



**2600 South Neal Street, Commerce, TX 75249-3011**  
**Department of Biological and Environmental Science**  
**Phone: 903-886-5378; Fax: 903-886-5997**

**Course Number: BSC 527–CRW, 3SH; CRN: 23268**

**Course Title: Human Physiology**

**Spring 2018**

**Instructor:** Izhar A. Khan, Ph.D.

**Office Location:** Science 215

**Office Hours:** MTWR, 1-2 PM (For students interested in meeting in-person)

**Office Phone:** 903-468-3271

**Office Fax:** 903-886-5988

**University Email Address:** [izhar.khan@tamuc.edu](mailto:izhar.khan@tamuc.edu)

### **COURSE INFORMATION**

#### **Materials – Textbooks, Readings, Supplementary Readings**

**Textbook:** *Human Physiology: An Integrated Approach*, 7<sup>th</sup> Edition, 2016, Silverthorn. ISBN: 9780321981226. Additional materials from other sources, including original research articles on selected topics will be included in the course as needed.

#### **Course Description**

The purpose of this online course in human physiology is to help graduate-level students, especially those who are current instructors of biology or a related discipline to acquire a deeper understanding of the fundamental organization and functions of each of several major organ systems and their integration by the nervous and endocrine systems. Students are expected to learn the basic principles and concepts of human physiology both at the molecular and cellular levels, to learn to reason scientifically, and to understand and describe the cooperative function of multiple organ systems in the human body. The emphasis is on understanding mechanisms rather than on memorizing details, but sufficient detail must be included to serve as a basis for later understanding of abnormal function and its consequences in disease states and for understanding rational therapy with drugs and other interventions.

## **Student Learning Outcomes**

Students completing this course will be able to:

1. Explain physiological mechanisms by applying basic principles of physics and chemistry.
2. Describe the fundamental mechanisms underlying normal function of cells, tissues, organs, and organ systems of the human body.
3. Explain the basic mechanisms of homeostasis by integrating the functions of cells, tissues, organs, and organ systems.
4. Apply knowledge of functional mechanisms and their regulation to explain the pathophysiology underlying common diseases.
5. Effectively solve basic problems in physiology and pathophysiology, working independently and in groups if possible.
6. Identify and utilize appropriate reference resources to clarify and expand knowledge of physiology and pathophysiology.

In addition to the SLOs listed above, the students will be expected to synthesize a mini-review paper on a selected topic in physiology or pathophysiology to help improve their scientific writing skills.

## **COURSE REQUIREMENTS**

### **Instructional Methods/Activities/Assessments**

This course is being offered as a “Web Based” course. Check the eCollege website for the course frequently for announcements, instructions, and discussions. The course consists of a series of activities and assessments to assist you in achieving the outcomes for all instructional units. In case of any difficulty in accessing or understanding any course material, contact me immediately via e-mail. For successful course completion, your active and timely participation is essential. Students should go over the lecture materials, and complete all assignments and tests on regular basis prior to the due date for each assessment. The course website is active 24/7 during the semester (Feb 1 – May 11, 2018).

- Students are expected to read the assigned textbook chapters and lecture files, and comply with the deadlines for all the assignments, quizzes and exams
- PDF files of all lectures will be available in the Doc Sharing in eCollege
- The lectures will be supplemented with homework assignments, quizzes, and online discussions
- All announcements will be posted on the home page of the course for reminders of important due dates
- Exam access will be available only during the pre-announced period of time
- Progress in the class can be monitored using the Gradebook

## **Resources**

There are a variety of resources at your disposal to aid with your studies. All the course-related activities will be performed on the *eCollege* site for the course that you will be expected to use regularly. You may enter the site via your *myLeo* account.

