Provisional Syllabus for Cell 311, Molecular Biology

Spring 2007
Professor         David A. Mullin
Office            2000 Stern Hall
Office hours      By appointment.
Class meets: T,R: 11:00 am- 12:15 pm Jones 204, R: 7:00 pm-8:15 pm (when needed and for exams).

Text book: “Molecular Biology”, third edition (MB) by Robert F. Weaver. Students are expected to study the assigned reading material and PowerPoint presentations prior to attending the lectures.

Blackboard (BB) website: PowerPoint presentations and homework assignments will be posted on this site. You should check the syllabus posted on the BB site on a regular basis because page assignments and other readings associated with lectures may change.

1. What is Molecular Biology?  
2. Monomers: amino acids and nucleotides  
3. Molecular forces  
4-7. Structure, function and analysis of proteins  
8, 9. Structure and analysis of nucleic acids  
10, 11. Gene cloning, libraries, genomics  
12, 13. Molecular biology methods  

First Exam (Thur. Feb. 22—7 pm)  
14. RNA structure function and analysis  
15,16. Bacterial RNA polymerase  
17, 18. Bacterial Operons and regulons  
19. DNA-protein interactions in bacteria  
20, 21. Bacterial chromosomes and DNA replication  

Second Exam (Thur. Mar 15—7 pm)  
22, 23. Eukaryotic RNA polymerases and promoters  
24. General transcription factors of eukaryotes  
25. Eukaryotic transcription activators and repressors  
26, 27. Capping and polyadenylation of RNA  
28, 29. RNA splicing, RNA editing  
30. Eukaryotic chromosomes  

Final Exam: Monday May 7 (8 am to noon)

Grading: Two midterm exams and a final exam each count as 33 1/3 % of the grade. Homework assignments will be used to determine borderline grades. Late homework will not be accepted. Two or more unexcused absences in the lecture will cause your final letter grade dropping by one letter. If you miss an exam you will be allowed to take a makeup exam only if you contact me prior to the time of the exam and get my approval.
Unexcused missed exams will probably be recorded as a 0 % score. **As a reminder:** The Honor Code stipulates that "all academic work must be the result of the student's own efforts."