



BIOL 2401 Anatomy & Physiology I

Course Syllabus:

"Northeast Texas Community College exists to provide responsible, exemplary learning opportunities."

Dr. Kathy Carter

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Office Hours	Monday	Tuesday	Wednesday	Thursday	Friday	Online
	9:30am – 12:20pm	4:30pm - 5:00pm	9:30am – 12:20pm	4:30pm - 5:00pm	By appointment	kcarter@ntcc.edu
	4:30pm - 5:00pm		4:30pm – 5:00pm			

The information contained in this syllabus is subject to change without notice. Students are expected to be aware of any additional course policies presented by the instructor during the course.

Catalog Course Description: 4 credit hours. Lecture/Lab/Clinical: Three hours of lecture and three hours of lab each week. Prerequisite(s): TSI complete in reading and writing. Anatomy and Physiology I is intended for students entering a field of study in health sciences or kinesiology. Anatomy and Physiology I is the first part of a two course sequence. It is a study of the structure and function of the human body including cells, tissues and organs of the following systems (in both lab and lecture): integumentary, skeletal, muscular, nervous and special senses. Emphasis is on interrelationships among systems and regulation of physiological functions involved in maintaining homeostasis. The lab provides a hands-on learning experience for exploration of human system components and basic physiology. Animal dissection is a required component of laboratory activity in both face-to-face and online format. Successful completion of BIOL 2401 with a C or better allows the student to continue on to BIOL 2402.

Required Textbook(s): **Lecture:** BIOL 2401 ACCESS CODE MCKINLEY CONNECT (VIA INCLUSIVE ACCESS W/DIGITAL TEXT & CONNECT) Author: *McKinley* ISBN: 9781260849110 Edition 3 McGraw-Hill

Inclusive Access: We have negotiated with the Publisher to obtain a discounted price for your lecture course materials. Your ebook and Connect Access Code are included with your tuition and will be available through Blackboard on the first class day. The materials are required for your class and essential in your success. If you also determine that you would like a print copy of your text in addition to your inclusive access, loose-leaf copies will be available in the College Store at a discounted price (**PRINT UPGRADE: ANATOMY & PHYSIOLOGY: AN INTEGRATIVE APPROACH, McKinley, ISBN: 9781260572148, Edition 3.**) You may opt out of purchasing your materials from the College Store through the Census Date for the course. If you choose to opt out you will be responsible for purchasing your Connect Access Code from another vendor. You will receive a refund for the Inclusive Access if you opt out.

Laboratory: REQUIRED TEXTBOOK AND MATERIALS

BIOL 2401/2402: Laboratory Manual for Human Anatomy & Physiology: (FETAL PIG VERSION)

Author: Terry R. Martin ISBN: 9781260159363 Edition 4

PLEASE NOTE: Lab Manuals CANNOT be rented from a third party. Each student MUST have a consumable lab book from which pages MUST be torn out and submitted for grading. This means that absolutely NO copies can be submitted as it violates copyright laws.

Recommended Reading(s): Chapters 1 through 16 in the textbook

Core Curriculum Purpose and Objectives:

Through the core curriculum, students will gain a foundation of knowledge of human cultures and the physical and natural world; develop principles of personal and social responsibility for living in a diverse world; and advance intellectual and practical skills that are essential for all learning.

Courses in the foundation area of life and physical sciences focus on describing, explaining, and predicting natural phenomena using the scientific method. Courses involve the understanding of interactions among natural phenomena and the implications of scientific principles on the physical world and on human experiences.

College Student Learning Outcomes:

Critical Thinking Skills

CT.1

Students will demonstrate the ability to 1) analyze complex issues, 2) synthesize information, and 3) evaluate the logic, validity, and relevance of data.

Communication Skills

CS.1

Students will effectively develop, interpret and express ideas through written communication.

Empirical and Quantitative Skills

EQS.2

Students will analyze numerical data or observable facts.

EQS.3

Students will draw informed conclusions.

Team Work

TW2. Students will work with others to support and accomplish a shared goal.

Student Learning Outcomes:

Upon successful completion of this course, students will:

1. Define anatomy and physiology, explain the importance of the relationship between structure and function and be able to describe directional terms and anatomical positions.
2. Explain the nature of a human cell.
3. Describe the general make-up of a tissue and be able to recognize the primary tissue types and examples of each type.
4. Describe the general structure and function of the integumentary system.
5. Describe the general structure and function of the skeletal system inclusive of joints.
6. Summarize the major characteristics and functions of skeletal, smooth and cardiac muscle. Be able to identify major superficial muscles of the human body.
7. Describe the general structure and function of the nervous system including special senses.
8. Explain interrelationships among molecular, cellular, tissue, and organ functions in each system and the interdependency of the systems.

