

**BIOL 418
FOREST ECOLOGY
Spring 2016**

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LECTURE TOPICS

<i>Date</i>		<i>Topic</i>	<i>Chapters in Gurevitch</i>
Jan. 5	Tu	Introduction	1
Environmental Factors			
Jan. 6	W	Temperature	(3 & 17)
Jan. 8	F	Light	2
Jan. 12	Tu	Precipitation and soil water	(3, 4, & 17)
Jan. 13	W	Plant water relations	3
Jan. 15	F	Soil nutrients and plant - soil relationships	4 (14)
Jan. 19	Tu	Environmental variation and the distribution of species	(9)
Population Ecology			
Jan. 20	W	Structure and demography	5
Jan. 22	F	Life history characteristics	8 (7)
Jan. 26	Tu	Plant - plant interactions (competition)	10
Jan. 27	W	Plant - animal interactions (herbivory)	11
Jan. 29	F	Pollination biology	(7)
Feb. 2	Tu	Seed dispersal	(7)
Disturbance			
Feb. 3	W	Disturbance factors (types, spatial and temporal scales)	(12)
Feb. 5	F	Effects of fire and wind	(12)
Feb. 9	Tu	READING BREAK	
Feb. 10	W	READING BREAK	
Feb. 12	F	READING BREAK	
Feb. 16	Tu	Herbivory and disease	(11 & 12)
Feb. 17	W	Volcanic disturbances	(12)
Feb. 19	F	MIDTERM EXAM	

Forest Dynamics

Feb. 23	Tu	Patterns of vegetation change	(12 & 16)
Feb. 24	W	Succession	(12)
Feb. 26	F	Mechanisms of succession	(12)
Mar. 1	Tu	Patch dynamics	(12)
Mar. 2	W	Regeneration patterns	(7, 8 & 12)
Mar. 4	F	Major forest boundaries (alpine timberline; forest-grassland transitions)	(17 & 18)
Mar. 8	Tu	Forest ecosystem stability	(13)

Forest Communities

Mar. 9	W	Characteristics and structure	(9 & 15)
Mar. 11	F	Patterns of diversity	13 & 19
Mar. 15	Tu	The control of diversity	13 & 19
Mar. 16	W	Landscape ecology	16 (15)
Mar. 18	F	Plant migration and climate change	(20)
Mar. 22	Tu	Major types of ecosystems	18 (17)
Mar. 23	W	Temperate forests	(18)
Mar. 25	F	UNIVERSITY CLOSED	
Mar. 29	Tu	Wetland and riparian forests	(18)
Mar. 30	W	Human disturbances and invasive species	(12, 13 & 21)
Apr. 1	F	Forests and global change	21 (20)

Textbook: Gurevitch, J., S. M. Scheiner, and G. A. Fox. 2006. *The Ecology of Plants* (second edition). Sinauer Associates. The chapters listed in parentheses are only partially relevant to the material scheduled to be covered in lecture.

GRADING

Lecture:	Midterm exam	60 marks	(20%)
	Final exam	120 marks	(40%)
Lab:		120 marks	(40%)
Total		300 marks	(100%)

Grade assignment:	A+	90-100%	B-	70-72%
	A	85-89%	C+	65-69%
	A-	80-84%	C	60-64%
	B+	77-79%	D	50-59%
	B	73-76%	F	0-49%