

Biological Sciences 4087
Spring 2013

| Date | Lecture | Topic | Chapter |
|------|---------|---|---------|
| 1/15 | 1 | Water | 2 |
| 1/17 | 2 | Amino acids, peptides, and proteins | 3 |
| 1/22 | 3 | Three-dimensional structure of proteins | 4 |
| 1/24 | 4 | Protein Function: Hemoglobin and IgG | 5 |
| 1/29 | 5 | Enzymes | 6 |
| 1/31 | 6 | Enzymes | 6 |
| 2/5 | 7 | Carbohydrates and glycobiology | 7 |
| 2/7 | 8 | Nucleotides, DNA metabolism | 8, 25 |
| 2/14 | | EXAM I (lectures 1-7) 12:00 NOON-1:00 PM | |
| 2/19 | 9 | RNA metabolism | 26 |
| 2/21 | 10 | Protein metabolism | 27 |
| 2/26 | 11 | DNA-based information technologies | 9 |
| 2/28 | 12 | Lipids | 10 |
| 3/5 | 13 | Biological membranes and transport | 11 |
| 3/7 | 14 | Biosignaling | 12 |
| 3/12 | 15 | Bioenergetics and metabolism | 13 |
| 3/14 | | EXAM II (lectures 8-14) 12:00 NOON -1:00 PM | |
| 3/19 | 16 | Glycolysis, gluconeogenesis, pentose-P _i | 14, 15 |
| 3/21 | 17 | Glycogen metabolism | 15 |
| 3/26 | 18 | Citric acid cycle | 16 |
| 3/28 | 19 | Fatty acid catabolism | 17 |
| 4/9 | 20 | Amino acid oxidation and the urea cycle | 18 |
| 4/11 | 21 | Oxidative Phosphorylation | 19 |
| 4/16 | 22 | Photophosphorylation and the Calvin cycle | 19, 20 |
| 4/18 | | EXAM III (lectures 15-21) 12:00 NOON -1:00 PM | |
| 4/23 | 23 | Lipid biosynthesis | 21 |
| 4/25 | 24 | Biosynthesis of amino acids and nucleotides | 22 |
| 4/30 | 25 | Hormonal regulation of metabolism | 23 |
| 5/2 | 26 | Hormonal regulation of metabolism | 23 |
| 5/6 | | FINAL EXAM 3:00 – 5:00 PM | |