DAKOTA COLLEGE AT BOTTINEAU

COURSE SYLLABUS

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

Number of Credits: 4

Course Description:

A study of the structure and function of the human body. Topics include chemistry, cell biology, tissues, integuementary system, skeletal system, muscular system, nervous system and endocrine system.

Pre-/Co-requisites: NA

Course Objectives:

1. Students understand the organization of the body from simple to complex, from the chemical level to the system level and the inter-relationships between them.
2. Students gain an understanding of the role and importance of passive and active processes, membrane potentials, and feedback systems have in maintaining homeostasis
3. Understand diagnostic treatments, procedures and technology used to identify and treat human disease and disorders.
4. Understand disease mechanisms in each system.
5. Understand the chemical basis of life and the anatomy and physiology of cells and tissues.
6. Understand body structure and function.
7. Understand the link between homeostatic imbalance and disease.
8. Organ systems that can be covered include musculoskeletal, respiratory, circulatory, nervous, integumentary, endocrine, lymphatic, digestive, reproductive, and urinary.

Instructor: Janelle Green

Office: NSC 113

Office Hours: MWF 10:00AM-11:50AM

Phone: 701-228-5472

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Lecture/Lab Schedule: NSC 104 8:00AM-8:50AM
DCB Lab Tues 8:00-8:50AM
MiSU Lab Thurs 10:00-11:50AM

Textbook(s):
Anatomy and Physiology, 9th or 10th edition; **Patton and Thibodeau**

Available and can be ordered at the Dakota College Bookstore
Anatomy and Physiology, 10th edition; **Patton and Thibodeau**;
Laboratory Manual.
Available and can be ordered at the Dakota College Bookstore

Course Requirements:

Grading is based on, although subject to slight modification, quizzes, exams (5), and in class participation will comprise the lecture points. Lecture points are added to laboratory points, 3 to 4 practical exams (~300-400 pts), lab handouts/activities/quizzes (240-340pts), and 12 weekly participation and attendance points (120 pts).

ATTENDANCE & EFFORT—Students are required to attend the 3 one-hour Lectures, & 1 two-hour Laboratory each week. Attend each Lecture - Some Lecture material will not be found in your textbook. Additional Lecture material will be presented in the Lab. Lab material will appear during your Lecture exams, & visa-versa. 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.

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. If in doubt, refer to your textbook for the proper terminology & spelling.

LECTURE EXAMS—Exam dates are indicated in the Course schedule. 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. The door will be locked after the last exam have been handed out to the on-time students. Exams are not comprehensive; however, you will be expected to integrate previous material & vocabulary into each subsequent exam. There will be 4 lecture exams & a non-comprehensive Final Exam.

MAKE-UP LECTURE EXAMS—Make-up exams 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. Only one exam can be made-up in this manner. If the missed exam is not made-up, you will receive a score of 0.0 (zero) for that Exam. On exam

days you **must** be on time. The door will be locked after exams have been handed out to on time students.

LECTURE ASSIGNMENTS/ACTIVITIES- In lecture there may be pretest 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 a notice of at least 24 hrs prior that you will absent that day.

LABORATORY— Attendance is mandatory. You will receive points (10 pts/each) for attending lab and participation. Showing up does not guarantee points all points. You must be punctual (less than 5 min late) and participate. 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 & be prepared for your Quizzes. BRING YOUR TEXTBOOK AND MANUAL TO LAB!

WEEKLY LAB QUIZZES/HANDOUTS—Lab Quizzes/Handouts/Activities (20 pts each) will cover material from Lecture, reading assignments, Lab manual objectives, & Lab kick-off presentations. Quizzes will be of mixed format, i.e., may include multiple choice, matching, completion, identification, etc., at the discretion of your Lab Instructor. Quizzes may be given at any time, unannounced or otherwise, at the beginning, during, or end of any Lab period. In order to be prepared for Quizzes, you should review your notes & keep up with the assigned reading!

PRACTICAL EXAMS—3-4 Practical Exams will cover material from Lectures, reading assignments, Lab manual objectives, & Lab kick-off presentations (100 pts each). During these exams, you will be asked to identify labeled structures indicated on the models, & charts stationed throughout the Lab.
PRACTICAL EXAMS TAKE EXTENSIVE TIME TO SET UP. THESE DAYS YOU ARE REQUIRED TO ATTEND.

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

Tentative Course Outline:

DATE	TOPIC	READING
Lec 1	Introduction/Overview/Chpt 1	Syllabus and course information/ Chpt 1
Lec 2	Overview and Organization of the Body	Chpt 1
Lec 3	Homeostasis	Chpt 2
Lec 4	Inorganic Chemistry	Chpt 3