The Academic Calendar includes information regarding University holidays, deadlines to add, drop, withdraw, and other such activities. This page also includes the link to the Final Exam schedule for each semester:

<http://web.tamuc.edu/admissions/registrar/academicCalendars/>

## **Writing Assignments**

Each student will write a research paper on a selected topic providing a brief overview of the research topic within the field of human physiology and/or pathophysiology (100 points). The first assignment related to the research paper will be topic selection (10 points), followed by the second assignment to complete an Introduction of the research paper (20 points) and relevant citations (10 points). The final research paper should contain approximately 10 pages text, excluding references and any tables and/or figures used. Each paper (60 points) should include the following sections (maximum points for each section in parenthesis):

1. Abstract (10 points)
2. Introduction (10 points)
3. Results and Discussion: Divided into multiple subheadings (30 points)
4. References: 10-20 relevant references that form the basis of your research overview paper, at least half of which should be original research articles published in peer-reviewed scientific journals (10 points)

## **Quizzes and Exams**

Quizzes and exams consist of multiple choice, fill in the blanks, short answer, and essay type questions, and will be taken on the *eCollege* site for the course during a designated period specified in the schedule at the end of the syllabus.

## **Makeup Policy**

The student is responsible for requesting a makeup when (s)he misses a regularly scheduled examination and must schedule the makeup within two days of the excused absence. Makeup exams will be scheduled only in the event of an EXCUSED absence (as defined in the Student's Guidebook). If the test is not made-up, the student will receive a zero for that exam.

## Grading

Quizzes = 100 points

One mid-term exam = 100 points

One cumulative final exam = 100 points

Writing assignments: Research paper = 100 points

Topic selection: 10 points; Introduction and literature citations: 30 points; Final paper: 60 points.

**Total = 400 points**

At the end of the semester, the students' grade will be determined by calculating the percentage of the total possible points received by the student. Percentages are then converted to letter grades using the following rubric:

Percentage of Total Possible Points Received by student	Letter Grade
Greater than or equal to 89.5	A
Greater than or equal to 79.5, but less than 89.5	B
Greater than or equal to 69.5, but less than 79.5	C
Greater than or equal to 59.5, but less than 69.5	D
Less than 59.5	F

## TECHNOLOGY REQUIREMENTS

**Important Disclaimer:** You might not need all the requirements listed in this section for this particular course. A computer installed with an internet browser as specified below, and Microsoft Office is considered to be sufficient. A current security software (against virus, malware and other malicious contents) is also necessary.

- To fully participate in online courses you will need to use a current Flash enabled browser. For PC users, the suggested browser is Google Chrome or Mozilla Firefox. For Mac users, the most current update of Firefox is suggested.
- You will need regular access to a computer with a broadband Internet connection. The minimum computer requirements are:
  - 512 MB of RAM, 1 GB or more preferred
  - Broadband connection required courses are heavily video intensive
  - Video display capable of high-color 16-bit display 1024 x 768 or higher resolution
- You must have a:
  - Sound card, which is usually integrated into your desktop or laptop computer
  - Speakers or headphones

\*For courses utilizing video-conferencing tools and/or an online proctoring solution, a webcam and microphone are required.

- Both versions of Java (32 bit and 64 bit) must be installed and up to date on your machine. At a minimum Java 7, update 51, is required to support the learning management system. The most current version of Java can be downloaded at: JAVA web site  
<http://www.java.com/en/download/manual.jsp>
- Current anti-virus software must be installed and kept up to date.
- Run a browser check through the Pearson LearningStudio Technical Requirements website. Browser Check  
[http://help.ecollege.com/LS\\_Tech\\_Req\\_WebHelp/en-us/#LS\\_Technical\\_Requirements.htm#Browset](http://help.ecollege.com/LS_Tech_Req_WebHelp/en-us/#LS_Technical_Requirements.htm#Browset)
- Running the browser check will ensure your internet browser is supported.
  - Pop-ups are allowed.
  - JavaScript is enabled.
  - Cookies are enabled.
- You will need some additional free software (plug-ins) for enhanced web browsing. Ensure that you download the free versions of the following software:
  - Adobe Reader <https://get.adobe.com/reader/>
  - Adobe Flash Player (version 17 or later)  
<https://get.adobe.com/flashplayer/>
  - Adobe Shockwave Player <https://get.adobe.com/shockwave/>
  - Apple Quick Time <http://www.apple.com/quicktime/download/>
- At a minimum, you must have Microsoft Office 2013, 2010, 2007 or Open Office. Microsoft Office is the standard office productivity software utilized by faculty, students, and staff. Microsoft Word is the standard word processing software, Microsoft Excel is the standard spreadsheet software, and Microsoft PowerPoint is the standard presentation software. Copying and pasting, along with attaching/uploading documents for assignment submission, will also be required. If you do not have Microsoft Office, you can check with the bookstore to see if they have any student copies.
- For additional information about system requirements, please see: System Requirements for LearningStudio  
<https://secure.ecollege.com/tamuc/index.learn?action=technical>

