



PRAIRIE VIEW
A&M UNIVERSITY

SYLLABUS

BIOL 3024 HUMAN PHYSIOLOGY AND ANATOMY

SPRING SEMESTER 2019

Instructor:

KEATON, AK, PHD

Section # and CRN:

P01- CRN 26848

Office Location:

New Science Building
430H

Office Phone:

936-261-3166

Email Address:

akkeaton@pvamu.edu

Office Hours:

MW 11:30-12:30AM

TR 1:00-3:30PM

Fri 10:00-2:00PM

Or by Appointment

Mode of Instruction: Face to Face

Course Location:

New Science Building

RM 122

Laboratory – RM 313

Class Days & Times:

Lecture

MW- 8:00-8:50AM

Laboratory

MW 1:00 – 2:50PM

OR

MW 4:00 – 5:50PM

Or

***MW 6:00 – 7:50PM

Catalog Description: BIOL 3014-Human Physiology and Anatomy Credit 4 semester hours. For biology and physical education majors. Human structure, human physiology, organ systems and related principles.

Prerequisites: BIOL 1015-1025 Or Equivalent

Co-requisites:

Required Texts: Human Anatomy and Physiology 10th Edition, Elaine Marieb/ Katja Hoehn
Benson's Anatomy 7 Physiology Laboratory Textbook ISBN 0-697-28255-4

**Recommended
Texts:**

Human Physiology (From Cells to Systems), Sherwood
Textbook of Medical Physiology, Guyton
Human Physiology, Silverthorn

Student Learning Outcomes:

	Upon successful completion of this course, students will be able to:
1	Demonstrate an understanding of the fundamental principles of physiology
2	Demonstrate an understanding of the principle of complementarity of structure and function
3	Demonstrate an understanding of the principles of homeostasis and how organ systems work together via negative feedback mechanisms to maintain a relatively constant internal environment.
4	Demonstrate an understanding of the two major types of cellular communication: Nervous System and the Endocrine System.
5	Demonstrate an understanding of the electrical activity of the neurons: Graded Potentials and Action Potentials.
6	Demonstrate/describe an understanding signal transduction and second messenger systems.
7	Demonstrate and understanding of the electrical activity of the heart and the cardiac cycle.

Course Objectives:

Each student should be able to demonstrate the following competencies at the end of the course:

- 1) Summarize the basic functions of the nervous system (b) explain the structural/functional divisions of the nervous system**
- 2) Compare/Contrast the different types of neuroglia both structurally and functionally.**
- 3) Describe the three major regions of a neuron and relate each region to a physiological role.**
- 4) Classify neurons structurally/functionally.**
- 5) Compare/Contrast graded potentials vs. action potentials.**
- 6) Define synapse (b) describe how synaptic events are integrated (c) define neurotransmitter and name several classes of neurotransmitters.**
- 7) Summarize the major regions of the adult brain both structurally/functionally.**
- 8) Describe the cortical pathway involved in speaking a written word.**
- 9) Summarize the formation of cerebrospinal fluid and trace its circulatory pathway.**
- 10). Compare/Contrast the CNS and the PNS both structurally and functionally.**
- 11)Describe the function(s) of the 12 paired cranial nerves and the 31 paired spinal nerves.**
- 12)Describe/Illustrate the functions of the components of a reflex arch.**
- 13)Compare/Contrast the sympathetic/parasympathetic divisions of the ANS.**
- 14)Summarize the location and function(s) of the major endocrine organs.**
- 15)Describe how hormones are classified.**
- 16)Compare/Contrast the two major mechanisms by which hormones exert an effect on their target cell(s).**
- 17)Summarize the composition/function of whole blood.**
- 18)Graphically describe the events of the cardiac cycle.**
- 19)Trace the pathway of blood through the pulmonary/systemic circulation(s).**
- 20)Describe the structures/function (s) of the organs of the digestive system.**

Course Evaluation Methods

This course will utilize the following instruments to determine student grades and proficiency of the learning outcomes for the course.

