**NORTH CENTRAL TEXAS COLLEGE**

**COURSE SYLLABUS**

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| *Course**Title:* | BIOL 2401 Human Anatomy & Physiology I |
| *Course Prefix* & *Number:* |  | *Section Number:* | 500&501 | *Semester/Year:* | FA 2020 |
| *Semester Credit Hours:* | 4 | *Lecture Hours:* | **48** | *Lab Hours:* | 32 |
| *Course Description (NCTC Catalog):*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: integumentary, skeletal, muscular, nervous and special senses.Emphasis is on interrelationships among systems and regulation of physiological functions involved in maintaining homeostasis. |
| *Course Prerequisite(s):* |
| *Required or Recommended Course Materials:** *Fundamentals of Anatomy and Physiology,* 11th ed., Martini ISBN 9780134396026
* **Access code for Mastering A&P-must be compatible with CANVAS**

RECOMMENDED* Gloves for dissections-gloves will not be provided for students in the lab; students must bring their own gloves if they wish to wear gloves during dissections; students will be required to participate in dissections.
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# INSTRUCTOR INFORMATION

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| *Name of Instructor:* | Anne Coltman |
| *Campus/Office Location:* | Flower Mound, rm222 |
| *Telephone Number:* |  |
| *E-mail Address:* | acoltman@nctc.edu |

**OFFICE HOURS: I will be available by email and I will be using WebEx for meetings and tutorials.**

**STUDENT LEARNING OUTCOMES** (From Academic Course Guide Manual/Workforce Education Course Manual/NCTC Catalog

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| *At the successful completion of this course the student will be able to:* |
|  | **Lecture Learning Outcomes**1. Use anatomical terminology to identify and describe locations of major organs of each system covered.
2. Explain interrelationships among molecular, cellular, tissue, and organ functions in each system.
3. Describe the interdependency and interactions of the systems.
4. Explain contributions of organs and systems to the maintenance of homeostasis.
5. Identify causes and effects of homeostatic imbalances.
6. Describe modern technology and tools used to study anatomy and physiology.

**Lab Learning Outcomes**Upon successful completion of this course, students will:1. Apply appropriate safety and ethical standards.
2. Locate and identify anatomical structures.
3. Appropriately utilize laboratory equipment, such as microscopes, dissection tools, general lab ware, physiology data acquisition systems, and virtual simulations.
4. Work collaboratively to perform experiments.

S. Demonstrate the steps involved in the scientific method.1. Communicate results of scientific investigations, analyze data and formulate conclusions.
2. Use critical thinking and scientific problem-solving skills, including, but not limited to, inferring, integrating, synthesizing, and summarizing, to make decisions, recommendations and predictions.
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# GRADING CRITERIA

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| *#of Graded Course Elements* | *Graded Course Elements* | *Percentage or Point Values* |
| 24 | Unit Mastering A&P Homework Assignments-Each of the 4 lecture units will have 6 unit mastering A&P homework assignments (10 pts each); the lowest one unit assignment per each unit will be dropped; students may earn a maximum of 50 pts per unit from their top5 unit homework assignments in each unit | 200 pts |
| **24** | **Unit Lecture Quizzes** (5 pts each)- students will take 6- unit lecture quizzes per unit; the lowest quiz in each unit will be dropped; students may earn a maximum of25 points per unit for each of the four units | 100 pts |
| 5 | **Lecture Exams-** 4 unit exams will be administered (100 pts each). A variety of question types will include but | 400 pts |



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|  | not limited to: multiple choice, true-false, multiple select, matching, short answer/essay.A comprehensive final exam (100 pts) will be administered. **If a student scores higher on the comprehensive final it may replace the students lowest lecture exam** |  |
| 2 | Multiple choice lab exams @50 pts each. |  100 pts |
| 2 | Two online labs; one on the muscular system and one on the nervous system @100pts each | 200pts  |

**OVERALL COURSE GRADES ARE DETERMINED AS FOLLOWS:**

A=900+ total course points 8=800-899 total course points C=700-799 total course points 0=600-699 total course points F=0-599 total course points

**EXTRA CREDIT…**

* Bonus questions are made available on laboratory and lecture exams. These will be the ONLY opportunity the student will have to acquire extra points in the course
* Extra Credit assignments are not given to ANY student for ANY reason

**MAKE-UP WORK AND EXAMS ARE NOT PERMITTED**

Students must contact the instructor immediately upon issues (computer, failure, course availability, etc.) if it is expected to interfere with upcoming deadlines

Grades **WILL NOT** be given out over the phone or via personal email; nor will be grades be discussed with any individual other than the student. All grades will be recorded in CANVAS, so students can monitor their grades using CANVAS grades.

