BIOL 1200 – Diversity of Life

INTRUCTORS: Drs. Eric Wood and Valerie Wong

Dr. Wood will teach course until October 1st - Dr. Wong will teach remainder

CONTACT INFORMATION: ericmwood@calstatela.edu; vwong19@calstatela.edu

RESEARCH AND LAB INFORMATION: www.ericmwood.org

LECTURE TIMES: Tuesdays and Thursdays, 12:15pm - 1:30pm; LOCATION: ASCB 132

OFFICE HOURS: T 3-4; Location – La Kretz Hall, 312 (Wood)

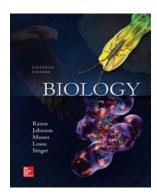
Tu/Th 9:15-10:15am KH A2036 (Wong)

LAB SECTIONS

All labs meet in room ASCB 362

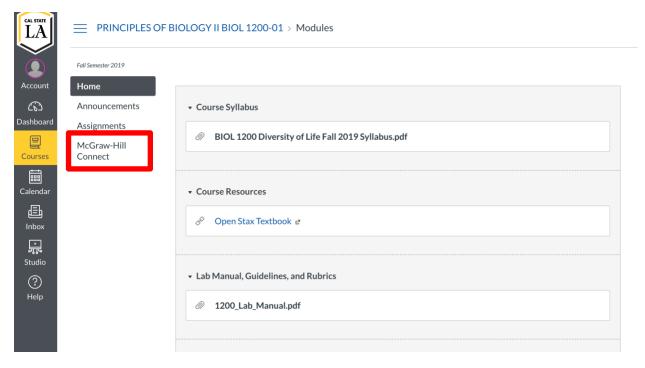
Sec#	Section Meeting Time	Teaching Assistant	Email	Office Hours	Location
2/3	M, 10a-1:30p	Panasyan,Tigran	tpanasy2@calstatela.edu	M, W 2p-3p	ASCB 356
5/6	М, 3:05р-6:30р	Keushkerian, Maral	mkeushk2@calstatela.edu	M, W 2p-3p	ASCB 362
8/9	W, 10a-1:30p	Panasyan,Tigran	tpanasy2@calstatela.edu	M, W 2p-3p	ASCB 356
11/12	W, 3:05p-6:30p	Keushkerian, Maral	mkeushk2@calstatela.edu	M, W 2p-3p	ASCB 362
14/15	T, 8a-11:30a	Lugo,Lisa	llugo6@calstatela.edu	T, W 12:30p-1:30p	ASCL 325
17/18	T, 2p-5:30p	Panasyan,Tigran	tpanasy2@calstatela.edu	M, W 2p-3p	ASCB 356
20/21	R, 8a-11:30a	Lugo,Lisa	llugo6@calstatela.edu	T, W 12:30p-1:30p	ASCL 325
23/24	R, 2p-5:30p	Panasyan,Tigran	tpanasy2@calstatela.edu	M, W 2p-3p	ASCB 356

REQUIRED TEXT: We will be using the e-text: Biology 11th edition, authors Raven et al.



This is the same e-text used for BIOL1100. If you have already taken that class, your subscription should still work for this term. If you have not registered and purchased the e-text, you will need to do so. The book store has tickets to purchase with registration codes, which can also be obtained via financial aid. To access Raven et al. and all course related material (e.g. assignments, reading materials, etc.), you will need to register directly through our Canvas site. Navigate to BIOL 1200-01, and look for the link on the left-side toolbar titled "McGraw-Hill Connect". There, follow the prompts to walk you through the registration process.

Note that you are registering for "Valerie Wong's course (Dr. Wong). This is because Dr. Wong will be handling the final grades. In the meantime, I am the instructor administering the site until Dr. Wong takes over. To help get you started, see image below for where to begin with accessing our course etext.



I have also provided you a link to the Open Stax Biology textbook (see Canvas). This is a free textbook and you are free to use this resource along with the Raven text.