Exams – written tests designed to measure knowledge of presented course material

Laboratory Exams – practical hands on exams designed to supplement and reinforce course material

Weekly quizzes – designed to reinforce student daily reading/reviewing of course material

Course Notebook – notebook designated exclusively for BIOL 3024 (25 pts)

Grading Matrix (Please note: the following points are an **approximation and subject to chance)**

Instrument	Value (points or percentages)	Total
Lecture Exams	3 Exams (100 – 150 points each)	300 - 450
Laboratory Exams	3 Exams (50 – 100)	150 – 300
Quizzes	7 Quizzes(15 – 20)	105 - 140
Lab Final	1 Exam (100)	100
Lecture Final	1 Exam (100 – 150)	100 - 150
Total:		755 - 1140

Grade Determination: Will be determined by each students percentage of the Total Points Possible (TPP), for the course:

A = 100 – 90% of the TPP

B = 89 – 80% of the TPP

C = 79 – 69% of the TPP

D = 68 – 57% of the TPP

F = 56% or below the TPP

Exam Policy

Exams should be taken as scheduled. **No** makeup examinations will be allowed except under documented emergencies (See Student Handbook). **No** student will be allowed to begin an exam 15 minutes after the start of the exam. **No** cell phone use is allowed during an exam. **No** student will be allowed to leave the room during an exam for any reason.

Tentative Schedule

Week	DAY	Lecture Topic
1	Mon	Review course Syllabus/Chapter 11(Fundamentals Nervous System)
	Wed	Chapt. 11 – Structure/Function(s) of the Neuron
2	Mon	Dr. Martin Luther King Day (National Holiday)
	Wed	Chapt. 11 – Neurophysiology –Electrical Activity of the neuron
3	Mon	Chapt. 11 - Neurophysiology II
	Wed	Chapt 11 - Neurotransmitters Chapter 12 CNS
4	Mon	Chapt. 12 – Structural/Functional Organization of the Brain
	Wed	Chapt 12 Cortical Pathways associated with Voluntary Movement and Language (Brodmann Areas)
5	Mon	Chapt. 12 - Basal Nuclei/Diencephalon
	Wed	Chapt. 12 Parkinson/Amyotrophic Lateral Sclerosis February 13, 2019 - Laboratory Exam I
6	Mon	<u>February 18, 2019 Lecture I - Chapters 11 & 12 (Brain)</u>
	Wed	Chapt. 12 – Spinal Cord/Chapter 13 - PNS
7	Mon	Chapt. 13 - Peripheral Nervous System/ Cranial Nerves
	Wed	Chapt. 13 - Spinal Nerves/ Autonomic Nervous System
8	Mon	Chapt 14 - Autonomic Nervous System
	Wed	March 6, 2019 – **Lecture/Laboratory Exam II
9		SPRING BREAK – UNIVERSITY HOLIDAY NO CLASSES March 11 – 16

TENTATIVE SCHEDULE (CONTINUED)

10	Mon	Chapt. 16 – Endocrine System
	Wed	Chapt. 16 – Pituitary Gland/Hypothalamus
11	Mon	Chapt. 16 - Adrenal Gland
	Wed	Chapt 16 – Thyroid Gland / *Chapt 17 Blood
12	Mon	*Chapt. 17 – Erythrocytes/ Platelets
	Wed	Chapt. 17 – Hematopoiesis
13	Mon	Chapter 17
	Wed	*April 10, 2019 Lecture/Laboratory Exam III
14	Mon	Chapt. 18 – Cardiovascular System
	Wed	Chapt. 18 - Heart Valves/ Chambers
15	Mon	Chapt. 18 - Electrical Activity of the Heart
	Wed	Cardiac Cycle
16	Mon	April 29, 2019, Lecture/Laboratory Exam IV
	Wed	FINALS WEEK. (MAY 1 – 7 TH , 2019)

Syllabus changes:

The Instructor reserves the right to make changes to the syllabus if necessary to meet the needs of the students due to time constraints or other unforeseen events. If this is necessary, the students will be notified as soon as possible.

University Rules and Procedures

Disability statement (See Student Handbook):

Students with disabilities, including learning disabilities, who wish to request accommodations in class should register with the Services for Students with Disabilities (SSD) early in the semester so that appropriate arrangements may be made. In accordance with federal laws, a student requesting special accommodations must provide documentation of their disability to the SSD coordinator.

Academic misconduct (See Student Handbook):

You are expected to practice academic honesty in every aspect of this course and all other courses. Make sure you are familiar with your Student Handbook, especially the section on academic misconduct. Students who engage in academic misconduct are subject to university disciplinary procedures.

Forms of academic dishonesty:

1. Cheating: deception in which a student misrepresents that he/she has mastered information on an academic exercise that he/she has not mastered; giving or receiving aid unauthorized by the instructor on assignments or examinations.
2. Academic misconduct: tampering with grades or taking part in obtaining or distributing any part of a scheduled test.
3. Fabrication: use of invented information or falsified research.
4. Plagiarism: unacknowledged quotation and/or paraphrase of someone else's words, ideas, or data as one's own in work submitted for credit. Failure to identify information or essays from the Internet and submitting them as one's own work also constitutes plagiarism.

