University of Hawaii Community Colleges
Proposal to Initiate, Modify or Delete a Course

1. Type of Action
   - A. Addition [ ]
   - B. Deletion [ ]
   - C. Modification: [ ] in credits [ ] in title [ ] in number or alpha [ ] in prerequisites or co-requisites [ ] Other [ ] (click to specify)

2. New Alpha, Number and Title
   - ANSC 151L Clinical Laboratory Techniques Lab
   - Credits: 1 credit

3. Old Alpha, Number and Title

4. New Catalog Description
   - 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 (3 hrs. lab).

5. Select box and type specific information in text box.
   - Prerequisites [ ]
   - Corequisites [ ]
   - Recommended Preparation [ ]
   - Credit for ANSC 142/142L [ ]
   - Registration in ANSC 151 [ ]

6. Student Contact Hours Per Week
   - Lecture: [ ]
   - Lecture/Lab: [ ]
   - Lab: 3 [ ]
   - Other (click to specify) [ ]

7. Proposed Date of First Offering
   - Semester: Spring
   - Year: 2010

8. This course [ ] is proposed for the * Program. [ ] can fulfill * If Other, specify Veterinary Assisting Certificate of Achievement (DY)

9. Equivalent or similar courses offered in the UH System:
   - KapiolaniCC MLT 108 Hematology
   - KapiolaniCC MLT 112 Clinical Biochemistry
   - KapiolaniCC MLT 212 Clinical Biochemistry II
   - KapiolaniCC MLT 211 Clinical Microscopy

10. This course Makes No Difference in the number of credits required for the program/core.

11. This course is (check one and click in appropriate textbox and provide details):
   - Already articulated with [ ]
   - Provide details of existing or desired articulation (date, college(s), purposes, pre-major, etc.) in this space:
   - Appropriate for Articulation with Manoa [ ]
   - Provide details of existing or desired articulation (date, colleges(s), purposes, pre-major or major, etc.) in this space:
   - Not yet appropriate for Articulation.

12. Reason for Initiating, Modifying or Deleting Courses or Other Pertinent Comment:
   - This course covers topics taught in MLT 100, MLT 108, MLT 112, MLT 211, and MLT 212, though in less detail. Unlike the MLT courses, this course focuses on animal health rather than human health.

13.Requested by: ____________________________ Date: 9/25/08
   - Department Chairperson

14. Approved by: ____________________________ Date: 12/18/08
   - Curriculum Committee Chairperson
   - Faculty Senate Chairperson
   - Dean of Instruction
   - Provost

CCCM #6100 (Amended for WCC use October 2002)
University of Hawaii Community Colleges  
Proposal to Initiate, Modify or Delete a Course

Levels of Review of Course Proposal at Windward Community College

Course Alpha, Number, and Title: ANSC 151L Clinical Laboratory Techniques Lab

Signatures

1. Department Area (more than one departmental instructor’s signature required)

   [Signatures]

   Dates
   9/25/08
   9/25/08
   9/25/08
   9/25/08

2. Department

   [Signature]

   Department Chairperson

   Was this course discussed in a department meeting? Yes ☑ No □
   9/25/08

3. Division

   [Signature]

   Margaret Coberly

   10/03/08

4. Curriculum Committee Review

   Approved ☑
   Disapproved □

   Reason:

   [Signature]

   Curriculum Committee Chairperson

   10/30/08

CCCM #6100 (Amended for WCC use October 2002)
WCC Form for New Course Proposals
(This sheet was originally pink.)

1. How is this course related to the education needs and goals of the College/Department/Community as reflected in the EDP/ADP?

This course will meet the requirements for a WCC laboratory science course (DY) and will support career development for those individuals wishing to obtain employment as veterinary assistants or lab animal technicians.

2. Provide details of any additional staff, equipment, facilities, library/media material, faculty preparation and other financial support that would be required to implement this course. (Include an estimate of the actual cost of supplies and equipment.) What has been done to provide for these additional costs for the proposed date of offering? Who will teach the course?

This course could be taught by existing Natural Science faculty or by a qualified Veterinary Technician. Most necessary equipment and supplies have already been purchased using extramural funds. Some consumables (ca. $50/student) would need to be purchased each semester. These supplies could be paid for by instituting a lab fee or requiring students to purchase the supplies through the WCC bookstore.

3. Is a similar course taught elsewhere in the UH system? No If yes, provide details of how this course differs from existing similar courses.

The topics covered in this course overlap with MLT 100, MLT 108, MLT 112, MLT 211, and MLT 212. However, the focus of this course is animal health rather than human health.