**COURSE SUBJECT OUTLINE** (Major Assignment s, Due Dates and Grading Criteria)

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| **LECTURE****UNIT1** | **LECTURE UNIT 1 TOPICS COVERED**. An Introduction to Anatomy and Physiology0 Define anatomy and physiology and describe how they are integrated0 Levels of organization0 **Homeostasis**0 Feedback mechanisms0 Anatomical Terminology. The Chemical Level of Organization0 Structure of the atom0 Chemical bonds and Chemical reactions0 Water, acids, bases, and salts0 Organic molecules. The Cellular Level of Organization0 Cell structures and their functions**0** Replication of DNA and Gene expression (transcription and translation)0 Cell transport mechanisms (passive and active)**0** Transmembrane potentials**0** Cell life cycle, cell division, and cancer. The Tissue Level of Organization0 Define tissue and Histology0 Characterize the four tissue types (epithelial , connective , muscle and nervous)0 Response to injury (inflammation and regeneration) |
| **UNIT 1 Assignments** | **DUE DATES** |
| **UNIT 1 Lecture Quizzes****6 quizzes (5 pts each) - one lowest dropped (25 pts Max)** | **September 11, 2020 @ 11:59 pm****Submitted in Canvas** |
| **UNIT 1 MyLab and Mastering A&P Homework****6 assignments (10 pts each) - one lowest dropped (50 pts Max)** | **September 11, 2020 @ 11:59 pm****Submitted in Canvas** |
| **UNIT 1 LECTURE EXAM (100 pts)You will need Lock Down Browser.** | **September 11, 2020 @ 11:59 pm****Submitted in Canvas** |
| **LECTURE****UNIT2** | **LECTURE UNIT 2 TOPICS COVERED**. The integumentary System0 Structure and function of the epidermis, dermis, and hypodermis. 0 Structure and function of accessory organs (hair, glands, and nails) Osseous Tissue and Bone Structure0 Functions of the skeletal system0 Classification of bones0 Types of bone cells0 Compact versus spongy bone and the process of ossification. The Axial Skeleton0 Functional anatomy of the skull, thoracic cage and the vertebral column. The Appendicular Skeleton0 Functional anatomy of the pelvic girdle, pectoral girdle, and upper and lower limbs. Joints0 Classification of joints based on range of motion0 Structure and function of synovial joints and types of movements at synovial joints0 |

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|  | UNIT 2 Assignments | DUE DATES |
| UNIT 2 Lecture Quizzes6 quizzes (5 pts each) - one lowest dropped (25 pts Max) | **October 9, 2020 @11:59 pm****Submitted in Canvas** |
| UNIT 2MyLab and Mastering A&P Homework6 assignments (10 pts each) - one lowest dropped (50 pts Max) | **October 9, 2020 @11:59 pm****Submitted in Canvas** |
| UNIT 2 LECTURE EXAM **(100 pts) You will need Lock Down Browser** | **October 9, 2020 @11:59 pm****Submitted in Canvas** |
| **LECTURE****UNIT3** | **LECTURE UNIT 3 TOPICS COVERED*** Muscle Tissue

0 Histological and physiological characteristics of skeletal muscle cells0 Structure and function of skeletal muscle tissue0 Smooth muscle structure and functions0 Cardiac muscle structure and function* The Muscular System

0 Gross anatomy of the muscular system0 Functional relationships between muscles and bones of the body* Neural Tissue

0 Anatomical and functional divisions of the nervous system0 Structure and function of neurons and neuroglia0 Action potentials0 Neurotransmitters |
| **UNIT 3 Assignments** | DUE **DATES** |
| UNIT 3 Lecture Quizzes6 quizzes (5 pts each)- one lowest **dropped**(25 pts Max) | **November 6, 2020 @ 11:59 pm****Submitted in Canvas** |
| UNIT 3 MyLab and Mastering A&P Homework6 assignments (10 pts each) - one lowest dropped (50 pts Max) | **November 6, 2020 @ 11:59 pm****Submitted in Canvas** |
| UNIT 3 LECTURE EXAM (100pts) **You will need Lock Down Browser** | **November 6, 2020 @ 11:59 pm****Submitted in Canvas** |
| **LECTURE****UNIT4** | **LECTURE UNIT 4 TOPICS COVERED*** The Spinal Cord, Spinal Nerves, and Spinal Reflexes

