



Anatomy and Physiology w/ Lab

BIOL-230: Virtual Course

Instructor: Dr. Thomas Owen
NORTH CENTRAL KANSAS TECHNICAL
COLLEGE

COURSE INFORMATION

Anatomy and physiology will explore the relationship between structure and function in humans. Specifically, the course will follow the organization of living systems by focusing on cells, tissues, organs, and organ systems in humans.

Credits: 5

Pre/Corequisites:

- Pre/Corequisite: Grade of C or better in BIOL 121 or CHEM 100, or qualifying examination score.

CLASS INFORMATION

Term: Fall Year: 2021 Start Date: 08/23/2021 End Date: 12/17/2021 Delivery Mode: Virtual

INSTRUCTOR

Dr. Thomas Owen

Email: towen@ncktc.edu

Office Location: Virtual Office Hours (via Zoom Meeting Room)

COURSE MATERIALS

1. OpenStax. 2019. Anatomy and Physiology. Students can purchase a hard copy by [clicking here](#) or can access the free, online version by accessing the following URL: <https://openstax.org/details/books/anatomy-and-physiology>
2. Maricle. 2020. *Human Anatomy and Physiology Virtual Course Lab Manual*.
3. Skloot. 2011. *The Immortal Life of Henrietta Lacks*. 1st edition. ISBN: 9781400052189.
4. Visible Body Courseware. Student can access/enroll in Courseware by [clicking here](#). Students will have two weeks of trial access before payment is necessary. Students will then be automatically prompted to pay \$49.99. Included in the \$49.99 are two-years of access to the course platform and web applications, and five permanent mobile app downloads that students get to keep even after the two-years of access.

GENERAL SUPPLIES

- Computer
- Notebook paper
- Pencil(s) or ink pen(s)
- Colored pencils
- Scissors
- Tape
- Calculator

COURSE COMPETENCIES

1. Use medical terminology appropriately to describe the organizational structure of cells, tissues and organ systems.
2. Identify structures and explain functions of the body systems that provide coverage/support for the body or process nutrients.
3. Identify structures and explain functions of the body systems that process and react to stimuli and permit movement in response.
4. Identify structures and explain functions of the body systems that form blood and its components, permit its circulation and provide immunologic protection.
5. Identify structures and explain functions of the body systems that perform chemically and/or hormonally-mediated respiratory, excretory and reproductive activities.

GRADING INFORMATION

- Visible Body Assignments will be assigned to correspond to each topic covered in class. These will involve use of the Visible Body Courseware to learn more in depth details on topics.
- Labs (10 pts each) will involve hands-on activities, such as setting up experiments, or constructing models. Grades earned for labs will be based on the quality of the data submission through FlipGrid (flipgrid.com). Students must download the FlipGrid app to their smartphone or access the website on a laptop to upload their lab results. *To earn a passing grade for each lab, students must demonstrate they completed the lab and be able to adequately explain their results via their FlipGrid updates. All labs must be completed to pass the course with a "C".*
- Quizzes (20 pts each) will be given following each topic covered. Specifically, a virtual lecture will be provided for each topic. Students are expected to view the lecture and take notes while also referring to their course textbook. All quizzes will be given in the form of an open notes essay question format that will require students to answer a question as well as provide descriptive diagrams in their responses.
- During the semester, students are expected to be reading a supplemental book entitled *The Immortal Life of Henrietta Lacks*. Three assignments will be given in the form of a virtual class discussion over the material covered in the given section of the book. Each assignment will be worth 20 pts.
- A final exam will be given at the conclusion of the semester. The final exam will be worth 150 pts. The final exam will consist of multiple choice, true/false, and possibly short answer questions.

Breakdown of Course Grading:

Visible Body Assignments	15 assignments	265 pts
Labs	15 labs x 10 pts per lab	150 pts
Quizzes	15 quizzes x 20 pts per quiz	300 pts
Reading Assignments	3 assignments x 20 pts per assignment	60 pts
Case Studies	15 studies x 5 pts total	75 pts
Final Exam	1 exam x 150 pts per exam	150 pts
<i>Total points possible for the course: 1000 pts</i>		

TENTATIVE COURSE SCHEDULE

There will be a total of 15 chapters that each cover a different system of the body. Each chapter will consist of a case study, lab, quiz, and visual body assignments. Chapters will be opened up 1 to 2 weeks ahead of the date they are expected to be completed by the student.

