

Syllabus

Time: 11:00–11:50 am, Mon/Wed/Fri

Place: Science Building 214

Instructor

Dr. Michael Angilletta (273 Science Building, 237-4520, mangilletta@indstate.edu)

Office Hours

Because each student has a unique schedule, I do not hold formal office hours. For assistance with lecture material, please e-mail or call me to arrange a meeting.

Text

Sadava, D., H.G. Heller, G.H. Orians, and W.K. Purves. 2008. Life: The Science of Biology, 8th edition. Sinauer Associates.

Course Website

A website has been specially designed for this course. This site contains information on how and when to contact your instructors, lecture outlines, review materials, and information about the laboratory course (BIOL 101L). You can access this site directly at <http://mama.indstate.edu/angillet/BIOL101/index.htm>. To download lecture notes you will need to have Adobe Acrobat Reader installed on your computer.

Grading

Your grade is determined by your performance on four exams, each of which will be worth 100 points. The lowest of your four exams will be dropped, so that your final grade will be based on a total of 300 points. No make-up exams will be given under any circumstances. *If you must miss an exam for any reason, it will count as your dropped exam.* If you have an A in the course after Exam III, you do not have to attend the Final Exam. Your final grade will be assigned according to the following system:

A	≥ 270 (90-100%)
B	240-269 (80-89%)
C	210-239 (70-79%)
D	180-209 (60-69%)
F	< 180 (< 60%)

Note the laboratory for Principles of Biology is a separate course (BIOL 101L). You will receive a syllabus for the laboratory course from your lab instructor. Although the topics that are covered in the lecture and lab courses are synchronized, you will be graded independently on your performance in lecture and lab. If you are not certain as to whether you should be enrolled in the laboratory course, contact your academic advisor as soon as possible.

Review sessions

A supplemental instructor will conduct review sessions 3-4 times per week. The schedule for reviews will be posted on the course website (under Review Materials). In addition, I will lead a review session prior to each exam.

Tips for Success

1. Attend class regularly.
2. Read the recommended sections of your text prior to attending lecture.
3. Visit the website before each lecture.
4. At least once per week, review all lecture notes since the last exam.
5. Ask questions early and often.
6. Start a study group with some friends.

Date	Lecture Topic	Related Reading	Lab exercise
8/26	Introduction to biology	—	No lab
8/28	Evolution: the unifying principle of biology	pp. 4-13	
8/31	The scientific method	pp. 1-2, 13-16	Sampling populations
9/2	Interpreting data	"	
9/4	Testing hypotheses: example from 101 lab	Lab reading: Sampling populations	
9/7	LABOR DAY (no class)	—	Evolution simulations
9/9	The history of evolutionary thought	Chapter 22	
9/11	Natural selection and adaptation	"	
9/14	Constraints on adaptation	"	Artificial selection
9/16	Non-adaptive evolution	Chapter 22	
9/18	Analysis of artificial selection data	Lab reading: Artificial selection	
9/21	Species and speciation	Chapter 23	Phylogenetic analysis
9/23	Diversity: a phylogenetic framework	Chapter 25	
9/25	EXAM I (8/26–9/21)	—	
9/28	History of life	Chapter 21	Bacteria, Protists, & Fungi
9/30	Origin of life	pp. 61-64; Chapter 26	
10/2	Origin of eukaryotes	Chapter 27/Handout	
10/5	Origin of multicellular organisms	Chapter 31	Plants
10/7	Cambrian explosion	Chapter 32	
10/9	FALL BREAK		
10/12	Cambrian explosion (continued)	Chapter 32	Invertebrates
10/14	Invasions of land	Chapter 33	
10/16	Human evolution I: historical perspective		
10/19	EXAM II (9/23–10/16)	Handout	Vertebrates
10/21	Human evolution II: current directions	—	
10/23	Extinction	Chapter 21	
10/26	Ecology: individuals to ecosystems	Chapter 53	Human evolution
10/28	Dealing with stress: homeostasis	—	
10/30	Dealing with stress: acclimation	—	
11/2	Foraging	pp. 1070-1078, Chapter 53	Physiological ecology
11/4	Photosynthesis	—	
11/6	Using energy		
11/9	Acquiring mates		Behavioral ecology
11/11	EXAM III (10/21–11/9)	Chapter 53	
11/13	Animal mating strategies (Diana Hews)		
11/16	Plant mating strategies (Peter Scott)		Population growth I
11/18	Populations (Peter Scott)	Chapter 54	
11/20	Population dynamics	"	

11/23	Human population growth Interactions among species	Chapter 54	No lab
11/25	THANKSGIVING BREAK		
11/27	THANKSGIVING BREAK		
11/30	Competition	Chapter 55	Review for practical exam
12/2	Predators and prey		
12/4	Coevolution		
12/7	Ecosystems	Chapter 56	Practical exam
12/9	Global change and our future	Chapter 57	
12/11	Review / Evaluations		
12/18	Exam IV (11/13–12/9), 10 am-12 pm		