DAKOTA COLLEGE AT BOTTINEAU

COURSE SYLLABUS

Course Prefix/Number/Title: BIOL 221 Anatomy & Physiology II, Fall Semester 2025

Number of Credits: 4

Course Description: This course provides further study of the structure and function of the human body.

Pre-/Co-requisites: BIOL 220

Course Objectives:

1) Structure and Function: Continues to build on and integrates related facts, principles, and concepts from various areas, including cell biology, chemistry, biochemistry, and hemostasis.

2) Systems Covered: The following body systems will be covered in this course

    a. Endocrine System – components and their functions
    b. Circulatory System – heart, blood, and their functions
    c. Respiratory System – structure and function
    d. Lymphatic System – components and their functions
    e. Digestive System – organs, metabolism and nutrition
    f. Urinary System – organs, and fluid balances in the body
    g. Reproductive Systems – human reproductive systems and development

Instructor: Emily Schaefer

Office Hours: By appointment

Phone: 701-240-7782

Email: Emily.schaefer@dakotacollege.edu

Lecture/Lab Schedule: Online

Textbook(s):

Lecture – **Anatomy and Physiology, 2e published by OpenStax**

- This textbook is fully online and can be access via this link: Anatomy and Physiology, 2e. Accessing using this link and setting up an account will allow you to save highlights and notes you add throughout the course. There is no cost to access this book for the course.
- There is also a PDF version available to download in the Blackboard course. You can also find a link to order a print copy of the textbook here or through the bookstore.

Lab – **Science Interactive Lab Kit**

- The lab materials for this course are a kit available through Science Interactive. You will need to purchase the kit from the bookstore, and you will need to make sure you have received your kit PRIOR to the start of the class. All the labs for this course will be virtual, so you will receive a code to access the labs. There is NOT a physical kit.
- All labs will be submitted via the Science Interactive Platform, which will link to the gradebook in Blackboard.

Course Requirements: Textbook, Science Interactive Lab Kit

Tentative Course Outline:

- ✓ Included below is a tentative course outline for the chapters covered as well as quizzes, exams, and lab activities. The schedule is subject to change. All assignments are due by 11:59 pm on the due date. Please see blackboard for specific due dates for assignments.

Week		Unit	Chapters	Labs	Exams
1	Aug 25th – 29th	Unit 1: Fluids and Transport	✓ 17 - Endocrine System	▪ Labs 1 – 3: Intro ▪ Lab 4 – Endocrine System	
2	Sept 1st – 5th		✓ 18 - Cardiovascular System: Blood	▪ Lab 5 – Blood	
3	Sept 8th – 12th		✓ 19 - Cardiovascular System: Heart	▪ Lab 6 – Cardiovascular Physiology	
4	Sept 15th – 19th		✓ 20 - Blood Vessels and Circulation	▪ Lab 7 – Blood Vessels and the Heart	**Exam 1: Chapters 17 – 19**
5	Sept 22nd – 26th	Unit 2: Energy, Maintenance, and Exchange	✓ 21 - **Lymphatic** & Immune System		
6	Sept 29th – Oct 3rd		✓ 21 - Lymphatic & **Immune** System	▪ Lab 8 – Lymphatic System	
7	Oct 6th – 10th		✓ 22 - Respiratory System	▪ Lab 9 – Anatomy of the Respiratory System	
8	Oct 13th – 17th		✓ 23 - Digestive System	▪ Lab 10 – The Digestive System	**Exam 2 Chapters 20 – 22**
9	Oct 20th – 24th		✓ 24 - Metabolism and Nutrition	▪ Lab 11 – Nutrition ▪ Metabolism Activity	
10	Oct 27th – 31st		✓ 25 - The Urinary System	▪ Lab 12 – The Urinary System	**Exam 3: Chapters 23 – 24**
11	Nov 3rd – 7th		✓ 26 - Fluid, Electrolyte, and Acid-Base Balance	▪ Lab 13 – Urinalysis	
12	Nov 10th – 14th	Unit 3: Human Development	✓ 26 - Fluid, Electrolyte, and Acid-Base Balance	▪ Lab 14 – Electrolytes & Acid-Base Balance	
13	Nov 17th – 21st		✓ 27 - Reproductive Systems		**Exam 4: Chapters 25 – 26**
14	Nov 24th – 28th Thanksgiving				
15	Dec 1st – 5th		✓ 27 - Reproductive Systems	▪ Lab 15 – Reproductive System	
16	Dec 8th – 12th		✓ 28 - Development and Inheritance	▪ Heredity Activity	
17	Dec 15th – 19th Finals				**Final Exam: Chap 27 – 28**