## **ACCESS AND NAVIGATION**

### **Pearson LearningStudio (eCollege) Access and Log in Information**

This course will be facilitated using Pearson LearningStudio, the learning management system used by Texas A&M University-Commerce. To get started with the course, go to myLeo at <http://www.tamuc.edu/myleo.aspx>

You will need your CWID and password to log in to the course. If you do not know your CWID or have forgotten your password, contact Technology Services at 903.468.6000 or [helpdesk@tamuc.edu](mailto:helpdesk@tamuc.edu)

It is strongly recommended you perform a "Browser Test" prior to the start of your course. To launch a browser test, login to Pearson LearningStudio, click on the "My Courses" tab, and then select the "Browser Test" link under Support Services.

### **Pearson LearningStudio Student Technical Support**

Texas A&M University-Commerce provides students technical support in the use of Pearson LearningStudio.

Technical assistance is available 24 hours a day/seven days a week.

If you experience LearningStudio (eCollege) technical problems, contact the LearningStudio helpdesk at 1-866-656-5511 (toll free) or visit Pearson 24/7 Customer Support Site <http://247support.custhelp.com/>

The student help desk may be reached by the following means 24 hours a day, seven days a week.

- **Chat Support:** Click on 'Live Support' on the tool bar within your course to chat with a Pearson LearningStudio Representative.
- **Phone:** 1-866-656-5511 (Toll Free) to speak with Pearson LearningStudio Technical Support Representative.

**Accessing Help from within Your Course:** Click on the 'Tech Support' icon on the upper left side of the screen inside the course. You then will be able to get assistance via online chat, email or by phone.

**Note:** Personal computer problems do not excuse the requirement to complete all course work in a timely and satisfactory manner. Each student needs to have a backup method to deal with these inevitable problems. These methods might include the availability of a backup PC at home or work, the temporary use of a computer at a friend's home, the local library, office service companies, an Internet cafe, or a bookstore, such as Barnes & Noble, etc.

### **Policy for Reporting Problems with Pearson LearningStudio**

Should students encounter Pearson LearningStudio based problems while submitting assignments/discussions/comments/exams, the following procedure **MUST** be followed:

1. Students must report the problem to the help desk. You may reach the helpdesk at 1-866-656-5511.
2. Students **MUST** file their problem with the helpdesk and obtain a helpdesk ticket number
3. Once a helpdesk ticket number is in your possession, students should email me to advise me of the problem and to provide me with the helpdesk ticket number
4. At that time, I will call the helpdesk to confirm your problem and follow up with you

**PLEASE NOTE:** Your personal computer/access problems are not a legitimate excuse for filing a ticket with the Pearson LearningStudio Help Desk. You are strongly encouraged to check for compatibility of your browser BEFORE the course begins and to take the Pearson LearningStudio tutorial offered for students who may require some extra assistance in navigating the Pearson LearningStudio platform. ONLY Pearson LearningStudio based problems are legitimate.

myLeo Support Your myLeo email address is required to send and receive all student correspondence. Please email [helpdesk@tamuc.edu](mailto:helpdesk@tamuc.edu) or call us at 903-468-6000 with any questions about setting up your myLeo email account. You may also access information at myLeo. <https://leo.tamuc.edu>

### **Learner Support**

Go to the following link **One Stop Shop**- created to serve you by attempting to provide as many resources as possible in one location.

<http://www.tamuc.edu/admissions/onestopshop/>

Go to the following link **Academic Success Center**- focused on providing academic resources to help you achieve academic success.

<http://www.tamuc.edu/campusLife/campusServices/academicSuccessCenter/>

### **FREE MOBILE APPS**

The Courses apps for phones have been adapted to support the tasks students can easily complete on a smaller device. Due to the smaller screen size course content is not presented.

The Courses app is free of charge. The mobile Courses Apps are designed and adapted for different devices.

