIPMENT	*Warming pad/blanket	Y	2	9/3/11	covers (6)
CLINICAL EQUIPMENT	Anesthesia machine - large animal	N			
CLINICAL EQUIPMENT	Halothane (Fluothane)	N			
CLINICAL EQUIPMENT	Sevoflurane	N			
CLINICAL EQUIPMENT	Animal gurney or stretcher	N	1	10/15/11	Shor-line portable prep table
CLINICAL EQUIPMENT	Defibrillator	N			
CLINICAL EQUIPMENT	Electrocardiograph	N	2	5/1/10	1 BMS Vet and 1 Vet Ox Plus 4600
CLINICAL EQUIPMENT	Electrosurgical equipment	N			
CLINICAL EQUIPMENT	Fiberoptic endoscope	N			
CLINICAL EQUIPMENT	Gastri lifter	N			
CLINICAL EQUIPMENT	Obstetrical instruments – large animal	N	1		Obstetric Chairs

Category	Item	Required?	# At WCC	Purchase Date	Notes
CLINICAL EQUIPMENT	Oral speculum - large and small animal	N	5	10/5/11	1 equine, 2 feline, 2 canine
CLINICAL EQUIPMENT	Surgical suction	N	1	5/1/08	Available on iM3 elite
CLINICAL EQUIPMENT	Ultrasound machine	N			
CLINICAL EQUIPMENT	Ventilator	N			
INSTRUCTIONAL EQUIPMENT	Camera	Y	5	1/1/08	
INSTRUCTIONAL EQUIPMENT	Computer	Y	20	5/1/09	Dell Optiplex
LABORATORY EQUIPMENT	Autoanalyzer	Y	1		Same as clinical chemistry analyzer
LABORATORY EQUIPMENT	*Blood mixer/rocker	Y	1	5/1/10	Jorgenson Labs
LABORATORY EQUIPMENT	*Centrifuge	Y	2	5/1/08	Unico Powerspin LX
LABORATORY EQUIPMENT	*Clinical chemistry analyzer	Y	1	5/1/09	Idexx Vet Test + IDEXX Vet Stat
LABORATORY EQUIPMENT	*Differential blood cell counter	Y	1	5/1/09	Idexx Laser Cyte
LABORATORY EQUIPMENT	*Electronic blood cell counter	Y	1	5/1/09	Idexx Laser Cyte
LABORATORY EQUIPMENT	*Hand tally cell counter	Y	3	9/15/11	Jorgenson Labs
LABORATORY EQUIPMENT	*Hemocytometer	Y	10		Various
LABORATORY EQUIPMENT	*Incubator	Y	5	5/1/10	Various Sizes
LABORATORY EQUIPMENT	*Microhemocrit centrifuge	Y	2	5/1/09	Idexx StatSpin
LABORATORY EQUIPMENT	*Microscopes	Y	20	5/1/09	2 digital microscopes
LABORATORY EQUIPMENT	*Refractometer	Y	10	9/8/10	Generic
LABORATORY EQUIPMENT	*Scales, laboratory	Y	10		Various
LABORATORY EQUIPMENT	Automated diluter	N			
RADIOGRAPHIC IMAGING EQUIPMENT	*Aprons & gloves, lead lined	Y	5	9/15/10	Radiation Concepts
RADIOGRAPHIC IMAGING EQUIPMENT	*Automatic film processor	Y	1	9/15/11	AFP Minimed
RADIOGRAPHIC IMAGING EQUIPMENT	*Calipers	Y	2	9/15/10	Radiation Concepts
RADIOGRAPHIC IMAGING EQUIPMENT	*Cassette holders	Y	8	9/15/10	Various
RADIOGRAPHIC IMAGING EQUIPMENT	*Film	Y	100	9/15/10	3M
RADIOGRAPHIC IMAGING EQUIPMENT	*Film identification markers	Y	1	9/15/11	Jorgenson Labs
RADIOGRAPHIC IMAGING EQUIPMENT	*High speed/rare earth screens	Y	8	9/15/10	Various
RADIOGRAPHIC IMAGING EQUIPMENT	*Lead thyroid collar	Y	5	9/15/10	Radiation Concepts
RADIOGRAPHIC IMAGING EQUIPMENT	*Radiation safety badges	Y	20	9/15/10	UH Radiation Safety
RADIOGRAPHIC IMAGING EQUIPMENT	*Storage racks for gloves and aprons	Y	1	9/15/11	Wolf X-Ray Penta Rack
RADIOGRAPHIC IMAGING EQUIPMENT	*Radiographic machine - fixed	Y	1	9/15/10	Innovet Classic; Less Wilkins & Assoc
RADIOGRAPHIC IMAGING EQUIPMENT	*Radiographic machine - portable	Y	1		
RADIOGRAPHIC IMAGING EQUIPMENT	*Radiographic viewer	Y	3	9/15/10	purchased from Butler Schein
RADIOGRAPHIC IMAGING EQUIPMENT	Digital film processor	N			
RADIOGRAPHIC IMAGING EQUIPMENT	equipment	N			
RADIOGRAPHIC IMAGING EQUIPMENT	lead eyeglasses	N			
RADIOGRAPHIC IMAGING EQUIPMENT	Radiographic machine - dental	N			
RADIOGRAPHIC IMAGING EQUIPMENT	Radiographic machine - digital	N			
RESTRAINT EQUIPMENT	*Laboratory Animal	Y	4	5/1/10	wire mesh gloves (4), tailveiners (4)
RESTRAINT EQUIPMENT	*rodent	Y	4	5/1/10	wire mesh gloves (4), tailveiners (4)
RESTRAINT EQUIPMENT	*rabbit	Y	1	5/1/11	Donated by LAS
RESTRAINT EQUIPMENT	*Twitch	Y	2	5/1/10	Equine humane twitch
RESTRAINT EQUIPMENT	*Ropes				
RESTRAINT EQUIPMENT	*Elizabethan collar	Y	5	8/30/11	Buster Collar Set, Jorgenson Labs
RESTRAINT EQUIPMENT	*Muzzle	Y	5	8/15/10	Nylon Buster Muzzle Set
RESTRAINT EQUIPMENT	*Restraint pole	Y	1	9/15/11	4' Ketch-All Pole, Butler Schein
RESTRAINT EQUIPMENT	*Cattle chaise	Y			not available, may be available at local feed store
RESTRAINT EQUIPMENT	Large animal	N			
RESTRAINT EQUIPMENT	Nose tongs	N			
RESTRAINT EQUIPMENT	Hog snare	N			
RESTRAINT EQUIPMENT	Small animal	N			
SPECIMENS, MODELS	*Large animal skeleton/limbs	Y	1	6/1/08	1 complete horse skeleton, 1 cow skull
SPECIMENS, MODELS	*Small animal skeleton	Y	8	4/1/08	5 cats, 4 dogs

