



# BIOL-121 Human Biology w/Lab

Dr. Kathy Albert

NORTH CENTRAL KANSAS TECHNICAL COLLEGE

## COURSE INFORMATION

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An introductory course using exploration of principles and processes common to all living systems as a starting point for the study of human structure and function and the interrelationships between humans and the rest of the Biosphere. Credits: 4

## CLASS INFORMATION

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Term: Spring Year: 2023 Start Date: 01/09/2023 End Date: 5/12/2023

## INSTRUCTOR

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**Dr. Kathy Albert**

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Office Phone: (785) 623-6165

Office Location: HSB-043

Office Hours: MWF (9:30-10:30 AM), T (12:00-1:00 PM), TH (12:30-1:00 & 4:00-4:30 PM)

Email me with any questions or concerns you have. Please include your full name and the course you are enrolled in.

## TEXTBOOKS

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Biology Mader 17<sup>th</sup> Edition ISBN- 13: 9781260710823 with Connect (this is the website you will use for Connect/Learnsmart assignments)

Carroll. 2019. The Story of Life: Greatest Discoveries in Biology. 1st edition. ISBN: 9780393631562.

## COURSE COMPETENCIES

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1. Demonstrate an understanding of the nature of science
2. Demonstrate an understanding of the levels or organization and emergent properties of life
3. Demonstrate an understanding of bioenergetics
4. Demonstrate an understanding of the importance of reproduction in maintaining the continuity of life
5. Demonstrate an understanding of applying principles of genetics to unity and diversity of life
6. Demonstrate an understanding of discussing evolution as the mechanism of change in biology
7. Demonstrate an understanding of the principles of ecology
8. Demonstrate laboratory skills and techniques

## GRADING INFORMATION

- There will be a variety of assessments during this course which will determine your final grade. The various components are as follows:

Assignments	15 Learnsmart assignments	350 pts
Labs	15 labs x 10 pts per lab	150 pts
Exams	5 exams x 100 pts per exam	500 pts
Reading Assignments	4 assignments x 10 pts per assignment	40 pts
Weekly Quizzes	15 quizzes x 10 pts per quiz	150 pts
Discussions	12 discussions x 10 pts per discussion	120 pts
Research Project	1 project x 100 pts per project	100 pts
<i>Total points possible for the course: 1410 pts</i>		

### Reading Assignments

Throughout the semester, students are expected to be reading a supplemental textbook (The Story of Life: Greatest Discoveries in Biology). Four separate assignments will be given throughout the semester corresponding to particular chapters in the book that reinforce concepts covered during class. Overall, 40 points total will be allotted for reading assignments.

### Research Project

The research project will integrate the four major concepts of biology (i.e., cell biology, genetics, evolution, and ecology) into one research presentation over a topic of choice. Students will discuss potential ideas with their instructor. It will be required that the research project take the approach of a case study outlining a current issue which encompasses the major concepts of biology outlined above. Overall, the capstone research project will be worth 100 pts.

**Labs:** Labs will be conducted using an online simulation website. The site is listed in the class. You will perform the post quiz after each simulation and submit your answers into the submission tab.

**Learnsmart Activities:** These items are completed on the publisher website (you will register for Connect/Learnsmart with the code you purchase). These activities are to enhance your reading experience and cement the learning objectives we cover each week. Grades will be kept in the Connect grade book and will be transferred periodically into our Moodle grade book throughout the semester.

**Quizzes:** Quizzes are 5 questions each worth 2 points. They are multiple choice. You have 10 minutes to complete each quiz. You will be given a two-minute reminder when you have two minutes left to complete the quiz. When the time is over the quiz will automatically submit to prevent you from going over the time limit.

**Discussions:** Discussions are meant to be interactive between you and your fellow classmates. Since we cannot have classroom conversations this takes the place of that. In order to receive full points on discussions you are required to post an initial response to the questions and then comment on two other classmate's posts. These responses must be well thought out and not a simple one-word answer. The response posts must show you actually read the initial post and have something worthwhile to add.

**Exams:** Exams will concentrate on the lecture materials. They will consist of a variety of type of questions; multiple choice, true/false and matching. They will be online and timed. You have 90 minutes to complete the exam. You will be given a two-minute reminder when you have two minutes left to complete the exam. When the time is over the exam will automatically submit to prevent you from going over the time limit. The fourth exam will be comprehensive. It will encompass the last 4 chapters covered as well as all the previous material.

## **GRADING SCALE**

After your numerical grade has been calculated, your letter grade will be determined as follows:

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

## **Due Dates for labs, quizzes and exams:**

All work is due on the last day of the week they are contained within, please see the course schedule.

## **Late Assignment Policy:**

No late work is accepted.

## **Extra Credit Policy:**

\*\*\*There is no extra credit available for this course

**Course Objectives:** At the completion of this course, the student should understand the basic concepts of human biology, cell biology and molecular genetics as well as disease control methods, disease prevention/treatment and epidemiology.