4. Is this course experimental and/or unique to Windward Community College? Yes If yes, provide rationale and details of its impact on the College Curriculum

Hawaii is one of only six states that lacks any type of formal training for veterinary technicians and veterinary assistants. As a result, most veterinarians are forced to train staff "off the street." The proposed course and associated certificate would be unique to WCC and should result in an increase in full-time enrollment by 25-35 students per semester. No other UH institution teaches a similar lab course in the clinical physiology of domestic or companion animals.

5. Is a similar course taught in the upper division level by a 4-year UH college? No If yes, explain why this course is appropriate at the lower division or how it differs from its upper division counterpart.

6. Please attach a complete course outline. Your course outline should address all the items listed in the Guidelines for Course Outlines.

7. If this course is numbered 100 or above or appropriate for transfer to a 4-year college, complete and attach WCC Form for Transfer Courses (blue). See criteria for transfer courses.
WCC Form for Transfer Courses
(To be completed for articulation with any 4-year UH campus)
(This sheet was originally blue.)

Course Alpha and Number ANSC 151L

Submitted by Ross Langston, WCC Natural Sciences

Date September 25, 2008

1. List the counterpart to this course on any 4-year UH campus. Describe the relationship between the course and any related baccalaureate program area.

   None

2. Is this course taught or accepted by major accredited colleges or universities? Give one or two examples.

   This Course is similar in content to:
   VT 241 Clinical Laboratory Procedures Lab, Colby Community College, KS
   Animal Science 421 Clinical Procedures in Animal Care I Laboratory, Pierce College, CA

3. Please attach a complete course outline if you have not done so already. Your course outline should address all the items listed in the Guidelines for Course Outlines.
University of Hawaii Community Colleges  
Proposal to Initiate, Modify or Delete a Course  
Articulation with 4-year UH Campus Form  

**COURSE ARTICULATION FORM (GENERAL EDUCATION CORE)**  

ORIGINATING CAMPUS: Windward Community College  
DATE SUBMITTED: September 25, 2008  

COURSE ALPHA & NUMBER: ANSC 151L  
SEMESTER CREDITS: 3  

COURSE TITLE: Clinical Laboratory Techniques Lab  

DATE OF OUTLINE: September 25, 2008  

(* * Representative outline, no multiple syllabi, please.)  

1. Articulation committee to review this course:  

   Standing Committees  
   - Written Communication  
   - Mathematical & Logical Thinking  
   - World Civilizations  
   - Languages  
   - Arts & Humanities  
   - Natural Science  
   - Social Science  

2. The information in this item is required by the reviewing committee so that it has a starting point for reviewing the course. It is the responsibility of the submitting campus to do the necessary research to provide this information.  

   In the opinion of the originating campus, this course is equivalent to the following and/or meets the criteria for the indicated core categories. Every core category space, except your own campus, must be filled in (can include ‘none’). An equivalent course, if known, may be helpful to committee members but is not required.  

<table>
<thead>
<tr>
<th>Receiving Campus</th>
<th>Equivalent Course (Alpha and Number)</th>
<th>Core Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>UH Hilo</td>
<td></td>
<td></td>
</tr>
<tr>
<td>UH Manoa</td>
<td></td>
<td></td>
</tr>
<tr>
<td>UH West Oahu</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hawaii CC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Honolulu CC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kapiolani CC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kauai CC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Leeward CC</td>
<td></td>
<td></td>
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<tr>
<td>Maui CC</td>
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<tr>
<td>Windward CC</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3. If submitted electronically, I understand that this outline will be posted to a publicly accessible web site to enable open access for reviewing committees and campuses. The outline will be taken off the site upon completion of the review.  

Typed Name or Signature  

Note: If possible submit coversheet and course outline electronically as e-mail attachments (preferably in ‘pdf’ format). If submitting in printed form, 20 copies of coversheet and course outline are required for distribution for appropriate review.  

**Note: UCA Clearinghouse**  
John Muth, Office of the Chancellor for Community Colleges, is acting as staff to the University Council on Articulation and is responsible for tracking all courses submitted for articulation.  

Revised 1/29/2001
University of Hawaii Community Colleges
Proposal to Initiate, Modify or Delete a Course
Articulation with 4-year UH Campus Form

COMMITTEE LEVEL:

1. When the committee has completed its review of a course, the "ARTICULATION RECOMMENDATION FORM" (revised 1/18/2001) should be filled in and attached to the outline. The committee chair should also sign the form.

2. If the committee choice is "accept," indicate receiving campus core area. If the committee choice is "not recommended," a reason must be provided. Outlines with missing or incomplete recommendation forms will be returned to the committee.

