

Advanced Placement Biology 2010 - 2011 Syllabus

This document shows the approximate timeline we will be following in A.P. Biology. Please verify dates on a regular basis. Additional assignments will be given in class, so although you are expected to have completed the work described in this table, it should not be considered a comprehensive list of your responsibilities.

<i>Dates</i>	<i>Topics</i>	<i>Assignments</i>
8/4/10	Policies & procedures, discuss summer reading.	Summer reading.
8/5/10	Emergent properties lab.	Root Word Quiz 1 , Ch. 1
8/6/10	Scientific Method lab, lab design	
8/9/10	Darwin's ideas.	Ch. 22
8/10/10	Evolution of populations, Hardy-Weinberg	Root Word Quiz 2 , Ch. 23, Prelab AP Lab 8
8/11/10	AP Lab 8	Scientific Method lab writeup
8/12/10	Mechanisms of adaptive evolution, essay writing.	
8/13/10	Mechanisms of speciation	Lab 8 writeup, Quiz on 22-23
8/16/10	Speciation and macroevolution.	Ch. 24
8/17/10	Cladistics, insect synapomorphies	Ch.25
8/18/10	Finish cladistics	Root Word Quiz 3
8/19/10	Early earth & the origin of life	Ch. 26
8/20/10	Review/catchup (Substitute – Picture Day)	
8/23/10	Evolution Unit Test	Unit Test

<i>Dates</i>	<i>Topics</i>	<i>Assignments</i>
8/24/10	Introduction to prokaryotes, Gram staining lab (dress)	Ch. 27, Dress
8/25/10	Finish prokaryotes, discuss test	
8/26/10	Protist anatomy lab	Root Word Quiz 4 , Ch. 28
8/27/10	Preying protists lab	
8/30/10	Introduction to plants: common features & land adaptations	Quiz on 27 & 28 , Ch. 29
8/31/10	Bryophytes and seedless vascular plants	Root Word Quiz 5
9/1/10	Gymnosperms	Ch. 30
9/2/10	Angiosperms, monocot and eudicot lab	
9/3/10	Fungi lab	Quiz on 29 & 30 , Ch. 31
9/6/10	Holiday – No School	
9/7/10	Finish fungi	Root Word Quiz 6
9/8/10	Invertebrate overview, body plans	Ch. 32
9/9/10	Porifera, Cnidaria & Platyhelminthes lab	Ch. 33
9/10/10	Nematoda & Rotifera lab	
9/13/10	Annelida dissection (dress)	Root Word Quiz 7 , dress
9/14/10	Mollusca, Arthropoda dissection and comparison (dress)	Dress
9/15/10	Finish invertebrates (Short day – District PLC)	
9/16/10	Chordate challenges and adaptations	Ch. 34

<i>Dates</i>	<i>Topics</i>	<i>Assignments</i>
9/17/10	Catchup/review	
9/20/10	Biodiversity Unit Test	Unit Test
9/21/10	Ecology review, prep Winogradsky columns	Dress for mess , Ch. 50, bring 2 liter bottles
9/22/10	Biome review, climographs	
9/23/10	Population ecology, human population growth	Ch. 52
9/24/10	Species interactions	Ch. 53
9/27/10	AP Lab 12 (dress)	Dress, Prelab , Ch. 54
9/28/10	AP Lab 12, cont. (dress)	Dress
9/29/10	Lab discussion, primary productivity	Quiz on 50, 52, & 53
9/30/10	Biogeochemical cycles	Lab 12 writeup
10/1/10	Finish biogeochemical cycles, review/catchup. (Short period – Homecoming)	
10/4/10	Ecology Unit Test	Ecology Unit Test
10/5/10	Review/catchup	
10/6/10	Review/catchup	
10/7/10	Midterm	Midterm
10/8/10	(No class – midterms in periods 4 & 5)	
	Fall Break (Oct. 11 - 15)	

