

Course: BSCI 410 Molecular Genetics Spring 2007

Course URL: <http://www.life.umd.edu/classroom/BSCI410-Liu/BSCI410/>

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Office: 3236 H. J. Patterson Hall
Office hour: Th 2-3:30PM

Lectures: Tu Th 11:00 to 12:15 H. J. Patterson Hall Room 2242

Required Books: (The University Book Center will have the text book)
Hartl, D. L. and E. W. Jones, (2004) *Genetics: Analysis of Genes and Genomes*. 6 ed. Jones & Bartlett, Sudbury, MA.

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 2006, which are posted on our course website. However, we are using a different textbook from last year's and the reading assignment will be different.

Office Hours: The TA (Minh Bui) will give one office hour (Th 2:00-3:30 PM) every week. It will be at his lab in 3236 H. J. Patterson Hall (just above the classroom). 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 Minh and Dr. Liu will answer questions via email throughout the semester.

Grading:
Three homeworks: 210 (70 points for each)
Two mid-term exams: 200 (One of the two exams will be dropped)
One final exam: 300
Total **710**

Course mail: bsci410-0101-spr07@coursemail.umd.edu

Final Exam: May 12 (Sat) 8-10AM in 2242 H. J. Patterson Hall (same classroom).

2007 BSCI 410 Syllabus

Jan 25 Th.	Lecture 1	Genes and Mutations
Jan 30 Tu.	Lecture 2	Mutation and its effect
Feb 1 Th.	Lecture 3	Mutagen and mutagenesis screen
Feb 6 Tu.	Lecture 4	Mutant characterization
Home work I posted		
Feb 8 Th.	Lecture 5	Genetic interactions and epistasis
Feb 13 Tu.	Lecture 6	Molecular Techniques I (Home work I due)
Feb 15 Th.	Lecture 7	Molecular Techniques II
Feb 20 Tu.	In class review	
Feb 22 Th.	Midterm Exam 1	
Feb 27 Tu.	No class	
Mar 1 Th.	Lecture 8	Molecular Markers
Mar 6 Tu.	Lecture 9	Positional cloning
Mar 8 Th.	Lecture 10	Bioinformatic tutorial
Mar 13 Tu.	Lecture 11	Bioinformatic tutorial
Home work II posted		
Mar 15 Th.	Lecture 12	Insights from genome sequencing
Mar 19-23	Spring break	
Mar 27 Tu.	Lecture 13	Functional genomics I (Home work II due)
Mar 29 Th.	Lecture 14	Functional genomics II
Apr 3 Tu.	In class review	
Apr 5 Th.	Midterm exam II	
Apr 10 Tu.	Lecture 15	Arabidopsis
Apr 12 Th.	Lecture 16	C. elegans
Apr 17 Tu.	Lecture 17	Drosophila
Apr 19 Th.	Lecture 18	Drosophila
Home work III posted		
Apr 24 Tu.	Lecture 19	Mouse genetics
Apr 26 Th.	Lecture 20	Cancer & Cell cycle (Home work III due)
May 1 Tu.	Lecture 21	Cancer and cell cycle
May 3 Th.	Lecture 22	Diagnosis and gene therapy
May 8 Tu.	Topics to be determined	
May 10 Th.	In class review	
May 12 Sat.	Final exam (8-10AM)	