

**Course: Biology 100 section 20320/21, Principles of Biological Science (4 units)
-Spring 2013**

Instructor: Eddie Chang
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Tentative Office Hours:

Monday/Wednesday	1245-125p
Tuesday	510-620p
Thursday	11a-1230p (in 2712)
Other days/times	By arrangement

Class Schedule:

	Section 20320	Section 20321
Lectures- Rm. 2726	MW 130-255p	MW 305-430p
Lab – Rm. 2717	Tues 130-440p	Thurs 130-440p

****please READ the laboratory exercise before your scheduled lab session!!!****

Required Materials:

Textbook: Biology, the Essentials. by Marielle Hoefnagels ISBN978-0-07-809692-1
Lab Manual: Principles of Biological Science BIOL100 Lab Manual
The text and lab manual are available as a single packet only- you have to get it from the bookstore because the lab manual is custom made for this class ONLY.

Course Description:

A comprehensive one semester general biology course for non-majors. Includes life from the molecular to the organismic level of both plants and animals and their interactions within the environment. Special emphasis is put on human biology within appropriate areas of study. Appropriate for general education as well as nursing, pre-professional, and higher level biology courses. Includes laboratory component.

Pre-requisites: MATH 090

Course website: go to imperial.edu first. Once you're on the college site, you'll see some tabs near of the top of the web page. Click on the "Home" tab. Once you click on the home tab, a list of other tabs will then appear—now click on the "blackboard" tab and you can now log onto blackboard. To log onto blackboard, use the part of your official IVC student email address BEFORE the "@" symbol as the username and the password is your IVC email password.

Once you log in, you'll see the list of courses you're registered for and simply click on the course you're taking for me (eg, BIOL 100 CRN#^*%+) and you're in!

The website contains the syllabus as well as lecture slides, assignments, review guides, announcements and reminders and other teaching materials for the class . Please check the website often. Feel free to view and download the materials on the site

Course objectives

1. The student will identify the basic characteristics of all living things.
2. The student will name basic chemical aspects that pertain to life and the concept of homeostasis.
3. The student will describe the components of the cell including their structure and function.
4. The student will explain the light and dark reactions of photosynthesis.
5. The student will explain cellular respiration and its relations to the entire organism.
6. The student will demonstrate knowledge of the structure and function of DNA and RNA.
7. The student will explain protein synthesis and site the central dogma of cell biology.
8. The students will compare and contrast the fundamentals of asexual and sexual reproduction.

Course objectives (cont'd)

9. The student will define ecology and the overall impact of ecology to conditions in the environment.
10. The student will solve problems in general genetics and in human genetics and relate advances in genetics to social responsibility of geneticists.
11. The student will identify and relate the functions of the major systems of the human body; the interrelationship among body systems and nature of disease.

Student Learning Outcomes

Upon course completion, the successful student will have acquired new skills, knowledge, and or attitudes as demonstrated by being able to:

1. demonstrate an understanding of the steps of the scientific method. (ILO2)
2. communicate an understanding of the various patterns of inheritance of genetic traits. (ILO1, ILO2)
3. explain how the processes of natural selection influence evolution. (ILO1, ILO2)
4. perform lab activities properly, and correctly analyze lab data. (ILO1, ILO2)

important announcement for DSPS Students:

Any student with a documented disability who may need educational accommodations should notify the instructor or the Disabled Student Programs and Services (DSP & S) office as soon as possible.

DSP&S Office
Room 2117, Health Sciences Building
(760) 355-6312

Assignments and Grading: remember, I do NOT “hand out” grades. You earn your grade!!! Your grade is the result of what YOU do.

1. four examinations: three midterm exams and one final examination. 100 points each. Based on the materials covered in the textbook and lectures. Note: All exams are to be taken on the scheduled dates as indicated on the schedule. There will be no make-up exams except for medical, legal or natural reasons. Lectures are an essential part of this course; therefore, attendance and note-taking are required.

If you are a DSPS student, please inform me ASAP and remember to submit the forms at least 1 week before EACH exam (including final) so I can make the proper accommodations in a timely manner.

2. Laboratory Portion: Based on attendance and participation in the laboratory sessions, laboratory exercises/reports(10-30pts each). More on format of lab report during a later lab session.

3. Reflections papers- 1 to 2 page reports regarding your thoughts on various issues in biology. More guidelines on this later in the semester.

4. There may also be several homework assignments, in-class exercises and/or quizzes worth 10-20 points each.

5. Attendance- everyone starts with 50 attendance points at the beginning of the semester. You will lose 2 points for each time you are late OR absent for lab or lecture. There will also be a short in class exercise at the beginning of most classes worth 2-4 points each. If you are late or absent, you will not be able to do these assignments and you will get a "0" on them. Please arrive in class **ON TIME!!!** (for the sake of your grade)

In short- If you are **late OR absent** you will lose points.

Grading Scale: The student's semester grade will be determined by the total number of points the student has earned in both the laboratory and lecture sections. The points are then divided by the total number of points possible to get a "percentage score." I do not "curve" exam scores or overall grades

A=at least 88.0% of total points

B=at least 78.0% “

C=at least 68.0% “

D=at least 60.0% “

F= below 60.0% “

I do not "round off"- if you earned 58.7% of the points, you get a 58.7%, NOT 59%

Make up Policy: there will be NO make-up labs

A student may take a make up test due to the following basic reasons:

1. Medical reasons – student's or immediate family member's illness.
2. Legal reasons – student is required to be in court.
3. Family tragedy/emergency – e.g. death in the family.

Note: An incomplete grade will be assigned only after a written request by the student stating the reasons why the student cannot complete the course as stipulated in the course syllabus. If the student does not make a written request for an incomplete grade, the student will be assigned a grade commensurate with the total points the student has earned up to the time the grades are turned into the Registrar's office.