<i>Dates</i>	<i>Topics</i>	<i>Assignments</i>
10/18/10	Chemical foundations of Biology	Ch. 2
10/19/10	Properties of water	Ch. 3
10/20/10	Mid-term exam discussion	
10/21/10	Properties of carbon	Ch. 4
10/22/10	Properties of carbohydrates lab (dress)	Quiz on Ch. 2 & 3, dress, read sect. 5.1 & 5.2
10/25/10	Finish carbohydrate lab , begin lipid lab (dress)	Dress , sect. 5.3
10/26/10	Protein lab (dress)	Dress , sect. 5.4
10/27/10	Protein folding, Protein lab, cont. (dress)	Dress
10/28/10	Nucleic Acids lab (dress)	Dress , sect. 5.5
10/29/10	McMush lab (dress) , review	Dress
11/1/10	Biochemistry Unit Test	
11/2/10	Watson & Crick, replication	Ch. 16
11/3/10	Modeling replication, discuss test	
11/4/10	Transcription & eukaryotic modifications	Ch. 17
11/5/10	Translation	
11/8/10	Review transcription & translation	
11/9/10	Intro to cells	Quiz on 16 & 17, Ch. 6
11/10/10	“Inner Life of a Cell”	
11/11/10	No School – Veteran's Day	
11/12/10	Mitochondria in Action lab & Agar Races	Organelle disease paper

<i>Dates</i>	<i>Topics</i>	<i>Assignments</i>
11/15/10	Mitosis, AP 3, Part I	Ch.12, Prelab
11/16/10	Cell cycle regulation & cancer, lab discussion	
11/17/10	Review/catchup (Short period – Dist. PLC)	Lab Writeup
11/18/10	Plant growth & development. Tissue lab - plants	Ch. 35
11/19/10	Tissue lab – animals.	Ch. 40
11/22/10	Discuss lab, homeostasis, review	Lab writeup
11/23/10	Cells & Growth Patterns Unit Test	Unit Test
11/24/10	Discuss test	
	Thanksgiving Break (11/25 & 11/26)	
11/29/10	AP Lab 1 (dress)	Prelab, dress, Ch. 7
11/30/10	Finish lab , discuss. Water potential	
12/1/10	Intro to circulatory system	Ch. 42, lab writeup
12/2/10	Pig heart dissection (dress),	Dress
12/3/10	Heart attacks, Virtual Cardiology Lab	Circulatory packet
12/6/10	AP Lab 10, parts A & C , vessel microscopy	Prelab
12/7/10	AP lab 10, part B	
12/8/10	Lung capacity lab (Short period – awards assembly)	
12/9/10	Respiratory system survey & discussion	

<i>Dates</i>	<i>Topics</i>	<i>Assignments</i>
12/10/10	Survey of excretory systems, kidney function	Quiz on 7 & 42, lab writeup, Ch. 44
12/13/10	Kidney dissection (dress)	Dress, Ch. 44 questions
12/14/10	Review/catchup	
12/15/10	Review/catchup	
12/16/10	No class (Finals in periods 4 & 5)	
12/17/10	Final Exam	Final Exam
	Winter Break	
1/3/11	AP Lab 9	Winter Break Project, Prelab, Ch. 36
1/4/11	AP Lab 9, cont.	
1/5/11	Vascular transport, lab discussion, final exam discussion	Lab writeup
1/6/11	Review/catchup	
1/7/11	Exchanging Materials Unit Test	Unit Test
1/10/11	Laws of thermodynamics	Ch. 8
1/11/11	AP Lab 2 (dress)	Prelab, dress
1/12/11	AP Lab 2, cont. (dress)	Dress
1/13/11	Photosynthesis	Ch. 10, lab due
1/14/11	Calvin cycle, C ₄ , & CAM plants (Short period – Winter assembly)	

<i>Dates</i>	<i>Topics</i>	<i>Assignments</i>
1/17/11	No School – Martin Luther King, Jr.	
1/18/11	AP Lab 4 (dress)	Prelab, dress
1/19/11	Discuss lab, cellular respiration	Ch. 9,
1/20/11	Conclude respiration	Lab writeup
1/21/11	AP Lab 5 (dress)	Prelab, dress
1/24/11	Discuss lab. Digestion, amylase & starch agar demo.	Ch. 41
1/25/11	Digestion, cont., microscopy	Lab writeup
1/26/11	Review/catchup	
1/27/11	Metabolism & Cellular Energetics Unit Test	Unit Test
1/28/11	Intro to the immune system	Ch. 43
1/31/11	“A Bad Reaction” PBL	
2/1/11	Blood typing lab, AIDS, virtual ELISA lab	Ch. 11
2/2/11	Cellular signaling - signal transduction activity	
2/3/11	Endocrine system	Ch. 45
2/4/11	Endocrine system, cont.	
2/7/11	Neural function	Ch. 48, Quiz on 43, 11, and 45
2/8/11	Virtual neurophysiology lab	
2/9/11	Comparative nervous systems (Short pd. – Dist PLC)	