0 Functional anatomy and organization of the spinal cord and spinal nerves0 Spinal reflexes* The Brain and Cranial Nerves

0 Functional organization of the brain and cranial nerves0 Cranial reflexes* Neural Integration

0 Manner in which the nervous system is integrated0 Sensory pathways and the somatic nervous system0 Autonomic nervous system0 Higher-order function* The Special Senses

0 Structure and function of organs for olfaction, gustation, vision, equilibrium , and hearing |

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|  | UNIT 4 Assignments | DUE DATES |
| UNIT 4 Lecture Quizzes6 quizzes (5 pts each)- one lowest dropped (25 pts Max) | **December 4, 2020 @11:59 pm****Submitted in Canvas** |
| UNIT 4 Unit Mastering A&P Homewor1<6 assignments (10 pts each) - one lowest dropped (50 pts **Max)** | **December 4, 2020 @11:59 pm****Submitted in Canvas** |
| UNIT 4 LECTURE EXAM(100pts) **You will need Lock Down Browser** | **December 4, 2020 @11:59 pm****Submitted in Canvas** |
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| **Lecture final exam** | **OPTIONAL COMPREHENSIVE FINAL EXAM-****(100 PTS). Students may replace their****lowest test score if the score on the final is higher.** | **December 7, 2020** |

**ATTENDANCE POLICY**

Regular and punctual attendance is expected of all students in all classes for which they have registered. All absences are considered to be unauthorized unless the student is absent due to illness or emergencies as determined by the instruct or. It is the student responsibility to provide documentation as to the emergency for approval and judgement by the faculty member.

Approved college sponsored activities are the only absences for which a student should not be held liable and only when provided by a college official ahead of the absence. Valid reasons for absence, however, do not relieve the student of the responsibility for making up required work. Students will not be allowed to make up an examination missed due to absence unless they have reasons acceptable to the instructor. A student who is compelled to be absent when a test is given should petition the instructor, in advance if possible, for permission to postpone the exam. Student will be dropped from a class by the Registrar upon recommendation of the instructor who feels the student has been justifiably absent or tardy a sufficient number of times to preclude meeting the course's objectives. Persistent, unjustified absences from classes or laboratories will be considered sufficient cause for College officials to drop a student from the rolls of the College. From Board Policy FC (LOCAL)

Last day to withdraw from a course with a "W" is **November 2, 2020**



**COVID-19 Specific Syllabi Statements Fall 2020**

**Potential Conversion of Onsite Classes to Online/Remote Format**: North Central Texas College students should be aware that in the event of a college closure due to COVID-19, onsite classes will be converted to an online/remote format. Students should plan ahead to ensure they have access to the computer equipment (either PC, MAC, or tablet), webcam, and internet connectivity to continue their classes in an online/remote format. Please read all your official North Central Texas College student emails as the transition from onsite to online/remote might require a reorganization in your personal situation. Students will be granted a 72-hour transition and grace period. Online classes will continue as scheduled without disruption. Wear a mask, stay safe, and contact your Instructor as the situation arises. These policies and procedures were updated on July 30, 2020 and are subject to change.

**Statement Regarding Face Coverings**: Per the North Central Texas College guidance on face coverings on campus, in the instructional setting, faculty and students must wear face coverings, such as masks or face shields. Students without coverings, or those who do not comply with the rules relating to face coverings, will not be able to participate in on-campus classroom activities. To request an exception to this requirement, students should contact the NCTC HR Office of Enrollment Management (ccove@nctc.edu). Failure to comply with the face coverings requirement may result in the Instructor directing the student to leave the classroom. Any student asked to leave the classroom may be referred to the student conduct officer. These policies and procedures were updated on July 30, 2020 and are subject to change.

