SYLLABUS: BILD 7 - The Beginning of Life

Professors: Martin Yanofsky and Ethan Bier

IAs: Casey Cheng c2cheng@ucsd.edu
Yuxin (Vicky) Hu yuh307@ucsd.edu
Reema Apte rapte@ucsd.edu
Alex Meng s1meng@ucsd.edu

Tu/Th: 9:30 - 10:50 AM   RCLAS R117   SPRING 2021

DATE	LECTURE	TOPIC	READING
Mar. 30 (Tu)	1 – MY	Genes and DNA: Movie: The Double Helix, Part 1	Chpt. 1
Apr. 1 (Th)	2 – MY	Movie: Part 2, DNA, RNA and Protein	Chpt. 1
Apr. 6 (Tu)	3 – MY	Genes control development	Chpt. 1
Apr. 8 (Th)	4 – MY	Overview of recombinant DNA technology	Chpt. 2
Apr. 13 (Tu)	5 – EB	Hunting for genetic mutants (Problems 1-16 due; 3% of final grade)	Chpt. 3
Apr. 15 (Th)	6 – EB	Forming the nose versus tail of a fly	Chpt. 3
Apr. 20 (Tu)	7 – EB	Brain versus skin development in flies (Problems 17-34 due; 3% of final grade)	Chpt. 3
Apr. 22 (Th)	8 – EB	Primary axis formation in vertebrates	Chpt. 5
Apr. 27 (Tu)	9 – EB	Appendage development (Problems 35-58 due; 3% of final grade)	Chpt. 4
Apr. 29 (Th)	10 – EB	Evolutionary conservation of patterning systems	Chpt. 5,6
May 4 (Tu)	11 – EB/MY	DEBATE 1/PRESENTATIONS: (10% of final grade) (Review problems 1-83)	
May 6 (Th)	MIDTERM	(THROUGH LECTURE #11; 25% of final grade)	
May 11 (Tu)	12 – MY/EB	NOVA documentary on GMOs, Part 1	
May 13 (Th)	13 – EB/MY	NOVA documentary on GMOs, Part 2; GMO discussion	
May 18 (Tu)	14 – MY	Forming roots versus shoots of plants	Chpt. 7
May 20 (Th)	15 – MY	Plant stem cells	Chpt. 7
May 25 (Tu)	16 – MY	Flower development (Problems 84-92 due; 3% of final grade)	Chpt. 8
May 27 (Th)	17 – MY	Fruit development and GMO Applications	Chpt. 8
	SHORT ESSAY	(In lieu of debating: DUE END of 9th WEEK - 10% of final grade)	
June 1 (Tu)	18 – MY/EB	DEBATE 2/PRESENTATIONS: (10% of final grade) (Problems 93-107 due; 3% of final grade)	
June 3 (Th)	19 – EB	Bioethics Discussion	Chpt. 9
June 8 (Tue)	FINAL EXAM:	8:00– 11:00 AM (Comprehensive; 50% of final grade) (Review problems 1-107)	

BILD7 is based on the book: The Coiled Spring: How Life Begins, by Ethan Bier