ZOOLOGY 142L SYLLABUS
Spring 2019

ZOOL 142L SECTIONS: 60117 T 8:30-11:15 Imiloa 103

Instructor: Michelle Smith
Office: Imiloa 136
Office Hours: MW 8-8:30, 9:45-10:15 Imiloa 112B; T 8-8:30 Imiloa 103
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WINDWARD COMMUNITY COLLEGE MISSION STATEMENT

'O keia ka wā kūpono e ho'onui ai ka 'ike me ka ho'omaopopo i kō Hawai'i mau ho'oilina waiwai. Aia nō ho'i ma ke Kulanui Kaiāulu o ke Ko'olau nā papahana hou o nā 'ike 'akeakamai a me nā hana noʻeau. Me ke kuleana ko'iko'i e ho'ohiki ke Kulanui e kāko'o a e ho'okumu i ala e hiki kē kōkua i ka ho'onui 'ike a nā kānaka maoli. Na mākou nō e ho'oloko, kāko'o a paipai i nā Ko'olau a kō O'ahu a'e me nā hana no'ea'i ake, ka ho'ona'ua'o 'ohana a me ka ho'onui 'ike ma ke kaiāulu — hō'a'ano a e ho'olu'i i nā haumāna i ka poʻokela.

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.

CATALOG DESCRIPTION

Laboratory to accompany ZOOL 142. Reinforces the facts and concepts of human anatomy and physiology discussed in ZOOL 142 through dissections, examination of models, laboratory activities, and other hands-on experiences. This course is intended for students entering health care or medically related fields such as nursing, physical therapy and medical technology. (3 hours laboratory)

Pre-Requisite(s): Credit for or registration in ZOOL 142 or equivalent preparation or consent of instructor.

STUDENT LEARNING OUTCOMES

Upon successful completion of ZOOL 142L, the student should be able to:

1) Use the scientific method to design and conduct a clinical research study.
2) Describe the anatomy of the endocrine, circulatory, lymphatic, respiratory, digestive, urinary, and reproductive systems from prepared slides, models, and real and virtual animal dissections.
3) Use basic laboratory and medical equipment (microscopes, sphygmomanometers, stethoscopes, ECG apparatus, & respiratory spirometers) to evaluate functions of the above body systems.
4) Use critical thinking to analyze and interpret clinical data.
5) Prepare an oral presentation and written summary of lab activities using the scientific method.

LEARNING RESOURCES

* In addition, many students find it helpful to bring a digital camera and USB flash drive to class in order to photograph anatomical specimens and exchange data files and pictures from the digital microscopes.

**COURSE CONTENT**

*Concepts or Topics*
The student will describe and integrate basic biological principles and define basic biological terms presented in lecture, required texts, and other instructional materials. These principles include the following areas:

- Anatomy of the endocrine systems and physiology of hormone actions
- Functions and components of blood
- Anatomy of the heart and regulation of heart rate and cardiac output
- Anatomy of blood vessels and regulation of blood pressure and blood flow
- Mechanisms of general and specific resistance
- Anatomy and physiology of the respiratory system
- Digestive anatomy, processes, nutrition, and metabolism
- Anatomy of the urinary system, renal physiology, and fluid & electrolyte homeostasis
- Anatomy and physiology of male and female reproductive systems
- Physiology of pregnancy and fetal development
- Genetics and inheritance

**COURSE TASKS**

1) Attend class at scheduled times.
2) Participate in lab activities.
3) Complete required exercises in lab manual.
4) Complete 2 Practicals.
5) Present results of lab activities.

**GRADING**

**Grading:**

<table>
<thead>
<tr>
<th>Component</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Laboratory practical exam</td>
<td>2x 250</td>
</tr>
<tr>
<td>Pre-Lab Quizzes</td>
<td>100</td>
</tr>
<tr>
<td>Research Paper</td>
<td>100</td>
</tr>
<tr>
<td>Lab Manual exercises</td>
<td>200</td>
</tr>
<tr>
<td>Lab Notebook</td>
<td>100</td>
</tr>
<tr>
<td>Attendance</td>
<td>50</td>
</tr>
<tr>
<td>Participation</td>
<td>50</td>
</tr>
<tr>
<td>TOTAL</td>
<td>1000</td>
</tr>
</tbody>
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**LABORATORY PRACTICAL EXAM** (500 points). Two laboratory practical exams will be given throughout the semester. Each is worth 250 points each toward your lab grade.

The exam questions may consist of multiple choice, fill in the blank or a word bank, and pertain to: 1) any of the structures in the lab manual, or noted on handouts (referring to anatomical models and dissections); 2) the information related to physiology experiments performed; 3) any of the structures and functions on the assigned Slides.

Typically, exams cannot be made up; however, under unusual circumstances (emergencies) I may be able to fit a student in another lab time.

DO NOTETHAT THE LAST LAB PRACTICAL WILL BE HELD DURING THE LAST WEEK OF CLASSES, NOT FINALS WEEK.
PRELAB QUIZZES (100 points total). A prelab quiz will be taken on Laulima prior to each lab related to that day’s material. There is a Prelab Quiz information list on my website. Please review it before taking the quiz. You need to have computer access. You will have 72 hours prior to lab to take the quiz and have 10 minutes to complete it. There is no scheduled prelab quiz when a lab practical is scheduled.

LAB REPORT (100 points): A research paper on Mammalian Dive Reflex or an alternative lab exercise will be due one week after the lab experiment. You will need to include the Title Page, Purpose, Introduction, Procedures, Results, Discussion and References.

