

SYLLABUS: BILD 7 - The Beginning of Life

Professors: Martin Yanofsky and Ethan Bier

IAs: May Ling Tay mltay@ucsd.edu

Das Gitanjali gdas@ucsd.edu

Andra Ionescu aionescu@ucsd.edu

Aksita Taneja aktaneja@ucsd.edu

Vaishnavi Sridhar vasridha@ucsd.edu

Tu/Th: 8:00-9:20 AM

WLH 2005

SPRING 2016

<u>DATE</u>	<u>LECTURE</u>	<u>TOPIC</u>	<u>READING</u>
Mar. 29 (Tu)	1 – MY	Genes and DNA: Movie: The Double Helix, Part 1	Chpt. 1
Mar. 31 (Th)	2 – MY	Movie: Part 2, DNA, RNA and Protein	Chpt. 1
Apr. 5 (Tu)	3 – MY	Genes control development	Chpt. 1
Apr. 7 (Th)	4 – MY	Overview of recombinant DNA technology	Chpt. 2
Apr. 12 (Tu)	5 – EB	Hunting for genetic mutants (Problems 1-16 due; 3% of final grade)	Chpt. 3
Apr. 14 (Th)	6 – EB	Forming the nose versus tail of a fly	Chpt. 3
Apr. 19 (Tu)	7 – EB	Brain versus skin development in flies (Problems 17-34 due; 3% of final grade)	Chpt. 3
Apr. 21 (Th)	8 – EB	Primary axis formation in vertebrates	Chpt. 5
Apr. 26 (Tu)	9 – EB	Appendage development (Problems 35-58 due; 3% of final grade)	Chpt. 4
Apr. 28 (Th)	10 – EB	Evolutionary conservation of patterning systems	Chpt. 5,6
May 3 (Tu)	11 – EB/MY	<u>DEBATE 1/PRESENTATIONS</u> : (10% of final grade + 5% bonus points) (Review problems 1-83)	
<u>May 5 (Th)</u>	<u>MIDTERM</u>	(THROUGH LECTURE #11; 25% of final grade)	
May 10 (Tu)	12 – MY/EB	NOVA documentary on GMOs, Part 1	
May 12 (Th)	13 – EB/MY	NOVA documentary on GMOs, Part 2; GMO discussion	
May 17 (Tu)	14 – MY	Forming roots versus shoots of plants	Chpt. 7
May 19 (Th)	15 – MY	Plant stem cells	Chpt. 7
May 24 (Tu)	16 – MY	Flower development (Problems 84-92 due; 3% of final grade)	Chpt. 8
May 26 (Th)	17 – MY	Fruit development and GMO Applications	Chpt. 8
		<u>SHORT ESSAY</u> (In lieu of debating: DUE END of 9th WEEK - 10% of final grade)	
May 31 (Tu)	18 – MY/EB	<u>DEBATE 2/PRESENTATIONS</u> : (10% of final grade + 5% bonus points) (Problems 93-107 due; 3% of final grade)	
June 2 (Th)	19 – EB	Bioethics Discussion	Chpt. 9
<u>June 9 (Tu)</u>	<u>FINAL EXAM</u>	8:00 AM – 11:00 AM (Comprehensive; 50% of final grade) (Review problems 1-107)	

TEXT (optional): The Coiled Spring: How Life Begins, by Ethan Bier

COURSE WEBSITE: <http://classes.biology.ucsd.edu/bild7.SP16/index.html>