



Course Prefix/Number/Title: BIOL220-Anatomy and Physiology I

Number of Credits: 4

Course Description: Structure and function of the human body dealing with the chemical, cellular, and tissue levels of organization and integumentary, skeletal, muscular, and nervous systems. Lecture, 3 hours; laboratory, 3 hours.

Pre-/Co-requisites:

Course Objectives: Course Objectives Explain the interrelationships among molecular, cellular, tissue and organ functions in each system. Use anatomical terminology to identify and describe the locations of major organs in each organ system covered. Explain the physiological processes needed for the maintenance of homeostasis. Identify the causes and effects of homeostatic imbalances. Explain physiological processes of all body systems in detail and on an appropriate level (knowledge, comprehension, application and analysis). Apply appropriate safety and ethical standards. Appropriately utilize laboratory equipment, such as microscopes, dissection tools, general lab ware, bones, and anatomical models. Work collaboratively and effectively in a group. Direct their own learning activities. Locate and Identify anatomical structures.

Instructor: Raquel Dugan-Dibble

Office: Molberg 21

Office Hours: By Appointment

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Lecture/Lab Schedule: MWF 11-11:50 NSC 104

Lab: Tu 1:00-2:50 PM NSC 128

Textbook(s): Ebook located at McGraw Hill Connect or Hole's Anatomy and Physiology, Charles Welsch McGraw Hill 2022, 16th

Course Requirements:

Course Objectives Explain the interrelationships among molecular, cellular, tissue and organ functions in each system. Use anatomical terminology to identify and describe the locations of major organs in each organ system covered. Explain the physiological processes needed for the maintenance of homeostasis. Identify the causes and effects of homeostatic imbalances. Explain physiological processes of all body systems in detail and on an appropriate level (knowledge, comprehension, application and analysis). Apply appropriate safety and ethical standards. Appropriately utilize laboratory equipment, such as microscopes, dissection tools, general lab ware, bones, and anatomical models. Work collaboratively and effectively in a group. Direct their own learning activities. Locate and Identify anatomical structures.

Tentative Course Outline:

(We will transition to the next chapter even if it is during the same lecture. This table is to merely show progression of the material and exams):

	TOPIC	READING
Lec 1	Introduction/Overview/Chpt 1	Syllabus and course information/ Chpt 1
Lec 2	Overview and The Human Body	Chpt 1
Lec 3	Homeostasis	Chpt 1
Lec 4	Inorganic Chemistry	Chpt 2
Lec 5	Organic Chemistry	Chpt 2
	EXAM I	
Lec 6	Cells: movement	Chpt 3
Lec 7	Cell Metabolism	Chpt 4
	EXAM II	-
Lec 8	Tissue	Chpt. 5
Lec 9	Tissue	Chpt. 5
Lec 10	Integumentary	Chpt. 6
Lec 11	Integumentary	Chpt. 6
	EXAM III	-
Lec 16	Skeletal System	Chpt. 7
Lec 17	Skeletal System	Chpt. 7
Lec 18	Skeletal System	Chpt. 7
Lec 19	Joints	Chpt. 8
Lec 20	Joints	Chpt. 8

	EXAM IV	
Lec 21	Muscle and Muscle Tissue	Chpt. 9
Lec 22	Muscle and Muscle Tissue	Chpt. 9
Lec 23	Muscular System	Chpt. 9
Lec 24	Muscular System	Chpt. 9
	EXAM V	-
Lec 25	Fundamentals of the Nervous System and Tissue	Chpt. 10
Lec 26	Fundamentals of the Nervous System and Tissue	Chpt. 10
Lec 27	Fundamentals of the Nervous System and Tissue	Chpt. 10
Lec 28	Central Nervous System	Chpt. 11
Lec 29	Central Nervous System	Chpt. 11
Lec 30	Peripheral Nervous System	Chpt. 11
Lec 31	Peripheral Nervous System	Chpt. 11
Lec 32	Autonomic Nervous System	Chpt. 11
	EXAM VI	

Lab Tentative Outline:

