



Course Syllabus
KNES 3513 X10 Scientific Foundations of Human Movement
West College of Education
Fall 2022

Contact Information

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Instructor Response Policy

My preferred method of communication is by email. I check my email throughout the day (MTWR), so you can expect to hear back from me usually within a few hours of receiving your message. Do not expect a response during the evening hours or over the weekend. I generally do not pay attention to the phone, so if you call and leave a message, you may not receive a return call. It is best to drop me an email.

Required Course Materials

Textbook
Computer or tablet
Internet access

Required Textbook

Klavora, P. (2019). Foundations of Kinesiology: Studying Human Movement and Health (3rd ed.). Toronto, ON M5S 2K7 Canada: Kinesiology Books Publisher.

Course Description

Basic concepts and principles of anatomical kinesiology, biomechanics, and exercise physiology are introduced and applied to the study of motor skill acquisition and performance. (Prerequisite: Junior/Senior standing.)

Learning Outcomes

Students will demonstrate general knowledge of anatomical structures and physiological systems that control normal functioning of the human body at rest and in motion. (SHAPE 1.1; SBEC II 006)

Students will demonstrate general knowledge of physiological concepts and principles that guide the development of optimal fitness and performance. [SHAPE 1.1; SBEC II 006, 007; TEKS 116.12(b)(8)(A), 116.12(b)(10)(B), 116.13(b)(8)(A), 116.13(b)(8)(B), 116.14(b)(8)(A), 116.14(b)(8)(B), 116.14(b)(10)(B), 116.15(b)(8)(B), 116.16(b)(8)(A), 116.16(b)(10)(B), 116.17(b)(8)(A), 116.17(b)(8)(B), 116.17(b)(10)(B), 116.26(b)(8)(A), 116.26(b)(8)(B), 116.26(b)(10)(A), 116.26(b)(10)(B), 116.27(b)(8)(A), 116.27(b)(8)(B), 116.62(c)(1)(A), 116.62(c)(3)(C), 116.62(c)(3)(D), 116.62(c)(3)(F), 116.62(c)(5)(D), 116.63(c)(3)(B)]

Students will identify and explain biomechanical concepts and principles essential for understanding the dynamics of bodies and objects in motion. [SHAPE 1.1; SBEC I 003; 116.12(b)(2)(A), 116.13(b)(3)(B), 116.13(b)(4)(C), 116.14(b)(3)(A), 116.14(b)(3)(B), 116.15(b)(1)(B), 116.15(b)(3)(A), 116.15(b)(3)(B), 116.15(b)(3)(G), 116.16(b)(1)(B), 116.16(b)(3)(B), 116.16(b)(3)(E), 116.16(b)(3)(G), 116.16(b)(4)(C), 116.17(b)(1)(B), 116.17(b)(2)(A), 116.17(b)(3)(B), 116.17(b)(3)(E), 116.17(b)(3)(G), 116.26(b)(1)(B), 116.26(b)(2)(A), 116.26(b)(3)(A), 116.26(b)(3)(B), 116.26(b)(3)(E), 116.26(b)(3)(G), 116.26(b)(4)(B), 116.27(b)(1)(B), 116.27(b)(3)(E), 116.27(b)(3)(G), 116.28(b)(1)(B), 116.28(b)(2)(A), 116.28(b)(3)(A), 116.28(b)(3)(B), 116.28(b)(3)(E), 116.28(b)(3)(G), 116.28(b)(4)(B), 116.62(c)(1)(B)]

Students will identify and apply anatomical and mechanical factors to selected motor patterns and sport skills. (SHAPE 1.1; SBEC I 003)

Students will explore and discuss the use of scientific concepts and principles as an element of best practice in teaching and coaching. (SHAPE 1.1; SBEC I 003)

Course Essentials

Syllabus

The syllabus provides general information about the course, assignment expectations and requirements, and assessment information.

Course Calendar

The course calendar is the road map for this course. The course calendar identifies: (1) the topics to be studied, (2) the chapter reading assignments, (3) the assessment activities to be completed, and (4) the completion dates for the assessments.

Textbook

The textbook is required reading for this course. Reading assignments and assessments are connected directly to the text. This is an excellent text written in a straightforward manner, with photos, diagrams, and graphs that serve to increase understanding.

Desire-to-Learn (D2L)

This course is delivered on the MSU Texas online platform D2L. Each student is expected to be familiar with this program as it is the source of communication regarding assignments, examination materials, and general course information. You can log into [D2L](#) through the MSU Texas Homepage.

Learning Modules

The content for this course is organized into modules on D2L. The modules can be found listed in the course browser on the course homepage. There is a module for course materials followed by 8 learning modules. Each learning module contains information related to specific topics covered, recommended readings/videos, descriptions and links to assignments and exams, and power point slides associated with each textbook chapter.

Exams

Description

Exams for learning modules 1-8 have been created to assess your understanding and ability to apply basic concepts of anatomy, physiology, and biomechanics. Questions relate directly to the content of each chapter in the textbook.

Questions and Points

Exams are composed of multiple questions (true-false, multiple choice, short answer, essay) of varying levels of difficulty. Point values total 40 points for each exam.

Failure to Complete

Failure to complete an exam will result in a grade of zero (0).

Learning Activities

Eight learning activities are required throughout the semester that give you an opportunity to apply concepts and principles to various activities. Learning activities might include discussion questions, skill analyses, and case studies. Each learning activity is worth 25 points.

Grading/Assessment

Exams (320 points)

Exam 1	Language & Basic Terminology	Points = 40
Exam 2	Bones, Joints & Muscles	Points = 40
Exam 3	Muscle Structure & Function	Points = 40
Exam 4	Working Muscles	Points = 40
Exam 5	Energy for Muscular Activity	Points = 40
Exam 6	Heart & Lungs	Points = 40
Exam 7	Motion, Levers & Newton's Laws	Points = 40
Exam 8	Fluids, Balance & Skill Analysis	Points = 40

Learning Activities (200 points)

Learning Activity 1	Planes, Movements & Types of Joints	Points = 25
Learning Activity 2	Actions, Muscles & Joint Injuries	Points = 25
Learning Activity 3	Muscle Contraction & Muscle Fiber Types	Points = 25
Learning Activity 4	Muscle Action & Influencing Factors	Points = 25
Learning Activity 5	Activities & Energy Systems	Points = 25
Learning Activity 6	Exercising at Altitude & in the Heat	Points = 25
Learning Activity 7	Newton's Laws of Motion	Points = 25
Learning Activity 8	Balance, Stability & Qualitative Analysis	Points = 25

Final Grade Determination

A	468-520 points
B	416-467 points
C	364-415 points
D	312-363 points
F	000-311 points