COURSE DESCRIPTION: Introduction to the ecology, evolution, and diversity of life; structure and function, reproduction, and energy metabolism in plants, animals, and fungi.

Lecture 3 hours, Laboratory 3 hours, and Recitation 1 hour.

PREREQUISITE: BIOL 1100 (or equivalent) with grade of C or better.

LEARNING OUTCOMES: Upon successful completion of this course students will be able to:

- Describe the processes contributing to evolution in natural populations
- Interpret the evolutionary relationships on a phylogenetic tree
- Understand the basis for the study of ecology (relationships among plant and animals)
- Compare the ecology and evolution of plant and animal life cycles through the process of terrestrialization
- Compare the physiology, anatomy, and development of major plant and animal taxa
- Describe the evolutionary diversity and ecological roles of fungi

- Analyze the influence of various types of species interactions on community assembly, structure, and stability
- Evaluate alternate methods of biodiversity assessment and conservation strategies

COURSE WEBSITE: BIOL 1200 will have two web components that you will need to access. First, we will use the Canvas site extensively. We will post lecture slides, course resources, and quizzes, and laboratory exercises on Canvas. We will *also* use the McGraw Hill Connect site where your e-text is located. See above, as you will access this directly through our Canvas site. You *must* have access to both to complete course assignments. The McGraw Hill Connect site and associated textbook (Raven et al.) provides numerous readings, assignments and interactive tools to help you in your study.

MATERIALS AND HANDOUTS: In addition to the e-textbook and class handouts, computer and internet access will be required for this class. Computers are available at several campus locations including the main reading room in the library.

ATTENDANCE:

<u>Lectures</u> → Attendance is *necessary but not sufficient* to succeed in this course. Not coming to class reflects in every other part of your grade. Chronic tardiness disrupts the class and may result in academic underformance. Students are responsible for all material presented in class, including announcements about changes in course procedures. Students are responsible for acquiring missed material, and not all work may be made up.

• Excused absences: If you must miss class, it is your responsibility to notify your instructor as soon as possible, preferably before class. Excused absences include, but are not limited to: death or serious health issue of a close relation, religious reason, jury duty, university activity (e.g. – research conference, required field trip, artistic or athletic event). Your instructor must be notified about an anticipated absence (religious reason, government obligation such as jury duty, University activity) at least one week in advance in writing from your CSULA e-mail. For an unanticipated absence, you must provide documentation (e.g. – doctor's note) in writing from your CSULA e-mail.

<u>Lab</u> → Attendance in lab is *mandatory*. Your lab instructor will take role each lab and there are points associated with all exercises. Every lab requires quite a bit of effort to set up, and thus there are no make ups. Further, it is *not acceptable* to switch between lab sections if you miss yours. The max number of students we can allow in a room is 24 (for fire protocols), and thus it is totally unacceptable to crash labs. If you have a serious and compelling reason for missing a lab, you must contact Drs. Wood or Wong to share your reason. Further, you are required documentation for excused absences, sent via email to both your lab instructor and us. We will then determine whether it is possible to complete the lab during another time. Make up exams

will be given if a serious and compelling reason can be given to Dr. Wood in a timely manner. See 'Missed Exam Policy' below.

PARTICIPATION: You will be required to actively participate in all aspects of this class. This includes labs, in-class activities (during lecture and lab), online activities, and discussion of literature and/or short video clips during class time.

COURSE POINTS: Grades will be based upon points received for exams, weekly quizzes, lecture activities and lab. We will adhere to the following % breakdown for associated items.

Component	Percentage of Grade
Exam #1	10%
Exam #2	10%
Exam #3	10%
Exam #4	13%
Weekly Connect Assignments	12%
Weekly Quizzes	10%
Lab	35%
Total	100%

^{*}Note that percentage totals may change – but we will do our best to stick with the current breakdown.

LETTER GRADES: The overall grades in BIOL 1200 will be based on a scale that leads to the following distribution of grades. A > 94%; A- = 90-93.9%; B+ = 87-89.9%; B = 83-86.9%; B- = 80-82.9%; C+ = 77-79.9%; C = 72-76.9%; C- = 70-71.9%; D+ = 67-69.9%; D = 63-66.9%; D- = 60-62.9%; F < 60%.

