#### KINES 73 Course Outline as of Fall 2024

### **CATALOG INFORMATION**

Dept and Nbr: KINES 73 Title: ANAT & PHYSIO FOR YOGA

Full Title: Anatomy and Physiology for Yoga Teachers

Last Reviewed: 8/28/2023

Units		Course Hours per Week		Nbr of Weeks	<b>Course Hours Total</b>	
Maximum	2.00	Lecture Scheduled	2.00	17.5	Lecture Scheduled	35.00
Minimum	2.00	Lab Scheduled	0	4	Lab Scheduled	0
		Contact DHR	0		Contact DHR	0
		Contact Total	2.00		Contact Total	35.00
		Non-contact DHR	0		Non-contact DHR	0

Total Out of Class Hours: 70.00 Total Student Learning Hours: 105.00

Title 5 Category: AA Degree Applicable

Grading: Grade Only

Repeatability: 00 - Two Repeats if Grade was D, F, NC, or NP

Also Listed As:

Formerly:

#### **Catalog Description:**

Students will learn the principles of human anatomy, physiology, and biomechanics as they relate to yoga practices.

## **Prerequisites/Corequisites:**

## **Recommended Preparation:**

#### **Limits on Enrollment:**

#### **Schedule of Classes Information:**

Description: Students will learn the principles of human anatomy, physiology, and biomechanics as they relate to yoga practices. (Grade Only)

Prerequisites/Corequisites:

Recommended:

Limits on Enrollment: Transfer Credit: CSU;

Repeatability: Two Repeats if Grade was D, F, NC, or NP

## **ARTICULATION, MAJOR, and CERTIFICATION INFORMATION:**

AS Degree: Area Effective: Inactive: CSU GE: Transfer Area Effective: Inactive:

**IGETC:** Transfer Area Effective: Inactive:

**CSU Transfer:** Transferable Effective: Fall 2017 Inactive:

**UC Transfer:** Effective: Inactive:

CID:

### **Certificate/Major Applicable:**

Certificate Applicable Course

### **COURSE CONTENT**

### **Student Learning Outcomes:**

At the conclusion of this course, the student should be able to:

1. Apply concepts of yoga anatomy, physiology, and biomechanics to a yoga practice.

### **Objectives:**

At the conclusion of this course, the student should be able to:

- 1. Identify basic human anatomy and body movement terminology.
- 2. Describe evidence-based physiological benefits of yoga practices.
- 3. Analyze breath anatomy and how it relates to yoga pranayama (breathing) exercises.
- 4. Analyze the physiology of the nervous system and stress response related to yoga mind-body practices.
- 5. Apply biomechanics principles to address common misalignments and effective joint stabilization and mobility, safe movement, balanced practices, and adaptations.

# **Topics and Scope:**

- I. Fundamentals of Anatomical Movement and Positions
  - A. Anatomical directional and positional terminology
  - B. Planes of motion
  - C. Movements of the spine
  - D. Types of joints
  - E. General movement terms
- II. The Musculoskeletal System
  - A. Skeleton
  - B. Types of joints
  - C. Articular structure
  - D. Muscles of the body, their action, and types of muscle contractions
  - E. Attachments
  - F. Muscle agonist, antagonist, and synergist in yoga movements
  - G. Ligaments, tendons, and fascia
  - H. Types of stretching
  - I. Muscles involved in respiration

- J. Common yoga injuries
- III. Physiology of Yoga
  - A. Scientific research
  - B. Common injuries
  - C. Injury prevention
  - D. Adaptions in anatomy and physiology in response to yoga training
  - E. Evidence-based physical and mental benefits of yoga
- F. Yoga for special populations/conditions (e.g. athletes, veterans, pregnancy, trauma-informed, kids, and seniors)
- IV. Dynamics of Breathing
- V. Biomechanics Principles
  - A. Joint stability and mobility
  - B. Safe movement
  - C. Addressing common misalignments
  - D. Balancing practices
  - E. Adaptations
- VI. The Nervous System
  - A. Central nervous system
  - B. Peripheral nervous system
  - C. Vagus nerve
  - D. Golgi tendon organs (GTOs) and muscle spindles
- VII. Using Anatomy and Physiology for Yoga Instruction
  - A. Theme-based classes
  - B. Special populations
  - C. Balancing planes of motion, movements of spine, muscles engaged and stretched
  - D. Creating safe and effective practices
  - E. Providing multi-level options with modfications, and progressions for deepening
  - F. Properly warming up
  - G. Protecting the joints, spinal discs, and common yoga injuries
  - H. Addressing tight areas and injuries
  - I. Common spinal conditions and cautions
  - J. Sequences focused on therapeutic practices or specific conditions

## **Assignment:**

- 1. Read from textbooks and instructor-prepared materials (10-25 pages per week)
- 2. Written yoga evidence-based scientific research assignment
- 3. Asana analysis
- 4. Quizzes and exams
- 5. Practical skill demonstrations
- 6. Attendance, punctuality, and participation at all class meetings

### Methods of Evaluation/Basis of Grade:

**Writing:** Assessment tools that demonstrate writing skills and/or require students to select, organize and explain ideas in writing.

Research assignment; asana analysis

Writing 10 - 20%

**Problem Solving:** Assessment tools, other than exams, that demonstrate competence in computational or non-computational problem solving skills.

None

Problem solving 0 - 0%

**Skill Demonstrations:** All skill-based and physical demonstrations used for assessment purposes including skill performance exams.

Practical skill demonstrations

Skill Demonstrations 10 - 30%

**Exams:** All forms of formal testing, other than skill performance exams.

Quizzes and exams

Exams 20 - 30%

**Other:** Includes any assessment tools that do not logically fit into the above categories.

Attendance, punctuality, and participation

Other Category 40 - 50%

## **Representative Textbooks and Materials:**

Yoga Anatomy 3rd ed. Kaminoff and Matthews. Human Kinetics, 2021. Harvard Medical School Guide to Yoga, Wei. Publisher: Da Capo, 2017 (classic). Instructor prepared materials