BIO 130: Aspects of Human Biology

COURSE SYLLABUS

DESCRIPTION

Aspects of human biology from the molecular level to the integrated whole. Attention given to the biological basis of various health and wellness issues. This is a 3-credit hour course and is NOT for life science majors.

Credit: 3 credit hours

Contact Hours: 45 contact hours

Prerequisites/Co-requisites: There are no pre- or co-requisites

Module Name	Credit Hours
BIO 1301 Module 1: Science, Cell & Chemistry Basics	0.75
BIO 1302 Module 2: Health Issues	0.75
BIO 1303 Module 3: Body Systems and Disease Prevention	0.75
BIO 1304 Module 4: Genetics and Reproduction	0.75
Total Credit Hours:	3.0

Duration: Calendar start and finish dates are determined by the student's **Enrollment Notification**.

Instructor Information

To access and view instructor contact information, click on **Meet Your Instructor** from the menu on the left when you access the course in Blackboard.

Course Communication

If you need to schedule a phone conference or an in-person visit with your instructor, click the **Email Your Instructor** link in the menu option to email your instructor (select all instructors) about making an appointment. List your course and section in the subject line of your email and adhere to netiquette rules while communicating with your instructor. Your instructor is here to guide you through the content and answer any questions you may have. Responses are generally given within 24-48 hours during the

business week. The instructor's profile provides contact and other information. If you have questions about the course, please do not hesitate to contact the instructor. If you are having technical problems with the course, be sure to contact the Blackboard Help desk, click **Help and Support** on the menu or click the **Help** Tab at the top of the Blackboard page.

KCTCS Email information: https://welcome.kctcs.edu/email/

You are required to use your KCTCS email account when communicating with the instructor and other students in this course.

Required eResources

Text: *Human Biology*, Mader, 14th edition ebook with Connect and LearnSmart access. McGraw-Hill. The book is available as an eBook via Connect within your Blackboard Resources tab. We will cover chapters 1-21.

Connect Plus: Connect Plus access is required for this course and is accessible via links within Blackboard. You will have access to your book and required homework, quizzes, and tests through Connect. If you encounter a technical issue with anything provided through Connect, you must contact Connect help and obtain a case number. This number can be given to me so that I can obtain technical support to investigate your problem. Connect help may be accessed via a link within Connect, by dialing 800-331-5094, or by going to this website: http://mpss.mhhe.com/.

(These resources are available in your Blackboard course)

Other Resources

No other resources or supplies are required for this class. You might find it helpful to organize class notes, PowerPoints, etc. in a 3-ring binder. Access to a printer is also highly recommended.

Software Requirements

Make sure the appropriate software and plug-ins are installed on your computer. Be sure to review, and if necessary, install appropriate software and plug-ins listed in the software section of the **Start Here** area from the menu in the Blackboard module shell.

Schedule/Calendar

This course module is offered on a self-paced basis. Calendar start and finish dates are determined by the student's **Enrollment Notification**.

Attendance is verified throughout the course until you reach your end date. You will need to make sure you are accessing the course and completing course requirements (listed in the course calendar) on a consistent basis.

To assist you in planning your time to complete the course, download and print the BIO 130 Course Checklist which can also be found on the *Start Here* page in Blackboard.

COURSE MODULE INFORMATION

Competencies/Student Learning Outcomes

Upon completion of this course, the student will be able to:

1. Demonstrate a knowledge of the scientific method
2. Describe the characteristics & properties of the molecules of life
3. Explain the inter-relatedness of various body cells, tissues, organs, & systems
4. Demonstrate knowledge of the organ systems of the human body
5. Explain the biological basis of health issues
6. Define & explain health-related factors (including environmental factors) that affect the quality of life
7. Describe the common genetic maladies and their patterns of inheritance
8. Explain where human beings fit into the biological diversity

Outline

I.   Introduction
    A.   The scientific method
    B.   Human beings in the diverse biological world
    C.   Health and wellness
II.   The Chemistry of Life
    A.   Energy and matter
    B.   The chemical building blocks of life
III. Levels of Organization
    A.   Cells
    B.   Tissues
    C.   Organs
    D.   Systems
IV.   Cell Structure and Function
    A.   The cell theory
    B.   Eukaryotic cells
    C.   Cellular transport
V.   Metabolism
    A.   Using chemical energy to drive metabolism
    B.   Adenosine triphosphate production
    C.   Food as a source of adenosine triphosphate
VI.   DNA, Gene Expression, and Cell Reproduction
    A.   The structure and function of chromosomes
    B.   Mitosis and meiosis
    C.   Abnormal cell reproduction
VII. Sex and Reproduction