Chapters		Due dates for each chapter will be posted in Moodle
Introduction Cells Tissues Skin/Integument	Quizzes due by Wednesdays Labs due by Thursdays Visual Body and Case Study by Sundays	Each chapter will be expected to be completed by Sunday of the week they are assigned
Skeletal Muscular Nervous Endocrine		
Cardiovascular Lymphatic/Immune Digestion/Nutrition Respiratory		
Urinary Reproductive Pregnancy/Growth		

Final Exam due by Friday, December 17th

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CLASSROOM POLICIES

Respect

Topics discussed in class are expected to be approached by the instructor and students scientifically in an unbiased and non-judgmental manner. Therefore, it is expected that respect will be given to everyone in the classroom regardless of their background or opinions on an issue.

Plagiarism

Plagiarism and cheating are considered unacceptable. Therefore, either of these actions will result in an automatic zero on the assignment.

Late Work

Given the structure of the course, it is expected students are actively working ahead on material and not delaying submission until the last minute. Therefore, work is expected to be turned in on time and no late work will be accepted past the posted due date.

Books

It is expected that the course textbook and supplemental book be downloaded/purchased by every student enrolled in the course. Assignments and quiz questions are based on the course textbook in addition to lectures. Additionally, reading assignments will be associated with the supplemental textbook. Therefore, not purchasing books will result in loss of points on assignments.

Lab Materials/Visible Body Courseware

Labs are designed to require minimal materials for students to purchase. Most of the materials can be purchased at a local grocery store for a low cost. Completion of labs will require purchasing these materials to complete activities. Additionally, purchasing Visible Body Courseware will also be required to complete course assignments.

Moodle

Moodle will be updated with grades throughout the semester. Additionally, it is the student's responsibility to check Moodle daily for new information, announcements, or assignments.

Attendance

Even though this is a virtual course, regular attendance is expected throughout the semester just as would be expected with an on-campus course. If the instructor notices that attendance has decreased (including late postings or late submissions of assignments), pop quizzes will be assigned with a narrow window of opportunity to complete.

Virtual Office Hours

The instructor will be available for questions and concerns from students during virtual office hours. Specifically, the instructor will be present in her Personal Meeting Room on Zoom at the times/days posted at the beginning of the syllabus.

NCK TECH COVID 19 MASK REQUIREMENT

All students in a classroom or lab setting will be required to wear a cloth face mask or disposable face mask. Students with a recognized disability who have an accommodation that prevents the wearing of a mask – please contact Jayme Owen at jowen@ncktc.edu or 785-738-9037 for student accommodations. If a student does not have a mask, one will be provided, and it must be in place at all times in the classroom or lab setting.

Disclaimer: NCK Tech, by requiring, and if needed, providing a mask, is not liable for any student who may contract the virus. The mask is simply an assist and not a guarantee. Students hereby release the College from any and all liability created by these guidelines, including providing a mask.

NCK TECH COVID 19 STATEMENT

NCK Tech values the health and well-being of all who are involved in higher education. In its classes, NCK Tech follows Center for Disease Control and Prevention (CDC), American College Health Association (ACHA), and Kansas Department of Health and Environment (KDHE) recommendations for protecting students and faculty members during the Coronavirus 2019 (COVID-19) pandemic. These recommendations to lower risk include limiting the number and length of interactions with others by scheduling hybrid, virtual, or restricted sizes of classes, activities, or events, with individuals spaced 6 feet apart and not sharing objects.

Changes and limitations specific to different class types, for example, lecture, lab, and hybrid classes, will be provided in class. In all class types and educational settings, NCK Tech faculty, staff, and students are required to wear approved face masks until further notice.

NCK Tech endorses:

- staying home or self-isolating when appropriate in respect to NCK Tech student, faculty, and staff self-screening questionnaires and KSDE quarantine recommendations
- frequent, thorough handwashing and covering of all coughs and sneezes
- using of masks based on NCK Tech mask requirements
- individual conduct consistent with these considerations

NCK Tech students with questions should contact Jayme Owen, Dean of Student Success for more information.

