



Intro. Human Anatomy & Physiology II

4 Credits
BIOL-1320C-1

Spring Semester, 2022

Instructor: Dr. Palmer Masumbe Netongo

Office: Nursing Building Room 213

Office Hours: Monday: 8:00-9:30 am.

Class Location: Wet Lab 109/ Face-to-Face/Online (Hybrid).

Class/Lab Meeting Times: TR: 5:00 PM – 6:20 PM Lab: W 5.00 PM - 6.20 PM

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Required Materials:

Textbook: Patton, K.T. and Thibodeau, G.A. Anatomy & Physiology. 10th Edition, Mosby- Elsevier, MO. (2013).

ISBN: 978-0-323-34139-4.

Laboratory Manual: Patton, K.T. and Thibodeau, G.A. Anatomy & physiology. 10th Edition, Mosby –Elsevier, MO. (2013). ISBN: 978-0-323-52892-4.

Tools: Color pencils.

Lab Fee: \$125.00

Tools: Every student is required to have a laptop.

Mission, Vision, and Philosophy

Mission: Navajo Technical University honors Diné culture and language, while educating for the future.

Vision: Navajo Technical University provides an excellent educational experience in a supportive, culturally diverse environment, enabling all community members to grow intellectually, culturally, and economically.

Philosophy: Through the teachings of Nitsáhákees (thinking), Nahátá (planning), Íina (implementing), and Siihasin (reflection), students acquire quality education in diverse fields, while preserving cultural values and gaining economic opportunities.

Course Description: This is the second of two courses that are designed to examine the structure and function of the human body. The approach is to place individual structures or functions into an integrated framework or “big picture”. Topics include: General and Special Senses, endocrine system, transport and defense, respiration, nutrition and excretion, reproduction and development. There would be three hours of lecture and two hours of laboratory work per week. You are expected to have completed the first course (BIOL 21310C) in this series before you can engage in this second course.

Course Objectives

After successfully completing this course, students should be able to:

1. Explain the underlying scientific principles of human structure and function.
2. Explain the functioning (physiology of most body systems).

3. Gain insight about how the parts work together and allow various activities.
4. Explain how chemical reactions and functions are coordinated via regulation of body organs by hormones, nerves, and other mechanisms.
5. Name the various body parts, describe their detailed structure, and explain the mechanisms that produce their functions.
6. Recognize that disease processes are disruptions of homeostasis, a breakdown of normal integration of form and function.

COURSE OUTCOMES	COURSE MEASUREMENTS
Use correct terminology to communicate anatomical features and physiological processes	Knowledge of anatomical and physiological terminologies will be evaluated by quizzes, essays, oral presentations, homework and exams.
Examine knowledge of the physiology of most body systems learned in the lectures	knowledge of the physiology of most body systems will be measured by class tests and quizzes, group and individual presentations and in vitro experimental designs competition by students for research.
Apply physiological concepts to explain a variety of functional processes of the human body	Understanding of physiological concepts underlying functions will be analyzed by essays, oral presentation, observations of student's performance at tasks, quizzes, homework and exams.
Apply concepts and knowledge gained in microscopic and gross anatomy to identify, explain and solve clinical problems.	Examination, quizzes, poster and/or oral presentations, interpretation of case studies, homework assignments, lab write-ups, research papers, portfolios, and small group exercises would be used to measure outcomes.

Week	Date	Chapters	Assignment	Quiz
1	01/18-01/22	Module 1: Communication, Control and Integration Ch 23-24: General Senses, Special senses <i>Labs - 1-2</i>	Read Pp. 515-556	
2	01/24-01/29	Ch 25-26 Endocrine Regulation and Endocrine Glands <i>Labs 3-4</i>	Read Pp. 557-559	
	02/01	Quizz/Assignment on Chapters 23-26	Quiz	Chpt. 23-26
3	02/01-02/05	Module 2: Transportation and Defense Ch 27: Blood <i>Labs 5</i>	Read pp 604-633	
4	02/07-02/12	Ch 28: Heart Ch 29-30: Blood Vessels and Circulation of Blood <i>Labs - 6-8</i>	Read pp. 634-721	
5	02/14-02/19	Ch 31: Lymphatic System Ch 32: Innate Immunity <i>Labs - 9-10</i>	Read pp. 725-758	
	02/21	Holiday-President's Day		
	02/22	Quizz/Assignment on Chapters 27-30	Quiz	Chpt. 27-30
6	02/22-02/26	Ch 33: Adaptive Immunity <i>Labs-11</i>	Read pp. 759-781	