	A.	Structure and function
	B.	Human sexuality
	C.	Pregnancy
	D.	Conception through birth
	E.	Birth control
	F.	Sexually transmitted diseases
IX.		Survey of Body Systems and Disorders
	A.	Cardiovascular
	B.	Digestive
	C.	Endocrine
	D.	Immune
	E.	Integumentary
	F.	Lymphatic
	G.	Muscular
	H.	Nervous
	I.	Respiratory
	J.	Skeletal
	K.	Urinary
X.		Health Promotion and Disease Prevention
	A.	Health and personal behavior
	B.	Environmental factors
	C.	Other factors

GENERAL EDUCATION COMPETENCIES

Students should prepare for twenty-first century challenges by gaining:

1. Knowledge of human cultures and the physical and natural worlds through study in the sciences and mathematics, social sciences, humanities, histories, languages, and the arts.

2. Intellectual and practical skills, including

- inquiry and analysis
- critical and creative thinking
- written and oral communication
- quantitative literacy
- information literacy
- teamwork and problem solving

3. Personal and social responsibility, including

- civic knowledge and engagement (local and global)
- intercultural knowledge and competence
- ethical reasoning and action

- foundations and skills for lifelong learning

4. Integrative and applied learning, including synthesis and advanced accomplishment across general and specialized skills.

GRADING CRITERIA

Pre-Test

There will be a Pre-Test for each Module within the course. The Pre-Test will consist of 20 questions and will have a time limit of 25 minutes for completion. The Pre-Test will only be available for one attempt. The Pre-Test will NOT be counted towards your grade in the course but serves as a pre-requisite for the Learning Content for each module.   Therefore, the Pre-Test must be completed before the content for that module will become available. The Pre-Test serves to help students identify their prior knowledge and prepare for the learning content.

Credit for Prior Learning:

KCTCS Online open-entry course modules are based on the goal that students will demonstrate mastery of content. Through KCTCS Online, students have the opportunity to receive credit for prior learning. To receive this credit, students must demonstrate mastery of the course module competencies through the following steps:

- Take the Pre-Test (which may be timed). The Pre-Test may be taken only once. If the score on the Pre-Test meets a level of pre-determined competency, the student will have the option to immediately take the post-test.
- If the student demonstrates mastery of competencies on the post-test, a final grade will be awarded and the student will receive credit for the course. The final grade is based upon the actual score earned on the post-test along with any other assignments affecting the final course grade.
- If the student does not demonstrate mastery of competencies on the post-test, the student must remain enrolled in the course module until successfully completing all of the course module requirements and the post-test, or until the end date of the course module- whichever comes first. Upon the end date of the course module, the student will receive a final grade earned based on completed assignments and post-test scores.

In this course, in order to demonstrate competency on the Pre-Test, students must score a minimum of 80% on the Pre-Test. Students who score 80% or greater on module Pre-Tests, will be eligible to take the Credit for Prior Learning (CPL) test for that module. The CPL test will test the student over the materials presented in the module's Learning Content. If the student demonstrates competency or mastery of the material presented on the CPL test, he/she will have demonstrated competency over the content presented in the module. If the student scores 90% or greater on the CPL test, he/she will not be required to complete additional work for that module as he/she has demonstrated mastery of the content. If the CPL score is 90% or greater it will become the final grade for the module. Students who demonstrate mastery of a module by earning 90% or greater on the CPL test, must email their instructor so that the module grading can be completed and the next module will become available. Students who earn 80% or greater on the Pre-Test, attempt the CPL Test, and score less than 90%, will have to proceed through the module Learning Content to complete the module. Students who do not earn 80% or

greater on the Pre-Test, will also have to complete the module Learning Content to complete the module. Once a module has been completed, the student will need to notify his/her instructor so that the module grading can be completed and the next module will become available.

