

## AP Biology: Syllabus

**Note:** Reading should be done before class! This syllabus is subject to changes. We will upload updated versions as the year goes on.

<b>Class # Date</b>	<b>Class Topic: List of Concepts Readings/Assignments</b>
<b>Class #1</b> 9/16/12	<b>Biochemistry I:</b> Class Introduction, Review of Chemistry, Water, Organic Chemistry, Biological Macromolecules, Origin of Life/Biological Molecules, Enzymes, Chemical Reactions <i>Chapter 1-5, 8, 26.1</i>
<b>Class #2</b> 9/23/12	<b>Cell Biology I:</b> Prokaryotic and Eukaryotic Cells, Bacteria, Viruses, Subcellular Organization, Organelles, Membranes and Cell Walls <i>Chapter 6-7, Chapter 18.1-18.2</i>
<b>Class #3</b> 9/30/12	<b>Cell Biology II:</b> Cell Communication, Signal Molecules, Receptors, Metabolism, Coupled Reactions <i>Chapter 11</i>
<b>Class #4</b> 10/7/12	<b>Molecular Biology I:</b> RNA and DNA Structure and Function, Eukaryotic Chromosomes, DNA Replication <i>Chapter 16.1, Chapter 13.1, Chapter 18.3-18.4, Chapter 19</i>
<b>Class #5</b> 10/14/12	<b>Molecular Biology II:</b> Transcription, Translation, Gene Regulation, Biotechnology <i>Chapter 16.2, Chapter 17, Chapter 20, Chapter 21.1-21.2</i>
<b>Class #6</b> 10/21/12 [Spicy Day]	<b>CATCH-UP DAY AND REVIEW</b>
<b>Class #7</b> 10/28/12	<b>Cell Biology III:</b> Fermentation, Cellular Respiration, Photosynthesis <i>Chapter 9, 10</i>
<b>Class #8</b> 11/4/12	<b>Cell Biology IV:</b> Cell Cycle, Checkpoint Regulation, Mitosis, Meiosis, Gametogenesis <i>Chapter 12, 13</i>
<b>Class #9</b> 11/11/12	<b>Genetics I:</b> Intro to Genetics, Genetics of Inheritance <i>Chapter 14, 15</i>
<b>Class #10</b> 12/2/12	<b>Genetics II:</b> Mutation, Mechanisms of Evolution, Evolutionary Patterns, Population Genetics <i>Chapter 17.7, Chapter 22, 23</i>
<b>Class #11</b> 12/9/12	<b>LABS AND CATCH-UP DAY</b>
<b>Class #12</b> 12/16/12	<b>REVIEW</b>
<b>1/6/13</b>	<b>PRACTICE AP EXAM #1</b>

<b>Class #13</b> 1/13/13	<b>Organisms I:</b> Survey of Life Diversity, Protists, Fungi, Plants, Animals, Phylogeny <i>Chapter 25 and 26</i>
<b>Class #14</b> 1/20/13	<b>Organisms II:</b> Plant Development and Structure, Vascular Transport, Plant Nutrition, Plant Reproduction, Behavior <i>Chapter 35-39</i>
<b>Class #15</b> 1/27/13	<b>Organisms III:</b> Animal Development, Physiology, Cell Fate and Induction <i>Chapter 32, Chapter 21.3, Chapter 47, Chapter 40</i>
<b>Class #16</b> 2/3/13	<b>Organisms IV:</b> Digestive System, Heart and Circulatory System, Respiratory System <i>Chapter 41-42</i>
<b>Class #17</b> 2/10/13	<b>Organisms V:</b> Excretory System and Osmoregulation, Endocrine System, Homeostasis, Immune System <i>Chapter 43-45</i>
<b>Class #18</b> 2/17/13	<b>Organisms VI:</b> Brain and Nervous System, Electrical Signaling, Muscular System and Contraction <i>Chapter 48-49 [Ch. 46 for homework]</i>
<b>Class #19</b> 2/19/12 [Spicy Day]	<b>CATCH-UP DAY AND REVIEW</b>
<b>Class #20</b> 3/3/13	<b>Ecology I:</b> Evolution and Evolutionary Relationships, Intro to Ecology, Behavioral Ecology <i>Chapter 24, Chapter 50-51</i>
<b>Class #21</b> 3/24/13	<b>Ecology II:</b> Populations and Communities Chapter 52-53
<b>Class #22</b> 4/7/13	<b>Ecology III:</b> Ecosystems, Biomes, Conservation Biology <i>Chapter 54-55</i>
<b>4/14/13</b>	<b>PRACTICE AP EXAM #2</b>
<b>Class #23</b> 4/21/13	<b>LABS AND CATCH-UP DAY</b>
<b>Class #24</b> 4/28/13	<b>REVIEW</b>
<b>Class #25</b> 5/5/13	<b>REVIEW</b>
<b>Class #26</b> 5/12/13	<b>REVIEW</b>
<b>5/13/13</b>	<b>AP BIOLOGY EXAM [8 AM]</b>