



## BIOL 2401 Anatomy & Physiology I

### Course Syllabus:

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

### Dr. Kathy Carter

Office: UHS 159

Phone: 903.434.8304

Email: [kcarter@ntcc.edu](mailto:kcarter@ntcc.edu)

Office Hours	Monday	Tuesday	Wednesday	Thursday	Friday	Online
	4:30pm – 5:00pm	1:30pm – 5:00pm	4:30pm – 5:00pm	1:30pm – 5:00pm	By appointment	<a href="mailto:kcarter@ntcc.edu">kcarter@ntcc.edu</a>

*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. This course is the first semester of a two semester sequence and includes a study of basic cell biology, histology, the integument, skeletal, muscular and nervous systems. 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

1. BIOL 2401/2402: ANATOMY & PHYSIOLOGY LAB MANUAL (FETAL PIG VERSION) Author: Eckel  
ISBN: **9781260849110** Edition 2
2. BIOL 2401 LAB ACCESS CODE ECKEL CONNECT INCLUSIVE ACCESS EDITION 2

**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.1

Students will manipulate numerical data or observable facts by organizing and converting relevant information into mathematical or empirical form.

EQS.2

Students will analyze numerical data or observable facts by processing information with correct calculations, explicit notations, and appropriate technology.

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 the major superficial muscles of the human body.
7. Describe the general structure and function of the nervous system including special senses.
8. 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, & Chapter 1: Anatomical Terminology

Week 2- Chapter 1 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- **LECTURE EXAM 1: Feb 20/21**; Chapter 7: Skeletal System: Bone Structure & Function

Week 6- Chapter 7, continued; Chapter 8: Axial & Appendicular Skeleton;

Week 7- Chapter 8, continued

**--SPRING BREAK WEEK--**

Week 8- Chapter 9: Articulations

Week 9- **LECTURE EXAM 2: March 25/26**; Chapter 10: Muscle Tissue

Week 10- Chapter 10, continued; Chapter 11: Muscular System: Axial & Appendicular Muscles

Week 11- Chapter 11 continued

Week 12- Chapter 11 cont.; **LECTURE EXAM 3: APRIL 17/18**

Week 13- Chapter 12: Nervous System: Nervous Tissue; Chapter 13: Nervous System: Brain & Spinal Cord

Week 14- Chapter 14: Nervous System: Spinal Cord & Spinal Nerves; Chapter 15: Autonomic Nervous System

Week 15- Chapter 16: Nervous System: Senses; **LECTURE EXAM 4: May 8/9**

Week 16- FINAL EXAM (Comprehensive): Date and Time to be determined

**EVALUATION/GRADING POLICY:**

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

**LABORATORY –**

Average of Pre and Post-Lab assignments = **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.**

**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 23/24	LAB ORIENTATION, SAFETY & CH 1: <a href="#">EX. 1.1 – 1.5</a>
2	JAN 28/29	CH 2: ORIENTATION TO HUMAN BODY: <a href="#">EX. 2.1 – 2.5</a>
	JAN 30/31	CH 3: THE MICROSCOPE: <a href="#">EX. 3.1 – 3.5</a>
3	FEB 4/5	CH 4: CELL STRUCTURE & MEM TRANS: <a href="#">P. 65 MITOSIS</a> ; <a href="#">EX: 4.2 – 4.6</a>
	FEB 6/7	CH 5: HISTOLOGY: EPITHELIAL TISSUE: <a href="#">EX. 5.1</a>
4	FEB 11/12	CH 5: HISTOLOGY: CONNECTIVE TISSUE: <a href="#">EX. 5.3 – 5.4</a>
	FEB 13/14	CH 5: HISTOLOGY: MUSCLE, NERVOUS: <a href="#">EX. 5.6 &amp; 5.7</a>
5	FEB 18/19	CH 6: INTEGUMENT: <a href="#">EX. 6.1 – 6.9</a>
	FEB 20/21	<b>LAB PRACTICAL EXAM 1</b>
6	FEB 25/26	CH 7: SKEL. SYSTEM: <a href="#">EX 7.1, 7.3 – 7.5, 7.7</a>
	FEB 27/28	CH 8: SKELETAL SYSTEM: AXIAL SKELETON: <a href="#">EX. 8.6 – 8.10</a>
7	MAR 4/5	CH 8: AXIAL SKELETON: SKULL: <a href="#">EX: 8.1 – 8.5</a>
	MAR 6/7	CH 9: APPENDICULAR SKELETON: <a href="#">EX. 9.1 – 9.3</a>
<b>MAR 11-15</b>		<b>SPRING BREAK</b>

8	MAR 18/19	CH 9: APPENDICULAR SKELETON: EX. 9.4 – 9.6
	MAR 20/21	CH 10: ARTICULATIONS: EX. 10.1 – 10.6
9	MAR 25/26	LAB PRACTICAL EXAM 2
	MAR 27/28	CH 11: MUSCLE STRUCTURE & FUNCTION: EX 11.1 – 11.9
10	APR 1/2	CH 12: MUSCULAR SYS: AXIAL MUSCLES: EX. 12.1 – 12.5
	APR 3/4	CH 12: MUSCULAR SYS: AXIAL MUSCLES: EX. 12.6 – 12.9
11	APR 8/9	CH 13: MUSC. SYS: APPENDICULAR MUSCLES: EX. 13.1 – 13.4
	APR 10/11	CH 13: CONTINUED: EX. 13.5 – 13.8
12	APR 15/16	CH 13: CONTINUED/REVIEW
	APR 17/18	LAB PRACTICAL EXAM 3
13	APR 22/23	CH 14: NERVOUS TISSUES: EX. 14.1.2 – 14.2, 14.5 14.9
	APR 24/25	CH 15: BRAIN & CRANIAL NN; BRAIN DISSECTION: ALL
14	APR 29/30	CH 16: SPINAL CORD; SPINAL CORD DISSECTION: EX: 16.1.1 – 16.1.2, 16.2
	MAY 1/2	CH 18: GENERAL & SPECIAL SENSES: ALL; EYE & COW EYE DISSECTION: EX. 18.8 – 18.10, 18.17
15	MAY 6/7	CH 18: GENERAL & SPECIAL SENSES: EAR: EX. 18.6.15, 18.11, 18.18 – 18.19
	MAY 8/9	LAB PRACTICAL EXAM 4
16	MAY 13 – 16	FINAL EXAM WEEK

**NTCC Academic Honesty Statement:**

"Students are expected 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.