**Course Objectives:** BIOL 2020 is a study of the anatomy and physiology of the muscular, circulatory, and immune systems, respiratory, digestive, excretory, endocrine and reproductive systems.

**Learning Outcomes:** Upon successful completion of this course, the student should be able to:

1. Describe the major gross and microscopic anatomical features of the human skeletal muscle system, cardiovascular system, lymphatic system, immune system, respiratory system, gastrointestinal system, urinary system, endocrine system, and reproductive system.
2. Explain the major physiological processes that occur in these systems, including muscle contraction, tissue perfusion, hemostasis, innate and adaptive immunity, cellular and humoral immunity, gas transport and exchange, digestion and absorption, urine formation, and gamete production.
3. Explain the regulatory mechanisms controlling these systems and processes.
4. Explain the roles of these systems in the maintenance of homeostasis, especially concerning blood pressure regulation; acid‐base, fluid, and electrolyte balance; and immune defense.