NCK TECH MISSION STATEMENT

North Central Kansas Technical College delivers applied, innovative and personalized education to empower learners, enrich lives, develop skilled professionals and strengthen economic systems.

Vision Statement

North Central Kansas Technical College is dedicated to being a leader in workforce development by maximizing value for students, employers and communities through educational excellence.

Core Values

Achieving EXCELLENCE with INTEGRITY through

DEDICATION

INNOVATION

COLLABORATION

COMMUNICATION

NCK TECH NON-DISCRIMINATION POLICY

Applicants for admission and employment, students, employees, sources of referral of applicants for admission and employment, and all unions or professional organizations holding collective bargaining or professional agreements with NCK Tech are hereby notified that this college is committed to nondiscrimination on the basis of race, color, gender, ethnic or national origin, sex, sexual orientation, gender identity, marital status, religion, age, ancestry, disability, military status, or veteran status in admission or access to, or treatment or employment in, its programs and activities. Further, it is the policy of the college to prohibit harassment (including sexual harassment and sexual violence) of students and employees.

Any person having inquiries concerning the college's compliance with the regulations implementing Title VI, Title VII, Title IX, Section 504, and the Americans with Disabilities Act Amendments Act is directed to contact the person identified below who has been designated to coordinate the Institution's efforts to comply with the regulations implementing these laws.

· The Section 504/ADA Compliance Officer can be reached at section504@ncktc.edu, (785) 738-2276, or by mail at Attn: Section 504 Officer, PO BOX 507, 3033 US Hwy 24, Beloit, KS 67420(785) 738-9055 or by mail at NCK Tech, Attn: Dean of Instructional Services, PO Box 507, 3033 US Hwy 24, Beloit, KS 67420.

· The Title IX Compliance Officer can be reached at titleix@ncktc.edu, (785) 738-2276, or by mail at Attn: Title IX Officer, PO BOX 507, 3033 US Hwy 24, Beloit, KS 67420(785) 738-9055 or by mail at NCK Tech, Attn: Dean of Instructional Services, PO Box 507, 3033 US Hwy 24, Beloit, KS 67420.

Title VI, Title IX and Section 504 complaints may also be field with the Regional Office for Civil Rights. Address correspondence to:

US Department of Education, Region VII
Office for Civil Rights
10220 N Executive Hills Blvd
Kansas City, MO 64153

Where discrimination is found to have occurred, NCK Tech will act to stop the discrimination, to prevent its recurrence, to remedy its effects, and to hold accountable the responsible individual(s). Additional details regarding the investigation process can be found in the Faculty/Staff Handbook and the Student Handbook as approved by the NCK Tech Board of Trustees.

For further information on notice of non-discrimination, you may contact the U.S. Department of Education, Office for Civil Rights at 1-800-421-3481 or visit <https://www2.ed.gov/about/offices/list/ocr/index.html>.

NCK TECH TOBACCO USE POLICY

The use of tobacco products in any form and/or electronic cigarettes is prohibited in, or within ten (10) feet of any building owned, leased, or rented by the College.

NCK TECH WEAPONS POLICY

Individuals who choose to carry concealed handguns **are solely responsible to do so in a safe and secure manner in strict conformity with state and federal laws and NCK Tech weapons policy.** Individuals must be 21 years of age to carry concealed handguns.

Safety measures outlined in the NCK Tech weapons policy specify that a concealed handgun:

- Must be under the constant control of the carrier.
- Must be out of view, concealed either on the body of the carrier, or backpack, purse, or bag that remains under the carrier's custody and control and within immediate reach of the individual.
- Must be in a holster that covers the trigger area and secures any external hammer in an un-cocked position
- Must have the safety on, and have no round in the chamber.

Lockers, toolboxes, and/or tool bags are not approved storage devices in accordance with NCK Tech Policy.

