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Office hours by request, and Thurs 2-7pm

BINF 631, Fall 04: Molecular cell biology for bioinformatics

Class: Thursday 7:20pm

Course Text: Molecular Cell Biology by Lodish, et al, W H Freeman & Co., 5th edition (2003)

<http://binf.gmu.edu/dseto/binf631/>

Grading format:

-three exams @100pts ea
-two student presentations @12.5pts ea
-three homework @25pts ea
total =400pts

[(TBD) extra credit 50pts total]

Grading structure: 85%A, 70%B, 55%C

**Strict adherence to the GMU Honor Code expected.

****Concerns regarding email address privacy should be addressed with instructor.

BINF 631, Fall 05: Molecular cell biology for bioinformatics

Purpose: Review, standardize and reinforce molecular and cellular biology concepts as foundations for bioinformatics. Develop skills for analysis, understanding and presentation of scientific information.

Syllabus:

<u>Date</u>	<u>Subject</u>	<u>Lodish et al</u>
L1) Sept 1	Chapters 1-2. Introduction to the course, text, and course procedures. Review the nature of cells; chemistry, biochemistry.	pp. 1-57.
L2) Sept 8	Chapters 1-2. Review the nature of cells; chemistry, biochemistry.	pp. 1-57.
L3) Sept 15	Chapter 3. Protein structure and function.	pp. 50-99.
L4) Sept 22	Chapter 4. Basic molecular genetic mechanisms.	pp. 101-145.
Ex1) Sept 29	FIRST EXAM (Chapts. 1-4)	
L5) Oct 6	Chapter 9. Molecular genetic techniques and genomics.	pp. 351-403.
L6) Oct 13	Chapter 10. Molecular structure of genes and chromosomes.	pp. 405-445.
L7) Oct 20	(Chapter 12 OLD 4 th edition) DNA replication, repair, and recombination.	(pp. 453-495.)
L8) Oct 27	Chapter 11. Transcriptional control of gene expression.	pp. 447-491.
Ex2) Nov 3	SECOND EXAM (Chapts. 9, 10, 11, "12")	
L9) Nov 10	Chapter 5. Biomembranes and cell architecture.	pp. 147-196.
L10) Nov 17	Chapter 13. Signaling at the cell surface.	pp. 533-570.
Nov 24	no class	
L11) Dec 1	Chapter 12. Signaling pathways that control gene activity.	pp. 571-610.
L12) Dec 8	TBA	
Ex3) Dec 15	THIRD and "FINAL EXAM." (Chapts. 5, 13, 12)	