

*Biology 1C: Plant Biology and Ecological principles*

<b>Readings for Campbell 7<sup>th</sup> edition</b>
<ul style="list-style-type: none"><li>• Course Introduction.</li><li>• The changing earth</li><li>• Introduction to cells</li><li>• Principles of Taxonomy and phylogeny</li></ul> <p>Reading: Campbell pp. 495-500, 516-531, 575-579, 1080-1083</p>
<p>Cells:</p> <ul style="list-style-type: none"><li>• Basic requirements for life</li><li>• Prokaryotes and Eukaryotes<ul style="list-style-type: none"><li>◦ Cyanobacteria</li></ul></li><li>• Cells and cell membranes/transport</li></ul> <p>Reading: Campbell Chapter 27 and pg. 98</p>
<p>Photosynthesis</p> <ul style="list-style-type: none"><li>• Energy and trophic relationships</li><li>• Light dependent and independent reactions</li></ul> <p>Reading: Campbell Chapter 10</p>
<p>Eukaryotes:</p> <ul style="list-style-type: none"><li>• The Eukaryotic cell – a review</li><li>• Modes of reproduction</li><li>• Plant cells</li></ul> <p>Reading: Campbell Chapter 6, 12, 13 plus pp. 218-220, 238-247, 717-719 * Much of this reading is ‘review’</p>
<p>Protists I</p> <ul style="list-style-type: none"><li>• Evolution/origin of eukaryotic cells</li><li>• Photosynthetic protists</li></ul> <p>Reading: Campbell Chapter 28</p>
<p>Protists II</p> <ul style="list-style-type: none"><li>• Algal protists and the origin of land plants</li></ul> <p>Reading: Campbell Chap. 28</p>
<p>The move to Land:</p> <ul style="list-style-type: none"><li>• Bryophytes (non-vascular plants)</li><li>• Origins of vascular plants</li><li>• Seedless vascular plants (Ferns and friends...)</li></ul> <p>Reading: Campbell Chapter 29</p>
<p>Evolution of seed plants Reproductive adaptations: innovations in a seed The Gymnosperms Reading: Campbell Chapter 30 to pg 598</p>

*Biology 1C: Plant Biology and Ecological principles*

Flower power: The Angiosperms I Reading: Campbell Chapter 30 from page 598, and chapter 38
Angiosperms II: Co-evolution and the key to success Reading: Campbell Chapter 38
Plant growth and defense Reading: Campbell pp. Chap. 35, 39
<ul style="list-style-type: none"><li>• Plant growth and defense cont.</li><li>• Plant Nutrition and Physiological ecology</li></ul> Reading: Campbell Chap. 37, 39
Plant Nutrition and Physiological ecology Reading: Campbell Chap. 37, 39
Transport: xylem and phloem Read: Campbell Chap 36
Transport: xylem and phloem Campbell Chap 36
Field trip: Monterey Mushrooms Ecology: Concepts and case studies Abiotic and Biotic factors Biomes and aquatic systems Reading: Campbell Chap. 50
Community Ecology: Factors that structure communities and community succession Read: Campbell Chap. 53
Community Ecology: Factors that structure communities and community succession Reading: Campbell Chap. 53
Ecosystems: Energy flow. Trophic structure, biogeochemical cycles, and the special role of plants Reading: Campbell Chap. 54, papers
Ecosystem function cont. Reading: Campbell Chap. 54
Population Ecology Reading: Campbell Chap. 52
Population Ecology Reading: Campbell Chap. 52
Conservation Biology Reading: Campbell Chap. 55