

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

BIOLOGY-006A & -6AH: Lecture	Tue & Thu 10:30-12:20	S34
BIOLOGY-006A-01: CRN #44272 Lab BIOLOGY-006AH-01H: CRN #45765 Lab	Mon & Wed 12:30-3:20	SC 2108
BIOLOGY-006A-02: CRN #44278 Lab BIOLOGY-006AH-02H: CRN #45766 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, 11th ed., Urry, L.A., <i>et al</i>; Pearson Education, 2017. ▪ Required Mastering Biology supplemental instruction-homework-quiz website: — http://www.pearsonmastering.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: Van De Graaff's Photographic Atlas for the Biology Laboratory, 8th ed., Adams, B. & J. Crawley; Morton Publishers, 2018. (Older editions OK) 		
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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 09	Mon			01: Scientific Method
	Apr 10	Tue	Life & Science	1	
	Apr 11	Wed			02: Systematics
	Apr 12	Thu	Classification Systems	26	
2	Apr 16	Mon			03: Plants I
	Apr 17	Tue	Life Cycles	12.1; 13.1-2; 28.2-6	04: Plants II
	Apr 18	Wed			
	Apr 19	Thu	Plant Development & Tissues	35	
3	Apr 23	Mon			05: Plants III
	Apr 24	Tue	Plant Vasculature & Transport	36	06: Plants IV
	Apr 25	Wed			
	Apr 26	Thu	Gas Exchange in Animals	42	
4	Apr 30	Mon			SE-1: Gas Exchange
	May 01	Tue	Circulation	"	07: Fungi
	May 02	Wed			
	May 03	Thu	Exam 1		
5	May 07	Mon			Review for lab exam
	May 08	Tue	Animal Development & Tissues	47	Lab Exam 1
	May 09	Wed			
	May 10	Thu	Homeostasis & Thermoregulation	40	
6	May 14	Mon			08: Animals I
	May 15	Tue	Feeding & Digestion	41	09: Animals II
	May 16	Wed			
	May 17	Thu	Nutrition	"	
7	May 21	Mon			10: Animals III
	May 22	Tue	Osmoregulation	44	SE-2: Osmoregulation & Excretion
	May 23	Wed			
	May 24	Thu	Excretion	"	
8	May 28	Mon			Memorial Day — No lab
	May 29	Tue	Exam 2		
	May 30	Wed			11: Animals IV
	May 31	Thu	Coordination of Body Functions	45; 48	
9	Jun 04	Mon			12: Animals V
	Jun 05	Tue	Animal Senses	50	13: Fish Anatomy
	Jun 06	Wed			
	Jun 07	Thu	"	"	
10	Jun 11	Mon			14: Mammalian Anatomy
	Jun 12	Tue	Locomotion & Motor Systems	"	15: Vertebrate Skeletons
	Jun 13	Wed			
	Jun 14	Thu	"	"	
11	Jun 18	Mon			Review for lab exam
	Jun 19	Tue	Animal Reproduction	46	Lab Exam 2
	Jun 20	Wed			
	Jun 21	Thu	Catch-up & Wrap-up		
12					
	Jun 28	Thu	Exam 3 (9:15–11:15)		