Biology 203 *CORRECTED*
INTRODUCTORY ECOLOGY
September 2021

Instructor:	Dr. Barry R. Taylor	**Laboratory Instructor:**	Ms Erin Stevens
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Lecture: J Bruce Brown Hall Room 237
Blocks K4 - K5 - K6: Tuesday 11:15, Wednesday 1:15, Friday 12:15

Laboratory: J Bruce Brown Hall Room 228
Monday - Thursday, 2:15 to 5:00

Course Text: ➤ Bowman, W.D. and Hacker, S.D. 2021. Ecology. Fifth edition. Sinauer Assoc., Sunderland, Mass., U.S.A. 593 p. + app.
➤ Introductory Ecology Laboratory Manual 2021

Evaluation:		
	Mid-Term Examination (14 October, **7 p.m.**)	15%
	One-Minute Quizzes (10)	10%
	Final Examination [December, date to be announced]	35%
	Laboratory Examination (4 December, **1 p.m.**)	20%
	Laboratory Reports	20%
	Total	**100%**

Laboratory Assignments:
There are 11 laboratory sessions in this course. For most of these you will be asked to submit a worksheet detailing the data that you collected, the analysis you did, and brief answers to questions pertaining to the exercise. One laboratory exercise on population growth of *Lemna minor* is to be written as a **formal report** as outlined in the Laboratory Manual. You will be given more guidance on scientific writing in laboratory.

Four *or* five of the remaining 10 laboratory sessions will be graded, and will collectively contribute 10% of your final course grade. *You will not know in advance which reports will be graded*. The formal report is worth 10% of your grade. The Laboratory Examination covers all 11 laboratory exercises and contributes 20% of your final grade.

Pass Criteria: Passing grade in this course is 50%. However, you must achieve at least 50.0% on the lecture portion of the course (midterm, quizzes and final examination) to pass, *regardless* of your laboratory grade. In the rare instance where a student fails to achieve 50.0% on the lecture portion of the course, the final grade will be set to 45%.

Lecture Schedule
Biology 203: Introductory Ecology

Lecture	Date	Topic	Text Reading
1	T 7 September	Introduction: What is Ecology?	Chapter 1
2	W 8	Ecology and Evolution	Chapter 6
3	F 10	Organisms and Habitats; Definition of the Niche	85-88, 209- 220
4	T 14	Numerical Methods and Statistics	Laboratory Manual
5	W 15 Quiz	(Continued)	
6	F 17	Demography: Characteristics of Populations	204-212
7	T 21	Demography: Life Tables, Survivorship Curves	226-232
8	W 22 Quiz	(Continued)	
9	F 24	Population Growth	233-246
10	T 28	Regulation of Populations	239-242
11	W 29 Quiz	(Continued)	Chapter 11
12	F 1 October	Life History Strategies	Chapter 7
13	T 5	Reproductive Strategies (r and K Selection)	Chapter 7
14	W 6 Quiz	The Nature of Interactions among Organisms	
15	F 8	Competition	Chapter 14
16	T 12	Co-Existence of Competitors	Chapter 14
17	W 13	Predation	Chapter 12
	Th 14	MIDTERM EXAMINATION **(7 p.m.)***	
	F 15	(Make-Up Examination: Class Cancelled)	
18	T 19	Parasitism	Chapter 13
19	W 20 Quiz	Herbivory	Chapter 12
20	F 25	Mutualism	Chapter 15
21	T 26	(Continued)	
22	W 27 Quiz	Co-evolution and Mimicry	
23	F 29	Community Structure	356-360, 425-432
24	T 2 November	Species Diversity	360-365, 410-414
25	W 3 Quiz	Consequences of Diversity	440-443
26	F 5	Island Biogeography	415-422
	8 – 12 November	Fall Study Break (Classes Cancelled)	
27	T 16	Succession	Chapter 17
28	W 17 Quiz	Succession (Continued)	
29	F 19	The Role of Disturbance	432-438
30	T 23	Landscape Ecology	Chapter 24
31	W 24 Quiz	The Ecosystem	
32	F 26	Primary Production	Chapter 20
33	T 30	Trophic Structure	Chapter 21
34	W 1 Dec Quiz	Biogeochemical Cycles	Chapter 22
35	F 3	Humanity and the Anthropocene	
	S 4	LABORATORY EXAM (**1 p.m.**)	
36	T 7	Course Review	

* Students who have classes or other academic commitments on Thursay evening will write on Friday.

Laboratory Schedule

Lab. Nr.	Subject	Week Beginning (Tuesday)	Report Type	Date Due
1.	Ecological Observations	13 September	Worksheet (outdoor)	Same Day
2.	*Lemna* growth rates	13 September	Worksheet (laboratory)	4-7 October
3.	Animal Abundances	20 September	Worksheet (outdoor)	27-30 September
4.	Metapopulation Simulation	27 September*	Excel Model (free time)	4 October
5.	Habitat Preferences of Stream Invertebrates	4 October	Worksheet (outdoor)	11-14 October
6.	Plant Abundance and Distribution	11 October**	Worksheet (outdoor)	18-21 October
7.	Lemna: Effects of Environment on Growth	18 October	**Formal Report** (laboratory)	15-18 November
8.	Species Diversity	25 October	**Worksheet** (outdoor)	1-4 November
9.	Mark-Recapture to Estimate Animal Populations	1 November	Worksheet (laboratory)	8-12 November
	[Break Week]	8 November		
10.	Predator & Prey Model	15 November	Worksheet (laboratory)	22-25 November
11.	Landscape Ecology	22 November	Worksheet (laboratory)	29 November - 2 December

* There are no regularly scheduled laboratories in the week of 27-30 September. The exercise for this week is based on an Excel spreadsheet which can be downloaded and completed at any time.

** Monday laboratory falls on Thanksgiving. Students will be accommodated.