GRADE ADJUSTMENTS: We do not curve individual assignments. However, if necessary, we *may* adjust the final grade scale at the end of the semester. Grades will only be changed if due to mathematical or human error. To maintain fairness, other factors such as time to graduation, major, or desire for a higher score will not be considered. No exceptions.

EXAMS AND FINAL: There will be four exams. The fourth exam (the final) <u>will not</u> be cumulative.

WEEKLY CONNECT ASSIGNMENTS: Prior to each lecture, starting in week 2, you will have a short assignment on Canvas for the assigned chapter(s). The assignment will be short multiple choice and T/F question, and will reflect the reading for a lecture (see schedule below). Assignments will be available two days prior to your lecture on Tuesday, and close at 8a the day of class, so that students are not completing assignments during lab time.

WEEKLY LECTURE QUIZZES: Following lecture, you will be given questions on Canvas to test your understanding of material covered during lecture.

LAB/RECITATION SECTIONS: Your lab section time and location can be found on your registration materials. Students are expected to attend and be on time for each lab as they are mandatory. A good portion of the course grade is based on reports, exercises, presentations, and participation in the lab sections. Students will be considered late if they have not arrived within 5 minutes of the start of lab and will not be given participation points for that class or allowed to participate in that week's lab. During some weeks you will discuss assigned readings, while other weeks you will participate in a class exercise or review. These are outlined below. Drs. Wood and Wong will not be teaching lab sections, but will be directly responsible for managing all lab content. If there are any problems with your lab section, please bring those to your instructor. The instructor can then deliver messages to either of us.

STUDENT SERVICES: The <u>Americans with Disabilities Act (ADA)</u> is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. The university provides reasonable accommodations to students with documented physical and learning disabilities. The Office for Students with Disabilities (OSD), located in Student Affairs Room 115 coordinates all documentation of disabilities (323-343-3140) http://www.calstatela.edu/univ/osd/.

UNIVERSITY INCOMPLETE GRADE POLICY: In the 2018-2019 University Catalog under Procedures and Regulations, the following wording is associated with the assignment of an incomplete: I, IC (Incomplete). An Incomplete grade is an interim grade designed for students who are passing but who, through extenuating circumstances, have not been able to complete part of the work of the course. An Incomplete grade is assigned at the discretion of the faculty member only when significant elements of the course requirements have not been met. An Incomplete will not be assigned when it is necessary for the student to attend a major portion of the class when it is next offered. Written documentation will be required to verify extenuating circumstances.

POLICY ON UNIVERSITY WITHDRAWAL FROM THE COURSE:

From the University Catalog under Procedures and Regulations:

'Students may add and drop classes without restriction or record through the first 15% of an instructional period. Drops occurring after the first 15% of an instructional period and prior to the last 20% of an instruction period are considered withdrawals and shall be recorded with a grade of "W" on the student's permanent record transcript. Withdrawals are permitted only for serious and compelling reasons. The student must complete a drop request form, state the reason for withdrawal, and obtain the signatures of the course instructor and the department/division chair or school director. Records of such approvals shall be maintained in

accordance with campus record retention policy. Undergraduate students may withdraw from no more than 18 semester-units (27 quarter-units) attempted at Cal State Los Angeles.

Withdrawals shall not be permitted during the final 20% of instructional period except where the cause of withdrawal is due to circumstances clearly beyond the student's control (e.g. serious illness, accident, job transfer, military deployment, etc.) and the assignment of an incomplete is not practicable.

Add and drop activity occurring on or after the first day of instruction may incur late payment fees and refund limitations as specified by the office of student financial services and the center for student financial aid and scholarships.'

