

SPRING 04: BINF 739, section 003: Adv Top in Mol Cell Biol Thursday 0720PM 1000PM
PW1 Rm220.

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Goal: Provide a molecular and cellular biology foundation to BINF students, especially those with non-biology backgrounds. Provide an opportunity to polish verbal presentation skills.

Grading: Three exams (x100pts= 300pts); Three 10 minute presentations (x20pts= 60pts);
Three optional homework sets (x10pts= 30pts).

85%total= A; 70%= B; 60%= C; 50%= D.

Books on reserve at PW Library

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Schedule of lectures and exams:

1. Jan 22: Mechanics of course; Fast review of 'Semester 1 (Chapt.):
Life (1), chemistry (3), chemistry (2), proteins (3), nucleic acids (4), lipids (5). Genes (4). Transcription
(4), Translation (4).

"Topics in....."

2. Jan 29: Chapt. 7. Recombinant DNA and genomics.

3. Feb 5: Chapt. 9. Molecular structure of genes and chromosomes.

3. Feb 12: Chapt. 10. Regulation of transcription initiation.

5. Feb 19: EXAM #1

6. Feb 26: Chapt. 11. RNA Processing, Nuclear Transport, and Post-Transcriptional Control.

7. Mar 4: Chapt. 12. DNA Replication, Repair, and Recombination.

7. Mar 11: SPRING BREAK

8. Mar 18: Chapt. 13. Regulation of the Eukaryotic Cell Cycle.

8. Mar 25: Chapt. 14. Gene Control in Development.

10. Apr 1: EXAM #2

11. Apr 8: Chapt. 15. Transport across Cell Membranes.

12. Apr 15: Chapt. 20. Cell-to-Cell Signaling: Hormones and Receptors.

12. Apr 22: Chapt. 23. Cell Interactions in Development.

14. Apr 29: Chapt. 24. Cancer.

15. May 6 EXAM #3