Biology 212 – Principles of Biology

Spring 2020

***Tentative*** Schedule

Wk Active date LECTURE TOPICS Readings R&J Bozeman Videos Lab Target Assessments

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| 1 | 4/6 | Course Introduction  Water & Bonds | Chapter 2 | **Water & Life**  **Water : a polar molecule** | Biochemical Molecules  & Calculations | Lab Report Sat noon  Moodle Quiz (MQ) -#1  Due Sat 11:55 pm 4/11 |
| 2 | 4/13 | Biochemical molecules | Chapter 3 | **Videos: Molecules of Life, Polymers, Proteins, Carbohydrates** | Case Study:  IceFish Blood Adaptations | Lab Report Sat noon  MQ #2  Due Sat 11:55 pm |
| 3 | 4/20 | Cell Structure  & Cell membranes | Ch 4 sec 1-7  Ch 5 sec 1-3 | **A Tour of the cell, Cellular organelles, Cell membranes** | Cell lab | Lab Report Sat noon  MQ #3  Due Sat 11:55 pm |
| 4 | 4/27 | Movement of water  Cell respiration intro  Exam on Monday  (over Ch 2,3,4,5 sec 1-3) | Ch 5, sec 5.4  Ch 7 – start 1-3 | **Osmosis, Transport across the cell membrane** | Simbio: Osmosis  Egg Demo | **Exam #1 (Monday)**  Lab Report Sat noon  MQ #4  Due Sat 11:55 pm |
| 5 | 5/4 | Cell Respiration  Glycolysis, Kreb Cycle & ETC | Ch 6 sec 3-5  Ch 7 sec 4-6 | **Life requires energy, Cell Respiration** | Simbio – Cell respiration | Lab Report Sat noon  MQ #5  Due Sat 11:55 pm |
| 6 | 5/11 | Plant A&P  Start Photosynthesis  ***Exam #2 on Mon.***  (over Ch 5 - 7) | Ch 8 sec1-6  Ch 36 | **Photosynthesis & Respiration, & Unit 7-Plant Structure** | Plant Anatomy lab | **Exam #2 (Monday)**  Lab Report Sat noon  MQ #6  Due Sat 11:55 pm |
| 7 | 5/18 | Plant transport  & Nutrition (?TBD) | Ch 37  Ch 38 | **Unit 7-Photosynthesis,**  **Plant nutrition & Transport, Water potential** | HHMI Photosynthesis Case Study  Water potential  equations. | Lab Report Sat noon  MQ #7  Due Sat 11:55 pm |
| 8 | 5/25 | Animal unit  Blood Circulation & Gas Exchange | Ch 48 & 49 | **Videos: Unit 11 – Circulatory System, Blood types & Respiratory System** | Comparative anatomy & simulated EKG, worksheets | Lab Report Sat noon  MQ #8  Due Sat 11:55 pm |
| 9 | 6/1 | Muscle contraction  & Skeletal system  ***Exam #3 on Mon.***  (over Ch 8, 37,38, 48,49) | Ch 46 | **Skeletal System & Muscular System** | Skeletal System  Online demos  Worksheets | **Exam # 3 (M)**  Lab Report Sat noon  MQ #9  Due Sat 11:55 pm |
| 10 | 6/8 | Reproduction & Development  Final Exam (F) | Ch 53 Sec 1-4  Ch 47 | **Reproductive System** | Embryology lab  VG on Pregnancy | Final Exam (F)  Lab Report due Thursday noon  Moodle Quiz due Thurs 11:55 pm |

Final Exam: Friday - June 12, Time TBD