After the "no-record drop" deadline (see above), students may withdraw with a W grade from any course, BUT only for serious and compelling reasons. Written documentation will be required to verify extenuating circumstances, and only Drs. Wood and Wong will sign add and drop forms for both lecture and lab (though, see clause stating Department Chair may sign in our place under 'Procedures'). Do not bring drop forms to class time since we will not sign them until after we verify your reasons and justification for dropping the class after the "no-record drop" deadline. To drop the course after the "no-record drop" deadline, you will need to see one of us during office hours or leave the detailed materials with office staff in BIOS 143. Since there are enrollment restrictions on all courses, you need to decide in week one whether or not you plan to complete the course since you will be preventing someone else from adding the course. Students who do not attend the first lab during week one will be dropped from the course regardless of the reason.

DROP POLICY: The drop policy established by the university will be strictly followed (see above for timeline). After the no record drop deadline, students may drop a course only for "serious and compelling reasons". Failing a course is not an acceptable reason for withdrawal. Acceptable documentation is required verifying the reason for the withdrawal.

CREDIT BY EXAM: Credit by Exam is **NOT** offered for this course.

MISSED EXAMS: Make-up exams will not be offered for any exams. Students who miss an exam will receive a zero for the entire test unless they provide documentation for one of two acceptable excuses:

- Incapacitating illness or accident--requires a note from student's physician (not a family member) or from a professional health service provider.
- Death or serious illness of an immediate family member— please see Drs. Wood or Wong if this is the case.

LATE ASSIGNMENTS: Assignments will **NOT** be accepted late.

ACADEMIC INTEGRITY: The central rule of academic honesty is that you *must* do your own work and use your own words. Some of the activities in BIOL 1200 involve group activities and you are welcome to discuss any of the materials in the text, lectures, or on-line materials with the instructors and other students, *but you must work independently on all of the following:*

- Lab write-ups
- Lab reports
- Homework assignments
- Online quizzes and activities
- Exams

<u>Independent work means that each student must generate their own answers to all written</u> <u>questions.</u> If you violate this, whether in lecture or lab, you will be disciplined accordingly.

Students are expected to read and abide by the University's Academic Honesty Policy (http://www.calstatela.edu/academic/senate/handbook/). Students who violate this policy will be subject to disciplinary action and may receive a failing grade for a single violation.

CLASSROOM CONDUCT: All cellphones, pagers and other electronic communication devices must be *turned off* during lecture and lab. During exams you will not be allowed to leave the classroom for any reason. You are allowed to use a laptop or tablet during lecture and lab, but you must be using it to take notes or participate in class activities. You must always treat your peers and your instructors with respect. You are in a professional learning environment at the university, and thus must act accordingly.

BIOL 1200 Laboratory

We will meet every week, for laboratory and recitation. You must show up on time and be prepared every week. Please consult your schedule as to which section you are to attend. You are not allowed to switch sections, regardless of the circumstance. This is a university-wide policy.

The laboratory and recitation are worth 35% of your grade. Below is a breakdown of how the points will be divided and what to expect for the different aspects of the lab. These points will be combined with your lecture points.

Component	Percentage
Pre-lab Quizzes	10%
Recitation Activities	10%
Lab 3 - Variation Worksheet	5%
Lab 9,10 - Data Analysis Worksheet	5%
Lab Report #1 (Bacteria all around us)	10%
Lab Report #2 (Leaf Stomata)	15%
Lab Notebook	20%
Lab Exam #1	12.5%
Lab Exam #2	12.5%
Total	100%

PRE-LAB QUIZZES: For the majority of labs, you will be given a pre-lab quiz. The quizzes will be short (~5 questions) and vary in format (multiple choice, fill in the blank, matching). The questions will be based off of information from your lab manual and will be for the lab occurring after the quiz. For example, if we have a quiz for week #5 it will be based on lab notebook material from the 'Bacteria Around Us' lab.

RECITATION ACTIVITIES: For specific weeks, denoted in the course schedule, we will have graded assignments based on activities and review material held during the recitation. These are to be turned in at the end of the recitation section.