OVERVIEW FOR STUDENTS WITH DISABILITIES

NCK Tech is dedicated to providing equal access and opportunity to all campus programs and services for students with disabilities. We are committed to providing reasonable accommodations in accordance with applicable state and federal laws including, but not limited to, Section 504 and 508 of the Federal Rehabilitation Act of 1973 and the Americans with Disabilities Act Amendments Act (ADAAA) of 2008. We strive to create a safe, respectful and inclusive environment and promote awareness, knowledge and self-advocacy.

NCK Tech acknowledges that traditional methods, programs and services are not always appropriate or sufficient to accommodate the limitations experienced by some qualified persons with disabilities. When a student's disability prevents him/her from fulfilling a course requirement through conventional procedures, consideration will be given to alternatives, **keeping in mind that academic standards must be maintained.**

Services are provided through Student Accessibility Services (SAS) staff located in the Student Success Center, on the Beloit Campus, and in Student Services, on the Hays Campus.

· Director of Learning Services, may be reached at [1-785-738-9020](tel:1-785-738-9020); or by mail at NCK Technical College, 3033 US Hwy 24, Beloit, KS 67420.

Student Responsibilities

Students requesting support services will need to register (“self-disclose” and complete Student Accessibility Services Intake and Consent Form), provide appropriate documentation (if available) including how the disability affects academic performance and suggested accommodations, and communicate with the Director of Learning Services as part of the interactive process to create an *Educational Accommodation Plan* that will notify Instructors of approved accommodations, services and/or auxiliary aids.

Students are encouraged to make timely and appropriate disclosures and requests, at least two weeks in advance of a course, program, or activity for which an accommodation is requested (or as soon as realistically possible) to allow adequate time for accommodation services to be set in place.

Accommodations, Academic Support Services, or Auxiliary Aids

Reasonable accommodations including academic support services and auxiliary aids are provided to allow students with disabilities an equal opportunity to participate in and benefit from our educational programs. Accommodations will be provided on a case-by-case basis determined by student request, documentation, intake interview, Educational Accommodation Plan team, and assessment of individual needs and course requirements.

Reasonable testing accommodations may include, but are not limited to:

- Extended testing time
- Reduced distraction testing environment
- Test reader and/or scribe
- Use of calculator

Academic support services/auxiliary aids may include, but are not limited to:

- Note-taking assistance (second set of notes, power point slides, or other visual aids provided)
- Sign Language Interpreter
- Preferential seating in the classroom
- Large print exams, handouts, signs, etc.
- Telecommunications devices
- Use of Assistive Technology

Accommodations may not fundamentally alter the nature of the program or activity, lower academic standards, present undue financial or administrative burden on the college, or pose a threat to others or public safety.

Additionally, some accommodations and services cannot be provided, such as personal devices or assistance with personal services.

Auxiliary aids may be available through a variety of sources available to individual students. The student may make a request in obtaining specialized support services from other resources such as Vocational Rehabilitation Services (VR), Recordings for the Blind, Kansas Talking Book Service, etc. For example, Vocational Rehabilitation may fund such items as transportation to the institution, tuition, textbooks, hearing aids, and other individually prescribed medical devices.

If at any time throughout the academic year, a student feels that the agreed upon accommodations are not being followed or that alternate accommodations need to be provided, the student should notify Student Accessibility Services (SAS)

staff. NCK Tech is committed to student success; however, we do not require students to use accommodations. The decision of when to utilize approved accommodations or services is up to the student. Integration, self-advocacy and individual responsibility are promoted and expected.

Grievance Procedure

Any student who believes he or she has been subjected to discrimination on the basis of disability or has been denied access or accommodations, shall have the right to invoke the Grievance Procedure.

Students are encouraged to first discuss their concerns with SAS. An attempt will be made to resolve the issue(s) causing concern by assisting the student in discussions with the person(s) involved. Most situations are positively resolved through this process. If the student does not feel the concern or complaint has been appropriately resolved, he or she should contact the [Vice President of Student and Instructional Services](#) at 1-800-658-4655 or PO Box 507, 3033 US Hwy 24, Beloit, KS 67420, where grievance procedures are filed for all students, including students with disabilities.

If the complaint is not resolved at the College level, a student may choose to file a complaint with the [Office for Civil Rights](#) at 1-816-268-0550 or [U.S. Department of Education, One Petticoat Lane, 1010 Walnut Street, Suite 320, Kansas City, MO 64106](#).