#### **App Title:**

iPhone – Pearson LearningStudio Courses for iPhone

Android – LearningStudio Courses – Phone

#### **Operating System:**

iPhone - OS 6 and above

Android – Jelly Bean, Kitkat, and Lollipop OS

**iPhone App URL:** <https://itunes.apple.com/us/app/pearson-learningstudio-courses/id977280011?mt=8>

#### **Android App URL:**

<https://play.google.com/store/apps/details?id=com.pearson.lsphone>

Once downloaded, search for Texas A&M University-Commerce, and it should appear on the list. Then you will need to sign into the myLeo Mobile portal.

The Courses App for Android and iPhone contain the following feature set:

- View titles/code/Instructor of all Courses enrolled in online
- View and respond to all discussions in individual Courses
- View Instructor Announcements in individual Courses
- View Graded items, Grades and comments in individual Courses
- Grade to Date
- View Events (assignments) and Calendar in individual Courses
- View Activity Feed for all courses
- View course filters on activities
- View link to Privacy Policy
- Ability to Sign out
- Send Feedback

### **LEARNINGSTUDIO NOTIFICATIONS**

Students can be alerted to course activities via text on their mobile phones or up to two email addresses.

Based on their preferences, students can automatically receive a push notification with every new: course announcement, threaded discussion post, grade, and/or assignment without having to login to the course. Enrolled students will automatically receive email notifications for announcements and can opt out of this feature. To receive text notifications, students must opt in. To begin setting up notifications, go into your course in LearningStudio and click on the bell-shaped Notifications icon on the main menu ribbon.

By default the student's university email address will appear. This cannot be changed in LearningStudio. Additional email addresses may be added by clicking the Add button. After all of the other selections are completed be sure to click the Save and Finish button.

### **COMMUNICATION AND SUPPORT**

All communications related to this course will involve posting announcements in the eCollege website for the course as well as e-mail notifications of all the announcements. In addition, I will respond to e-mail queries, usually within 24 hours, either by contacting the individual students directly or more likely through a notification to the entire class for questions that are relevant to the whole group.

### **COURSE AND UNIVERSITY PROCEDURES**

#### **Course Specific Procedures**

##### ***Academic Honesty***

Texas A&M University-Commerce does not tolerate **plagiarism** and other forms of academic **dishonesty**. Conduct that violates generally accepted standards of academic honesty is defined as academic dishonesty. "Academic dishonesty" includes, but is not limited to, plagiarism (the appropriation or stealing of the ideas or words of another and passing them off as one's own),

cheating on exams or other course assignments, collusion (the unauthorized collaboration with others in preparing course assignments), and abuse (destruction, defacing, or removal) of resource material.

### ***Assignments***

Official due dates for assignment will be announced through the course home page in eCollege or directly by email following the schedule at the end of the syllabus. The assignments must be uploaded to the eCollege Dropbox. The format of the file may vary, depending on the assignment. Please note that for every file you submit, you must have your last name included in the filename as well as in the header.

### ***Late Work***

Late work will not be accepted. All the quizzes and exams will be closed on the specified closing date and time.

### ***Drop a Course***

A student may drop a course by logging into their *myLEO* accounts and clicking on the hyperlink labeled 'Drop a class' from among the choices found under the *myLEO* section of the Web page.

### ***Incompletes***

Incomplete grade ("I") may be granted under extreme circumstances following the University guidelines.

### **University Specific Procedures**

#### ***ADA Statement***

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you have a disability requiring an accommodation, please contact:

**Office of Student Disability Resources and Services, Texas A&M  
University-Commerce**

**Gee Library, Room 132, Phone (903) 886-5150 or (903) 886-5835,  
Fax (903) 468-8148**

[StudentDisabilityServices@tamuc.edu](mailto:StudentDisabilityServices@tamuc.edu)

or visit

<http://www.tamuc.edu/CampusLife/CampusServices/studentDisabilityResourcesAndServices/default.aspx>

### ***Student Conduct***

All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment. (See Student's Guide Handbook, Policies and Procedures, Conduct)

### ***Nondiscrimination Notice***

Texas A&M University-Commerce will comply in the classroom, and in online courses, with all federal and state laws prohibiting discrimination and related retaliation on the basis of race, color, religion, sex, national origin, disability, age, genetic information or veteran status. Further, an environment free from discrimination on the basis of sexual orientation, gender identity, or gender expression will be maintained.