WORKSHEETS: For two labs (Variation and Data Analysis/Gymnosperms) there will be worksheets with questions specific to that week's lab. These are due one week after the lab in completed.

Variation
Data Analysis/Gymn.
DUE week of Sept 16th
DUE week of Oct 22nd

LAB REPORTS: You will have two formal lab reports in BIOL 1200. You will collect and analyze the data for these reports. We will provide you with a rubric of expectations for both of these lab reports via Canvas. Your lab instructor will provide information to you on the format and expectations during the recitations. They will also assist you in analyzing data. Below are the due dates for the two lab reports:

Bacteria all around us
Leaf stomata
DUE week of Oct 14th
DUE week of Nov 18th

LAB NOTEBOOKS: You will be required to keep a lab notebook for this course. I recommend a composition notebook; they have these at the bookstore. You must have your notebook by week #2. Starting in week two we will give you (and your TA's) specific questions/drawings from the lab notebook that you must complete. Some of these are simple questions you must write out an answer to others are drawings you must complete. You will not be graded on how perfect your drawings are but that you made an attempt and that the information is clearly conveyed. What you will be graded on is completeness of your notebook.

The following components must be in your lab notebook:

- Table of contents indicating the pages for each chapter
- Page numbers
- Each question or drawing must include:
- The number from the lab notebook (e.g. if I ask you to answer question 5.2 you MUST indicate clearly 5.2 before that question. If your TA cannot find the questions or drawing easily, you will not get credit for it.
- A scientific name associated with each specimen that you draw
- All anatomical structures CLEARLY labeled (if requested)

Your lab instructors may share with you further information and a rubric for notebooks. Your lab notebook must be organized. We will not grade any loose papers that you have thrown or stapled into your notebook. PLEASE bring your notebook every week to class. TAs will examine your notebooks weekly, and assign points based on whether all components of a given lab were completed.

LAB EXAMS: You will be given two lab exams in BIOL 1200. These exams will test you on your knowledge of materials covered during lab sections. This includes:

- Nomenclature and phylogenetics of major taxonomic groups
- External and internal anatomy
- Basic biology, natural history, ecology and evolution of taxa covered during lab section.
- Lab Exam #1 will cover the following material: Protists, Algae, Fungi and plants

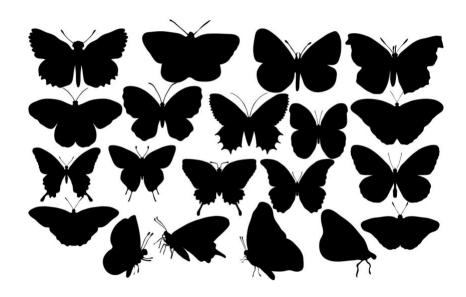
• Lab Exam #2 will cover the following material: *Sponges, Flatworms, Nematodes, Annelids, Mollusks, Arthropods and Vertebrates.*

Lab exams will be given on Canvas and will only be available during specific times. Lab exam #1 will be available to you during the following weekend (Oct 19th-20th). Lab exam #2 will be available to you the weekend following your last lab section (Dec 14th-15th). These exams will be timed and you will only be allowed to go through the questions once.

MISSED LABS AND LATE ASSIGNMENTS: If you miss a lab you will not be allowed to complete any assignments associated with that week's lab. If you miss the first lab, you will be *dropped* from the course. We also do not accept late assignments. We do understand that there are unforeseen circumstances that may cause you to miss a lab/recitation or turn in an assignment late. You must clear this excuse with Drs. Wood or Wong, NOT your lab instructor, to get permission to turn in an assignment late or an assignment associated with a lab you missed.

SOME GUIDELINES AND TIPS ON HOW YOU CAN SUCCEED IN THIS COURSE

- 1. Attend class regularly and attend all labs
- 2. Complete all quizzes and assignments
- 3. Read the textbook and take notes while reading
- **4.** Ask questions and participate in discussions, or Q & A especially during recitation and lab
- **5.** Keep your notes and lab-related materials in an organized system
- **6.** Plan on spending **two to three hours** working on the course outside of the classroom for every hour that is spent in the classroom as a minimum.
- 7. Come to office hours or talk with us or your lab TA when you have questions



Lecture and Lab Schedule, Fall 2019 BIOL 1200

Note that dates, topics and activities may change. Any changes to the schedule will be announced in class and posted online on the class Canvas site; it is the responsibility of the student to remain informed of any announced schedule changes.

