EEB C119-C219, Mathematical Ecology Lecture

Spring 2007

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Office hours: Monday 3:00–4:00, Wednesday 1:30–2:30

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Lectures: 9:00–9:50 MWF, Life Sciences room 4127
Textbook: W. S. C. Gurney and R. M. Nisbet. 1998. *Ecological Dynamics*, Oxford University Press. N. Y. 335 pages.

Date	Lecture Topic	Reading	
		chapter	pages
April 2	**Theoretical Ecology**		
April 4	Deterministic Models in Discrete Time	1	1–18
April 6	Deterministic Models in Continuous Time		
April 9	Examples		
April 11	**Dynamics of Individuals**, Survivorship and Reproduction	4	79–85
April 13	Feeding		85–88
April 16	Somatic Growth		93–99
April 18	Somatic Growth		
April 20	Somatic Growth and Reproduction		99–102
April 23	Sea Urchin Somatic Growth and Reproduction		105–110
April 25	**Dynamics of Populations**	5	118–121
April 27	Density Dependence in Discrete Time		123–131
April 30	Density Dependence in Continuous Time		
May 2	MIDTERM EXAMINATION		
May 4	**Ecological Dynamical Systems**	2	19–38
May 7	Discrete Time Ecological Models		
May 9	Continuous Time Ecological Models		
May 11	**Dynamics of Communities**, Linear Approximation Method	handout	
May 14	Linear Approximation Method		
May 16	Predation	6	154–164
May 18	Predation		
May 21	Predation		
May 23	Competition		
May 25	Competition		164–167
May 28	Memorial Day holiday		
May 30	Competition		167–171
June 1	**Dynamics of Ecosystems**, Food Chains	7	183–195
June 4	A Fjord Ecosystem		201–217
June 6	A Fjord Ecosystem		
June 8	Conclusion: Future Directions in Theoretical Ecology		
June 12	FINAL EXAMINATION, 8:00 - 11:00 am		