

## COURSE SCHEDULE:

A preliminary course schedule is provided below, but the schedule for the topics is not fixed. The key is comprehension, not memorization and therefore the pace will be set by the student's understanding of the material, as well as interest.

Week	Topics
1 9.28	Course Overview, Background: genes, genomes (SM) Background II: Molecular techniques, types of data (SM)
2 10.5	Restriction Maps (DM) Physical Genome Maps (DM)
3 10.12	Sequence Assembly (DM) High Throughput Sequencing (DNA-Seq/RNA-Seq) (MM) (PROJECT DISTRIBUTED)
4 10.19	NGS Sequence Assembly Algorithms (MM) Matrices (SM)
5 10.26	Sequence Comparison (DM) Multiple Sequence Alignment (DM)
6 11.2	BLAST(SM) <b>warm up project due</b> BLAST (DM)
7 11.09	Contig Assembly (DM) PSU Holiday (No Lecture)
8 11.16	Gene Prediction(SM) Motif Finding(SM)
9 11.23	Chip-chip/Chip-Seq /Transcriptional Networks (SM) <b>5 slide presentation in class for project – vote or comparison against cDNA set – final assembly and comparison on common data set.</b> Genomic Rearrangements (SM)
10 11.30	Computational Proteomics(SM) Clustering and Trees (DM)
11 12.7	Final Project Due
	<b>Fall Term Ends 12/11</b>