

Course Calendar
KNES 3513 X10 Scientific Foundations
West College of Education
FALL 2022

August 22 – August 26 Module Course Materials

Assignment

Read all of the course materials posted on D2L in the module entitled Course Materials. Materials posted include the syllabus, course calendar, and any other documents appropriate for this course.

Please purchase the textbook. It is required reading for this course and you should have it in hand by the second week of the semester.

August 29 – September 9 Module 1 Anatomy: Language & Basic Terminology

Required Reading

Read the following chapter in the text: Chapter 3 What is Anatomy?

Learning Activity (Due Date: Friday, September 2, 11:00 pm.)

Complete Learning Activity 1 on Planes, Movements and Types of Joints. The learning activity is worth 25 points. Submit the assignment to the appropriate dropbox on D2L.

Exam (Due Date: Friday, September 9, 11:00 pm.)

Exam 1 covers the material presented in chapter 3 and is worth 40 points.

September 12 – September 23 Module 2 Anatomy: Bones, Joints & Muscles

Required Reading

Read the following chapter in the text: Chapter 4 The Pieces of the Body Puzzle

Learning Activity (Due Date: Friday, September 16, 11:00 pm.)

Complete Learning Activity 2 on Actions, Muscles and Joint Injuries. The learning activity is worth 25 points. Submit the assignment to the appropriate dropbox on D2L.

Exam (Due Date: Friday, September 23, 11:00 pm.)

Exam 2 covers the material presented in chapter 4 and is worth 40 points.

September 26 – September 30 Module 3 Physiology: Muscle Structure & Function

Required Reading

Read the following chapter in the text: Chapter 5 Muscle Structure & Function

Learning Activity (Due Date: Wednesday, September 28, 11:00 pm.)

Complete Learning Activity 3 on Muscle Contraction and Muscle Fiber Types. The learning activity is worth 25 points. Submit the assignment to the appropriate dropbox on D2L.

Exam (Due Date: Friday, September 30, 11:00 pm.)

Exam 3 covers the material presented in chapter 5 and is worth 40 points.

October 3 – October 14 Module 4 Physiology: Working Muscles

Required Reading

Read the following chapter in the text: Chapter 6 Muscles at Work

Learning Activity (Due Date: Friday, October 7, 11:00 pm.)

Complete Learning Activity 4 on Muscle Action and Influencing Factors. The learning activity is worth 25 points. Submit the assignment to the appropriate dropbox on D2L.

Exam (Due Date: Friday, October 14, 11:00 pm.)

Exam 4 covers the material presented in chapter 6 and is worth 40 points.

October 17 – October 21 Module 5 Physiology: Energy for Muscular Activity

Required Reading

Read the following chapter in the text: Chapter 7 Energy for Muscular Activity

Instructional Videos

[Energy Systems](#)

<https://www.youtube.com/watch?v=dWe8vtztW-4>

[Anaerobic Threshold](#)

<https://www.youtube.com/watch?v=uvzf-qdM9fs>

Learning Activity (Due Date: Wednesday, October 19, 11:00 pm.)

Complete Learning Activity 5 on Activities and Energy Systems. The learning activity is worth 25 points. Submit the assignment to the appropriate dropbox on D2L.

Exam (Due Date: Friday, October 21, 11:00 pm.)

Exam 5 covers the material presented in chapter 7 and is worth 40 points.

October 24 – November 4 Module 6 Physiology: Heart & Lungs

Required Reading

Read the following chapter in the text: Chapter 8 The Heart & Lungs at Work

Instructional Videos

[Oxygen Transport \(Hemoglobin, Erythropoietin\)](#)

https://www.youtube.com/watch?v=GVU_zANtroE

[VO2 Max](#)

<https://www.youtube.com/watch?v=WggORcTzRJ8>

[Cardiovascular System - Adaptations to Exercise](#)

<https://www.youtube.com/watch?v=OLGy1a3w08s>

Learning Activity (Due Date: Friday, October 28, 11:00 pm.)

Complete Learning Activity 6 on Exercising at Altitude and in the Heat. The learning activity is worth 25 points. Submit the assignment to the appropriate dropbox on D2L.

Exam (Due Date: Friday, November 4, 11:00 pm.)

Exam 6 covers the material presented in chapter 8 and is worth 40 points.

November 7 – November 18 Module 7 Biomechanics: Motion, Levers & Newton's Laws

Required Reading

Read the following chapter in the text: Chapter 9 The Science of Biomechanics (pp. 172-187)

Learning Activity (Due Date: Friday, November 11, 11:00 pm.)

Complete Learning Activity 7 on Newton's Laws of Motion. The learning activity is worth 25 points. Submit the assignment to the appropriate dropbox on D2L.

Exam (Due Date: Friday, November 18, 11:00 pm.)

Exam 7 covers the material presented in chapter 9, pages 172-187 and is worth 40 points.

November 21 – December 2 Module 8 Biomechanics: Fluids, Balance & Skill Analysis

Required Reading

Read the following chapter in the text: Chapter 9 The Science of Biomechanics (pp. 187-200)

Learning Activity (Due Date: Wednesday, November 30, 11:00 pm.)

Complete Learning Activity 8 on Balance, Stability and Qualitative Analysis. The learning activity is worth 25 points. Submit the assignment to the appropriate dropbox on D2L.

Exam (Due Date: Friday, December 2, 11:00 pm.)

Exam 8 covers the material presented in chapter 9, pages 187-200 and is worth 40 points.