College of San Mateo
Official Course Outline

1. **COURSE ID:** KINE 300 **TITLE:** Anatomy of Motion
   Units: 3.0 units **Hours/Semester:** 48.0-54.0 Lecture hours; and 96.0-108.0 Homework hours
   Method of Grading: Grade Option (Letter Grade or Pass/No Pass)

2. **COURSE DESIGNATION:**
   Degree Credit
   Transfer credit: CSU; UC
   AA/AS Degree Requirements:
   CSM - GENERAL EDUCATION REQUIREMENTS: E5d. Career Exploration and Self-Development
   CSU GE:
   CSU GE Area E: LIFELONG LEARNING AND SELF-DEVELOPMENT: E1

3. **COURSE DESCRIPTIONS:**
   Catalog Description:
   Teaches musculoskeletal anatomy and fundamental kinesiology. This course uses a multi-sensory approach to learning. In addition to lectures, students build the muscles of the human body out of clay on a miniature skeleton, conduct postural analyses, participate in movement activities and discussions.

4. **STUDENT LEARNING OUTCOME(S) (SLO'S):**
   Upon successful completion of this course, a student will meet the following outcomes:
   1. Identify key anatomical structures as they relate to human movement: bones, joints, muscles
   2. Analyze human motion by identifying the planes of movement involved and muscle groups being activated

5. **SPECIFIC INSTRUCTIONAL OBJECTIVES:**
   Upon successful completion of this course, a student will be able to:
   1. Identify key anatomical structures as they relate to human movement: bones, joints, muscles
   2. Analyze human motion by identifying the planes of movement involved and muscle groups being activated

6. **COURSE CONTENT:**
   Lecture Content:
   1. Anatomy of the skeletal system
      A. Terminology used to describe body parts
      B. Planes of motion and their respective axes of rotation
      C. Bones and joints in the human body and their characteristics
   2. Neuromuscular Fundamentals
      A. Basic anatomy and function of the muscular and nervous system
      B. Terminology used to describe muscular locations
      C. Different types of muscle contraction
      D. Basic neuromuscular concepts in relation to how muscles function in joint movement
   3. Muscular Anatomy, Identification, and Analysis
      A. Structure of a muscle
      B. Theory of Muscle Contraction
      C. Muscular strength and flexibility
      D. Locate muscles and attachment points
      E. Movement analysis: Identify planes of motion and axes of rotation for individual muscles and muscle groups
      F. Palpate on humans
      G. Build muscles out of clay
   4. Bio-mechanical Factors and Concepts
      A. How levers can help improve physical performance
      B. Balance, equilibrium, and stability
      C. Force and momentum
      D. Mechanical loading on tissues of the body
   5. Application
      A. Postural and movement analysis
      B. Open and closed kinetic chain exercises

C. Analyze joint movements and muscles used in movements, exercises, and sport specific activities

7. **REPRESENTATIVE METHODS OF INSTRUCTION:**
   Typical methods of instruction may include:
   A. Lecture
   B. Activity
   C. Discussion
   D. Observation and Demonstration
   E. Other (Specify): Building muscles, tendons, and fascia out of clay on a model skeleton

8. **REPRESENTATIVE ASSIGNMENTS**
   Representative assignments in this course may include, but are not limited to the following:
   Writing Assignments:
   Writing assignments may include online or take-home quizzes and postural/movement analyses. Students may be assigned an individual or group research paper and/or in-class presentation analyzing a given sport.
   Reading Assignments:
   Examples of out-of-class assignments include reading sections from anatomy and kinesiology articles or books such as the *Trail Guide to the Body*, *Manual of Structural Kinesiology*, and *Anatomy of Movement*.
   Other Outside Assignments:
   Outside assignments may include watching videos online and/or DVDs such as the Trail Guide to the Body DVD. Students may also be given assignments such as practicing muscle-palpation techniques and observing and human movement in a public or sport specific setting.

9. **REPRESENTATIVE METHODS OF EVALUATION**
   Representative methods of evaluation may include:
   A. Class Participation
   B. Class Work
   C. Exams/Tests
   D. Group Projects
   E. Homework
   F. Oral Presentation
   G. Papers
   H. Projects
   I. Quizzes
   J. Research Projects
   K. Written examination

10. **REPRESENTATIVE TEXT(S):**
    Possible textbooks include:
    A. Floyd, R.T. *Manual of Structural Kinesiology*, 20 ed. New York: McGraw Hill, 2018
    B. Biel, Andrew. *Trail Guide to the Body*, 5 ed. Boulder: Books of Discovery, 2014

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Course Originator: Sarah Artha Negara