Course Prefix/Number/Title: BIOL 221 - Anatomy and Physiology II-Online

Number of Credits: 4 semester credits

Course Description: A study of the structure (anatomy) and function (physiology) of the human body. This course consists of one discussion, one two-hour lab/assignment, and one quiz each week.

Pre-/Co-requisites: BIOL 220

Instructor: Shubham Datta

Office: N/A

Office Hours: N/A

Phone: (701) 228-5463

Email: shubham.datta@dakotacollege.edu

Lecture Schedule: Online

Lab Schedule: Online

Textbook: Anatomy and Physiology, Patton and Thibodeau, 10th Edition

Lab Kit: Order from DCB Bookstore – Janeen.pollman@dakotacollege.edu;

Phone–7012285458

General Education Competency/Goal # 1: Identifies the interrelationships between humans and their environment.
LO # 3: Applies scientific information in everyday life

Course Requirements: Grading is based on a standard college curve, where students earn a grade based upon the percent of total possible points they obtain. Although subject to slight modification based on the discretion of the instructor, this course will consist of approximately 1000 points (14 quizzes worth 10-20 points each, 1 mid-term, and 1 final exam worth 100 points each). Laboratory and assignment points are worth approximately 480 points and discussions 80 points to obtain the total points possible for the course (approximately 1000). There is a **three-day grace period to make up any missed exam or assignment with a 10% deduction for each day it is late.** Any missed exam/work not made up within the allotted time will be given a **zero.** It is the responsibility of the student to schedule make-up work within an acceptable period due to extenuating circumstances. Final letter grades are assigned based on the following criteria:

A = 89.5-100% of the total points
B = 79.5 - <89.5% of the total points

C = 69.5 - <79.5% of the total points
D = 59.5 - <69.5% of the total points
F = <59.5% of the total points

Tentative Course and Lab Outline:

Week 1:
- Reading: Blood (Ch.27) and the Heart (Ch.28)
- Discussion (10 pts)
- Quiz (25 pts): Attest to reading Syllabus; Ch. 27 & Ch. 28
- Labs (75 pts): Getting Started (5 pts), Laboratory Safety (10 pts), & Cardiovascular System

Week 2:
- Reading: Blood Vessels (Ch.29), The Circulation of Blood (Ch.30), Lymphatic System (Ch.31) and Innate Immunity (Ch.32)
- Discussion (10 pts)
- Quizzes (40 pts): Ch. 29 & Ch. 30; Ch. 31 & Ch. 32
- Lab (40 pts): Lymphatic System Assignment

Week 3:
- Reading: Adaptive Immunity (Ch.33), Stress (Ch.34), and Respiratory Tract (Ch.35)
- Discussion (10 pts)
- Quizzes (30 pts): Ch. 33, Ch. 34, and Ch 35
- Lab (60 pts): Anatomy of Respiratory Lab

Week 4:
- Reading: Ventilation (Ch. 36) and Gas Exchange (Ch. 37)
- Discussion (10pts)
- Quiz (20 pts): Ch. 36 & Ch. 37
- Lab (60): Respiratory Physiology Lab
- Midterm (100 pts)

Week 5:
- Reading: Upper Digestive Tract (Ch. 38), Lower Digestive Tract (Ch. 39) and Digestion and Absorption (Ch. 40)
- Lab (60 pts): Digestive System Lab
- Discussion (10 pts)
- Quiz (30 pts): Ch. 38, Ch. 39 & 40

Week 6:
- Reading: Nutrition and Metabolism (Ch. 41), Urinary Tract (Ch. 42) Fluid and Electrolyte Balance (Ch. 43) and Acid-Base Balance (Ch. 44)
- Lab (60 pts): Urinary Tract System
- Discussion (10 pts)
- Quiz (40 pts): Ch. 41, Ch. 42, Ch. 43, & Ch. 44

Week 7:
- Reading: Male Reproductive System (Ch. 45), Female Reproductive System (Ch. 46), Growth and Development (Ch. 47)
- Lab (60 pts): Reproductive System
- Discussion (10 pts)

- Quiz (30 pts): Ch. 45, Ch. 46, & Ch 47

Week 8:

- Reading: Genetics and Heredity (Ch. 48)
- Assignment (60 pts): Genetics and Genomics
- Discussion (10 pts)
- Quiz (10 pts): Ch. 48
- Final (100 pts):

General Education Goal and Objectives

Goal:
The goal of this course is to facilitate student learning about human anatomy and physiology so students better understand and appreciate the complexities of interactions between organ systems to promote the advancement of life sciences in the professional and academic environment as well as throughout everyday life.

Objectives:

1) To learn and retain information essential to a broad knowledge of human anatomy and physiology.
2) Establish the impact humans have on the environment (Goal 1; Objective 2)
3) Practice sound, safe, and sensible laboratory techniques.
4) Demonstrate knowledge of the natural environment (Goal 1; Objective 2)
5) Demonstrate an awareness of the role of science in everyday life (Goal 1; Objective 2)

Relationship to Campus Theme

This course addresses the campus theme by incorporating the latest diagnostic procedures, treatments, and other technologies that are used to identify and treat human diseases and disorders.

Classroom Policies

1) Be respectful of other students and the instructor
2) Notify the instructor of any coursework that may be late prior to the due date

Student Email Policy

Dakota College at Bottineau is increasingly dependent upon email as an official form of communication. A student's campus-assigned email address will be the only one recognized by the campus for official mailings. The liability for missing or not acting upon important information conveyed via campus email rests with the student.

Academic Integrity

All students are expected to adhere to the highest standards of academic integrity. Dishonesty in the classroom or laboratory and with assignments, quizzes, and exams is a serious offense and is

subject to disciplinary action by the instructor and college administration. For more information, refer to the Student Handbook.

Disabilities and Special Needs

If you have a disability for which you need accommodations, you are encouraged to contact your instructor and the Learning Center (228-5479 or 1-888-918-5623) to request disability support services as early as possible during the beginning of the semester.