Appendix 9. Detailed Program Budget

Academic Cost and Revenue Template - New Program (adjust template for appropriate number of years)

ENTER VALUES IN YELLOW CELLS ONLY
CAMPUS/Program

WCC A.S. in Veterinary Tech

Provisional Years (2 yrs for Certificate, 3 yrs for Associate Degree, 6 yrs for Bachelor's Degree)

ENTER ACADEMIC YEAR (i.e., 2004-05)
Students & SSH

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
2012-2013	2013-2014	2014-2015				
A. Headcount enrollment (Fall)	35	60	60			
B. Annual SSH	770	1,595	1,595			

Direct and Incremental Program Costs Without Fringe

- C. Instructional Cost without Fringe
 - C1. Number (FTE) of FT Faculty/Lecturers
 - C2. Number (FTE) of PT Lecturers
- D. Other Personnel Costs
- E. Unique Program Costs
- F. Total Direct and Incremental Costs

\$	133,469	\$	146,269	\$	146,269			
	2.22		2.22		2.22			
			0.27		0.27			
\$	21,660	\$	24,660	\$	19,160			
\$	155,129	\$	170,929	\$	165,429			

Revenue

- G. Tuition
 - Tuition rate per credit
- H. Other
- I. Total Revenue

\$	77,770	\$	169,070	\$	181,830			
\$	101	\$	106	\$	114			
\$	7,000	\$	22,000	\$	22,000			
\$	84,770	\$	191,070	\$	203,830			