If a committee requires updated or more complete outlines, such requests should be made through the UCA Clearinghouse so that the new outline material can be tracked and placed in the file. If a committee requires more general supporting information, this should be requested through the course's supporting campus representative on the committee.

3. All committee recommendations should be sent to the UCA Clearinghouse for recordation and dissemination to the campuses. DO NOT SEND THE RECOMMENDATIONS DIRECTLY TO ANY CAMPUS.

RECEIVING CAMPUS:

1. Courses will be sent to each campus for consideration after they come out of committee. Each campus has its own internal process for the approval of courses for its general education core.

2. In all cases where a campus accepts a course into its general education core, it must also indicate which area or part of its core the course fits.

3. In all cases where a campus does not accept a course for articulation, it must supply a reason (even it is "we agree with the committee").

4. When campus actions are completed, these actions should be conveyed back to the UCA Clearinghouse for recordation and publication

5. The Community College Policy on Acceptance of UCA Reviewed Courses is as follows:

   (a) All Community Colleges agree to accept positive UCA committee recommendations for core, including core categories assigned by the committee.
   
   (b) All Community Colleges agree to accept the UCA committee judgment of not-Recommended (nR) without further review.
   
   (c) This policy is retroactive to the time the current articulation effort started.
   
   (d) The Community Colleges reserve the right to review and modify core category assignments as necessary to insure appropriate categorization and to realign such assignments if changes are made to the campus core structure. Such modifications shall not interfere with the timely publication of the student transfer handbook.

Note: UCA Clearinghouse

John Muth, Office of the Chancellor for Community Colleges, is acting as staff to the University Council on Articulation and is responsible for tracking all courses submitted for articulation.

Revised 1/29/2001
ANSC 151 L
Clinical Laboratory Techniques Lab

Thursday 1:30-4:15 PM
‘Imiloa 103

INSTRUCTOR:
OFFICE:
OFFICE HOURS:
TELEPHONE:
EFFECTIVE DATE: Spring, 2010

WINDWARD COMMUNITY COLLEGE MISSION STATEMENT

Windward Community College is committed to excellence in the liberal arts and career development; we support and challenge individuals to develop skills, fulfill their potential, enrich their lives, and become contributing, culturally aware members of our community.

CATALOG DESCRIPTION

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 (3 hrs. lab).

Prerequisite: Credit for or registration in ANSC 151. Credit for ANSC 142 and 142L or consent of instructor.

Activities Required at Scheduled Times Other Than Class Times: None

STUDENT LEARNING OUTCOMES

Upon successful completion of ANSC 151L, the student should be able to:

1) Properly package, handle and store specimens for laboratory analysis.

2) Demonstrate proficiency in the use of veterinary lab equipment (e.g. microscopes, blood chemistry analyzers, centrifuges, and refractometers).

3) Determine proper maintenance and quality control procedures necessary to ensure accurate results.

4) Properly carry out analysis of laboratory specimens, including urinalysis, CBC, blood chemistry and common cytological and parasitological procedures.

5) Recognize accurate vs. erroneous results in order to provide maximum diagnostic benefit.

6) Use critical thinking to analyze and interpret clinical data to determine if a need exists for additional laboratory tests that will provide useful diagnostic information.
COURSE CONTENT

Concepts or Topics
The student will demonstrate and integrate basic laboratory procedures and define basic laboratory results presented in lecture, required texts, and other instructional materials for specimen collection, management and analysis. These procedures include the following areas:

• Urinalysis (includes physical and chemical properties as well as examination of urine sediment)
• Complete Blood cell Count
• Hematocrit (PCV)
• Microscopic exam of blood film
• Coagulation testing
• Hematologic indices
• Blood chemistry and serologic tests
• Identification of blood, skin and fecal parasites
• Cytological components of vaginal, ear and skin samples
• Culture of bacteria and sensitivity tests
• Equipment maintenance and quality control
• Storage and packing of lab specimens
• Laboratory safety

COURSE TASKS

1) Attend class at scheduled times.
2) Participate in lab activities.
3) Complete both in-class practicums.
4) Record results of lab activities in lab notebook.
5) Complete weekly quizzes.

ASSESSMENT TASKS AND GRADING

QUizzes (100 points total- 10 points for each quiz). Students will take a short (10 min) quiz at the beginning of each lab. The quiz will be based on the material covered in the previous week as well as the reading for the current lab.

LAB ACTIVITIES (100 points). Students are expected to record the results and interpretation of all lab procedures in their laboratory notebook. The format for the notebook will be discussed on the first day of class. The notebook will be collected twice during the semester and evaluated for accuracy, organization and completeness.