<i>Dates</i>	<i>Topics</i>	<i>Assignments</i>
2/10/11	The senses – touch, smell, taste	Ch. 49
2/11/11	The senses – vision, hearing	
2/14/11	Muscular system, microscopy & models	
2/15/11	Skeletal system	
2/16/11	Types of innate and learned behaviors	Ch. 51,
2/17/11	AP Lab 11	Quiz on Ch. 48 & 49, Prelab
2/18/11	Plant responses to the environment	Behavior Packets, Ch. 39
2/21/11	No School – President's Day	Ch. 39
2/22/11	Start sordaria plates. sLowlife webquest	Lab writeup
2/23/11	Review/catchup, Begin flies?	
2/24/11	Responding to the Environment Unit Test	Unit Test
2/25/11	Meiosis	Ch. 13
2/28/11	AP lab 3, Part 2 (if spores are ready). Begin animal reproduction.	Prelab, Ch. 46
3/1/11	Methods of animal reproduction, cont.	Permission slips.
3/2/11	Human reproduction	
3/3/11	Human reproduction, cont., microscopy	
3/4/11	Embryology	Ch. 47
3/7/11	Embryology, cont.	

<i>Dates</i>	<i>Topics</i>	<i>Assignments</i>
3/8/11	Review/catchup. Essay portion of midterm	
3/9/11	Review, flies? (Substitute – NSTA Conference)	
3/10/11	No class (finals in periods 4 & 5)	
3/11/11	Midterm (Substitute – NSTA Conference)	Midterm
	Spring Break (3/14 - 3/18)	Grow fruit flies?
3/21/11	Plant reproduction, begin C-Fern lab	Ch. 38
3/22/11	Flower dissection lab	
3/23/11	Mendelian genetics review, discuss midterm	Ch. 14
3/24/11	AP Lab 7 (alternate & possibly flies also)	Modified Prelab
3/25/11	Inheritance patterns & testing, C-Fern	
3/28/11	Sex-linked traits & other non-Mendelian genetics, C-Fern	Ch. 15, lab writeup
3/29/11	Linkage mapping	
3/30/11	Nondisjunction, and polyploidy	
3/31/11	C-Fern, Catchup/review	
4/1/11	Heredity Unit Test	Unit Test
4/4/11	Viruses	Ch. 18
4/5/11	No class – AIMS Math	
4/6/11	Mimivirus, discuss test (Shorter period – AIMS Science)	Mimivirus article

<i>Dates</i>	<i>Topics</i>	<i>Assignments</i>
4/7/11	Retroviruses, viroids, & prions	
4/8/11	Gene transfer & recombination in bacteria, Virtual Bacteriology Lab, C-Fern	
4/11/11	Gene regulation in prokaryotes	
4/12/11	Eukaryotic gene regulation	Ch. 19
4/13/11	Eukaryotic gene regulation, cont.	
4/14/11	Cancer, transposable elements, genomic evolution	
4/15/11	No School – Spring Holiday	
4/18/11	Virtual biotechnology	Ch. 20, Quiz on Ch. 18 & 19
4/19/11	Finish virtual biotechnology, Sanger method, restriction mapping.	
4/20/11	Ethical considerations	
4/21/11	Begin AP Lab 6 (dress)? , Review	
4/22/11	AP Lab 6 (dress)	Prelab, dress
4/25/11	AP Lab 6, cont. (dress)	Dress
4/26/11	Molecular Genetics Unit Test	Unit Test
4/27/11	Review for AP Test	
4/28/11	Review for AP Test	
4/29/11	AP Practice Test - Essay Questions (counts as final exam grade)	AP Practice Test

<i>Dates</i>	<i>Topics</i>	<i>Assignments</i>
5/2/11	AP Practice Test - Multiple Choice (counts as final exam grade)	AP Practice Test
5/3/11	Review for AP Test	
5/4/11	Review for AP Test (Short period – Dist. PLC)	
5/5/11	Review for AP Test	
5/6/11	Review for AP Test	
5/9/11	AP BIOLOGY TEST!	Get rest, eat breakfast, remain calm! Good luck!
5/10/11	Celebratory breakfast & class photos	
5/11/11	Future student letters (Short period - awards assembly)	
5/12/11	To be announced	
5/13/11	To be announced	
5/16/11	Last day for seniors - “Final Exam”	
5/17/11	To be announced	
5/18/11	To be announced	
5/19/11	No class – finals	