J. Net Cost (Revenue)

	70,359		-20,141		-38,401			
--	--------	--	---------	--	---------	--	--	--

Program Cost per SSH With Fringe

- K. Instructional Cost with Fringe/SSH
 - K1. Total Salary FT Faculty/Lecturers
 - K2. Cost Including Fringe of K1
 - K3. Total Salary PT Lecturers
 - K4. Cost Including fringe of K3
- L. Support Cost/SSH
 - Non-Instructional Exp/SSH
 - System-wide Support/SSH
 - Organized Research/SSH
- M. Total Program Cost/SSH
- N. Total Campus Expenditure/SSH

\$	234	\$	121	\$	121			
\$	133,469	\$	133,469	\$	133,469			
\$	180,183	\$	180,183	\$	180,183			
\$	-	\$	12,800	\$	12,800			
\$	-	\$	13,440	\$	13,440			
\$	318	\$	318	\$	318			
\$	277	\$	277	\$	277			
\$	41	\$	41	\$	41			
\$	-	\$	-	\$	-			
\$	552	\$	439	\$	439			
\$	457	\$	457	\$	457			

Instruction Cost with Fringe per SSH

- K. Instructional Cost/SSH
 - O. Comparable Cost/SSH
- Program used for comparison.

\$	234	\$	121	\$	121			
\$	551	\$	551	\$	551			
KCC Health Services Tech								

Reviewed by campus VC for Administrative Affairs:

(date)

Clifford Vigo

4/29/12

Appendix 10. Budget Instructions

Instructions

Please include an explanation of this template in your narrative.

- A. **Headcount Enrollment:** Headcount enrollment of majors each Fall semester. Located at url: <http://www.iro.hawaii.edu/maps/mtitles.asp>
- B. **Annual SSH:** Course Registration Report located at <http://www.iro.hawaii.edu/maps/mtitles.asp>. Add the SSH for the Fall and Spring reports to obtain the annual SSH. This is all SSH taught by the program, including to non-majors.
- C. **Instructional Cost without Fringe** (automated calculation): Direct salary cost for all faculty and lecturers teaching in the program. *Formula for column D:
 C1. Number of full time faculty and lecturers who are $\geq .5$ FTE.
 C2. Number of part time lecturers who are $< .5$ FTE.
- D. **Other Personnel Cost:** Salary cost (part or full time) for personnel supporting the program (APT, clerical lab support, advisor, etc.) This includes personnel providing necessary support for the program who may not be directly employed by the program and may include partial FTEs. Add negotiated collective bargaining increases and 4% per year for inflation thereafter.
- E. **Unique Program Cost:** Costs specific to the program for equipment, supplies, insurance, etc. For provisional years, this would be actual cost. For established years, this would be projected costs using amortization for equipment and add 4% per year for inflation thereafter.
- F. **Total Direct and Incremental Cost:** C + D + E *Formula for column D: =IF(OR(D13<"",D16<>0,D17<>0),SUM(D13,D16,D17),"")
- G. **Tuition:** Annual SSH X resident tuition rate/credit *Formula for column D: =IF(D10>0,D10*D22,"")
- H. **Other:** Other sources of revenue including grants, program fees, etc. This should not include in-kind contributions unless the services or goods contributed are recorded in the financial records of the campus and included in Direct and Incremental Costs in this template.
- I. **Total Revenue:** G + H *Formula for column D: =IF(OR(D21<"",D23<>0),SUM(D21,D23),"")
- J. **Net Cost:** F - I This is the net incremental cost of the program to the campus. A negative number here represents net revenue (i.e., revenue in excess of cost.) If there is a net cost, please explain how this cost will be funded. *Formula for column D: =IF(AND(D18<"",D24<>""),D18-D24,"")
- K. **Instructional Costs with Fringe/SSH:** (K2 + K4) / B *Formula for column D: =IF(D10<""),SUM(D33,D35)/D10,"")
 K1. **Salaries without Fringe** of Full Time Faculty and Lecturers who are $\geq .5$ FTE based on FTE directly related to the program. Add negotiated collective bargaining increases and 4% per year for inflation thereafter.
 K2. **K1 X 1.35** Formula for column D: =IF(D32="","",D32*1.35)
 K3. **Salaries without Fringe** for Lecturers who are $< .5$ FTE based on FTE directly related to the program. Add negotiated collective bargaining increases and 4% per year for inflation thereafter.
 K4. **K3 X 1.05** Formula for column D: =IF(D34="","",D34*1.05)
- L. **Support Cost/SSH:** The campus' non instructional expenditure/ssh + systemwide support - organized research (UHM only) as provided by UH Expenditure Report (<http://www.hawaii.edu/budget/expand.html>) *Formula for column D: =IF(OR(D37>0,D38>0,D39>0),D37+D38-D39,"")