LAB PRACTICUMS (100 points total-50 points for each practicum). The student will take two lab practicums (non-cumulative) to demonstrate knowledge and understanding of information presented in lab activities. These practicums will be a case-study format. Students, working in teams of two, will be presented with a patient file containing a medical history and list of symptoms. Based on this information, the team will choose which laboratory procedures need to be performed to determine the most accurate diagnosis. They will then perform the procedures using samples provided by the instructor, analyze the results and suggest a diagnosis. Students will be evaluated on their choice of procedure, technique, and interpretation of results.
ATTENDANCE (50 points): Attendance is mandatory and is worth 50 points towards the final grade. Each student is allowed one absence without penalty. Each unexcused absence above one will result in a deduction of points from the student’s attendance score. Students with more than two un-excused absences will receive an “F” grade in the class. Because most laboratory sessions require special equipment and preparation, make-up labs will NOT be given.

METHOD OF GRADING
The assignment of points will be according to the following:

<table>
<thead>
<tr>
<th>Component</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quizzes (10)</td>
<td>100</td>
</tr>
<tr>
<td>Lab Activities</td>
<td>100</td>
</tr>
<tr>
<td>Practicums (2 x 50)</td>
<td>100</td>
</tr>
<tr>
<td>Attendance</td>
<td>50</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>350</strong></td>
</tr>
</tbody>
</table>

GRADING SCALE

<table>
<thead>
<tr>
<th>Total Points</th>
<th>Percentage Points</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>314-350</td>
<td>90-100</td>
<td>A</td>
</tr>
<tr>
<td>279-313</td>
<td>80-89</td>
<td>B</td>
</tr>
<tr>
<td>244-278</td>
<td>70-79</td>
<td>C</td>
</tr>
<tr>
<td>209-243</td>
<td>60-69</td>
<td>D</td>
</tr>
<tr>
<td>&lt; 243</td>
<td>0-59</td>
<td>F</td>
</tr>
</tbody>
</table>

Grades may be curved at the instructor’s discretion; however, the student should use the above grading scale to evaluate their performance throughout the class. If you miss an examination because of an illness or legitimate emergency, you must contact the instructor within 48 hours to arrange a time to take a make-up exam. The instructor may request that the student present evidence of the illness or emergency that caused the student to miss the exam. If the student misses an exam for any other reason, the student may be prohibited from taking a make-up exam, thus failing to receive any points for the missed exam. While make-up exams will cover the same content area as a missed exam, the exam format and specific questions may be different. No retests will be given for any reason.

LEARNING RESOURCES

Textbooks:
1. **Laboratory Procedures for Veterinary Technicians.** Hendrix, Charles M. and Sirois, Margi. 5th Edition, Mosby Inc., St. Louis MO
3. **Urine Crystals in Domestic Animals, A Laboratory Identification Guide.** Osborne, Carl A., Clinton, Chris W., and Davenport, Marina P. Veterinary Medicine Publishing Co., 1990
LAB ATTIRE, CONDUCT, AND HYGEINE
Because biology labs often involve working with chemicals or hazardous materials, students MUST wear close-toed shoes. In addition, some lab activities will require students to wear gloves and safety glasses (provided by the college). Students failing to dress appropriately for lab will not be permitted to participate in laboratory exercises and will be considered absent. Students engaged in conduct that threatens themselves or others in the lab will be refused access to the lab for the remainder of the semester and receive an “F” grade for the course.

ACADEMIC DISHONESTY
Students involved in academic dishonesty will receive an "F" grade for the course. Academic dishonesty includes cheating and plagiarism. See page 16 of the 2008-2009 course catalog for a description of the University’s policies concerning academic dishonesty.

ACCOMODATION FOR STUDENTS WITH DISABILITIES
If you have a physical, sensory, health, cognitive, or mental health disability that could limit your ability to fully participate in this class, you are encouraged to contact the Disability Specialist Counselor to discuss reasonable accommodations that will help you succeed in this class. Ann Lemke can be reached at 235-7448, lemke@hawaii.edu, or you may stop by Hale ‘Akoakoa 213 for more information.
LAB SAFETY RULES

1) Be familiar with lab safety procedures and take appropriate precautions at all times to insure the safety of all lab students.

2) Follow all instructions carefully, especially when hazardous materials are being used.

3) Know the locations of important safety equipment: eyewash, safety shower, fire extinguisher, and first aid kit.

4) Report all injuries to the instructor immediately.

5) Dress appropriately for lab. Closed-toe shoes are required for ALL labs. Safety glasses and gloves are required for labs utilizing chemicals, bodily fluids, or hot-plates.