Course Rules/Regulations/Policies:

1. Attendance Policy: **BE ON TIME!!!** This is the most important and essential

requirement in order to succeed in this course. Studies have shown that students who attend classes regularly are more likely to complete their courses successfully than those who do not. It is not enough to have your name on the class list; it is imperative that you do indeed attend class meetings AND the lab sessions **ON TIME**. Please see grading section for how attendance affects your grade.

In short- If you are **late OR absent** you will lose points.

2. Active participation in classroom discussions: All students are expected to participate in classroom discussions on the various topics presented in class. Learning is not a one-way process -- it requires active involvement based on the recognition by the students of the inner need to know. The driving force of that inner need to know must of necessity come from the students themselves.

3. Classroom Behavior and Conduct: In order to facilitate learning and exchange of ideas, classroom atmosphere must radiate a deep sense of mutual respect and courtesy not only between the instructor and the students but also between the students themselves. Simply put: Treat others as you, yourself would like to be treated.

Note: **While in the classroom, cellular phones are to be turned off or set on vibratory or silent mode.**

if we are unable to cover topics in class due to disruptive behavior, you will still be tested on the topics!!!!

Disruptive behavior in class may result in classes and labs ending LATER than scheduled (i.e., "detention")- since you OWE ME time if you are engaged in disruptive behavior!!!

3. WITHDRAWAL POLICY:

If you wish to drop this class you must do so by going through the proper procedure (ie- thru WebStar) by the proper deadlines. Don't just stop showing up!!! **If you simply stop showing up instead of "officially" dropping the class thru Webstar, you will receive a grade of "F" for the class!**

4. Plagiarism and Cheating:

Please **Do NOT Cheat!** If you do you will get a score of 0 (zero) for that assignment. you will also be sent to the Chief Disciplinary Officer who will take appropriate action as stated in the college catalog. A 2nd occurrence may result in dismissal from class or expulsion from the college as stated in the catalog.

cheating is basically using other people's work as your own. This includes plagiarism and copying other people's exam answers or assignments. Cheating also includes helping others to cheat (like providing your answers to others).

IMPORTANT: Electronic devices (laptops, phones, blackberries, PDA's, IPODS, iPADS etc) are not allowed during an examination. If you use these devices or if they are even ON during an exam, your exam score will be reduced by AT LEAST 50%!!!

INSTRUCTOR: E. Chang
COURSE NAME: BIOLOGY 100

SPR 2013
CRN#: 20320/21

LECTURE: MW 2726 130-255
LAB: T or R 2717 130-440

WK	DAY	DATE	LECTURE	LAB (TUES or THURS)	MATERIALS NEEDED
1	Mon.	1-14	CH 1 intro	Scientific method; lab rules	12 NA plates; 25 sterile cotton swabs and 12 tubes of sterile water
	Wed.	1-16	CH 1 intro; CH2 chemistry		
2	Mon.	1-21	HOLIDAY	Lab 3 chemical composition	
	Wed.	1-23	CH2 chemistry;		
3	Mon.	1-28	CH2 chemistry	Lab 2 (section 2.1-2.5) microscopy	yarn slide, letter e slide, euglena slide
	Wed.	1-30	Ch 2 chemistry; intro to cells (CH4)		
4	Mon.	2-4	CH3 and ch 4.5 (p75-80) cells and membranes	Lab 4 cells and diffusion	Potato and live elodea and onion
	Wed.	2-6	As above		
5	Mon.	2-11	CH8 cell division	Exam 1. Ch1-4	
	Wed.	2-13	CH4enzymes; assign paper 1		
6	Mon.	2-18	HOLIDAY	Lab 5 enzyme	potato
	Wed.	2-20	CH6 using energy		
7	Mon.	2-25	CH6 energy; Ch5photosynthesis	Lab7.1; photosynthesis/ respiration lab	Note: Photosynthesis/respiration lab is a handout Yeast & sugar; Live elodea; beans; respiration CD ROM
	Wed.	2-27	Ch5		
8	Mon.	3-4	Ch23 tissues and organization of animal body	Exam 2 Ch5 - 8	
	Wed.	3-6	Ch27 heart vessels blood		
9	Mon.	3-11	As above	No lab; catch-up on lecture	
	Wed.	3-13	Ch28 digestion; assign paper 2		
10	Mon.	3-18	Ch28 excretion	Pig dissection	Fetal pig; models of heart, kidney, mannequin with

				labs 26 and 27	removable organs
	Wed.	3-20	Ch 24 brain and nervous system		
11	Mon.	3-25	Ch24	Lab 30- senses	Sheep brain, cow eye, models of eye and spinal cord, spinal cord slide
	Wed.	3-27	Ch 7 DNA molecule		
WK	DAY	DATE	LECTURE	LAB (TUES or thurs)	MATERIALS NEEDED
12	Mon.	4-8	Ch7; ch9 cell division and reproduction	Exam 3: ch23,24,27,28	
	Wed.	4-10	Ch9		
13	Mon.	4-15	Ch10 genetics-inheritance of traits	Open-catch up on lecture if needed	
	Wed.	4-17	Ch10		
14	Mon.	4-22	Evolution-Ch12,13,14; paper 2 due	Lab 10 & DNA necklace lab	DNA necklace kit
	Wed.	4-24	As above		
15	Mon.	4-29	Ecology/environment Ch18-20	Open-catch up on lecture if needed	
	Wed.	5-1	As above		
16	Mon.	5-6	Catch-up / Review for final	Final exam chapters 7,9,10, evolution, environment	
	Wed.	5-8	FINAL		