***Although exam days are completely blocked off for the exam we may start new material after the exam if time allows.**

*** This schedule is tentative and changes may occur at the discretion of the instructor.**

WEEK	TOPIC
Week 2	Introduction/Organization of the Body and Microscope
Week 3	Quiz Cell Anatomy, Transport and Cell Life Cycle
Week 4	LAB EXAM I
Week 5	Tissues
Week 6	Skin LAB EXAM II (tissue practical)
Week 7	Skeleton

Week 8	Extremities and Joints
Week 9	LAB EXAM III
Week 10	Muscles
Week 11	Muscles
Week 12	LAB EXAM IV
Week 13	Nerve Tissue and Brain
Week 14	Brain and Nerves
Week 15	LAB EXAM V

General Education Competency/Learning Outcome(s) OR CTE Competency/Department Learning Outcome(s):

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

Relationship to Campus Focus:

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:

ASSIGNMENTS AND GRADING INFORMATION

Course Requirements:

Grading is based on, although subject to slight modification, 11- chapter reading reviews and homework assignments (220pts) , 6 lecture exams (650 pts), and in-class activities and introduction quiz (140pts). Lecture points are added to laboratory points, 4-5 lab/practical exams (~400-500 pts), lab handouts/activities/quizzes (220-300pts), and 11 weekly participation and attendance points (55pts).

ATTENDANCE & EFFORT—Students are required to attend the 1 three-hour lecture, & 1 three-hour laboratory each week. Attend each Lecture - Some lecture material will not be found in your textbook. You can expect to spend a minimum of 6-8 hours per week studying for this course in order to receive a minimum passing grade. You should utilize good time management and it would be a good idea to form a study group or find a study partner to help prep for both lecture and lab exams. It is the responsibility of the student to obtain information missed due to lack of attendance. Students should consult other students, reference Blackboard, or obtain information from the instructor prior to being gone.

READING—Our text utilizes a systemic approach to the study of the human body. This method is appropriate at this level for students considering careers in the Health Sciences. Whereas each chapter deals with separate organ systems, it will be very important to keep in mind the interaction among systems as the course progresses. We will be covering a great deal of material in this class & the amount of terminology has been equated with learning a foreign language. Keep up with your chapter assignments. We will not have time to cover the entirety of your reading assignments in the time allotted for lecture—Not all material covered in lecture will be found in the text, nor will all topics in the text be covered in lecture. Please come to lecture well prepared: print or download student ppts slides prior to class, look at figures & tables & read through the assigned chapters before class, without trying to fully digest the material. Then, after lecture, go back to the text & re-read sections that were emphasized & "flesh-out" your notes. Occasionally, I may make mistakes in lecture, I am human. If in doubt, refer to your textbook for the proper terminology & spelling.

LECTURE/LAB EXAMS—Exam dates may be changed if circumstances (due to inclement weather or other unforeseen circumstance) so dictate - the exam will be held on the next regularly scheduled class meeting. On exam days you **must** be on time (whether this is lab or lecture). Late arrivals will not be given exams or quizzes and you will take a zero on that assessment until supporting evidence as listed below is provided. Exams are not comprehensive; however, you will be expected to integrate previous material & vocabulary into each subsequent exam. There will be 5 lecture exams & a non-comprehensive Final Exam. On exam days you **must** be on time. It is disrespectful to the class to have a disturbance due to tardiness.

MAKE-UP LECTURE EXAMS—Make-up exams/quizzes are only granted under extreme circumstances. This opportunity is ONLY available if you (a) have the absence excused by the Instructor 72 HOURS PRIOR to the Exam, and/or (b) you submit a detailed letter after the exam with supporting evidence (Physician's letter, Newspaper clippings, Police reports, Obituaries, Repair bills) as to why the exam was missed. If you "no-show" to an exam, are late and not given an exam, and do not fit the two situations above it will result in a 0.0 (zero). Only **one** exam can be made-up in this manner of situation "a" or "b". The missed exam should be made up prior, if possible, if not, it should be made-up within one week, you will receive a score of 0.0 (zero) for that exam.

LECTURE ASSIGNMENTS/ACTIVITIES- In lecture there may be pretest chapter questions, drop quizzes, hands-on activities, etc. If you are absent when these are given you will not be able to make them up and they will result in a 0.0 (zero) unless the instructor has been notified and approved your absence that day. Even in this circumstance you will not be able to gain points you will be exempt from any deduction.