### ***Access to Student Work***

Copies of your work in this course including copies of any submitted papers and your portfolios may be kept on file for institutional research, assessment and accreditation purposes. All work used for these purposes will be submitted anonymously.

### ***Campus Concealed Carry Statement***

Texas Senate Bill - 11 (Government Code 411.2031, et al.) authorizes the carrying of a concealed handgun in Texas A&M University-Commerce buildings only by persons who have been issued and are in possession of a Texas License to Carry a Handgun. Qualified law enforcement officers or those who are otherwise authorized to carry a concealed handgun in the State of Texas are also permitted to do so. Pursuant to Penal Code (PC) 46.035 and A&M-Commerce Rule 34.06.02.R1, license holders may not carry a concealed handgun in restricted locations.

For a list of locations, please refer to the Carrying Concealed Handguns on Campus document and/or consult your event organizer.

Web url:

<http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/34SafetyOfEmployeesAndStudents/34.06.02.R1.pdf>

Pursuant to PC 46.035, the open carrying of handguns is prohibited on all A&M- Commerce campuses. Report violations to the University Police Department at 903- 886-5868 or 9-1-1.

## **Schedule (February 1 to May 11, 2018) \***

Week 1	Feb 1 <sup>st</sup> & 2 <sup>nd</sup>	Introduction to Physiology (Ch 1)
Week 2	Feb 5 <sup>th</sup> – 9 <sup>th</sup>	Introduction to the Endocrine System (Ch 7)
Week 3	Feb 12 <sup>th</sup> – 16 <sup>th</sup>	Neurons: Cellular and Network Properties (Ch 8) <b>Quiz 1 (Chapters 1 &amp; 7)</b>
Week 4	Feb 19 <sup>th</sup> – 23 <sup>rd</sup>	Central Nervous System (Ch 9) <b>Research paper topic selection</b>
Week 5	Feb 26 <sup>th</sup> –Mar 2 <sup>nd</sup>	Sensory Physiology (Ch 10) <b>Quiz 2 (Chapters 8, 9 &amp; 10)</b>
Week 6	Mar 5 <sup>th</sup> – 9 <sup>th</sup>	Efferent Division: Autonomic and Motor Control (Ch 11) Muscles (Ch 12)
<b>Week 0</b>	<b>Mar 12<sup>th</sup> – 16<sup>th</sup></b>	<b>Spring Break</b>
Week 7	Mar 19 <sup>th</sup> – 23 <sup>rd</sup>	Cardiovascular Physiology (Ch 14) Blood (Chapter 16) <b>Quiz 3 (Chapters 11, 12, 14 &amp; 16)</b>
Week 8	Mar 26 <sup>th</sup> – 30 <sup>th</sup>	Kidneys (Ch 19) <b>Term Exam (Chapters 1, 7-12, 14 &amp; 16)</b>
Week 9	Apr 2 <sup>nd</sup> – 6 <sup>th</sup>  <b>Apr 7<sup>th</sup></b>	Respiratory System (Ch 17) Digestive System (Ch 21) <b>Research paper outline and citations</b>
Week 10	Apr 9 <sup>th</sup> – 13 <sup>th</sup>	Metabolism and Energy Balance (Ch 22) <b>Quiz 4 (Chapters 17, 21 &amp; 22)</b>
Week 11	Apr 16 <sup>th</sup> – 20 <sup>th</sup>	Endocrine Control of Growth and Metabolism (Ch 23)

Week 12 Apr 23<sup>rd</sup> – 27<sup>th</sup> Immune System (Ch 24)  
**Quiz 5 (Chapters 23 & 24)**

Week 13 Apr 30<sup>th</sup>–May4<sup>th</sup> Reproduction and Development (Ch 26)  
May 4<sup>th</sup> **Final research paper due**

**Final Exam – Tuesday, May 8, 2018**

- Questions from chapters covered up to the term exam – 50 points
- Questions from chapters covered after the term exam – 50 points

**\* ALL DATES AND ASSIGNMENTS ARE TENTATIVE AND SUBJECT TO CHANGE**