

SYLLABUS FOR SURVEY OF BOTANY
Botany 100: Summer, 2016

Required Texts:

- 1) *Plant Biology*, 3rd ed. 2015 by Graham, Graham, & Wilcox
- 2) *Lecture and Lab-Discussion Packet*

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| Date | Lecture | Text Reading (Graham <i>et al.</i>) | Laboratory/Discussion Section Topics (see Packet for exercises) |
|-------------|--|--|---|
| M, May 23 | Introduction & Sustainability Plants and People | Ch. 1 & 30 Ch. 2 | Ex 1 Muir Woods, A Temperate Deciduous Forest; Scientific Method |
| Tu, May 24 | The Molecules of Life The Origin of Life & Scientific Methods | Ch. 3 & 4 Ch. 19 | Ex 2 Plants & People, Plant Names & Classification, Tree of Life: Greenhouses & Gardens |
| W, May 25 | Prokaryotes Eukaryotic Cells I | Ch. 19 Ch. 5 | Ex 3 Supermarket Botany: Stems, Leaves Roots, Flowers, Fruits, & Seeds |
| R, May 26 | Eukaryotic Cells II Photosynthesis | Ch. 5 Ch. 6 | Ex 4 Cell Structure & Function I: Prokaryotic & Eukaryotic Cells |
| F, May 27 | Respiration & Fermentation Algae and Aquatic Ecosystems | Ch. 6 Ch. 20 & 29 | Ex 5 Cell Structure & Function II: Photosynthesis & Respiration EXAM , take home, due Tues, May 31 8:30am |
| M, May 30 | MEMORIAL DAY—NO CLASS | | |
| Tu, May 31 | Fungi & Lichens DNA & RNA Structure & Function | Ch. 21 Ch. 7 | Ex 6 Algae, Fungi, Nutrient Cycles & Energy Flow |
| W, June 1 | Mitosis & Cytokinesis Plant Structure & Growth | Ch. 8 Ch. 9 & 13 | Ex 7 DNA Replication & Gene Expression |
| R, June 2 | Stems, Roots & Leaves Stems, Roots & Leaves (continued) | Ch. 10, 11, & 12 | Ex 8 Plant Propagation: Asexual Reproduction & Cell Division: Mitosis |
| F, June 3 | Meiosis & Life Cycles Genetics | Ch. 14 Ch. 15 | Ex 9 Meiosis & Sexual Reproduction Life Cycles EXAM , take home, due Mon, Jun 6 8:30am |
| M, June 6 | Early Land Plants Biological Evolution | Ch. 22 Ch. 17 | Ex 10 Seedless Land Plants: Bryophytes, Lycophytes, and Pteridophytes |
| Tu, June 7 | Gymnosperms & Seeds Flowering Plant Diversity | Ch. 23 Ch. 24 | Ex 11 Dichotomous Keys: Gymnosperm & Angiosperm Tree Identification |
| W, June 8 | Plant-Animal Co-evolution: Pollination & Dispersal Genetic Engineering | Ch. 25 Ch. 16 | Ex 12 Seed Plants: Angiosperms |
| R, June 9 | Ecological Concepts Arid Terrestrial Ecosystems | Ch. 26 Ch. 27 | Ex 13 Plant Adaptations & Biomes |
| F, June 10 | Moist Terrestrial Ecosystems | Ch. 28 | 9:55-11:05 self-review period FINAL EXAM 11:15-12:30 (including lab practical) |