Nonacademic misconduct (See Student Handbook)

The university respects the rights of instructors to teach and students to learn. Maintenance of these rights requires campus conditions that do not impede their exercise. Campus behavior that interferes with either (1) the instructor's ability to conduct the class, (2) the inability of other students to profit from the instructional program, or (3) campus behavior that interferes with the rights of others will not be tolerated. An individual engaging in such disruptive behavior may be subject to disciplinary action. Such incidents will be adjudicated by the Dean of Students under nonacademic procedures.

Sexual misconduct (See Student Handbook):

Sexual harassment of students and employers at Prairie View A&M University is unacceptable and will not be tolerated. Any member of the university community violating this policy will be subject to disciplinary action.

Attendance Policy:

Prairie View A&M University requires regular class attendance. Excessive absences will result in lowered grades. Excessive absenteeism, whether excused or unexcused, may result in a student's course grade being reduced or in assignment of a grade of "F". Absences are accumulated beginning with the first day of class.

Student Academic Appeals Process

Authority and responsibility for assigning grades to students rests with the faculty. However, in those instances where students believe that miscommunication, errors, or unfairness of any kind may have adversely affected the instructor's assessment of their academic performance, the student has a right to

appeal by the procedure listed in the Undergraduate Catalog and by doing so within thirty days of receiving the grade or experiencing any other problematic academic event that prompted the complaint.

Technical Considerations for Online and Web-Assist Courses

Minimum Hardware and Software Requirements:

- Pentium with Windows XP or PowerMac with OS 9
- 56K modem or network access
- Internet provider with SLIP or PPP
- 8X or greater CD-ROM
- 64MB RAM
- Hard drive with 40MB available space
- 15" monitor, 800x600, color or 16 bit
- Sound card w/speakers
- Microphone and recording software
- Keyboard & mouse
- Netscape Communicator ver. 4.61 or Microsoft Internet Explorer ver. 5.0 /plug-ins
- Participants should have a basic proficiency of the following computer skills:
 - Sending and receiving email
 - A working knowledge of the Internet
 - Proficiency in Microsoft Word
 - Proficiency in the Acrobat PDF Reader
 - Basic knowledge of Windows or Mac O.S.

Netiquette (online etiquette): students are expected to participate in all discussions and virtual classroom chats when directed to do so. Students are to be respectful and courteous to others in the discussions. Foul or abusive language will not be tolerated. When referring to information from books, websites or articles, please use APA standards to reference sources.

Technical Support: Students should call the Prairie View A&M University Helpdesk at 936-261-2525 for technical issues with accessing your online course. The helpdesk is available 24 hours a day/7 days a week. For other technical questions regarding your online course, call the Office of Distance Learning at 936-261-3290 or 936-261-3282

Communication Expectations and Standards:

All emails or discussion postings will receive a response from the instructor within 48 hours.

You can send email anytime that is convenient to you, but I check my email messages continuously during the day throughout the work-week (Monday through Friday). I will respond to email messages during the work-week by the close of business (5:00 pm) on the day following ***my receipt*** of them. Emails that I receive on Friday will be responded to by the close of business on the following Monday.

Submission of Assignments:

Assignments, Papers, Exercises, and Projects will distributed and submitted through your online course. Directions for accessing your online course will be provided. Additional assistance can be obtained from the Office of Distance Learning.

Discussion Requirement:

Because this is an online course, there will be no required face to face meetings on campus. However, we will participate in conversations about the readings, lectures, materials, and other aspects of the course in a true seminar fashion. We will accomplish this by use of the discussion board.

Students are required to log-on to the course website often to participate in discussion. It is strongly advised that you check the discussion area daily to keep abreast of discussions. When a topic is posted, everyone is required to participate. The exact use of discussion will be determined by the instructor.

It is strongly suggested that students type their discussion postings in a word processing application and save it to their PC or a removable drive before posting to the discussion board. This is important for

two reasons: 1) If for some reason your discussion responses are lost in your online course, you will have another copy; 2) Grammatical errors can be greatly minimized by the use of the spell-and-grammar check functions in word processing applications. Once the post(s) have been typed and corrected in the word processing application, it should be copied and pasted to the discussion board.