9. Explain contributions of organ systems to the maintenance of homeostasis and the causes of effects of homeostatic imbalances.
10. Communicate results of scientific investigations, analyze data and formulate conclusions using critical thinking and scientific problem-solving skills.

LECTURE DISCUSSIONS AND EXAM SCHEDULE:

Please NOTE: Lecture and Exam Schedule are subject to change.

Week 1- Intro to A&P, & Chapters 1&2: Anatomical Terminology & Chemistry

Week 2- Chapters 1&2 cont., Chapter 4: Biology of the Cell

Week 3- Chapter 4, cont.; Chapter 5: Tissue Organization

Week 4- Chapter 5, cont; Chapter 6: Integumentary System

Week 5- Chapter 6, cont; **LECTURE EXAM I: FEB 19/20**

Week 6- Chapter 7: Skeletal System: Bone Structure & Function

Week 7- Chapter 8: Axial & Appendicular Skeleton

Week 8- Chapter 8: continued; Chapter 9: Articulations

Week 9- **S P R I N G B R E A K**

Week 10- Chapter 9, continued; **LECTURE EXAM 2: MAR 25/26**

Week 11- Chapter 10: Muscle Tissue

Week 12- Chapter 11: Muscular System: Axial & Appendicular Muscles

Week 13- **LECTURE EXAM 3: APR 13/14**; Chapter 12: Nervous System: Nervous Tissue

Week 14- Chapter 13: Nervous System: Brain & Spinal Cord

Week 15- Chapter 14: Spinal Cord & Spinal Nerves

Week 16- Chapter 16: Nervous System: Senses; **LECTURE EXAM 4: May 6/7**

FINAL EXAM (Comprehensive): Date and Time to be determined

EVALUATION/GRADING POLICY:

Course grades will be determined as follows:

90 --- 100 = A	60 --- 69 = D
80 --- 89 = B	59 and < = F
70 --- 79 = C	

Please note:

- Due to FERPA, student privacy regulations, you will need to provide a written note listing anyone who will be allowed to pick up your work or to whom I may speak with (other than you) regarding your grade(s) or attendance.

OVERALL COURSE GRADE WEIGHTED AS FOLLOWS: Lecture = **75%**; Lab = **25%**

LECTURE –

EXAMS: **60%** of Overall Course Grade

4 Lecture Exams =

40% of Overall Course Grade

FINAL EXAM (Comprehensive) =

20% of Overall Course Grade

ASSIGNMENTS: (CONNECT LearnSmart and Homework Tutorials):

15% of Overall Course Grade

NOTE: Students MUST take the Final Exam

LABORATORY –

Average of Lab Assessments and Weekly Quizzes =

20% of Overall Lab Grade

Lab Practical Exam Avg (4 Exams) =

80% of Overall Lab Grade

NOTE: Lab Practical Exams will be Fill In The Blank.

Regular Lab attendance is required to receive a lab grade.

LABORATORY ATTIRE:

No shorts, short skirts, sleeveless shirts, loose clothing, bare midriffs, low tops, open-toed shoes or sandals will be allowed in the laboratory. Proper lab attire is required at all times, which includes clothing that covers upper arms, legs, thorax and abdomen. Long hair should be tied back to avoid getting it into the dissection field. Students not meeting proper laboratory attire will not be allowed to participate in lab and will receive a zero for the Post-Lab assignment.

LABORATORY ASSIGNMENT AND LAB PRACTICAL EXAM SCHEDULE:

PLEASE NOTE: DATES AND TOPICS/EXAMS ARE SUBJECT TO CHANGE

WEEK	DATE	LAB TOPIC
1	JAN 21/22	LAB ORIENTATION, SAFETY
	JAN 23	NO LABS
2	JAN 27/28	LAB 2: BODY ORG, MEMBRANES, & TERMINOLOGY
	JAN 29/30	LAB 4: CARE & USE OF THE MICROSCOPE
3	FEB 3/4	LAB 5: CELL STRUCTURE & FUNCTION LAB 7: CELL CYCLE
	FEB 5/6	LAB 6: MOVEMENT THROUGH MEMBRANES
4	FEB 10/11	LAB 8: EPITHELIAL TISSUES
	FEB 12/13	LAB 9: CONNECTIVE TISSUES
5	FEB 17/18	LAB 11: INTEGUMENTARY SYSTEM
	FEB 19/20	LAB PRACTICAL EXAM 1
6	FEB 24/25	LAB 12: BONE STRUCTURE & CLASSIFICATION LAB 13: ORGANIZATION OF THE SKELETON
	FEB 26/27	LAB 14: SKULL