Post-Test

Each module will end with a Post-Test covering the material presented in that module. The Post-Test will have 50-100 questions and will be worth 100-200 points. The Post-Test for each module must be completed with a minimum of 70% in order to demonstrate mastery of the material presented in that module. Students will have up to 3 attempts to achieve mastery. However, **only the student's first attempt of the Post-Test will be counted toward his or her grade in the course**. Therefore, every effort should be made to achieve mastery on the first attempt. Once a student demonstrates mastery by earning a minimum of 70% on the Post-Test, he/she should email the instructor so that the module grading can be completed and the next module will become available.

The Post-Test for Module 4: BIO 1304 will be the final assessment given to the student in order to complete the course. This test will function as a "Course Exit Test" and will cover content from the previous modules. It is important for students to plan ahead and review content from the previous modules as they progress though the course so that they will be prepared to take the comprehensive Course Exit Test at the end of the course!

Components, Assignments, Quizzes

Learning Content: The required Learning Content for each module will consist of LearnSmart reading assignments and Chapter Content quizzes. These assignments must be completed in the order they are shown within your Module on Blackboard because each assignment serves as a prerequisite for the next assignment.

Chapter Content quizzes will be for each chapter wholly or partially covered throughout the semester. These quizzes will prominently feature figure labeling, real-life scenarios, animations, research, etc. They will help you connect with the material and apply the information you have been learning in the course. They will be completed in the Connect system. The quizzes will be worth approximately 10 points each. The quizzes will be available for you to take online at your convenience but must be completed before the end of the course. They may be repeated as many times as desired in order to earn full credit or study for upcoming tests. The highest quiz score will be counted toward your grade in the course. Once you have earned full credit for a quiz, any additional attempt may be used for study purposes.

LearnSmart/SmartBook assignments will be given in order to help you prepare for the quizzes and tests. LearnSmart is an adaptive reading and questioning program that is customized to each individual's subject knowledge and confidence. Therefore, each assignment can take different amounts of time to complete. Students that click "I know it," and get the questions correct will move through the assignment the fastest, so it is to your benefit to thoroughly read your eBook before completing the questions. These assignments do not have to be completed at once. For example, you could work on them 5-10 minutes at a time over the course of several days. Every student should strive for a 100% on these assignments, which is awarded on demonstration of content knowledge. Completing LearnSmart helps to prepare students to complete their quizzes and do well on their tests. Therefore, the LearnSmart chapter assignment serves as a prerequisite for the chapter assignment. The LearnSmart

assignment is **required** to be completed with 70% prior to starting the quiz for that chapter. These assignments will be available throughout the semester and may be completed at your convenience but must be completed by the end of the course. Since the LearnSmart assignment must be passed with 70% or greater prior to starting work on the chapter quiz, it is extremely important that you do not wait until the last minute in order to get started with your work! To get credit for the LearnSmart assignment, you will need to use the "practice" mode by clicking the "practice" tab in the assignment. There are other tabs such as "read" and "recharge" that are beneficial for studying but are not required. To learn more about how to complete Connect quiz/tests and LearnSmart assignments, visit Connect and LearnSmart.

Summary of Tasks

All required work (assignments, tests, etc.) are open and available for you to complete at your convenience. Do not wait until the last few days/weeks to start your required work in this course! You should plan ahead in case of possible technical difficulties and to accommodate for the prerequisite LearnSmart assignments that must be passed with 70% prior to start of the chapter quizzes. All work must be completed prior to the end of the course in order to be included in your final grade calculation.

The following assignments/assessments will be counted toward your module grade and final course grade.

Task	Percentage
Module Learning Content (LearnSmart assignments and Chapter Quizzes)	40%
Post-Test (1st attempt only)	60%
Total	**100%**

All assignments, projects, and assessments will be graded and grades will be entered within 24-48 hours of student notification during the business week. Students must notify the instructor via email when a module has been completed so that the module grade can be calculated and the next module will become available.

Final Grading Calculation

This course is presented as a full course with sub units called modules. You will receive a score for each module. That score based on the credit hour (or weight) of each module will determine your final grade for the full course.

The percentage score received for each module will be multiplied by the credit hours of the module to give a total module percentage. Each of the total module percent scores will be added together then divided by the total credit hour of the full course to obtain a Final Percentage score for the class. Based on where the final percentage score falls on the grade scale will determine the final letter grade to be posted for the student.

