

Biology 3020: Molecular Genetics Laboratory Fall 2008

<u>Week</u>	<u>Exercise</u>	<u>Reference</u>	<u>Dates</u>
Part 1 Lab 1 thru 4			
1	Introduction to laboratories on DNA Analysis.	Handout 1, pp 2-20. Exercise in pipetting accuracy	Aug 26th and 27th
2	Determining the Length of DNA Molecules.	<i>(No pre-lab lecture on Labor Day Sept 1st)</i> Handout 1, p 21-24.	Sept 2nd and 3rd
3	Restriction Mapping of DNA.	Handout 1, p 25-30.	Sept 9th and 10th
4	<u>Database Mining for flcDNA.</u>	<u>Assigned Reading.</u>	<u>Sept 16th and 17th</u>
Part 2 Lab 5 thru 8			
5	DNA Hybridization Lab 1 Evolution of the Vertebrate Genome. Introduction to computer based homology searches	Handout 2, pp 48-70. (Modern Biology Inc. Kit)	Sept 23rd and 24th (1st Lab Report Due)
6	DNA Hybridization Lab 2 Detecting a gene in the Mammalian Genome	Handout 2, p 71-84 (Modern Biology Inc. Kit)	Sept 30th & Oct 1st
7	DNA Hybridization Lab 3 Development of Blots (Prehybridize day before lab)	Handout 2, p 61-84. (Modern Biology Inc. Kit)	Oct 7 th and 8th
8	<u>Isolation of Plasmid DNA</u> <u>Quantitation of DNA by UV spectrophotometry</u> <i>No Lab Oct 21st and 22nd due to Fall Break</i>	<u>Assigned reading</u>	<u>Oct 14th and 15th</u> <u>(Quiz 1 on labs 1 to 7)</u>
Part 3 Lab 9 thru 12			
9	PV92 PCR Informatics Experiment Part 1 (BioRad Kit)	Manual, pp 86-90. Assigned reading	Oct 28th and 29th (2nd Lab report due)
10	<u>PCR Amplification of cDNA clone</u> PV92 PCR Informatics Experiment Part 2 <i>No Lab Oct 11th and 12th due to Veterans Day Holiday</i>	<u>Assigned reading..</u>	<u>Nov 4th and 5th</u> <i>October 31st Last day to withdraw</i>
11	<u>Ligation of PCR product</u> <u>Transformation of <i>E. coli</i>.</u> <i>No Lab Oct 25th and 26th due to Thanksgiving</i>	<u>Assigned reading..</u>	<u>Nov 18th and 19th</u>
12	<u>Analysis of DNA sequence of Recombinant Plasmid</u> <u>Transfer clone to destination vector</u>	<u>News Article</u>	<u>Dec 2nd and 3rd</u> <u>Assignment due</u>
13	Final Exam 3rd Lab Report due Friday Dec 12th at 5pm !		Dec 9th and 10th
15	<i>There will not be any tests in finals week</i>		