7	MAR 2/3	LAB 15: VERTEBRAL COLUMN & THORACIC CAGE
	MAR 4/5	LAB 16: PECTORAL GIRDLE & UPPER LIMB
8	MAR 9/10	LAB 17: PELVIC GIRDLE & LOWER LIMB LAB 18: FETAL SKELETON
	MAR 11/12	LAB 19: JOINT STRUCTURE & MOVEMENTS
9	-----SPRING BREAK-----	
10	MAR 23/24	REVIEW
	MAR 25/26	PRACTICAL EXAM 2
11	MAR 30/31	LAB 10: MUSCLE (& NERVOUS) TISSUE – ONLY MUSCLE PART LAB 20: SKELETAL MUSCLE STRUCTURE & FUNCTION LAB 22: MUSCLES OF THE HEAD & NECK
	APR 1/2	LAB 23: MUSCLES OF THE CHEST, SHOULDER, & UPPER LIMB
12	APR 6/7	LAB 24: MUSCLES OF THE VERTEBRAL COLUMN, ABDOMINAL WALL & PELVIC FLOOR
	APR 8/9	LAB 25: MUSCLES OF THE HIP & LOWER LIMB LAB 26: SURFACE ANATOMY
13	APR 13/14	LAB PRACTICAL EXAM 3
	APR 15/16	LAB 10: MUSCLE AND NERVOUS TISSUE (NERVOUS TISSUE ONLY) LAB 27: NERVOUS TISSUE & NERVES LAB 30: BRAIN & CRANIAL NERVES

	APR 20/21	LAB 28: MENINGES, SPINAL CORD, & SPINAL NERVES
14	APR 22/23	LAB 32: DISSECTION OF THE SHEEP BRAIN & SPINAL CORD

	APR 27/28	LAB 35: EYE STRUCTURE, EYE DISSECTION
15	APR 29/30	LAB 36: VISUAL TESTS

	MAY 4/5	LAB 37: EAR & HEARING LAB 38: EAR & EQUILIBRIUM
16	MAY 6/7	LAB PRACTICAL EXAM 4

- **NO LABORATORY SPECIMENS OR MODELS ARE TO BE REMOVED FROM THE LAB ROOM.**

NTCC Academic Honesty Statement:

"Students are to complete course work in an honest manner, using their intellects and resources designated as allowable by the course instructor. Students are responsible for addressing questions about allowable resources with the course instructor. NTCC upholds the highest standards of academic integrity. This course will follow the NTCC Academic Honesty policy stated in the Student Handbook."

Academic Ethics

The college expects all students to engage in academic pursuits in a manner that is beyond reproach. Students are expected to maintain complete honesty and integrity in their academic pursuit. Academic dishonesty such as cheating, plagiarism, and collusion is unacceptable and may result in disciplinary action. Refer to the student handbook for more information on this subject.

ADA Statement:

It is the policy of NTCC to provide reasonable accommodations for qualified individuals who are students with disabilities. This College will adhere to all applicable federal, state, and local laws, regulations, and guidelines with respect to providing reasonable accommodations as required to afford equal educational opportunity. It is the student's responsibility to request accommodations. An appointment can be made with Shannin Garrett, Academic Advisor/Coordinator of Special Populations located in the College Connection. She can be reached at 903-434-8218. For more information and to obtain a copy of the Request for Accommodations, please refer to the [NTCC website - Special Populations](#).

Family Educational Rights And Privacy Act (FERPA):

The Family Educational Rights and Privacy Act (FERPA) is a federal law that protects the privacy of student education records. The law applies to all schools that receive funds under an applicable program of the U.S. Department of Education. FERPA gives parents certain rights with respect to their children's educational

records. These rights transfer to the student when he or she attends a school beyond the high school level. Students to whom the rights have transferred are considered “eligible students.” In essence, a parent has no legal right to obtain information concerning the child’s college records without the written consent of the student. In compliance with FERPA, information classified as “directory information” may be released to the general public without the written consent of the student unless the student makes a request in writing. Directory information is defined as: the student’s name, permanent address and/or local address, telephone listing, dates of attendance, most recent previous education institution attended, other information including major, field of study, degrees, awards received, and participation in officially recognized activities/sports.