

BIOL-6A & -6AH (Honors):**Biological Form & Function**

BIOLOGY-006A & -6AH: Lecture	Tue & Thu 10:30-12:20	S34
BIOLOGY-006A-05: CRN #44272 Lab BIOLOGY-006AH-05H: CRN #44322 Lab	Mon/Wed 12:30-3:20	SC 2108
BIOLOGY-006A-06: CRN #44278 Lab BIOLOGY-006AH-06H: CRN #44323 Lab	Tue/Thu 12:30-3:20	SC 2108
"E-Greensheet": Detailed course syllabus, schedule, lecture slides, and lab materials on the course website: http://www.deanza.edu/faculty/heyerbruce/bio6a.html		
<ul style="list-style-type: none"> ▪ Required Text: Campbell Biology, 10th ed., Reese, J,B,, <i>et al</i>; Pearson Education, 2014. ▪ Required Mastering Biology supplemental instruction-homework-quiz website: — http://www.masteringbio.com/ ▪ Required Lab Manual: Biology 6A Lab Manual, McCauley, B. & B. Heyer; DeAnza College, 2014. — download and print from the class website. ▪ Recommended Lab Supplement: A Photographic Atlas for the Biology Laboratory, 7th ed., Van De Graaff, K & J. Crawley; Morton Publishers, 2013. 		
Instructor: Bruce Heyer	Email: heyerbruce@deanza.edu	
	Office: SC 1212 Office Hours: Mon/Wed — 10:30-12:20	Phone: (408) 864-8933

COURSE DESCRIPTION

Biology-6A is the first of three courses for serious enthusiasts of the biological sciences to present the foundations of life's processes and the methods for scientific investigation. In this first course we shall elaborate on organismal biology - the comparative structure (form) and physiology (function) of the diverse range of living inhabitants of our planet relevant to the basic universal necessities of being alive. Central themes include producing and maintaining a stable internal body environment while exchanging energy, nutrients, water, gases, and wastes with the outside world; sensing and responding to stimuli; and transporting materials and coordinating actions in a multicellular organism.

The class lectures examine specific biological phenomena across a wide variety of organisms, but the laboratory portion focuses on the overall structure of specific groups of multicellular organisms. Thus, while the concepts presented in lectures are applied to this survey of the major plant, fungus, and animal body plans, the lab exercises do not directly parallel the lectures and much of the content is presented only in lab. Therefore, it is mandatory to fully participate in both the lecture and laboratory components to pass the class.

GRADING

- **Lab Exercises & Quizzes:** ~12 exercises and/or quizzes. Average of all scores = 100 points.
- **On-line Homework & Problem sets:** ~20 sets. Average score of all problem sets = 100 points.
- **Lab Exams:** Two lab practical exams. Average of lab exam scores counts 100 points.
- **Lecture Exams:** There are three non-cumulative exams based upon material covered in lecture. (The final exam is Exam 3.) Each exam counts 100 points. (3 x 100 = 300 points)
- The final class grade will be determined as a percentage of the maximum total 600 points:

	92-100%= A		89-91%= A-		86-88%= B+		80-85%= B		77-79%= B-	
			74-76%= C+		65-73%= C		53-64%= D		<53%= F	

Week	Date	Day	Lecture Topic	Chapter	Lab Topic
1	Apr 04	Mon			01: Scientific Method
	Apr 05	Tue	Life & Science	1	
	Apr 06	Wed			02: Systematics
	Apr 07	Thu	Classification Systems	26	
2	Apr 11	Mon			03: Plants I
	Apr 12	Tue	Life Cycles	12.1; 13.1-2; 28.2-6	
	Apr 13	Wed			04: Plants II
	Apr 14	Thu	Plant Development & Tissues	35	
3	Apr 18	Mon			05: Plants III
	Apr 19	Tue	Plant Vasculature & Transport	36	
	Apr 20	Wed			06: Plants IV
	Apr 21	Thu	Gas Exchange in Animals	42	
4	Apr 25	Mon			SE-1: Gas Exchange
	Apr 26	Tue	Circulation	"	
	Apr 27	Wed			07: Fungi
	Apr 28	Thu	Exam 1		
5	May 02	Mon			Review for lab exam
	May 03	Tue	Animal Development & Tissues	47	
	May 04	Wed			Lab Exam 1
	May 05	Thu	Homeostasis & Thermoregulation	40	
6	May 09	Mon			08: Animals I
	May 10	Tue	Feeding & Digestion	41	
	May 11	Wed			09: Animals II
	May 12	Thu	Nutrition	"	
7	May 16	Mon			10: Animals III
	May 17	Tue	Osmoregulation	44	
	May 18	Wed			SE-2: Osmoregulation & Excretion
	May 19	Thu	Excretion	"	
8	May 23	Mon			Memorial Day — No lab
	May 24	Tue	Exam 2		
	May 25	Wed			11: Animals IV
	May 26	Thu	Coordination of Body Functions	45; 48	
9	May 30	Mon			12: Animals V
	May 31	Tue	Animal Senses	50	
	Jun 01	Wed			13: Fish Anatomy
	Jun 02	Thu	"	"	
10	Jun 06	Mon			14: Mammalian Anatomy
	Jun 07	Tue	Locomotion & Motor Systems	"	
	Jun 08	Wed			15: Vertebrate Skeletons
	Jun 09	Thu	"	"	
11	Jun 13	Mon			Review for lab exam
	Jun 14	Tue	Animal Reproduction	46	
	Jun 15	Wed			Lab Exam 2
	Jun 16	Thu	Catch-up & Wrap-up		
12					
	Jun 23	Thu	Exam 3 (9:15–11:15)		