Class Policies & Expectations

1) ***Classwork & effort:*** You can expect to spend 3-6 hours per week working on this course outside of the lab and lecture. This course relies heavily on memorization of information. Flash cards are an excellent way to assist in the memorization process. Please make sure that you have consistent access to the internet and the course materials for the whole course. **You** are directly responsible for the grade that you earn in this class.
   - ✓ The OpenStax textbook website has a lot of great resources to help study, so please take advantage of those. The quiz and exam questions will be based on those questions from your textbook. There are also links to videos that can help explain concepts.
   - ✓ I will create a link for a class Quizlet that will include study sets for each chapter, as additional resources to help you study. Flash cards are a great way to help you study, and there are many other online resources as well.
   - ✓ I will also post a PowerPoint of notes for each chapter to help you study and learn the material.
2) *Grades*: The grades will be calculated based on total points for all activities. The breakdown of points is given below (this may change slightly):

✓ Comprehension Checks (12)	Grading Scale will be as follows:
✓ Quizzes (13)	**A: 90 – 100% of total points**
✓ Labs (15)	**B: 80 – 89% of total points**
✓ Exams (5)	**C: 70 – 79% of total points**
	D: 60 – 69% of total points
	F: 59% or below of total points

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3) ***Assignments***: Please keep track of due dates on Blackboard. The chapter comprehensions checks will not have a penalty for being turned in late. Quizzes and Exams will be subject to a 10% reduction in the overall grade for each day they are turned in past the due date.
   - ✓ ***Chapter Comprehension Checks*** – These are a set of review questions for each chapter. The questions are pulled from a pool of questions for the chapter, so each time you take it the questions will be different. Students have unlimited tries for each chapter quiz, and the highest attempt will be recorded. Use these quizzes as study tools for the larger unit exams, as exam & quiz questions are pulled from these question pools.
   - ✓ ***Quizzes*** – There will be 1-2 quizzes per chapter. The quizzes are to help you prepare for the exams. You will have two attempts for each quiz and the higher of the two attempts will be the final score.
   - ✓ **Labs & Lab Quizzes–** You will need to have purchased and received your kit from Science Interactive to access the lab materials. ALL lab assignments will be completed in the Science Interactive online platform using the links found in Blackboard. Each lab has a separate evaluation to complete as well, which will count as the lab quiz. You will not be able to use any outside resources on the lab evaluations.
   - ✓ ***Exams*** – There will be 5 exams throughout the course, including the final exam. The exams will be open for a period of 48 hours, so please make sure you plan accordingly to complete the exams within that time window. These will include information from both lectures and the lab activities. No outside resources can be used on the exams.

4) ***Communication***: Communication via email and Blackboard messages will my main way of communicating. If you have questions about any assignments or accessing the course, please reach

out to me as soon as possible, so I can help you find a solution to those problems. Technical problems will not be accepted as a reason for not completing assignments. Please reach contact to me with any questions. Check the Blackboard class regularly, as I will post updates or adjustments to the weekly schedule.

- ✓ If you need a faster response from me, please either email or text me. Please include your name and which class you are in with the email. I can normally respond within 1 – 2 hours of the message if sent between 7 am to 7 pm M-F. Any messages after 7 pm may not be responded to until the next day. Also, messages sent on weekends may not be answered until Monday.
- ✓ You can message me on Blackboard, but I do not get notifications of those messages immediately. You can select the option to send me an email copy, which then will send me a notification.

5) ***Class meetings***: I will hold a weekly class meeting to allow students to ask questions, and for a short review of the material from me. I will send out a poll during the first week to determine the best day and time for those meetings. They are not mandatory, but students have found them helpful in the past.

6) ***AI Usage:*** Using AI of any kind to complete assignments is not allowed in this course. If I find that AI has been used to complete any portion of an assignment, lab or exam, the student will receive no credit on that assignment as a first one. If it happens a second time, further consequences will follow, and the student's advisor will be contacted. See the AI Use Policy at the end of this syllabus for more information.

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.

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 of 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.