Lec 5	Organic Chemistry	Chpt 4
Lec 6	Anatomy of Cells	Chpt 5
Lec 7	Anatomy of Cells	
	EXAM I	-
Lec 8	Transport	Chpt. 6
Lec 9	Anabolism/Catabolism	Chpt. 6
Lec 10	Growth and Reproduction	Chpt. 7
Lec 11	Growth and Reproduction	Chpt. 7
Lec 12	Tissues	Chpt. 8
Lec 13	Tissues	Chpt. 9
Lec 14	Skin	Chpt. 10
Lec 15	Skin	Chpt. 10
	EXAM II	-
Lec 16	Skeletal System	Chpt. 11/12
Lec 17	Skeletal System	Chpt. 12/13
Lec 18	Skeletal System	Chpt. 13/14
Lec 19	Articulations	Chpt. 14
Lec 20	Articulation	Chpt. 14
Lec 21	Muscle System	Chpt. 15
Lec 22	Muscle System	Chpt. 16
Lec 23	Muscle Physiology	Chpt. 17
Lec 24	Muscle Physiology	Chpt. 17
	EXAM III	-
Lec 25	Nerve Cells	Chpt. 18
Lec 26	Nerve Physiology	Chpt. 19
Lec 27	Nerve Physiology	Chpt. 19
Lec 28	Nerve Physiology	Chpt. 19
Lec 29	Central Nervous System	Chpt. 20
Lec 30	Brain	Chpt. 20
Lec 31	Brain	Chpt. 20
Lec 32	Peripheral Nervous System	Chpt. 21
Lec 33	Autonomic Nervous System	Chpt. 21
	EXAM IV	-
Lec 34	Receptors	Chpt. 23/24
Lec 35	Smell and Taste	Chpt. 23
Lec 36	Hearing/Sight	Chpt. 23
Lec 37	Sight	Chpt. 23

Lec 38	Endocrine System	Chpt. 25
Lec 39	Endocrine System	Chpt. 26
Lec 40	Endocrine System	Chpt. 26
Lec 41	Endocrine System	Chpt. 26
	FINAL	**(Time TBD)**
	Holidays	
Jan 18	NO CLASS – Martin Luther King Day	
Feb 15	NO CLASS- President's Day	
Mar 15-19	NO CLASS – Spring Break	
Apr 2/5	NO CLASS- Holiday	

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 may be changes at the discretion of the instructor.**

WEEK	TOPIC	LAB#
Week 2	Introduction/Organization of the Body and Microscope	1 & 3
Week 3	Quiz Cell Anatomy, Transport and Cell Life Cycle	4, 5 & 6
Week 4	**LAB EXAM I**	-
Week 5	Tissues	7 & 8
Week 6	Skin **LAB EXAM II** Skeleton	9 & 10
Week 7	Skeleton	11, 12, & 13
Week 8	Extremities and Joints	14, 15, & 16
Week 9	**LAB EXAM III**	-
Week 10	Muscles	17 & 18
Week 11	Muscles	19
Week 12	**LAB EXAM IV**	
Week 13	Nerves	21 & 22
Week 14	Quiz CNS and Brain	23, 24, & 25
Week 15	Touch/Taste/Smell	26 & 28
Week 16	Ear/Eye/Endocrine Quiz	30, 31, 32, 33

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

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
3) Practice sound, safe, and sensible laboratory techniques.
4) Demonstrate knowledge of the natural environment
5) Demonstrate an awareness of the role of science 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:
Absences:

Excused absences will be for only the following reasons and still need to be discussed with me via email, text, or phone call: sickness with a doctor's note must be emailed to me, passing of a close family member, if you're an athlete and need to miss class for a game. If you know you are going to be gone, notify me ASAP. Knowing of an absence requires you to make up work prior to being gone unless a special arrangement has been made with myself.
All requests for absences need to be reported to me immediately and directly from you, not a third party. If you do not let me know why you have missed a class or discuss with me in advanced your participation for that day will result in a ZERO. You need to make advanced arrangements with me—the SOONER THE BETTER. You need to speak with me if you know you will be gone so we can schedule make up assignments

Missing an Exam:

If you know you will be gone during an exam day you need to let me know 72 hours in advanced. If you miss an exam and I am not aware that you were going to miss it, then your grade for that exam will result in a ZERO. There will be no make-up exams for those who do not inform me of their absences on exam days.

Being absent for any reason requires communication. If you are absent due to quarantining and/or being ill during quarantine you need to communicate as if, or better than, if you were not in quarantine. If you do not communicate I assume that you will be attending and you are capable of completing all work.

Lab Absence:

Labs are hard to organize and setup. If you are going to absent it is easier to makeup the lab up ahead of time instead of after. Simply not showing up for lab, or being greater than 5 min late, will result in forfeiting all participation points and points for the handout if you did not notify the instructor at least 12hrs in advance that you were going to be absent. If you are ill and it is last minute you will need to provide a doctor's note or an e-mail from the school nurse in order to make up the lab. Lab exam dates cannot be missed and attendance is required or all points will be forfeited.

Lab Participation Points:
The points are awarded to students that participate equally within their group and arrive on time. Simply showing up to lab does not award you these points. They are awarded at the discretion of the instructor.

Late Policy:

If you are planning on being late to class please be respectful of other students in the class and sit towards the back of the room (lecture). Be discrete when opening your belongings and getting prepared. During an exam date the door will be locked after the last student receives their test that was in class on time. If tardiness becomes an issue the door will be locked on all class dates 5 minutes after the start. This will be a regular occurrence for lab. If you are locked out, you will miss/lose that day's materials and all points associated with it.

Electronic Device Policy:

Electronic devices will only be used in class for answering in-class questions and review participation. You will be instructed to use them at those times. If you are on your phone/unauthorized computer/smart watch/headphones or any other unauthorized device while not instructed by myself then, I will ask you to leave my class for that day. You should not be texting or on social media while in lecture/lab. You cannot be wearing any smart technology during ANY exam. You will be asked to remove it. If you choose to not remove it then you will be asked to leave and you will not be able to complete the exam which will result in a ZERO. All devices should be powered down during an exam. If your device is vibrating or causing a disturbance you may be asked to leave the classroom.

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.