Week	Lecture Topic	Chapter in Raven	Recitation Topic	Lab Topic	Lab Book Chapter
Aug 19-Aug 23	Intro and the Evidence for Evolution	21	Introduction/Lab Safety	Introduction/Lab Safety	
	The Origin of Species	22			
Aug 26-Aug 30	Genes Within Populations	20	Lab Safety - Microscope introduction	Life in Pond Water	Lab 1
	Genes Within Populations/Phylogenies	20			
Sep 2-Sep 6	Systematics, Phylogenies, and Comparative Biology	23	Labor day week - No lab	Labor day week - No lab	
	Exam 1 – CHs 20-23 (Sept 5, Thursday)		Labor day week - No lab	Labor day week - No lab	
Sep 9-Sep 13	Behavioral Biology	54	Intro to Graphing	Quantifying and characterizing variation	*
	Ecology of Individuals and Populations	55			
Sep 16-Sep 20	Community Ecology	56	Lab Reports	Bacteria Around Us	Lab 3
	Dynamics of Ecosystems	57			
Sep 23-Sep 27	The Biosphere	58	Lecture review	Bacteria Around Us	Lab 3
	Exam 2 – CHs 54-58 (Sept 26, Thursday)				
Sep 30-Oct 4	The Origin and Diversity of Life & Viruses	26; 27	Sample Sorting	Algal / Protist Diversity	Lab 5,6
	Bacteria and Archaea	28			
Oct 7-Oct 11	Origin of Eukaryotes/Protists	29	Lecture review	Bryophytes and Seedless Vascular Plants	Lab 8
	Bryophytes and Seedless Vascular Plants	30			
Oct 14-Oct 18	Rise of the seed plants: gymnosperms	31	Data Analysis	Gymnosperm & Angiosperms	Lab 9,10
	Angiosperms, the flowering plants	31			

Oct 22-Oct 25	Fungi	32	Lecture review	Leaf Stomata	
	Plant-microbe interactions	31, 32			
Oct 28-Nov 1	Exam 3 – Chs 26 - 32		Lecture review	Fungal Diversity	Lab 7
	Animal Diversity	33			
Nov 4-Nov 8	Animals: Sponges, cnidarians, and bilateria (flatworms)	34	Lecture review	Annelids, Mollusks, Arthropods	Lab 13, 14
	Lophotrochozoa: annelids and molluscs	34			
Nov 11-Nov 14	Ecdysozoa: arthropods + nematodes	34	Veteran's day week - No lab	Veteran's day week - No lab	
	Intro to deuterostomes: echinoderms	34	Veteran's day week - No lab	Veteran's day week - No lab	
Nov 18-Nov 22	Chordates and the vertebrate radiation	35	Lecture review	Echinoderms, Fishes, Amphibians, Reptiles	Lab 15,16
	Vertebrates II	35			
Nov 25-Nov 29	Thanksgiving break		Thanksgiving week - No lab	Thanksgiving week - No lab	
	Thanksgiving break		Thanksgiving week - No lab	Thanksgiving week - No lab	
Dec 2-Dec 6	Conservation Biology	56	Lecture review	Birds and Mammals	Lab 17, 18
	Humans and the Anthropocene I	59			
Dec 9 - Dec 13	Humans and the Anthropocene II	59		TBD	
	Catch up and Review				
Dec 16 - Dec 20	Exam 4 - CHs 33 - 59				

^{* -} Variation Lab materials will be provided to you on Canvas

Lab Quizzes will be online and open outside lab time periods

^{** -} Biodiversity Lab materials will be provided to you on Canvas