

Syllabus for Biology 105 Evolution online, Winter quarter 2017, University of California, Riverside, Professor Theodore Garland, Jr.

Use this in conjunction with the syllabus information in the first class lecture and the first Discussion

Day of Week	Day	Month	Lect	Disc	Topic	Reading/Assignment
Saturday	7	1				
Sunday	8	1	1		Course Introduction & further Syllabus information	
Monday	9	1				
Tuesday	10	1			Pre-course Survey due Tuesday by 11:59 PM	
Wednesday	11	1	2		Introduction to Evolutionary Biology; 2-point essays due in iLearn by midnight	Chapter 1 from Futuyma (2013) Evolution. 3rd ed.
Thursday	12	1		1	Introduction to Biology 105 Evolution online	
Friday	13	1				
Saturday	14	1				
Sunday	15	1	3		Natural Selection	73-94 from Herron & Freeman (2014) Evolutionary analysis. 5th ed.
Monday	16	1			UCR Holiday	
Tuesday	17	1	4		What are Phylogenies?	Chapter 4 from Bergstrom & Dugatkin (2012) Evolution. 2nd ed.
Wednesday	18	1			2-point essays due in iLearn by midnight	
Thursday	19	1		2	Quiz 1 at start; Review of Lecture & Readings	
Friday	20	1				
Saturday	21	1				
Sunday	22	1	5		Inferring Phylogeny	Chapter 5 from Bergstrom & Dugatkin (2012) Evolution. 2nd ed.
Monday	23	1				
Tuesday	24	1	6		Adaptation and the Comparative Method	Garland, T., Jr., and S. C. Adolph. 1994. Why not to do two-species comparative studies: limitations on inferring adaptation. <i>Physiological Zoology</i> 67:797-828.
Wednesday	25	1			2-point essays due in iLearn by midnight	
Thursday	26	1		3	Review of Lecture & Readings; Instructions for Paper Critique	
Friday	27	1				
Saturday	28	1				
Sunday	29	1	7		The Fossil Record and the History of Life on Earth	Student choice from the journal <i>Paleobiology</i> (see Discussion instructions)
Monday	30	1				
Tuesday	31	1	8		Extinction and Evolutionary Trends	... continued ..
Wednesday	1	2			2-point essays due in iLearn by midnight	
Thursday	2	2		4	Paper Critique Due; Review for 1st Midterm Exam	
Friday	3	2			Take Midterm Exam 1 Online with ProctorU	
Saturday	4	2				
Sunday	5	2	9		Transmission Genetics & Sources of Genetic Variation	Chapter 8 from Futuyma (2013) Evolution. 3rd ed.
Monday	6	2				
Tuesday	7	2	10		Evolution in Finite Populations, Genetic Drift, etc.	Jeffery, W. R. 2009. Regressive evolution in <i>Astyanax</i> cavefish. <i>Annual Review of Genetics</i> 43:25-47.
Wednesday	8	2			2-point essays due in iLearn by midnight	
Thursday	9	2		5	Quiz 2 at start; Review of Lecture & Readings	
Friday	10	2				
Saturday	11	2				
Sunday	12	2	11		Quantitative Genetics	Vitzthum, V. J. 2003. A number no greater than the sum of its parts: the use and abuse of heritability. <i>Human Biology</i> 75:539-558.
Monday	13	2				
Tuesday	14	2	12		Selection Experiments & Experimental Evolution	Irschick, D. J., and D. Reznick. 2009. Field experiments, introductions, and experimental evolution: a review and practical guide. Pages 173-193 in <i>Experimental Evolution: Concepts, Methods, and Applications of Selection Experiments</i> . T. Garland, Jr. and M. R. Rose, eds. Univ. of California Press.
Wednesday	15	2			2-point essays due in iLearn by midnight	
Thursday	16	2		6	Heritability Exercise Introduction	
Friday	17	2				
Saturday	18	2				
Sunday	19	2	13		Sexual Selection	Andersson, M. 1982. Female choice selects for extreme tail length in a widowbird. <i>Nature</i> 299:818-820.
Monday	20	2			UCR Holiday	
Tuesday	21	2	14		Trade-offs & Constraints	Garland, Jr., T. 2014. Quick Guide: Trade-offs. <i>Current Biology</i> 24:R60-R61.
Wednesday	22	2			2-point essays due in iLearn by midnight	
Thursday	23	2		7	Heritability Exercise Data Analysis	
Friday	24	2				
Saturday	25	2				
Sunday	26	2	15		Life History Evolution	Chapter 7 in Rose & Mueller (2006) Evolution and ecology of the organism.
Monday	27	2				
Tuesday	28	2	16		Cooperation, Conflict & Species Interactions	Chapter 21 from Barton et al. (2007) Evolution.
Wednesday	1	3			2-point essays due in iLearn by midnight	
Thursday	2	3		8	Heritability Writeup Due; Review for 2nd Midterm Exam	
Friday	3	3			Take Midterm Exam 2 Online with ProctorU	
Saturday	4	3				
Sunday	5	3	17		Species and Speciation	The Marie Curie SPECIATION Network. 2012. What do we need to know about speciation? <i>Trends in Ecology & Evolution</i> 27:27-39.
Monday	6	3				
Tuesday	7	3	18		Hybrid Zones, Character Displacement, Geographic Variation, Clines	Grant, P. R., & Grant, R. 2006. Evolution of character displacement in Darwin's finches. <i>Science</i> 313:224-226.
Wednesday	8	3			2-point essays due in iLearn by midnight	
Thursday	9	3		9	Quiz 3 at start	
Friday	10	3				
Saturday	11	3				
Sunday	12	3	19		Adaptive Radiation & Convergent Evolution	Losos, J. B., and D. L. Mahler. 2010. Adaptive radiation: the interaction of ecological opportunity, adaptation, and speciation. Pp. 381-420 in M. A. Bell, D. J. Futuyma, W. F. Eanes, and J. S. Levinton, eds. <i>Evolution since Darwin: the first 150 years</i> . Sinauer Associates, Sunderland, Mass.
Monday	13	3				
Tuesday	14	3	20		Evo-Devo and Macroevolution	Chapter 19 from Herron & Freeman (2014) Evolutionary analysis. 5th ed.
Wednesday	15	3			2-point essays due in iLearn by midnight	
Thursday	16	3		10	Review for Final Exam	
Friday	17	3			Last day of Instruction	
Saturday	18	3	Sat		Final Exam Week	
Sunday	19	3	Sun		Final Exam Week	
Monday	20	3	Mon		Final Exam Week	
Tuesday	21	3	Tue		Final Exam Week	
Wednesday	22	3	Wed		Final Exam Week	
Thursday	23	3	Thu		Finals Exam for Biology 105 Evolution online	2-7 PM start time, and you have 3 hours to complete the exam in ProctorU
Friday	24	3	Fri		Final Exam Week	