

BIOLOGY 334 CELL BIOLOGY, 2008

Instructor: Ursula Goodenough (ursula@biology.wustl.edu); 5-6836; McDonnell Hall 215; office hrs Thursday 1-3

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Textbook: Pollard & Earnshaw, *Cell Biology*, **Second Edition**, Saunders, 2008

Lectures: Rebstock 215, Tu and Th, 10 - 11:30 am

Streaming (Lecture videos):

<http://streaming.wustl.edu/courses/lectures/pages/bio334.html>

Logon/User name: bio334

Course Password: ***** (case-sensitive; note it's an exclamation point, and it's a zero)

Course Website: <http://www.nslc.wustl.edu/courses/Bio334/bio334.html>

User and password same as for Streaming.

Powerpoints for next-day's lecture posted by 5 pm on Mondays and Wednesdays. If you wish, print out for class.

Study Guides posted each Monday to cover prior week.

	<u>LECTURE</u>	<u>TEXT READING (Chpt)</u>
Tu Jan 15	Introduction, origin and evolution of life	1, 2
Th Jan 17	Reduction and emergence Molecular structures	3 (p. 46-52 as review) 4 (read, not tested)
Tu Jan 22	Macromolecular assembly Research strategies	5, 6
Th Jan 24	Membrane structure, pumps	7, 8
Tu Jan 29	QUIZ on Jan15- Jan 24 material Membrane carriers, channels	9, 10
Th Jan 31	Membrane physiology Structure of nucleus	11 (→ p. 185) 14 (→ p. 240)
Tu Feb 5	Nuclear trafficking Mitochondrial trafficking	14 (p. 240-47) 17 (p. 306-10); 18 (p. 315-20); 19 (p. 331-37)
Th Feb 7	Biosynthesis in ER and Golgi	20
Tu Feb 12	QUIZ on Jan 29 - Feb 7 material Vesicular trafficking, ER <--> Golgi	21

Th Feb 14	Trans-Golgi, lysosome biogenesis, endocytosis	22
Tu Feb 19	<u>IN-CLASS TEST #1</u> on material through Feb 7	
Th Feb 21	Endocytosis and protein degradation	23
Tu Feb 26	<u>QUIZ</u> on Feb 12 - Feb 21 material Cholesterol, plasma membrane receptors	24
Th Feb 28	Protein hardware for signaling	25
Tu Mar 4	Second messengers	26
Th Mar 6	Integration of signals	27 (→ p. 508)

SPRING BREAK (note: QUIZ when you return!)

Tu Mar 18	<u>QUIZ</u> on Feb 26 - Mar 6 material Integration of signals (cont.)	
Th Mar 20	Cells and molecules of the extracellular matrix	28, 29, 32 (p. 593-95)
Tu Mar 25	<u>QUIZ</u> on Mar 18 - Mar 20 material Cellular adhesion, intercellular junctions	30, 31
Th Mar 27	Overview of cytoskeleton, actin	33
Tu Apr 1	<u>IN-CLASS TEST #2</u> on Feb 12-Mar 20 material	
Th Apr 3	Microtubules, intermediate filaments	34, 35
Tu Apr 8	<u>QUIZ</u> on Mar 25 - Apr 3 material Motors, intracellular motility	36, 37
Th Apr 10	Cellular motility, muscles	38, 39
Tu Apr 15	Cell cycle, G1 phase	40, 41
Th Apr 17	G2 phase and entry into mitosis	43
Tu Apr 22	<u>QUIZ</u> on Apr 8 - Apr 17 material	

Mitosis 44

Th Apr 24 **MAKE-UP QUIZ** on Apr 17- Apr 22 material
Programmed cell death 46

FINAL EXAM: May 1, 10:30am – 12:30 pm