Example -

Module	Score Received for each Module	Credit Hours	Total Percentage
BIO 1301 Module 1		X 0.75	
BIO 1302 Module 2		X 0.75	+
BIO 1303 Module 3		X 0.75	+
BIO 1304 Module 4		X 0.75	+
	Total Credit Hours>	3	
	Final Percentage Score>		=

Grading Scale

The following grading scale will be used:

Grade	Score Achieved
A	90%-100%
B	80%-89%
C	70%-79%
D	60%-69%
E	<59%

POLICIES

Plagiarism Statement

Plagiarism and cheating are serious academic offenses. The KCTCS regulations pertaining to plagiarism and cheating can be found in Sections 2.3.1.1, 2.3.1.2, and 2.3.1.3 of the KCTCS Code of Student Conduct. Penalties for violation of these policies can be found in Section 2.3.2.1 and 2.3.2.2.

Disability Statement

The Kentucky Community and Technical College System would like to help students with disabilities achieve their highest potential in academic studies. In order to receive accommodations on assignments or examinations, proper documentation must first be provided to the Office of Disability Services at your home campus. You must then self-identify and conference with the Director of Disability Support Services or Manager of Disability Services to begin receiving accommodations in the course/module. For more information, contact the office of Disability Services.

HELP AND SUPPORT

Connect

The Connect Support Center is available to provide support to students via email, instant message, or phone. If any problem is encountered within Connect, students must contact Connect Support and obtain their case number. This is the first step a student should take if they experience trouble with access to their eBook or any assignments, quizzes, or tests in this course. Once the case number is obtained, if additional help is needed, the case number can be provided to the instructor.

Contact Connect Support via a link within Connect, by dialing 800-331-5094, or by going to this website: http://mpss.mhhe.com/.

Blackboard Support Center

The Blackboard Support Center can help provide support via Frequently Asked Questions, email, chat, and phone regarding Blackboard 24 hours a day, 7 days a week. Help can be accessed by navigating to the top of your course webpage and selecting "Help" in blue.

Student Services

The KCTCS Online Student Services Help Desk provides Frequently Asked Questions, email, chat, and phone service 24 hours a day, 7 days a week. Student Services staff can help you with any question you have about the application process, financial aid, registering for classes, tuition payments, and other student services.

Course-Specific Questions

If you have a specific question about the course or the content, please contact your instructor as soon as possible. Your instructor's contact information is under the "Meet Your Instructor" link on the course menu. Please allow 24-48 hours for your instructor to respond to your questions. Email your instructor from your KCTCS email account, list your course and section appear in the subject line of your email and adhere to netiquette rules when communicating with your instructor.

Starfish

Starfish is a student support tool that can help you succeed in your course. Your instructor can raise flags if there's a concern about your progress, give you kudos for good performance, or make to-do items for you that will help you succeed. You can also use Starfish to schedule appointments with your instructor or your Virtual Student Success Coach. Be sure to click on "Starfish" from the navigation menu in Blackboard to learn more and to create your student profile!

Schedule/Calendar

Each student's time in the course will vary from 6 to 15 weeks depending on your course start and end date. Print and use this course checklist to help you set your own schedule for completing course activities, assignments, and quizzes and track your progress throughout the course.

Course Content	Tentative Date of Completion *to be completed by student*
☐ Syllabus quiz	Course Start Date>>>
☐ Chapters 1 LearnSmart and quiz	
☐ Chapter 2 LearnSmart and quiz	
☐ Chapter 3 LearnSmart and quiz	
☐ Chapter 4 LearnSmart and quiz	
☐ **Module 1 Post-Test**	
☐ Chapter 5 LearnSmart and quiz	
☐ Chapter 6 LearnSmart and quiz	
☐ Chapter 7 & 8 LearnSmart and quiz	
☐ Chapters 10 LearnSmart and quiz	
☐ **Module 2 Post-Test**	
☐ Chapter 9 LearnSmart and quiz	
☐ Chapter 11 LearnSmart and quiz	
☐ Chapter 12 LearnSmart and quiz	
☐ Chapter 13 LearnSmart and quiz	
☐ Chapter 14 LearnSmart and quiz	
☐ Chapter 16 LearnSmart and quiz	
☐ **Module 3 Post-Test**	
☐ Chapter 17 LearnSmart and quiz	
☐ Chapter 19 LearnSmart and quiz	
☐ Chapter 18 LearnSmart and quiz	
☐ Chapter 20 LearnSmart and quiz	
☐ Chapter 21 & 19.6 LearnSmart and quiz	
☐ **Course Exit Test**	Course End Date>>>