

## Botany 2104 - Course Schedule for Spring 2016 (subject to change)

Date	Lecture	Activity	Reading/Video
Week 1 Jan 11	Introduction to the course Organs and tissues of flowering plants Plant classification	Examine plant organs and tissues	Ch 1
Jan 13	Metric system Lab orientation Seed structure	“Metric System” “Lab Safety Orientation” Lab safety tour Start “Seed Germination and Root Growth”	inside back cover pp 530-536, 558-562, 563-565, 662-664, 674-676, Figure 28-17 (p. 670)
Jan 15	Seed germination and dormancy Root growth	Finish “Seed Germination and Root Growth”	pp 530-536, 558-562, 563-565, 662-664, 674-676, Figure 28-17 (p. 671)
Week 2 Jan 18	Dr. Martin Luther King, Jr. Day - no classes		
Jan 20, 22	Chemistry Biomolecules  Cellular Membranes Diffusion and osmosis		online Ch 2, Fig 9-3 (p. 177), pp 497-498  pp 75-85
Week 3 Jan 25		“Storage Polymers of Seeds”	
Jan 27	Solute transport	“Diffusion and Osmosis”	pp 75-85
Jan 29  Week 4 Feb 1	Microscopy	“Microscopy”	online
Feb 3	Evolution, adaptation, and phylogenies	“Constructing Phylogenetic Trees”	online video: “Charles Darwin and the Tree of Life” pp 209-211, 214-220, 224-225, 234-240
Feb 5	Exam 1; through Microscopy		
Week 5 Feb 8	Library orientation Essay		online

Feb 10	Research Design	“Research Design”  Set up “Roots” Procedure 9 Set up “Mineral Nutrition” Procedure 3	online
Feb 12	The plant cell	Case Study: Passionflowers and <i>Heliconius</i> butterflies	pp 38-62
Week 6 Feb 15	Presidents’ Day - no classes		
Feb 17		“Plant Eukaryotic Cell”	pp 38-62
Feb 19  Week 7 Feb 22	Plant cells and tissues	“Cells and Tissues”	Ch 23
Feb 24	Root anatomy Stem anatomy	“Roots”	pp 558-569, 571-578 pp 579-588, 607, 609-613
Feb 26	Leaf Anatomy	“Stems”	pp 579-588, 607, 609-613 pp 437-439, 588-604, 607, 609-613
Week 8 Feb 29, Mar 2	Leaf anatomy	“Leaves”	pp 437-439, 588-604, 607, 609-613
Mar 4	Exam 2; evolution through stems		
March 7-11	Spring Break - no classes		
Week 9 March 14	Leaves: adaptations, abscission	“Leaves”	pp 437-439, 588-604, 607, 609-613
March 16	Secondary growth	“Secondary Growth”	pp 569-571 Ch 26 online
March 18	Respiration	“Respiration”: Procedure 1	Ch 5, 6
Week 10 March 21	Respiration	“Respiration”: Procedure 2	Ch 5, 6
March 23	Respiration Start Photosynthesis		Ch 5, 6 Ch 7
March 25	Photosynthesis	“Photosynthesis”: Procedures 1-3	Ch 7

Week 11 March 28	Photosynthesis	“Photosynthesis”: Procedures 4-6	Ch 7
March 30	Photosynthesis Photosynthesis-transpiration compromise	“Photosynthesis”: Procedures 7-9	Ch 7 pp 708-720
Apr 1	Mineral nutrition	“Mineral Nutrition”	pp 683-687, 691-702
Week 12 Apr 4	Exam 3; leaves through photosynthesis		
Apr 6	Mineral nutrition	“Mineral Nutrition”	pp 683-687, 691-702 online
Apr 8	Carnivorous plants	Video: <i>Carnivorous Plants</i> Case Study: Carnivorous plants	p 694 online
Week 13 Apr 11	Mitosis Meiosis	“Nuclear Division Processes”	pp 62-71, 155-159
Apr 13, 15	Life cycles  Flowers	“The Flower”	pp 250-254  pp 460-476
Apr 15  Week 14 Apr 18	Pollination Fertilization	“Pollination and Fertilization”  Case Study: Pollination	pp 485-492  Video: “The Birds and The Bees” from <i>The Private Life of Plants</i>
Apr 20	Fruits Seed dispersal	“Fruits”	pp 492-496 Video: “The Seedy Side of Plants”
Apr 22	Asexual reproduction	Case Study: Dodos and moas	pp 169-171
Week 15 Apr 25	Annual Botany Department Field Trip to Antelope Island State Park Class will not meet.		
Apr 27 (Wed)	Final Exam. 9:00-10:50 cumulative; new material starts with mineral nutrition		