**Temporary COVID-19 Attendance Policy for Face-to-Face Meetings**: We are facing an unprecedented situation in which all of us must be flexible and make prudent decisions in the best interest of our families, our campus, and our community. In light of this, North Central Texas College is temporarily establishing the requirement that faculty keep records of student attendance for face-to-face course meetings as well as a documented seating chart. In addition, students who are sick or need to quarantine should not attend classes. Students will not be required to provide formal documentation from a health care provider and will not be penalized for COVID-19 related absences when proper notification to campus health officials is made in accordance with the guidelines stated below.

Faculty will:

• Notify students about important course information and delivery changes through Canvas and campus email.

Students should:

• Provide notification to campus officials (via NCTC Daily Health Check protocol through Canvas) if they have tested positive for COVID-19 or have to quarantine so we can confirm reported absence with instructors, monitor, and assist the campus community.

• Notify instructors in advance of the absence.

• Connect with that class through Webex if the class session is being transmitted in a hybrid fashion.

• Keep up with and/or make up missed classwork or assignments.

• Submit assignments digitally through Canvas or other means as announced by your instructor.

• Work with their instructors to reschedule exams, labs, and other critical academic activities described in the course syllabus.

• Check Canvas and campus email daily to receive important announcements pertaining to the course.

During this period, faculty with face-to-face meetings will establish assigned seating/work stations to facilitate roll-taking, and, if necessary, contact tracing. Additionally, we ask all members of the College community to be attentive to their health, and safeguard others, by following the CDC’s guideline to “stay home when you are sick.” You should stay home if you have symptoms. More information on what to do if you are sick is available at the CDC’s website.

Additional NCTC information is available at <http://www.nctc.edu/coronavirus/index.html>

**DISABILITY SERVICES** (Office for Students with Disabilities)

The Office for Students with Disabilities (OSD) provides support services for students with disabilities, students enrolled in technical areas of study, and students who are classified as special populations (i.e. single parents).

Support services for students with disabilities might include appropriate and reasonable accommodations, or they may be in the form of personal counseling, academic counseling, career counseling, etc. Furthermore, OSD Counselors work with students to encourage self-­ advocacy and promote empowerment. The Counselors also provides resource information, disability-related information, and adaptive technology for students who qualify.

If you feel you have needs for services that the institution provides, please reach out to either Wayne Smith (940) 498-6207 or Yvonne Sandman (940) 668-3300. Alternative students may stop by Room 170 in Corinth or Room 111in Gainesville.

**CORE CURRICULUM FOUNDATIONAL COMPONENT AREA** (For classes in the Core)

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| Iii | Communication |  |
| Iii | Mathematics | Iii | Government/Political Science |
| 111 | Life and Physical Science | Iii | Social and Behavioral Sciences |
| Iii | Language, Philosophy & Culture | Iii | Component Area Option |
| Iii | Creative Arts |  |  |
| Iii | American History |  |  |

**REQUIRED CORE OBJECTIVES** (For classes in the Core)

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111

Iii

Critical Thinking Communication

Empirical and Quantitative

Iii

111

Iii

Teamwork

Personal Responsibility Social Responsibility

# COURSE TYPE

Iii Academic General Education Course (from ACGM but not in NCTC Core) l?I Academic NCTC Core Curriculum Course

l?I WECM Course

# STUDENT HANDBOOK

Students are expected to follow all rules and regulations found in the student handbook and published online.

# ACADEMIC DISHONESTY

Scholastic dishonesty shall include, but is not limited to cheating, plagiarism, academic falsification, intellectual property dishonesty, academic dishonesty facilitation and collusion. Faculty members may document and bring charges against a student who is engaged in or is suspected to be engaged in academic dishonesty. See Student Handbook, "Student Rights & Responsibilities: Student Conduct ([FLB(LOCAL)]".

Consequences for academic dishonesty may include:

1} The student will receive a failing grade of "O" on the assignment. If the assignment is within a group in which the lowest assignment is dropped, the assignment will not be able to count as a dropped score. It will count as part of the grade.

* 1. A "Scholastic Dishonesty Report Form" will be submitted regarding the incident
	2. Student may be dropped from the course with a failing grade (letter grade of "

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| Name of Chair/Coordinator: | Dr. Lisa Bellows |
| Office Location: | Gainesville Science Building Office 408 |
| Telephone Number: | 940-668-4252 |
| E-mail Address: | lbellows@nctc.edu |

**QUESTIONS, CONCERNS, or COMPLAINTS**