

**Course Prefix/Number/Title:** BIOL 220 - Anatomy and Physiology I

**Number of Credits:** 4 semester credits

**Course Description:**

A study of the structure (anatomy) and function (physiology) of the human body. This course consist of three one-hour lectures and one two-hour lab each week.

**Pre-/Co-requisites:** BIOL 150 or instructor approval

**Instructor:** Larry Brooks

**Office:** NSC 111

**Office Hours:** 9-10 AM on M, Tu, W, Th & F and by appointment

**Phone:** 228-5457

**Email:** [larry.brooks@dakotacollege.edu](mailto:larry.brooks@dakotacollege.edu)

**Lecture Schedule:** 7:35 - 8:25 am MWF in NSC 105

**Lab Schedule:** 8:00 - 9:50 am on Thursday in NSC 128 or by arrangement

**Textbook:** Anatomy and Physiology, Patton and Thibodeau, 8<sup>th</sup> Edition

**Lab Manual:** Anatomy and Physiology Laboratory Manual, K. Patton, 9<sup>th</sup> Edition

**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, the lecture component of this course will consists of approximately 650 points (12 drop quizzes worth 10 points each, 4 lecture exams worth 100 points each, and one final exam worth 150 points). Lecture points are added to laboratory point (approximately 225 points) to obtain the total points possible for the course (approximately 875). (Note: Regardless of the number of points, lecture points will comprise 75% of the total points and lab points will comprise 25% of the total points.) Drop quizzes may not be made up, but students will be able to drop their two lowest scores of the twelve drop quizzes given during the semester. There is a one week grace period to make up any missed exam or assignment. Any missed exam/work not made up within the allotted time will be given a zero. Makeup exams may be of an essay nature and are usually considered more difficult. It is the responsibility of the student to schedule make-up work during a date and time convenient to both student and instructor. 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 Lecture Outline:**

<u>DATE</u>	<u>TOPIC</u>	<u>READING</u>
8-26	Overview and Organization of the Body	Chpt. 1
8-28	Basic Chemistry	Chpt. 2
8-31	Inorganic Chemistry	Chpt. 2
9-2	Organic Chemistry	Chpt. 2
9-4	Anatomy of Cells	Chpt 3
9-7	NO CLASS - LABOR DAY	
9-9	Anatomy of Cells	Chpt. 3
9-11	EXAM I	
9-14	Transport	Chpt. 4
9-16	Anabolism/Catabolism	Chpt. 4
9-18	Growth and Reproduction	Chpt. 5
9-21	Growth and Reproduction	Chpt. 5
9-23	Tissues	Chpt. 6
9-25	Tissues	Chpt. 6
9-28	Skin	Chpt. 7
9-30	Skin	Chpt. 7
10-2	EXAM II	
10-5	Skeletal Tissue	Chpt. 8
10-7	Skeletal System	Chpt. 9
10-9	Skeletal System	Chpt. 9
10-12	Articulations	Chpt. 10
10-14	NO CLASS – Assessment Day	
10-16	Articulation	Chpt. 10
10-19	Muscle System	Chpt. 11
10-21	Muscle System	Chpt. 11
10-23	Muscle Physiology	Chpt. 12
10-26	Muscle Physiology	Chpt. 12
10-28	EXAM III	
10-30	Nerve Cells	Chpt. 13
10-2	Nerve Physiology	Chpt. 13
11-4	Nerve Physiology	Chpt. 13
11-6	Nerve Physiology	Chpt. 13
11-9	Central Nervous System	Chpt. 14
11-11	Brain	Chpt. 14
11-13	Brain	Chpt. 14
11-16	Peripheral Nervous System	Chpt. 15
11-18	Autonomic Nervous System	Chpt. 16
11-20	EXAM IV	
11-23	Receptors	Chpt. 17
11-25	Smell and Taste	Chpt. 17
11-27	NO CLASS - THANKSGIVING HOLIDAY	
11-30	Hearing/Sight	Chpt. 17
12-2	Sight	Chpt. 17
12-4	Endocrine System	Chpt. 18
12-7	Endocrine System	Chpt. 19

12-9	Endocrine System	Chpt. 19
12-11	Endocrine System	Chpt. 19
12/17	Final Exam (9:00 – 11:00 AM) (Time TBD at distant sites)	

### **Tentative Lab Outline:**

<u>WEEK</u>	<u>TOPIC</u>	<u>LAB #</u>
8/31 – 9/4	Introduction/Organization of the Body	1
9/8 – 9/11	Microscope and Cell Anatomy	3 & 4
9/14 – 9/18	Transport and Cell Life Cycle	5 & 6
9/21 – 9/25	LAB EXAM I; Tissues	7 & 8
9/28 – 10/2	Tissues and Skin	9 & 10
10/5 – 10/9	Skeleton	11, 12 & 13
10/12 – 10/16	Extremities and Joints	14, 15 & 16
10/19 – 10/23	LAB EXAM II; Muscles	17 & 18
10/26 – 10/30	Muscles	19
11/2 - 11/6	Muscles	19
11/9 – 11/13	Nerves	21 & 22
11/16 – 11/20	LAB EXAM III; Central Nervous System and Brain	23, 24 & 25
11/23 – 11/27	NO LAB - THANKSGIVING	
11/30 – 12/4	Touch/Taste/Smell	26, 27 & 28
12/7 – 12/11	Ear/Eye/Endocrine	29, 30, 31, 32
12/14 – 12/18	FINAL LAB EXAM	

### **General Education Goal and Objectives**

#### Goal:

The goal of this course is to facilitate student learning about human anatomy and physiology so that students better understand and appreciate the complexities of and interactions between organ systems in order to promote the advancement of life sciences in society.

#### Objectives:

- 1) To learn and retain information essential to a broad knowledge of human anatomy and physiology.
- 2) Demonstrate the application of the scientific methods of inquiry (Goal 1; Objective 1)
- 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) Cell phones, iPods, and related technology are prohibited in the classroom at all times. It is recommended that you do not bring your cell phone into the classroom or, at the very least, turn it off.
- 2) Food and beverages are permitted in accordance with classroom policy.
- 3) Be respectful of other students, technicians, instructors, and guests.

**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 are or may be requesting an accommodation, you are encouraged to contact your instructor and Jan Nahinurk in the Learning Center (228-5479) as early as possible during the beginning of the semester.