

1.018/7.30/12.013ABJ FUNDAMENTALS OF ECOLOGY I & II FALL 2014

DATE		#	LECTURE (Tuesday and Thursday 11:00am-12:30pm; 48-316)	PROF	ASSIGNMENT DATES	*RECITATIONS (Monday 48-316; or Thursday 48-308; 4:00pm-5:00pm)			
						Day	Date		
Sept	4	Th	1	Introduction – What is Ecology?	PC&MF	Th	4	NO RECITATION	
	9	T	2	Thermodynamics of life	MF	PSET1 OUT	M	8	Set up Winogradsky Column
	11	Th	3	Primary Productivity I	PC		Th	11	Set up Winogradsky Column
	16	Tu	4	Primary Productivity II	PC	PSET1 DUE/ PSET2 OUT	M	15	Collect Samples for isotope analysis
	18	Th	5	Secondary Productivity & Food Webs	MF		Th	18	Collect Samples for isotope analysis
	23	Tu	6	Redfield and Limiting Factors (MINI QUIZ)	PC		M	22	LIBRARY Research Session – bring laptops
	25	Th	7	Pre-Industrial Elemental Cycles (C, N, P, Fe)	MF	PSET2 DUE/PSET 3 OUT	Th	25	LIBRARY Research Session - bring laptops
	30	Tu	8	Carbon Cycle through time – to pre-industrial	MF		M	29	Cemetery data assignment discussion
Oct	2	Th	9	Anthropogenic perturbations global cycles	MF	PSET3 DUE TERM PAPER ASSIGNMENT OUT (for 2 nd half of class)	Th	2	Cemetery data assignment discussion
	7	Tu	10	Life tables & human population growth (MINI QUIZ)	JB&PC		M	6	
	9	Th	11	Exponential and Logistic Growth	PC	Cemetery data exercise DUE	Th	9	
	14	Tu	12	Chemostat Theory	PC		M	13	NO RECITATION - HOLIDAY
	16	Th	13	FINAL COMPREHENSIVE QUIZ			Th	16	NO RECITATION
DIVISION BETWEEN 1.018 A AND B									
	21	Tu	14	Aquatic ecosystems and ecological theory	MF	Pred/Prey Assignment OUT (see Th lecture session)	M	20	Charles River Plankton - set up, enrichments etc
	23	Th	15	Pred/Prey Experiment IN CLASS	Team	TERM PAPER CHECK IN (ABSTRACTS, LIT, PLAN...)	Th	23	Charles River Plankton - set up, enrichments etc
	28	Tu	16	Acquiring resources: Encounter and handling	MF		M	27	
	30	Th	17	Life at Low Reynolds number	TBA	Pred/Prey Assignment DUE	Th	30	
Nov	4	Tu	18	Seasonal blooms of phytoplankton ½ lecture ½ hands on model	MF		M	3	Discuss Charles River samples... Half hands on
	6	Th	19	Equilibrium Resource Competition	MF		Th	6	Discuss Charles River samples... Half hands on
	11	Tu	NC	NO CLASS – VETERANS DAY HOLIDAY			M	10	NO RECITATION - HOLIDAY
	13	Th	20	Hands on simulation lab: Diversity, competition and the niche	MF&PC	Diversity ASSIGNMENT OUT	Th	20	NO RECITATION
	18	Tu	21	“On being the right size” – size and life	DT		M	17	Discussion Ocean Data Analysis Assignment
	20	Th	22	Top down control: Why are there larger organisms in the ocean? Zooplankton, virus	MF	Diversity write up DUE Ocean Data Analysis ASSIGNMENT OUT		20	PROB SET/HOME WORK: Ocean Data Analysis exercise
	25	Tu	23	Resource Ratio Theory & applications	MF	TERM PAPER – Option to hand in draft for feedback	M	24	
	27	Th	NC	NO CLASS – THANKSGIVING			Th	27	
Dec	2	Tu	24	<i>Sustainability I – John Serman</i>	JS	Ocean Data Analysis ASSIGNMENT DUE	M	1	
	4	Th	25	<i>Sustainability II – John Serman</i>	JS		Th	4	
	9	Tu	26	Perspectives on Ecological Research	Team	HAND IN TERM PAPERS	M	8	NO RECITATION

Drop Date is Nov. 19th

+ Attendance at Recitation is strongly encouraged.