LAB MANUAL EXERCISES (100 points): Complete all lab manual exercises related to that weeks activity to be checked off by the instructor. Lab exercises need to be fully complete for full credit and turned in on time for a total of 200 points.

LAB NOTEBOOK (100 Points): Students are required to maintaining a lab notebook. A lab notebook is a separate composition book used to document experiments, draw microscopic images, and to keep track of valuable lab information. It will be checked at the 1st lab practical and the last lab, prior to the last lab practical.

ATTENDANCE (50 points): Attendance is mandatory. Each unexcused absence will result in a deduction of 5 points.

PARTICIPATION (50 points):  
This includes participating in all laboratory activities and working cooperatively within your group. You are also responsible for cleaning up the lab after an activity (e.g., putting specimens away, cleaning equipment you use, and bleaching table after dissecting).

Final Grade:  
Tentative grades associated with semester exam scores are only to give a rough estimate of relative class standing, and are not used to determine the final grade.

The standard grade scale will be used to determine your final grade. (>90%=A, 80%-89%=B, 70%-79%=C,60%-69%=D, ≤ 59%=F)

ADDITIONAL INFORMATION

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). Several labs will involve body measurements (e.g., body fat), light exercise, or the placement of electrodes or sensors on the body. Students should therefore wear loose-fitting clothing that allows for a free range of movement (i.e. no tight-fitting pants or jeans). 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.

LAB SUBJECT POLICY  
Most labs involve non-invasive clinical measurements (e.g., skin-fold measurement, reflex tests, etc). ALL students are required to participate in these activities. If you have a health condition or other reason why you should not participate you should inform the instructor. Experiments involving invasive or semi-invasive procedures (e.g., finger sticks and urinalysis) will be performed on volunteers only.

WINDWARD COMMUNITY COLLEGE POLICY

1. Windward Community College is an Equal Opportunity/ Affirmative Action Institution.
2. Extended time in a distraction-free environment is an appropriate accommodation based on a student's disability. If you do have a disability and have not voluntarily disclosed the nature of your disability and the support you need, you are invited to contact Ann Lemke at 235-7448, lemke@hawaii.edu, or you may stop by Hale ‘Ākoakoa 213 for more information.

3. Students are expected to attend all classes for which they are registered. If a student is unable to attend class, he or she should contact the instructor in advance to give notification of the absence and make necessary arrangements.

For those students who receive financial aid and fail to attend the first week of classes without making arrangements with the instructor, the instructor will submit the student’s name to the Financial Aid Office. The student will be denied financial aid for the class he/she is not attending. In addition, it is solely the student’s responsibility to withdraw from the class or attend the class and pay the tuition.

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 ‘Ākoakoa 213 for more information.

TITLE IX

Title IX prohibits discrimination on the basis of sex in education programs and activities that receive federal financial assistance. Specifically, Title IX prohibits sex discrimination; sexual harassment and gender-based harassment, including harassment based on actual or perceived sex, gender, sexual orientation, gender identity, or gender expression; sexual assault; sexual exploitation; domestic violence; dating violence; and stalking. For more information regarding your rights under Title IX, please visit: https://windward.hawaii.edu/Title_IX/.

Windward Community College is committed to the pursuit of equal education. If you or someone you know has experienced sex discrimination or gender-based violence, WCC has resources to support you. To speak with someone confidentially, contact the Mental Health & Wellness Office at 808-235-7393 or Kaahu Alo, Designated Confidential Advocate for Students, at 808-235-7354 or kaahualo@hawaii.edu. To make a formal report, contact the Title IX Coordinator, Karla K. Silva-Park, at 808-235-7468 or karlas@hawaii.edu.

ACADEMIC DISHONESTY & INTEGRITY

Students involved in academic dishonesty will receive an "F" grade for the course. Academic dishonesty includes cheating on exams and plagiarism. See page 16 of the 2011-2012 course catalog for a description of the University’s policies concerning academic dishonesty.

Work submitted by a student must be the student's own work. The work of others should be explicitly marked, such as through use of quotes or summarizing with reference to the original author.

Students can upload papers to http://www.TurnItIn.com to have papers checked for authenticity, highlighting where the paper potentially fails to appropriately reference sources.

In this class, students who commit academic dishonesty, cheating or plagiarism will have the following consequence(s):
Students will receive a failing grade for plagiarized assignments.

All cases of academic dishonesty are referred to the Vice Chancellor for Student Affairs.

**ALTERNATE CONTACT INFORMATION**

If you are unable to contact the instructor, have questions that your instructor cannot answer, or for any other issues, please contact the Academic Affairs Office:

Location: Alakai 121  
Phone: 808-235-7422  
Email: wccaa@hawaii.edu

**TWO-WAY COMMUNICATION DEVICES**

These devices are not allowed in the classroom. Please see to it that these devices are turned off while in class.

**UH POLICY ON EMAIL COMMUNICATION**

The electronic communications policy adopted in December 2005 establishes the University of Hawai‘i Internet service as an official medium for communication among students, faculty, and staff. Every member of the system has a hawaii.edu address, and the associated username and password provide access to essential Web announcements and email. You are hereby informed of the need to regularly log in to UH email and Web services for announcements and personal mail. Failing to do so will mean missing critical information from academic and program advisors, instructors, registration and business office staff, classmates, student organizations, and others.

*This Syllabus is subject to change, when appropriate.*
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.