Course: BSCI 410 Molecular Genetics Spring 2009


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           405-7927 (Lab)
Office: 0124 Bioscience Research Building (BRB)
Lab: 0229 BRB

Teaching Assistant: Amanda Field afield13@umd.edu 405-2862
Office: 3151 Plant Science Building (PLS)
Office hour: Tu 2:30-4:00PM

Lectures: Tu Th 11:00 to 12:15 MCB (Microbiology Building) Room 1207

Required Books: (The University Book Center will have the textbook)
Hartwell, et al. (2008) Genetics: From Genes to Genomes

Online reference resources: (Go to course website to click the links)
DOE’s Genomics and its impact
Human Molecular Genetics, a textbook by Strachan and Read (2nd edition is available online)
A Science Primer
RNAi Movie
NCBI Tutorial

Lectures: I will post lectures after they are given. Many lectures will be similar to those
given for BSCI 410 in the spring 2007 (I did not teach in 2008), which are posted on our
course website. However, we are using a different textbook from 2007’s and the reading
assignment will be different.

Office Hours: TA Amanda Field will give one office hour (Tu 2:30-4:00 PM) every week. It
will be at 3151 PLS Building. Additional office hours will be given by Dr. Liu before each
homework due date and before each exam. The time and place will be announced at class.
Both Amanda and Dr. Liu will answer questions via email throughout the semester.

Grading:
Three homeworks: 150 (50 points for each)
Two mid-term exams: 200/per exam (You can drop one of the two midterm exams)
One final exam: 350
Total 700

Course mail: bsci410-0101-spr09@coursemail.umd.edu

Final Exam: May 14 (Thu) 8-10AM in the same classroom (MCB 1207).
2009 BSCI 410 Syllabus

Jan 27 Tu. Lecture 1 Genes and Mutations
Jan 29 Th. Lecture 2 Mutation and its effect
Feb 3 Tu. Lecture 3 Mutagen and mutagenesis screen
Feb 5 Th. Lecture 4 Mutant characterization

Home work I posted
Feb 10 Tu. Lecture 5 Genetic interactions and epistasis
Feb 12 Th. Lecture 6 Molecular Techniques I (Home work I due)
Feb 17 Tu. Lecture 7 Molecular Techniques II
Feb 19 Th. Lecture 8 Molecular Markers
Feb 24 Tu. In class review
Feb 26 Th. Midterm exam I

Mar 3 Tu. Lecture 9 Positional cloning I
Mar 5 Th. Lecture 10 Positional cloning II
Mar 10 Th Lecture 11 Bioinformatic tutorial I
Mar 12 Tu Lecture 12 Bioinformatic tutorial II

Home work II posted
Mar 16-20 Spring break
Mar 24 Tu. Lecture 13 Insights from genome sequencing
Mar 26 Th. Lecture 14 Functional genomics I (Home work II due)
Mar 31 Th. Lecture 15 Functional genomics II
Apr 2 Th. Lecture 16 C. elegans
Apr 7 Tu. Lecture 17 Mouse
Apr 9 Th. In class review
Apr 14 Tu. Midterm exam #2
Apr 16 Th. Lecture 18 Drosophila
Apr 21 Tu. Lecture 19 Arabidopsis
Apr 23 Th. Lecture 20 Evo-Devo
Apr 28 Tu. Lecture 21 Cancer and cell cycle

Home work #3 posted
Apr 30 Th. Lecture 22 Cancer & cell cycle (Home work III due)
May 5 Tu. Lecture 23 Diagnosis and gene therapy
May 7 Th. Lecture 24 Epigenetics
May 12 Tu In class review
May 14 Th Final exam (8-10AM)