For example, from the 2005-06 UH Expenditure Report, the support expenditure/ssh per campus is:

UHM	\$382.00 + \$60 = \$442 for organized research = \$330
UHH	\$278.00 + \$40 = \$318
UHWO	\$179.00 + \$32 = \$211
Haw CC	\$111.00 + \$33 = \$144
Hon CC	\$168.00 + \$38 = \$206
Kap CC	\$114.00 + \$30 = \$144
Kau CC	\$346.00 + \$68 = \$414
Lee CC	\$112.00 + \$28 = \$140
Maui CC	\$175.00 + \$39 = \$214
Win CC	\$257.00 + \$44 = \$301

- M. **Total Program Cost/SSH:** K + L *Formula for column D: =IF(OR(D31<"",D36<>""),D31+D36,"")
- N. **Total Campus Expenditure/SSH:** Taken from UH Expenditures Report For example, for 2005-2006: UHM = \$799-112 (organized research) = \$687, UHH = \$528, UHWO = \$429, HawCC = \$329, HonCC = \$375, KapCC = \$300, KauCC = \$677, LeeCC = \$279, Maui CC = \$385, WinCC = \$442
- O. **Comparable Program/Division Instructional Cost/SSH:** Taken from UH Expenditures Report (<http://www.hawaii.edu/budget/expand.html>) or campus data, as available. Please note in the space provided, the program used for the comparison.

Rev. 04/03/09

Appendix 11. Explanation of Budget Items

Parameter	Value	Description						
A. Head Count	35 (Yr 1) 60 (Yr 2) 60 (Yr 3)	Adequate #'s of CA in Veterinary Assisting courses will be offered to allow 35 students to begin the program each Fall. A total of 25 students will be formally admitted into the A.S. Program each Spring. Thus, headcount for year 2 of the program (and subsequent years) is 60 students.						
B. SSH	770 (Yr 1) 1595 (Yr 2) 1595 (Yr 3)	Year 1: A total of 22 credits of core courses will be taken by 35 students ($35 \times 22 = 770$) Year 2 & 3: In addition to admitting a new cohort of students each year (770 SSH), a maximum of 25 students will continue on for the second year of the degree and take an additional 33 credits of core classes ($25 \times 33 = 825$). Thus, the total SSH for year two and subsequent years of the program is 1595 credits.						
C1. FTE FT Faculty	2.22	Two full-time faculty (one veterinarian and one veterinary technician) will be needed to teach ANSC classes. In addition, existing math & business faculty will teach a total of 6 credits each year. Assuming 27 credits is FT, then the use of FT Math & BUSN faculty will be $6/27=0.22$						
C2. FTE of Part-time lecturers	0.27	Two courses (8 credits) may be taught by a veterinarian or veterinary technician lecturer: <table style="margin-left: 20px; border-collapse: collapse;"> <tr> <td style="text-align: right;">Course</td> <td style="text-align: right;">Credits</td> </tr> <tr> <td style="text-align: right;">ANSC 262</td> <td style="text-align: right;">4</td> </tr> <tr> <td style="text-align: right;">ANSC 263</td> <td style="text-align: right;">4</td> </tr> </table> Lecturers are paid by credit hours (not contacts). Assuming 30 credits is FT, then $8/30 = 0.267$	Course	Credits	ANSC 262	4	ANSC 263	4
Course	Credits							
ANSC 262	4							
ANSC 263	4							
D. Other Personnel Costs	0	No other personnel costs are anticipated.						
E. Unique Program Costs	\$21,660 (Yr 1) \$24,660 (Yr 2) \$19,160 (Yr 3)	Approximately \$18,660 per year is required to cover consumables, equipment maintenance, and IACUC inspection costs. In addition, \$3,000 is needed in year 1 of the program to cover the AVMA accreditation fee. In year 2, the program will need to cover travel and lodging costs of the AVMA site-inspection team (\$6,000). In year 3 (and subsequent years) the program will need to pay an annual accreditation renewal fee of \$500.						
G. Tuition Rate per credit	\$101 (Yr 1) \$106 (Yr 2) \$114 (Yr 3)	Resident tuition rates for the first three years of the program were obtained from http://www.hawaii.edu/news/tuition/						
H. Other Revenue	\$7,000 (Yr 1) \$22,000 (Yr 2) \$22,000 (Yr 3)	In order to cover unique program costs (see "E" above), students enrolled in Vet Assisting classes will be assessed a professional fee of \$100/semester and those enrolled in Veterinary Technology classes will be assessed \$300/semester. Year 1: $35 \text{ students} \times 2 \text{ semesters} \times \$100 = \$7,000$ Year 2 & 3: $(35 \text{ students} \times 2 \text{ semesters} \times \$100) + (25 \text{ students} \times 2 \text{ semesters} \times 300) = \$22,000$ These fees are comparable to KCC Health Sciences programs including Rad Tech (\$300/semester) and Nursing (\$500/semester).						
K1. Total Salary FT Faculty	\$133,469	Projected salary for 11-month FT Veterinarian Instructor/Program Coordinator = \$70,000 Projected salary for 9-month FT Veterinary Technician = \$45,000 Six credits (0.22 FTE) will be taught by existing business & math faculty (full professors). Assuming a mean annual salary for full professors of \$83,952, costs for these classes are $0.22 \times 83,952 = \$18,469$. Thus, total FT faculty costs = $\$70,000 + \$45,000 + 18,469$						
K3. Total Salary PT Lecturers	\$12,800	Eight credits may be taught by a veterinary technician lecturer (see C2). 2009-2010 Pay rate for step B lecturer is \$1,600 per credit. So $8 \text{ credits} \times \$1,600 = \$12,800$						
L. Non-Instructional Exp/SSH	\$277	From 2009-2010 UH Expenditure Report http://www.hawaii.edu/budget/expend.html						
L. System-wide support /SSH	\$41	Also from 2009-2010 UH Expenditure Report http://www.hawaii.edu/budget/expend.html						
N. Total Campus Expenditure/SSH	\$457	Also from 2009-2010 UH Expenditure Report http://www.hawaii.edu/budget/expend.html						
O. Comparable Program Cost/SSH	\$551	Taken from the KCC Health Services Tech Programs http://www.hawaii.edu/budget/expend.html						

