Chaminade University **BIOLOGY 101** Spring '99

Class Meetings: TuTh 1745-2200 (5:45-10:00pm) at Henry Hall in room 17. Lecture sessions will usually last approximately two hours. There will usually be lab exercises or free lab study time assigned in room 8 following lectures. Concurrent registration in Biology 151 Lab is required.

Instructor: Charles Matsuda Office: Henry Hall 16.

Office Hours: TuTh 1715 - 1745, & by appointment. If calling during office hours, 735-4804 phone messages: 734-9356 email: cmatsuda@hawaii.edu FAX: 734-9151

TEXT: BIOLOGY, Life on Earth, 5th ed., by Audesirk and Audesirk, with ancillary materials.

INSTRUCTION: Lecture. Although attendance is not taken, lecture material from a variety of sources will be included on the tests, and regular attendance is normally required to pass.

GENERAL COURSE OBJECTIVE: To learn the basic concepts of life and the scientific method, and to encourage students to become independent learners; that is, to develop the ability to make informed decisions on biology-related issues by independent study of the text and other sources in a self-paced, self-directed manner; to make up their own minds and perceive the pseudoscientific falsehoods and half-baked quackery of spokespersons of any ilk.

SPECIFIC COURSE COMPETENCIES: As the course proceeds, and at the completion of this course, students should be able to correctly answer detailed objective questions concerning any of the lecture material, assigned textbook readings, and class handout assignments regarding:

a) the diversity of living organisms and the complexities of biological processes.
b) major biological concepts, including the cell, major organ systems, genetics, evolution, and ecology.
c) the physical and chemical bases of life.
d) the scientific method of investigation and problem solving.

Furthermore, students will be expected to be able to answer objective questions concerning the lecture material, textbook readings, and class handout assignments relating to this PROSPECTIVE COURSE OUTLINE:

PLANNED TOPIC(S), approximate only. **Unforeseen circumstances may require changes. If absent, ask classmates if schedule changes were made.**	CHAPTERS	TENTATIVE EXAM DATES, Topics NOT guaranteed
The Scientific Method, Basic Chemistry, and the Cell	2 thru 8	EXAM 1 (Apr 15)
Cell Cycle, Protein Synthesis, and Genetics	9 thru 12	EXAM 2 (Apr 27)
First Life, Evolution, Classification, and Diversity	13 thru 21	EXAM 3 (May 4)
Plant and Animal Diversity	23 thru 25, 2	EXAM 4 (May 11)
Animal Circulation, Respiration, Nutrition, and Digestion	27 thru 29, 3	EXAM 5 (May 18)
Urinary, Nervous, Endocrine Systems	30, 32, 33	EXAM 6 (May 27)
MusculoSkeletal, Reproductive Systems, Behavior & Ecology	34 thru 41	EXAM 7 (Jun 08)
All topics covered this semester	see above	FINAL Jun 10`°

STUDY SKILLS AND ADVISING: Biol 101 is a demanding course, you will generally need to study 6 hours a week outside of class to pass. I strongly recommend that you organize and rewrite lecture and text information into a set of coherent notes for review. Check with me at any time for your current course standing, and especially if you are doing poorly on exams.

c. The relevant text information provided on lab hand-out materials.

d. The structures cited in the lab manual relevant to the assigned dissection exercises.

2. Students will learn and execute the study skill of Creative Imaging, explained in the lab manual, pp. 4-10.

3. Students should become "independent learners" by researching, writing, and editing lab reports, and by self-directing their lab study of models and specimens.

Grading: The grade distribution is based on 200 points, with adjustments to the curve.
Lab and lecture grades are separate and independent.

a. Lab practicals: a mid-term and a noncomprehensive final. Each exam is 20 points, involving timed stations at which students answer multiple-choice questions concerning lab exercises and identify specimens and structures on models. Any missed practical will be recorded as 'zero'. There are no make-ups.

b. Dissection labs: 80 points are obtainable by practical testing at the end of each dissection lab.

c. Lab Write-ups: 40 points are obtainable by written lab reports, which will be ranked on a percentage scale to be explained in class. There will be a one point penalty deduction for every day late; faxes are acceptable.

d. Creative Images: 40 points are obtainable for the completion of 10 acceptable Creative Images depicting lab materials. Points will be deducted for unacceptable images. Due in class June 10, 1999. There will be a one point penalty deduction for each CI for each day late; faxes are acceptable, but the received copy will be evaluated, and poor reproduction quality may result in point deductions.