7	02/28-03/05	Ch 34: Stress <i>Labs - 12</i>	Read pp. 782-798	
8	03/07-03/11	Midterm Exam Covering Chapters 31-34	Midterm	Chpt. 31-34
9	03/14-03/18	SPRING BREAK		
10	03/21 - 10/26	Module 3: Respiration, Nutrition and Excretion Ch 35: Respiratory Tract Ch 36: Ventilation Ch 37 : Gas Exchange and Transport <i>Lab - 13-14</i>	Read pp. 800-859	
11	03/28-04/02	Ch 38: Upper Digestive Tract Ch 39: Lower Digestive Tract <i>Labs 15-16</i>	Read pp. 860-899	
	04/05	Quiz on Chapters 35-39	Quiz	Chpt. 35-39
12	04/04-04/09	Ch 40: Digestion and Absorption Ch 41: Nutrition and Metabolism <i>Lab - 17-18</i>	Read pp. 900-962	
13	04/11- 04/16	Ch 42: Urinary System <i>Labs - 19</i>	Read pp. 963-995	
14	04/18-04/23	Ch 43: Fluid and Electrolyte Balance Ch 44: Acid-Base Balance <i>Labs 20</i>	Read pp. 996-1035	
	04/26	Quiz on Chapters 40 -44	Quiz	Chpt. 40-44
14	04/25-04/30	Module 4: Reproduction and Development Ch 45: Male Reproductive System Ch 46: Female Reproductive System <i>Labs - 21</i>	Read pp. 1036-1082	
16	05/02-05/07	Ch 47: Growth and Development Ch 48: Genetics and Heredity <i>Lab - 22-23</i> REVISION	Read pp. 1086-1141	
16	05/10	FINAL EXAMINATION	FINALS	

Grading Plan:

A = 100-90%
 B = 89-80%
 C = 79-70%
 D = 69-60%
 F = 59% or less

Allocation of Grades

Exams (Midterm & Finals)	40%
Homework/Presentations	10%
Tests/Quizzes	25%
Class participation	5%
Lab work	20%

Grading Policy

Students must do their own work. Cheating and plagiarism are strictly forbidden. Cheating includes (but is not limited to) plagiarism, submission of work that is not one's own, submission or use of falsified data, unauthorized access to exams or assignments, use of unauthorized material during an exam, or supplying or communicating unauthorized information for assignments or exams.

Participation

Students are expected to attend and participate in all class activities. Points will be given to students who actively participate in class activities including guest speakers, field trips, laboratories, and all other classroom events.

Cell phone and headphone use

Please turn cell phones off **before** coming to class. Cell phone courtesy is essential to quality classroom learning. Headphones must be removed before coming to class.

Attendance Policy

Students are expected to attend all class sessions. A percentage of the student's grade will be based on class attendance and participation. Absence from class, regardless of the reason, does not relieve the student of responsibility to complete all course work by required deadlines. Furthermore, it is the student's responsibility to obtain notes, handouts, and any other information covered when absent from class and to arrange to make up any in-class assignments or tests if permitted by the instructor. Incomplete or missing assignments will necessarily affect the student's grades. Instructors will report excessive and/or unexplained absences to the Counseling Department for investigation and potential intervention. **Instructors may drop students from the class after three (3) absences unless prior arrangements are made with the instructor to make up work and the instructor deems any excuse acceptable.**

Study Time Outside of Class for Face-to-Face Courses

For every credit hour in class, a student is expected to spend two hours outside of class studying course materials.

Study Time for Hybrid or Blended Courses

For a hybrid or blended course of one credit hour, a student is expected to spend three hours per week studying course materials.

Study Time for Online Courses

For an online course of one credit hour, a student is expected to spend four hours per week studying course materials.

Academic Integrity

Integrity (honesty) is expected of every student in all academic work. The guiding principle of academic integrity is that a student's submitted work must be the student's own. Students who engage in academic dishonesty diminish their education and bring discredit to the University community. Avoid situations likely to compromise academic integrity such as: cheating, facilitating academic dishonesty, and plagiarism; modifying academic work to obtain additional credit in the same class unless approved in advance by the instructor, failure to observe rules of academic integrity established by the instructor. **The use of another person's ideas or work claimed as your own without acknowledging the original source is known as plagiarism and is prohibited.**

Diné Philosophy of Education

The Diné Philosophy of Education (DPE) is incorporated into every class for students to become aware of and to understand the significance of the four Diné philosophical elements, including its affiliation with the four directions, four sacred mountains, the four set of thought processes and so forth: Nitsáhákees, Nahát'á, Íina and Siih Hasin which are essential and relevant to self-identity, respect and wisdom to achieve career goals successfully.

At NTU's Zuni Campus, the A:shwi Philosophy of Education offers essential elements for helping students develop Indigenous and Western understandings. Yam de bena: dap haydoshna: akkya hon detsemak a:wannikwa da: hon de:tsemak a:ts'umme. *Our language and ceremonies allow our people to maintain strength and knowledge.* A:shwi core values of hon i:yyułashik'yanna:wa (respect), hon delank'oha:willa:wa (kindness and empathy), hon i:yyayumola:wa (honesty and trustworthiness), and hon kohoł lewuna:wedyahnan, wan hon kela i:tsemanna (think critically) are central to attaining strength and knowledge. They help learners develop positive self-identity, respect, kindness, and critical thinking skills to achieve life goals successfully.

Students with Disabilities

Navajo Technical University is committed to serving all students in a non-discriminatory and accommodating manner. Any student who feels that she or he may need special accommodations should contact the Accommodations Office (<http://www.navajotech.edu/student-services#accomodations-services>) in accordance

with the university's Disability Accommodations Policy (see http://www.navajotech.edu/images/about/policiesDocs/Disability_Exhibit-A_6-26-2018.pdf).

Email Address

Students are required to use NTU's email address for all communications with faculty and staff.

Final Exam Date: May10, 2022