Appendix 12. Unique Program Costs and Fee Allocation

Vet Assisting Cohort (Students in Year 1 of Program)

Expense Type/Class	Expense Description	Cost per student	Cost per Cohort (35 Students)
ANSC 142L- Anatomy of Domestic Animals	Animal Cadavers & Dissection Supplies	\$75.00	\$2,625.00
ANSC 151L- Clinical Lab Techniques	Lab Tests (ELISA, Blood Chem, Hematology)	\$75.00	\$2,625.00
ANSC 152L- Companion Animal Nursing	Syringes, IV Fluids, Bandaging & Casting Material	\$35.00	\$1,225.00
	Student Liability Policies	\$15.00	\$525.00
Subtotal		\$200.00	\$7,000.00

Veterinary Technology Cohort (Students in Year 2 of Program)

Expense Type/Class	Expense Description	Cost per student	Cost per Cohort (25 Students)
ANSC 252- Diagnostic Imaging	X-Ray Film, Developer, Dosimetry Badges	\$60.00	\$1,500.00
ANSC 258- Clinical Lab Tech II	Microbiological Tests, Histology Stains, Slides	\$45.00	\$1,125.00
ANSC 261- Anesthesiology & Surgical Nursing	Drugs & anesthetic agents, gowns, suture, & requis	\$99.60	\$2,490.00
ANSC 262- Clinical Procedures for Large Animals	Large animal nursing supplies	\$50.00	\$1,250.00
Insurance	Student Liability Policies	\$15.00	\$375.00
Accreditation	AVMA Accreditation & Inspection Fees (5 yr avg)	\$84.00	\$2,100.00
Inspection Fees	IACUC Inspection Fees	\$46.40	\$1,160.00
Equipment Maintenance	Equipment Maintenance Contracts	\$100.00	\$2,500.00
Small Equipment updates	upgrading and adding new equipment as needed	\$100.00	\$2,500.00
		\$600.00	\$15,000.00

Total Annual Program Costs	\$22,000.00
Vet Assisting Annual Per Student Costs	\$200.00
Vet Tech Annual Per Student Costs	\$600.00