

**BIOL 418
FOREST ECOLOGY
Spring 2018**

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LECTURE TOPICS

<i>Date</i>		<i>Topic</i>	<i>Chapters in Gurevitch</i>
Jan. 3	W	Introduction	1
Environmental Factors			
Jan. 5	F	Temperature	(3 & 17)
Jan. 9	Tu	Light	2
Jan. 10	W	Precipitation and soil water	(3, 4, & 17)
Jan. 12	F	Plant water relations	3
Jan. 16	Tu	Soil nutrients and plant - soil relationships	4 (14)
Jan. 17	W	Environmental variation and the distribution of species	(9)
Population Ecology			
Jan. 19	F	Structure and demography	5
Jan. 23	Tu	Life history characteristics	8 (7)
Jan. 24	W	Plant - plant interactions (competition)	10
Jan. 26	F	Plant - animal interactions (herbivory)	11
Jan. 30	Tu	Pollination biology	(7)
Jan. 31	W	Seed dispersal	(7)
Disturbance			
Feb. 2	F	Disturbance factors (types, spatial and temporal scales)	(12)
Feb. 6	Tu	Effects of fire and wind	(12)
Feb. 7	W	Herbivory and disease	(11 & 12)
Feb. 9	F	Volcanic disturbances	(12)
Feb. 13	Tu	READING BREAK	
Feb. 14	W	READING BREAK	
Feb. 16	F	READING BREAK	
Feb. 20	Tu	MIDTERM EXAM	

Forest Dynamics

Feb. 21	W	Patterns of vegetation change	(12 & 16)
Feb. 23	F	Succession	(12)
Feb. 27	Tu	Mechanisms of succession	(12)
Feb. 28	W	Patch dynamics	(12)
Mar. 2	F	Regeneration patterns	(7, 8 & 12)
Mar. 6	Tu	Major forest boundaries (alpine timberline; forest-grassland transitions)	(17 & 18)
Mar. 7	W	Forest ecosystem stability	(13)

Forest Communities

Mar. 9	F	Characteristics and structure	(9 & 15)
Mar. 13	Tu	Patterns of diversity	13 & 19
Mar. 14	W	The control of diversity	13 & 19
Mar. 16	F	Landscape ecology	16 (15)
Mar. 20	Tu	Plant migration and climate change	(20)
Mar. 21	W	Major types of ecosystems	18 (17)
Mar. 23	F	Temperate forests	(18)
Mar. 27	Tu	Wetland and riparian forests	(18)
Mar. 28	W	Other types of ecosystems	(18)
Mar. 30	F	UNIVERSITY CLOSED	
Apr. 3	Tu	Human disturbances and invasive species	(12, 13 & 21)
Apr. 4	W	Forest management	
Apr. 6	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%)
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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%