## **Important Dates:**

Jan 09 Class starts

Mar 28 Withdraw Date

May 11 Class ends

**Online Course :** An online course uses computer-based technologies (i.e. Moodle) to create an online "classroom." Students are instructed in course content through online learning: tutorials, testing exercises, group collaborations, independent assignments, and long-range projects. Each individual course provides a schedule of assignments and deadlines. Students need to have adequate computer skills as they will be communicating with the instructor and classmates online. This course is an online course, and you are responsible for ensuring that you can access all course material on a regular basis either from the NCK Tech campus or from home. Additionally, certain technical abilities will be required, such as installing necessary plug-ins and uploading files. If you have a problem with a personal computer or interrupted network connection, know that you are still responsible for submitting your work on time. **Moodle Support:** <https://ncktc.zendesk.com/hc/en-us>  
Students are responsible for making sure that their assignments are uploaded correctly into Moodle. No handwritten assignments or pictures of assignments will be accepted.

**Time Commitment:**

Overall, you should expect to spend approximately 2-3 hours studying for each hour of lecture time and 1-2 hours of lab time. If you find that you have any trouble keeping up with assignments or other aspects of the course, make sure you let your instructor know as early as possible. As you will find, building rapport and effective relationships are key to becoming an effective professional. Make sure that you are proactive in informing your instructor when difficulties arise during the semester so that they can help you find a solution.

**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**

NCK Tech 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 the VP of Student and Instructional Services (Section 504/ADA Compliance Officer and Title VI, Title VII, & Title IX Compliance Officer) at (785)738-9055, [cisbell@ncktc.edu](mailto:cisbell@ncktc.edu), or PO Box 507, 3033 US Hwy 24, Beloit, KS 67420.

**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](mailto:NCK@nck.edu).

### ***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](tel:1-800-658-4655) or [PO Box 507, 3033 US Hwy 24, Beloit, KS 67420](mailto: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](tel: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.

### **Policy Regarding Academic Dishonesty:**

Academic dishonesty of any kind will not be tolerated while attending North Central Kansas Technical College. The examples of academic dishonesty are plagiarism, cheating, falsification or forgery of any assignments or examinations. Any student who participates in any form of academic dishonesty must accept the consequences of their actions. These consequences may include but are not limited to the following: (a) verbal or written warning, (b) lowering of grade for assignment/activity, (c) failure of class assignment or exam.

## 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.

### Human Biology Tentative Schedule, Spring 2023

Due Date	Chapter Readings	Assignments & Exams – Due Dates
Jan 09	Chapter 1 View of Life	LearnSmart Assignments Chapter 1 Quiz
Jan 16	Chapters 2 & 3 Basic Chemistry Chemistry of Organic Materials	LearnSmart Assignments Chapters 2 & 3 Lab: Scientific Method (NaCl) Discussion Quiz
Jan 23	Chapters 4 & 5 Cell Structure & Function Membrane Structure & Function	LearnSmart Assignments Chapters 4 & 5 Quiz <b>Exam 1 (Chapters 1-5)</b>
Jan 30	Chapter 9 Cell Cycle & Cellular Reproduction Chapter 10 Meiosis & Sexual Reproduction	LearnSmart Assignments Chapter 9 & 10 Quiz
Feb 6	Chapter 11 Mendelian Patterns of Inheritance	LearnSmart Assignments Chapter 11 Discussion Quiz
Feb 13	Chapter 12 Molecular Biology of the Gene	LearnSmart Assignments Chapter 12 Quiz <b>Exam 2 (Chapters 9-12)</b>
Feb 20	Chapter 31 Animal Organization & Homeostasis Chapter 32 Circulation & Cardiovascular Systems	Learnsmart Assignments Chapter 31 & 32 Quiz
Feb 27	Chapter 33 Lymphatic & Immune Systems Chapter 34 Digestive Systems & Nutrition	Learnsmart Assignments Chapter 33 & 34 Discussion Quiz
Mar 6	Chapter 35 Respiratory Systems Chapter 36 Body Fluid Regulation & Excretory Systems	Learnsmart Assignments Chapter 35 & 36 Quiz <b>Exam 3 (Chapters 31-36)</b>
Mar 13	<i>Spring Break - No Classes</i>	
Mar 20	Chapter 37 Neurons & Nervous Systems Chapter 38 Senses	Learnsmart Assignments Chapter 37 & 38 Discussion Quiz
Mar 27	Chapter 39 Locomotion & Support Systems	Learnsmart Assignments Chapter 39 Discussion Quiz
Apr 3	Chapter 40 Hormones & Endocrine Systems Chapter 41 Reproductive Systems	Learnsmart Assignments Chapter 40 & 41 Quiz <b>Exam 4 (Chapters 37-41)</b>
Apr 10	Chapter 15 Darwin & Evolution	LearnSmart Assignments Chapter 15 Discussion Quiz

Apr 17	Chapter 45 Community & Ecosystem Ecology	LearnSmart Assignments Chapter 45 Discussion Quiz
Apr 24	Chapter 46 Major Ecosystems of the Biosphere Chapter 47 Conservation of Biodiversity	LearnSmart Assignments Chapter 46 & 47 Discussion Quiz
May 1		<b>Exam 5 (Comprehensive)</b>