

Syllabus: Principles of Biology – BIO 1000

Fall Semester 2007

DATE	TOPIC	Quiz	READINGS
W Aug. 22	Course Introduction <i>What is Science, Science Literacy & NOS</i>		Syllabus, Text: Appendix C
F Aug. 24	The Nature of Science (NOS): Ways of Knowing – The Process of Science.	1	Chapter 1 Science for all Amer. - ER
M Aug. 27	Presuppositions & Limitations		Chapter 1 Concerns of Science – T
W Aug. 29	Science & a Christian Worldview		Chapter 1 Two Kinds of Knowledge - T
F Aug. 31	CASE STUDY #1: <i>PRAYER STUDY</i> DUE – T		Is God an Accident? - ER
M Sept. 3	Labor Day – No Class		
W Sept. 5	<i>Unifying Characteristics of Life</i> Biological universals & LUCA	2	Chapter 2
F Sept. 7	The Organization & Classification of Life		Chapter 3
M Sept. 10	<i>Basic Chemistry, Chemistry of Water & Biomolecules</i> Basic Chemistry Chemistry of Water	3	Appendix A Chapter 4 pp. 53-61
W Sept. 12	Molecules of Life		Chapter 4 pp. 61-74 Losing Rhythm – T
F Sept. 15	Molecules of Life Origin of Life: Organic from the Inorganic?		Chapter 11 pp. 223-227. Chapter 4 pp. 73-74
M Sept. 17	Exam I		
W Sept. 19	Day of Prayer – No Class		
F Sept. 21	<i>Cytology: Study of Cell Structure & Function</i> Cell Theory		Chapter 16 pp. 369-388
M Sept. 24	Cell Membranes & Transport	4	Chapter 16 pp. 369-388
W Sept. 26	Cellular Level of Organization Differentiating Cells		Chapter 16 pp. 369-388
F Sept. 28	Irreducible Complexity – Design or Undirected? CASE STUDY #2: <i>LITTLE MITO</i> DUE – T		Chapter 16 pp. 388-392.
M Oct. 1	<i>Metabolism: Cells & Energy.</i> Thermodynamics & ATP	5	Chapter 18 pp. 419-423
W Oct. 3	Energy Capture & Conversion in Cells Photosynthesis		Chapter 18 pp. 424-428.
F Oct. 5	Energy Capture & Conversion in Cells Respiration: Aerobic & Anaerobic		Chapter 18 pp. 428-434.
M Oct. 8	<i>Genetic Control of Cellular Metabolism</i> DNA – Controlling Life & its Processes Gene Expression	6	Chapter 4 pp. 70-72 Chapter 11 pp. 222-223 Chapter 17 pp. 393-404
W Oct. 10	Gene Expression Genetic Mutation Principles		Chapter 17 pp. 409-415 Chapter 12 pp. 261-265,
F Oct. 12	Applications of Recombinant DNA Technology	7	Chapter 12 pp. 267-268 Gene Doping – ER Don't Let Bed Bugs Bite - ER
M Oct. 16	Exam II		
W Oct. 17	BIOS Project Discussion <i>Intro to Bioethics</i>		
F Oct. 19	Fall Break – No Class NSTA Regional Conference - Detroit		

DATE	TOPIC	Quiz	READINGS
M Oct. 22	<i>Life Process: Reproduction</i> Mitosis & The Cell Cycle Asexual Reproduction	8	Chapter 11pp. 219-231
W Oct. 24	Sexual Reproduction Heredity and the Environment		Chapter 11pp. 231-244 Chapter 12 pp. 265-266
F Oct. 26	Bioethics Conference – NO CLASS		
M Oct. 29	CASE STUDY #3: <i>SELECTING THE PERFECT BABY DUE</i> – T	9	
W Oct. 31	<i>Ecosystems & Energy Flow</i> Food Chains & Food Webs	10	Chapter 5pp.79-92, & pp. 97-99
F Nov. 2	Human Impacts on Ecosystems and Energy Flow Bio-magnification		Chapter 5 pp. 92-96. Chapter 6 pp. 116-117. Troubling Treat - ER
M Nov. 5	<i>Ecosystems & Biogeochemical Cycles</i> A General Model & The Water Cycle	11	Chapter 6 pp. 103-108, pp. 118-120 Macho Waters - ER
W Nov. 7	The carbon cycle and global warming		Chapter 6 pp. 109-112, pp. 118-120 Inherit the Warmer Wind - ER
F Nov. 9	The nitrogen & phosphorous cycles Ecology of Cedar lake		Chapter 6 pp. 112-120 In a Fix - ER
M Nov. 12	<i>Ecosystems: Populations & Conservation</i> Distribution of Populations and Succession	12	Chapter 7 pp.123-134 Chapter 8 pp.145-155
W Nov. 14	Human Population Conservation Ethics & Stewardship		Chapter 7 pp. 135-142 Chapter 8 pp.156-163
F Nov. 16	Exam III		
M Nov. 19	<i>Life Process: Nutrition</i> General & Invertebrate	13	Chapter 10 pp.193-206
W Nov. 21	Human Nutrition		Chapter 10 pp.207-217 Counting Carbs - ER
F Nov. 23	Thanksgiving Break – No Class		
M Nov. 26	Thanksgiving Break – No Class		
W Nov. 28	Human Nutrition, Nutrients Circulatory Systems		Chapter 10 pp.210-212 Food Colorings-ER
F Nov. 30	<i>Life process: Coordination</i> Nervous & Endocrine systems	14	Chapter 13 Brain Gain - ER
M Dec. 3	Nervous & Endocrine systems Homeostasis & Coordination		Chapter 14 Buff & Brainy - ER
W Dec. 5	Homeostasis & Coordination Selected Examples		Chapter 14
F Dec. 7	<i>Origins</i>		Chapter15 Chapter 16 pp. 388-391 Chapter 17 pp. 415-416
M Dec. 10	<i>Origins.</i>		
F Dec. 14	Final Exam 8:00 – 10:00		

* ER – Found on Centennial Library Electronic Reserve.

* T – Found on the T drive of CedarNet