

## Biology 210A Schedule\* (Dr. Hurley) – Spring Semester 2021 (CRN 54864 & 54865)

| Week   | Date/Day | Lecture Topics (Mon/Wed)   | Textbook                      | Lab Topic (Mon/Wed)   |
|--------|----------|--|-------------------------------|---|
| 1      | Feb 1 M  | Intro to Biological Themes/Chem. of Life                           | Ch. 1, 2                      | Scientific Method   |
| 1      | Feb 3 W  | Water/Carbon Chemistry   | Ch. 3, 4                      | Scientific Method   |
| 2      | Feb 8 M  | Quick Quiz 1 (Ch. 1-4)<br>Biomolecular Structure & Function        | Ch. 5                         | On-Campus Lab:<br>Microscopy ◇Lab Quiz 1                            |
| 2      | Feb 10 W | Biomol Structure & Function (Cont)                                 | Ch. 5                         | On-Campus Lab:<br>Microscopy ◇Lab Quiz 1                            |
| 3      | Feb 15 M | President's Day Holiday<br>(no lecture, but begin Ch. 6)           | Ch. 6                         | Holiday – Biomolecules virtual<br>lab activity (on course website)  |
| 3      | Feb 17 W | → Exam #1 (Ch. 1-5)<br>Animal vs. Plant Cell Organelles            | Ch. 6                         | Biomolecules ◇Lab Quiz 2  |
| 4      | Feb 22 M | Overview of Viruses<br>Fundamentals of Metabolism                  | Ch. 19 (19.1 & 19.2)<br>Ch. 8 | Enzymes ◇Lab Quiz 2<br>◇Lab Quiz 3                                  |
| 4      | Feb 24 W | Quick Quiz 2 (Ch. 6 & 19)<br>Fundamentals of Metabolism            | Ch. 8                         | Enzymes ◇Lab Quiz 3   |
| 5      | Mar 1 M  | → Exam #2 (Ch. 6, 8, 19)<br>Membrane Structure & Function          | Ch. 7                         | Osmolarity ◇Lab Quiz 4  |
| 5      | Mar 3 W  | Membrane Structure & Function                                      | Ch. 7                         | Osmolarity ◇Lab Quiz 4  |
| 6      | Mar 8 M  | Quick Quiz 3 (Ch. 7)<br>Cellular Respiration & Fermentation        | Ch. 9                         | Fermentation ◇Lab Quiz 5  |
| 6      | Mar 10 W | Cellular Respiration & Fermentation                                | Ch. 9                         | Fermentation ◇Lab Quiz 5  |
| 7      | Mar 15 M | → Exam #3 (Ch. 7 & 9)<br>Photosynthesis: The Light Reactions       | Ch. 10                        | Photosynthesis ◇Lab Quiz 6  |
| 7      | Mar 17 W | Photosynthesis: Calvin Cycle &<br>Combating Photorespiration       | Ch. 10                        | Photosynthesis ◇Lab Quiz 6  |
| 8      | Mar 22 M | Quick Quiz 4 (Ch. 10)<br>The Cell Cycle and Mitosis                | Ch. 12                        | Cell Cycle & Microvolumetrics<br>◇Lab Quiz 7                        |
| 8      | Mar 24 W | Sexual Reproduction: Meiosis                                       | Ch. 13                        | Cell Cycle & Microvolumetrics<br>◇Lab Quiz 7                        |
| Mar 29 | Mar 31   | <b>Spring Break (No Class)</b>                                     |                               | <b>Spring Break (No Lab)</b>  |
| 9      | Apr 5 M  | → Exam #4 (Ch. 10, 12, 13)<br>Molecular Basis of Inheritance       | Ch. 16                        | On-Campus Lab:<br>Micropipetting & Plasmids<br>(Ch. 20) ◇Lab Quiz 8 |
| 9      | Apr 7 W  | DNA Replication  | Ch. 16                        | On-Campus Lab:<br>Micropipetting & Plasmids<br>(Ch. 20) ◇Lab Quiz 8 |
| 10     | Apr 12 M | Gene Expression: Transcription &<br>RNA Processing                 | Ch. 17                        | DNA Gel Electrophoresis<br>(Ch. 20) ◇Lab Quiz 9                     |
| 10     | Apr 14 W | Quick Quiz 5 (Ch. 16)<br>Gene Expression: Translation              | Ch. 17                        | DNA Gel Electrophoresis<br>(Ch. 20) ◇Lab Quiz 9                     |
| 11     | Apr 19 M | Gene Expression: Mutation  | Ch. 17                        | Transformation (Ch. 20)<br>◇Lab Quiz 10                             |
| 11     | Apr 21 W | → Exam #5 (Ch. 16 & 17)<br>Prokaryotic Gene Regulation             | Ch. 18<br>(section 18.1)      | Transformation (Ch. 20)<br>◇Lab Quiz 10                             |
| 12     | Apr 26 M | Eukaryotic Gene Regulation   | Ch. 18 (section 18.2)         | PCR (Ch. 20) ◇Lab Quiz 11   |
| 12     | Apr 28 W | Quick Quiz 6 (Ch. 18)<br>Cell Communication                        | Ch. 11                        | PCR (Ch. 20) ◇Lab Quiz 11   |
| 13     | May 3 M  | Cell Communication   | Ch. 11                        | Molecular Genetics<br>◇Lab Quiz 12                                  |
| 13     | May 5 W  | → Exam #6 (Ch. 11 & 18)<br>Genetics: Mendel's Model                | Ch. 14                        | Molecular Genetics<br>◇Lab Quiz 12                                  |
| 14     | May 10 M | Predicting Inheritance: Probability<br>Rules                       | Ch. 14                        | Human Heredity/<br>Bioinformatics ◇Lab Quiz 13                      |
| 14     | May 12 W | Quick Quiz 7 (Ch. 14)<br>Complex Genetics: Beyond Mendel           | Ch. 14                        | Human Heredity/<br>Bioinformatics ◇Lab Quiz 13                      |
| 15     | May 17 M | Population Genetics  | Ch. 23                        | Hardy Weinberg Lab &<br>Genetics Practice Problems<br>◇Lab Quiz 14  |
| 15     | May 19 W | Quick Quiz 8 (Ch. 23)<br>Mechanisms of Microevolutionary<br>Change | Ch. 23                        | Hardy Weinberg Lab &<br>Genetics Practice Problems<br>◇Lab Quiz 14  |
| 16     | May 24 M | Mechanisms of Microevolutionary<br>Change (Cont'd)                 | Ch. 23                        | Exit Survey ◇Lab Quiz 15  |
| 16     | May 26 W | → Final Exam (Ch. 14 & 23)   |                               | Exit Survey ◇Lab Quiz 15  |

\* - Schedule is subject to change ◇ = All lab quizzes will pertain to material presented in the prior week's lab