There are quizzes for each chapter. These are for you to use to practice for the upcoming exam. There is no time limit and you have an unlimited number of attempts. These are not worth any points.

LABORATORY— Attendance is mandatory. You will receive points (5 pts/each) for attending lab and participation. Showing up does not guarantee all points. You must be on time and participate. Excessive cell phone use will result in a deduction of points. Refer to the schedule for lab exercises that will be performed. We will make extensive use of models & charts. Refer to the relevant sections of the lecture text to prepare for each lab so that you can work efficiently. **BRING YOUR TEXTBOOK AND MANUAL TO LAB!**

WEEKLY LAB HANDOUTS/QUIZZES—Lab Handouts/Activities (5-25 pts each) will cover material from lecture, reading assignments, and lab manual objectives. Lab work will consist of handouts from the required lab manual, but also supplemental material provided by the instructor. Dissection of vertebrate organs and the human cadaver is required for this course. Lab quizzes will be based upon previous material covered in the lab manuals. They will happen at the start of the lab (20-25 pts. ea)

APR Lab Quizzes- 4 (20pts each) These are quizzes attempted on the computer through A&P Revealed. You received two attempts with new questions each time. It is not timed. In these quizzes you will identify organs, tissues, regions, etc. through identifying, naming, and spelling the indicated area correctly. These will be assigned as we cover them in lab and must be completed within 2 days after the in-person lab coverage date.

PRACTICAL EXAMS— 4-5 Practical exams will cover material from lectures, reading assignments, lab manual objectives, dissections, models and diagrams (100 pts each). **PRACTICAL EXAMS TAKE EXTENSIVE TIME TO SET UP. THESE DAYS YOU ARE REQUIRED TO ATTEND AND FOLLOW THE EXAM ATTENDANCE POLICY ABOVE.**

GRADING —Letter grades are given as follows:

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

Please do not request a different score or extra credit. Extra credit will be based off of attendance and completion of work materials.

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:

According to the DCB Student Handbook, students are responsible for submitting their own work. Students who cooperate on oral or written examinations or work without authorization share the

responsibility for violation of academic principles, and the students are subject to disciplinary action even when one of the students is not enrolled in the course where the violation occurred. The Code detailed in the Academic Honesty/Dishonesty section of the Student Handbook will serve as the guideline for cases where cheating, plagiarism or other academic improprieties have occurred.

Disabilities or Special Needs:

Students with disabilities or special needs (academic or otherwise) are encouraged to contact the instructor and Disability Support Services.

Title IX:

Dakota College at Bottineau (DCB) faculty are committed to helping create a safe learning environment for all students and for the College as a whole. Please be aware that all DCB employees (other than those designated as confidential resources such as advocates, counselors, clergy and healthcare providers) are required to report information about such discrimination and harassment to the College Title IX Coordinator. This means that if a student tells a faculty member about a situation of sexual harassment or sexual violence, or other related misconduct, the faculty member must share that information with the College's Title IX Coordinator. Students wishing to speak to a confidential employee who does not have this reporting responsibility can find a list of resources on the DCB Title IX webpage.

AI Student Policy:

Unless otherwise indicated in the course syllabus, or in individual instructions for course assignments, or in the absence of the express consent of the course instructor, students are not allowed to utilize generative AI to help produce any of their academic work. Any violation of this policy will be considered an act of academic dishonesty as outlined within the Dakota College Code of Student Life.

RESPONSIBILITIES

Students	• Responsible to follow the syllabus and assignment instructions regarding use of generative AI for all academic work. • Obtain permission of the instructor prior to the use of generative AI that is outside of the syllabus or assignment instructions. Provide appropriate rationale for how the use of generative AI will enhance the learning experience for the assignment. • In instances where generative AI is permissible, appropriately cite the generative AI program used and indicate where in the assignment it was used, in a brief submission statement.
Faculty	• Determine if the use of generative AI could enhance student learning in any assignment or project. • Clearly indicate in all course syllabi if generative AI is allowable for any academic work. • If allowable, give specific parameters for how and when generative AI may be used. • If a violation of generative AI for the individual course/syllabus is suspected, discuss the concern with the student. If violation is still suspected, inform the appropriate semester coordinator/program director.

