

IB 153: Ecology

Lecture TuTh 11-12:30 | 60 Evans

Disc 101 M 2-3 | 174 Barrows (CN 15903)

Disc 102 W 12-1 | 105 Dwinelle (CN 15904)

Disc 103 W 3-4 | 179 Stanley (CN 15905)

Disc 104 M 1-2 | 45 Evans (CN 66880)

Instructor: TBD

GSIs:

Textbook: *Bowman, W.D., S.D. Hacker, and M.L Cain. 2017. Ecology, 4th ed. Sinauer Assoc. (imprint of Oxford Univ. Press); abbrev BHC below*

Week	Date	Lecture content	Lecture prep reading
1	24-Aug	Introduction to course content, enrollment issues	
2	29-Aug	Distribution and abundance of populations: patterns, hypotheses, and tests	BHC 1: 2-20; BHC 9: 204-225
2	31-Aug	Population biology I: demography and life history variation	BHC 7: 160-181; BHC 10: 226-235
3	5-Sep	Population biology II: population dynamics	BHC 10: 236-248; BHC 11: 249-262
3	7-Sep	Population biology III: population dynamics cont.	BHC 10: 236-248; BHC 11: 249-262
4	12-Sep	Spatially structured metapopulations and dispersal (Kurkjian)	BHC 11: 263-269
4	14-Sep	Predation and herbivory I	BHC 12: 272-293
5	19-Sep	Predation and herbivory II	BHC 12: 272-293
5	21-Sep	Parasitism and disease I	BHC 13: 294-316
6	26-Sep	Parasitism and disease II	BHC 13: 294-316
6	28-Sep	Interspecific competition I	BHC 14: 317-335
7	3-Oct	Interspecific competition II	BHC 14: 317-335
7	5-Oct	Mutualism and other positive interactions	BHC 15: 336-353

Midterm Exam: 7-8PM

Week	Date	Lecture content	Lecture prep reading
8	10-Oct	The nature of communities	BHC 16: 356-376
8	12-Oct	Community dynamics and stability I	BHC 17: 377-398
9	17-Oct	Community dynamics and stability II	BHC 17: 377-398
9	19-Oct	Maintenance of species diversity I	BHC 14: 329-333; BHC 18: 410-415; BHC 19: 424-445
10	24-Oct	Maintenance of species diversity II	BHC 14: 329-333; BHC 18: 410-415; BHC 19: 424-445
10	26-Oct	Communities in insular habitats	BHC 18: 415-423; BHC 24: 549-561
11	31-Oct	Case study: parasite community interactions (Sousa)	Sousa (1994)
11	2-Nov	Impacts of invasive species (Boaz)	BHC 16: 356-357, 373-374; BHC 23: 525-529, 541
12	7-Nov	Food webs, trophic cascades, and subsidies I	BHC 21: 470-492
12	9-Nov	Food webs, trophic cascades, and subsidies II	BHC 21: 470-492
13	14-Nov	Town Hall Debate 1 & 2	
13	16-Nov	Town Hall Debate 3 & 4	
14	21-Nov	Case study: chaparral fire ecology (Hendricks-Franco)	To be assigned
14	23-Nov	Thanksgiving Holiday	
15	28-Nov	Landscape ecology and ecosystem management	BHC 24: 544-567
15	30-Nov	Ecological impacts of climate change	BHC 25: 577-583
16	5-Dec	RRR week	
16	7-Dec	RRR week	
17	14-Dec	Final Exam (Group 13: 8-11AM)	

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Alternate Textbook: Cain, M.L., W.D. Bowman, and S.D. Hacker. 2014. *Ecology, 3rd ed. Sinauer Assoc.; abbrev CBH below*

Week	Date	Lecture content	Lecture prep reading
1	24-Aug	Introduction to course content, enrollment issues	
2	29-Aug	Distribution and abundance of populations: patterns, hypotheses, and tests	CBH 1: 2-20; CBH 9: 204-225
2	31-Aug	Population biology I: demography and life history variation	CBH 7: 160-181; CBH 10: 226-235
3	5-Sep	Population biology II: population dynamics	CBH 10: 236-248; CBH 11: 249-263
3	7-Sep	Population biology III: population dynamics	CBH 10: 236-248; CBH 11: 249-263
4	12-Sep	Spatially structured metapopulations and dispersal (Kurkjian)	CBH 11: 263-269
4	14-Sep	Predation and herbivory I	CBH 13: 292-314
5	19-Sep	Predation and herbivory II	CBH 13: 292-314
5	21-Sep	Parasitism and disease I	CBH 14: 315-337
6	26-Sep	Parasitism and disease II	CBH 14: 315-337
6	28-Sep	Interspecific competition I	CBH 12: 272-291
7	3-Oct	Interspecific competition II	CBH 12: 272-291
7	5-Oct	Mutualism and other positive interactions	CBH 15: 338-356

Midterm Exam: 7-8P

Week	Date	Lecture content	Lecture prep reading
8	10-Oct	The nature of communities	CBH 16: 358-378
8	12-Oct	Community dynamics and stability I	CBH 17: 379-400
9	17-Oct	Community dynamics and stability II	CBH 17: 379-400
9	19-Oct	Maintenance of species diversity I	CBH 12: 285-291; CBH 18: 413-416; CBH 19: 426-447
10	24-Oct	Maintenance of species diversity II	CBH 12: 285-291; CBH 18: 413-416; CBH 19: 426-447
10	26-Oct	Communities in insular habitats	CBH 18: 416-425; CBH 24: 551-563
11	31-Oct	Case study: parasite community interactions (Sousa)	Sousa (1994)
11	2-Nov	Impacts of invasive species (Boaz)	CBH 16: 358-359, 376-377; CBH 23: 527-531, 543-544
12	7-Nov	Food webs, trophic cascades, and subsidies I	CBH 21: 472-494
12	9-Nov	Food webs, trophic cascades, and subsidies II	CBH 21: 472-494
13	14-Nov	Town Hall Debate 1 & 2	
13	16-Nov	Town Hall Debate 3 & 4	
14	21-Nov	Case study: chaparral fire ecology (Hendricks-Franco)	To be assigned
14	23-Nov	Thanksgiving Holiday	
15	28-Nov	Landscape ecology and ecosystem management	CBH 24: 546-569
15	30-Nov	Ecological impacts of climate change	CBH 25: 579-585
16	5-Dec	RRR week	
16	7-Dec	RRR week	
17	14-Dec	Final Exam (Group 13: 8-11AM)	