Date	Prospective Lab Schedule
Apr 06	01- Lab Orientation
Apr 08	02 - Lab Orientation, The Scientific Methods: Descriptive and Experimental; Sampling, Graphing, Interpretation; perform the Snake Experiment & set up infusoria out of class, write-up assigned.
Apr 13	03 - Organic Molecules Lab, identification of unknowns, write-up assigned.
Apr 15	04 - Microscopy using infusoria and prepared slides.
Apr 20	05 - Microscopy, mitosis.
Apr 27	06 - Creative Imaging
May 04	07 - Classification, making dichotomous keys
May 06	Lab Midterm Exam, 20 points
May 11	08 - Microscopy, lower phyla
May 13	09 - Worm, crayfish, and starfish dissections with 15 point practical test
May 18	10 - Pig dissestion with 20 point practical test
May 20	11 - Heart dissection, with 15 point practical test, write-up assigned
May 25	12 - Kidney, eye, and brain dissections with 15 point practical test
May 27	13 - Muscle Lab, write-up assigned
Jun 01	14 - Pig dissection, the sequel; testis dissection with 15 point practical test
Jun 03	Comprehensive Lab Final Exam, 20 points

GRADING: The grade curve is based upon eleven daily 5 point quizzes, seven 20 point exams, and one 55 point comprehensive final. NO extra credit assignments.

If a 20 point exam is missed, a make-up may be scheduled if the student provides a medical or other documented excuse of similar weight within seven days. Point reduction penalties may apply,

Approximate Grade curve: "A" = 250-225 "B" = 224-200 "C" = 199-175 "D" = 174-150 "F" = 149-0.

Adjustment points will be added to all student point totals if the class average falls below the 75th percentile mark normally expected on a standard curve. Individual student scores and point totals that fall below 50% are below the absolute course minimum, and will not be calculated into class averages.

Withdrawal Policy: Students who stop attending the lecture and/or lab with no withdrawal form processed will receive an "F". Students who withdraw from lecture must withdraw from the lab as well. Please consult your program coordinators or an advisor for assistance with withdrawal forms.

Important Notices:

Class is cancelled for the day if, without prior notice, the instructor is twenty minutes late.

If you are absent, obtain lecture notes and find out about course schedule changes from classmates.

Comments and suggestions concerning the course are encouraged, but instructional, departmental, and collegiate policies and responsibilities require that all final decisions reside with the instructor.

Mature and honorable behavior is expected of all class members. Any student observed looking at notes or another student's work during exams will be penalized minus 50 points for each incident.

Disruptive behavior will result in grade penalty and/or banishment from class. No earphones, no dictionaries, no calculators, no pagers, no cell phones, and no talking allowed during exams. Please turn off cell phones and pagers during lectures, and especially remember to do so during exams.

Chaminade University **BIOLOGY 101** L Spring 1999

Class Meetings: TuTh 1745-2200 at Henry Hall, rm 8. Labs start between 1930 and 2000, after lecture.

To contact me, please see office hours information listed at the top of the lecture syllabus.

Text: TBA

Instruction Methods: This course combines (a) dissection labs, (b) lab exercise write-ups, and (c) self-directed Creative Imaging.

Course competencies: To learn the basic anatomy and physiology of the human body by the completion of this course, and...

1. As the course proceeds, it is the responsibility of the students to be able to correctly answer detailed questions derived from the following sources:

   a. The underlined structures cited in the lab manual concerning the anatomy models.

   b. The relevant text information and picture identifications on the computer-laser disc.

Important Notices:

See me at any time during the semester to check your progress in lab.

Concurrent registration in Biology 101 is required.

No smoking, no drinking, no eating, no picture-taking, no software copying allowed in lab.

***** **WARNING AND DISCLOSURE** *****

Dissection material used in this lab should be assumed to have been fixed in formalin, an aqueous solution of formaldehyde. Although formalin has been used as a fixing agent and preservative of biological specimens for years, recent evidence indicates that formalin is an irritant of the eyes, upper respiratory tract, and skin - - especially in sensitive individuals. Also, lab experiments have shown that formaldehyde is tumorogenic in rats, and the EPA classifies formaldehyde as a **Group B 1 carcinogen.**
Formalin is toxic. Drinking formaldehyde is fatal.

For these reasons, during any dissection lab:

1. **Gloves should be worn to protect the skin.**
2. **Glasses should be worn to protect the eyes.**
3. **Spills and splashes should be immediately and thoroughly rinsed off with water.**
4. **The specimen should be frequently rinsed with water.**
5. **Available fans should be set on full speed, and all windows and doors kept open.**
6. **Anyone with chronic, defined respiratory problems should report to the instructor for possible initiation of alternative labs.**

ASSUMPTION OF RISK AND RELEASE FOR BIOLOGY 101 LABORATORY
Spring 1999, April 05 - June 14, Tuesday & Thursday evenings, 1745-2200, taught by Charles Matsuda

I **have read and fully understand the written safety and other rules and precautions that are a part of the requirements for my participation in lab, as** well as **those explained to me by my instructor, and I agree to strictly observe them; and**

1, **(Please print your name here) do for myself, my heirs, executors, and administrators hereby accept full responsibility for and indemnify, release, and discharge Chaminade University of Honolulu, its officers, agents, and employees from any and all claims of actions for property damage, and/or personal injury which may result from my failure to abide by these safety rules and** precautions, or from any inherent risks in said tab.

Student Signature Date