Confidentiality

All information regarding a student's disability is confidential. All documentation will remain separate from academic records and will not be released to an individual or source external to NCK Tech without the student's written consent. In order to provide effective services, it may be necessary to communicate limited information on a need-to-know basis regarding disability-related needs to NCK Tech faculty and/or staff.

Placement Testing Accommodations

Students are required to provide placement test scores to gain acceptance into their chosen full-time program. NCK Tech administers the ACCUPLACER Test for appropriate placement in Math and English classes. Testing takes place in a quiet testing environment and is computerized and untimed so you can work at a pace that is comfortable for you. If you have a learning or physical disability that would prevent you from taking the ACCUPLACER under standard conditions, you may request accommodations by contacting [Director of Learning Services](#), at 1-785-738-9020. Accommodations that can be arranged include (but are not limited to) enlarged text/screen magnification, modifiable screen colors, alternative test format including Braille, and untimed test breaks.

Students wanting to request a testing accommodation will need to provide recent professional documentation regarding the disability, which would include how the disability affects the student's academic performance and suggested accommodations.

REASONABLE SUSPICION

If reasonable suspicion of substance abuse exists regarding an employee or student based on objective criteria (including, but not limited to, behavior, appearance, demeanor, detection of the odor of alcohol or any controlled substance), the employee or student will be requested to consent to drug testing performed by NCK Tech's contract vendor at the expense of the college.

- A. A college administrator (or their designee) shall drive the employee or student to the vendor's site for drug testing and shall return the employee or student to his/her residence (or arrange for transportation) following the testing.
- B. Test results shall be sent directly to the college administrator, with a copy also sent to the employee or student. All test results will be considered confidential, access to the results will be limited to institutional personnel who have a legitimate need-to-know.

- C. In the event of a positive test result, the employee or student may request a retest of the sample at the employee or student's expense. The request must be submitted within 24 hours.
- D. Positive results for any illegal drugs, or prescription drugs (either not prescribed for the employee or student, or at levels above the prescribed dosage), or blood alcohol level of 0.04 or greater shall be grounds for disciplinary action, up to and including termination or expulsion.
- E. Refusal to provide a specimen for this testing shall be treated as a positive drug test result.
- F. Test results or specimens that have been determined to be altered by the employee or student shall be grounds for disciplinary action, up to and including termination or expulsion.
- G. If the employee or student tests positive for an authorized prescription drug which may impair his/her performance or judgment, the employee or student may not be permitted to participate in college activities until he/she provides a doctor's release.

RIGHT TO MODIFY THE SYLLABUS

The instructor reserves the right to modify the syllabus during the semester. Students will be given advanced notice if a change would occur.

SCHOLASTIC DISHONESTY

Membership in the NCK Tech learning community imposes upon the student a variety of commitments, obligations, and responsibilities. It is the policy of this college to impose sanctions on students who misrepresent their academic work. Appropriate classroom instructors or other designated persons will select these sanctions consistent with the seriousness of the violation and related considerations.

Examples of scholastic dishonesty include but are not limited to:

- Plagiarism: i.e. taking someone else's intellectual work and presenting it as one's own. Each department set standards of attribution. Faculty will include disciplinary or class-specific definitions in course syllabi.
- Cheating is unacceptable in any form. Examples include consultation of books, library materials, notes or intentional observation of another student's test on paper or a computer screen; accessing another student's answers from an exam to be given or in progress; submission of falsified data; alteration of exams or other academic exercises; and collaboration on projects where collaboration is forbidden.
- Falsification, forgery or alteration of any documents pertaining to assignments and examinations.
- Students who participate in, or assist with, cheating or plagiarism will also be in violation of this policy.

Classroom instructors and/or administrators will assess sanctions for violations of this policy. The seriousness of the violation will dictate the severity of the sanction imposed. Academic sanctions may include but are not limited to any of the following:

1. verbal or written warning
2. lowering of grade for an assignment
3. lowering of term grade

Administrative sanctions may include but are not limited to either of the following

1. suspension from the College
2. dismissal from the College