

## BIOL562: FUNCTIONAL GENOMICS

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Mid-term exam (40%) & Final exam (40%) & Term paper: 15-30 pages (20%)

Term paper topics will be assigned by the date of mid-term exam.

Recommended textbook: GENOMES 3 by TA Brown (2006)

Grading Scale: A  $\geq$ 90%; B 80-89%; C 70-79%; D 60-69%; F <60%

### Tentative Class Schedule

1	August 30, 2006	Lecture 1. Genomes, Transcriptomes, & Proteomes Lecture 2. Studying DNA
2	September 6, 2006	Lecture 3. Mapping Genomes Lecture 4. Sequencing Genomes
3	September 13, 2006	Lecture 5. Understanding a Genome Sequence Lecture 6. How Genome Functions
4	September 20, 2006	Lecture 7. Eukaryotic Nuclear Genomes Lecture 8. Genomes of Prokaryotes & Organelles
5	September 27, 2006	Lecture 9. Virus Genomes & Mobile Genetic Elements Lecture 10. Accessing the Genome
6	October 4, 2006	Lecture 11. Assembly of the Transcription Complex Lecture 12. Review for Midterm Exam
7	October 11, 2006	<b>Midterm Exam (6:30-8:30PM)</b>
8	October 18, 2006	<b>No Class Due To Fall Break</b>
9	October 25, 2006	Lecture 13. Synthesis & Processing of RNA Lecture 14. Synthesis & Processing of Proteome
10	November 1, 2006	Lecture 15. Genome Replication Lecture 16. Mutations & DNA Repair
11	November 8, 2006	Lecture 17. Recombination Lecture 18. How Genomes Evolve
12	November 15, 2006	Lecture 19. Molecular Phylogenetics-1 Lecture 20. Molecular Phylogenetics-2
13	November 22, 2006	<b>No Class Due To Thanksgiving Holiday</b>
14	November 29, 2006	Lecture 21. DNA Microarray Analysis Lecture 22. Pathogenomics of Salmonella
15	December 6, 2006	Lecture 23. Pathogenomics of Listeria Lecture 24. Review for Final Exam
16	December 13, 2006	<b>Final Exam &amp; Term Paper Due</b>