



**Course Prefix/Number/Title:** BIOL 221 Anatomy & Physiology II, Fall Semester 2024

**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](mailto: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 not need additional materials.
- 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.

<b>Week</b>		<b>Unit</b>	<b>Chapters</b>	<b>Labs</b>	<b>Quizzes/ Exams</b>
1	Aug 26 <sup>th</sup> – 30 <sup>th</sup>	Unit 1: Fluids and Transport	✓ 17 - Endocrine System	<ul style="list-style-type: none"> <li>Getting Started Lab</li> <li>Lab Safety Lab - Digital</li> <li>Using the V-Scope Lab</li> <li>Endocrine System</li> </ul>	○ Hormones Quiz
2	Sept 2 <sup>nd</sup> – 6 <sup>th</sup>		✓ 18 - Cardiovascular System: Blood	<ul style="list-style-type: none"> <li></li> </ul>	○ Blood Quiz
3	Sept 9 <sup>th</sup> – 13 <sup>th</sup>		✓ 19 - Cardiovascular System: Heart	<ul style="list-style-type: none"> <li>Blood Vessels &amp; the Heart</li> </ul>	○ Heart Quiz
4	Sept 16 <sup>th</sup> – 20 <sup>th</sup>		✓ 20 - Blood Vessels and Circulation	<ul style="list-style-type: none"> <li></li> </ul>	○ Exam 1: Chap 17 - 20
5	Sept 23 <sup>rd</sup> – 27 <sup>th</sup>	Unit 2: Energy, Maintenance, and Exchange	✓ 21 - Lymphatic & Immune System	<ul style="list-style-type: none"> <li>Lymphatic System</li> </ul>	○ Immunity Quiz
6	Sept 30 <sup>th</sup> – Oct 4 <sup>th</sup>		✓ 22 - Respiratory System	<ul style="list-style-type: none"> <li>Respiratory System Lab</li> </ul>	○ Respiratory Quiz
7	Oct 7 <sup>th</sup> – 11 <sup>th</sup>		✓ 23 - Digestive System	<ul style="list-style-type: none"> <li>Digestive System Lab</li> </ul>	○ Digestive Quiz
8	Oct 14 <sup>th</sup> – 18 <sup>th</sup>		✓ 24 - Metabolism and Nutrition	<ul style="list-style-type: none"> <li></li> </ul>	○ Exam 2 Mid-Term: Chap 21 - 24
9	Oct 21 <sup>st</sup> – 25 <sup>th</sup>		✓ 24 - Metabolism and Nutrition	<ul style="list-style-type: none"> <li>Nutrition Lab</li> </ul>	○
10	Oct 28 <sup>th</sup> – Nov 1 <sup>st</sup>		✓ 25 - The Urinary System	<ul style="list-style-type: none"> <li>Urinary System Lab</li> </ul>	○ Urinary Quiz
11	Nov 4 <sup>th</sup> – 8 <sup>th</sup>		✓ 26 - Fluid, Electrolyte, and Acid-Base Balance	<ul style="list-style-type: none"> <li></li> </ul>	○ Fluids Quiz
12	Nov 11 <sup>th</sup> – 15 <sup>th</sup>	Unit 3: Human Development	✓ 26 - Fluid, Electrolyte, and Acid-Base Balance	<ul style="list-style-type: none"> <li>Electrolytes &amp; Acid-Base Lab</li> </ul>	○ Exam 3: Chap 24 – 26
13	Nov 18 <sup>th</sup> – 22 <sup>nd</sup>		✓ 27 - Reproductive Systems	<ul style="list-style-type: none"> <li></li> </ul>	○ Male Reproductive Quiz
14	Nov 25 <sup>th</sup> – 29 <sup>th</sup> Thanksgiving		✓	<ul style="list-style-type: none"> <li></li> </ul>	○
15	Dec 2 <sup>nd</sup> – 6 <sup>th</sup>		✓ 27 - Reproductive Systems	<ul style="list-style-type: none"> <li></li> </ul>	○ Female Reproductive Quiz
16	Dec 9 <sup>th</sup> – 13 <sup>th</sup>		✓ 28 - Development and Inheritance	<ul style="list-style-type: none"> <li>Heredity Lab</li> </ul>	○ Inheritance Quiz
17	Dec 16 <sup>th</sup> – 20 <sup>th</sup> Finals		✓ 28 - Development and Inheritance	<ul style="list-style-type: none"> <li></li> </ul>	○ Final Exam: Chap 27 - 28

## **Class Policies & Expectations:**

- 1) *Classwork & effort:* You can expect to spend 2 – 3 hours per day working on this course. Please make sure that you have consistent access to the internet and the course materials for the whole course.
  - ✓ 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 an additional resources to help you study.
  - ✓ There are outline notes that go along with each chapter, and will be very helpful when you are reading the text and taking notes.
- 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):

Grading Scale will be as follows:

✓ Reading Quizzes (12) –	<b>A: 90 – 100% of total points</b>
✓ Weekly Quizzes	<b>B: 80 – 89% of total points</b>
✓ Labs (12) –	<b>C: 70 – 79% of total points</b>
✓ Exams (4)	<b>D: 60 – 69% of total points</b>
✓ <b>Total:</b>	<b>F: 59% or below of total points</b>

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- 3) *Assignments* - Please keep track of due dates in Blackboard. Reading Quizzes and Labs will not have a penalty for being turned in late. Weekly 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. You will have a MAX of 3 days to reach out to me to make arrangements for completing those assignments. After 3 days, the scores will be recorded as a zero.
  - ✓ Chapter Reading Quizzes – There will be a 10 questions quiz for every chapter. Those 10 questions being pulled from a pool of questions for the chapter. 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, and as a way to review the readings.
  - ✓ Quizzes – There will be a quiz at the end of each week over the material from that week. These quizzes will be 20 – 30 points, and will be open for 24 hours on the due date to complete.
  - ✓ Labs – You will need to have purchased and received your kit from Science Interactive in order to access the lab materials. There are combination of hands on and digital labs. ALL lab assignments will be completed in the Science Interactive online platform.
  - ✓ Exams – There will be 4 exams throughout the course, including the final exam. Each exam will be worth 75 - 100 points and students will be given one attempt at the 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 lecture & the lab activities.
- 4) *Communication:* Since this is a fully online class, communication via email and Blackboard messages will be by priority. If you are having questions with 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 out to me with any questions.
  - ✓ 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 in 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*: Prior to each exam, I will hold a virtual class meeting for students to join to ask questions and prepare for the exams. I will post these meeting dates at least 2 days prior so students can prepare to attend and reach out with any questions.

**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.