

Suggested Lecture/Lab Topics for Bio 102

| <u>Week</u> | <u>Lecture</u> | <u>Lab</u> |
|-------------|--|---|
| 1 8/30 | 1. What is evolution & evidence for it; biodiversity (MDR/JW) 2. Evidence for Evolution (JW) | None |
| 2 9/6 | 3. Genetics 1—Mutation, Variation, Mitosis, Meiosis (JW) 4. Genetics 2—Mendelian Inheritance, Single Locus (JW) | Evidence. Evol/Fly lab 1 |
| 3 9/13 | 5. Genetics 3—Mendelian Inheritance, Two Loci, Linkage (JW) 6. Genetics 4—Linkage with Multiple Loci, Mapping (JW) | Mitosis-meiosis beads/ Mendelian genetics |
| 4 9/20 | 7. Genetics 5—Using Mapping to Find Genes, Introduction to Quantitative Trait Genetics (JW) 8. Genetics 6—Finding Genes Underlying Complex Traits (JW) | Quantitative genetics 1 |
| 5 9/27 | 9. Common Gardens, Mutation Pressure, H-W (MDR) 10. Natural Selection 1 (MDR) | Quan. genetics follow up/ Transmission genetics |
| 6 10/4 | Exam 1 (through lecture 8) 11. Natural Selection 2 (MDR) | Phylogeny 1 |
| 7 10/11 | Fall Break 12. Genetic Drift 1 (MDR) | None |
| 8 10/18 | 13. Genetic Drift 2 (MDR) 14. Altruism and Kin Selection (MDR) | Population genetics 1 |
| 9 10/25 | 15. Natural selection on quantitative traits (MDR) 16. Sex and Sexual Selection (MDR) | Selection in yeast |
| 10 11/1 | 17. Molecular Evolution 1 (MDR) 18. Molecular Evolution 2 (MDR) | Population genetics 2 |
| 11 11/8 | Exam 2 (lectures 9 - 16) 19. Genome Evolution (MDR) | Fly lab 2 |
| 12 11/15 | 20. Genetic Divergence of Populations: Selection, Drift, and Migration (JW) 21. Human Evolution: Signatures of Selection in Genome Variation (JW) | Quantitative genetics 2 |
| 13 11/22 | 22. Using Genome Variation to Understand Human Disease (JW) Thanksgiving | None |
| 14 11/29 | 23. Speciation (JW) 24. Phylogenetics and Macroevolution (MDR) | Phylogeny 2 |
| 15 12/6 | 25. Phylogenetics and Macroevolution (MDR) Exam 3 (lectures 17 – 24) | Fly lab 2 follow up/ Sel'n in yeast proj discuss'n |