6) Report any hazardous conditions (e.g. chemical spills or broken glass) to the instructor immediately.

7) NO FOOD ALLOWED IN LAB

8) Chemicals used in lab may be poisonous, corrosive, or flammable. No chemicals, even those known to be safe, should be ingested or touched with un-gloved hands unless you are specifically directed to do so by your instructor.

9) Know how to safely operate all lab equipment and tools (e.g., microscopes, scalpels, and hematology supplies). Safe usage will be demonstrated by your instructor.

10) Clean all lab supplies and return them to their proper location before leaving lab.

11) Treat all organisms, living or dead, with care and respect. Use gloves when handling dissected specimens.

12) Place broken glass, sharps, and dissected specimens in the appropriate receptacles (NOT IN THE TRASH!)

13) Unless otherwise instructed, chemical wastes should NOT be disposed of down the drain.

14) Human tissues and bodily fluids (e.g., saliva and blood) must be disposed of in appropriate bio-hazard containers (NOT IN THE TRASH!).

15) Wash your hands immediately following each lab to reduce the possibility of contamination or infection.
### ANSC 151L Spring, 2010
Thursday 1:30 - 4:15 PM

*Imiloa 103*

<table>
<thead>
<tr>
<th>Week</th>
<th>Date</th>
<th>Topics</th>
<th>Reading</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1/14</td>
<td>Course Introduction&lt;br&gt;Lab Safety&lt;br&gt;Specimen Management</td>
<td>Syllabus Handouts</td>
</tr>
<tr>
<td>2</td>
<td>1/21</td>
<td>Advanced Microscopy</td>
<td>Microscope Handout</td>
</tr>
<tr>
<td>3</td>
<td>1/28</td>
<td>Tissue Collection and Processing</td>
<td>Lab protocols handout</td>
</tr>
<tr>
<td>4</td>
<td>2/4</td>
<td>Cytology 1: Processing and interpretation of samples from the ear and skin.</td>
<td>Cowell et al., CH: 1, CH:5</td>
</tr>
<tr>
<td>5</td>
<td>2/11</td>
<td>Cytology 2: Mucous Membranes- Vagina, oral and nasal passages.</td>
<td>Cowell et al., CH:7-10, 25</td>
</tr>
<tr>
<td>6</td>
<td>2/18</td>
<td>Parasitology: Fecal Floats, direct smears and parasite identification</td>
<td>Parasitology Manual</td>
</tr>
<tr>
<td>7</td>
<td>2/25</td>
<td>ELISA “snap-tests”, set up and results: Felv/FIV, Heartworm, Parvo, Giardia, and cPL</td>
<td>ELISA Reference Charts</td>
</tr>
<tr>
<td>8</td>
<td>3/4</td>
<td>Microbiology Lab: Bacteria Cultures and Sensitivity Tests</td>
<td>Microbiology Handout&lt;br&gt;Cowell et al., CH: 3</td>
</tr>
<tr>
<td>9</td>
<td>3/11</td>
<td>Lab Practicum # 1 (Case Study)</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>3/18</td>
<td>Urinalysis I: Physical and chemical characteristics</td>
<td>Urinalysis Exercise&lt;br&gt;Cowell et al., CH: 23</td>
</tr>
<tr>
<td>11</td>
<td>3/25</td>
<td>SPRING BREAK</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>4/1</td>
<td>Urinalysis II: Identification of urine sediments and evaluation of kidney function</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>4/8</td>
<td>Hematology I: Peripheral blood smears and manual cell counts</td>
<td>Hematology Exercise&lt;br&gt;Cowell et al., CH: 26</td>
</tr>
<tr>
<td>14</td>
<td>4/15</td>
<td>Hematology II: Automatic CBC- procedure and interpretation</td>
<td>Hematology Exercise&lt;br&gt;Cowell et al., CH: 26</td>
</tr>
<tr>
<td>15</td>
<td>4/22</td>
<td>Blood Chemistry: Procedures and interpretation</td>
<td>Blood Chemistry Exercise&lt;br&gt;Cowell et al., CH: 26</td>
</tr>
<tr>
<td>16</td>
<td>5/6</td>
<td>Analysis of Blood Gases</td>
<td>Blood Gas Exercise&lt;br&gt;Cowell et al., CH: 26</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Semester Review</td>
<td>Review of all topics with emphasis on diagnosis</td>
</tr>
</tbody>
</table>

- Last day to drop:
- Last day to withdraw ("W" entered on transcript):
- Final Exam: See schedule of classes for exam schedules.