San Diego State University  
Department of Exercise and Nutritional Science

Course: ENS 303 Applied Kinesiology  
Instructor: Gregg D. Voigt  
Office Hours: TBA  
Office: ENS Room 317  
Phone: 594-1922

Text: Kinesiology: Scientific Basis of Human Motion (text not required/optional)  
Kathryn Luttgens & Nancy Hamilton (textbooks on reserve at library)  
Brown & Benchmark

Course Supplement/Reader 303 Reader G. Voigt (needed to be successful)

Course prerequisites: Biology 212

Course Purpose:  
This course is designed to cover arthrology, osteology, syndesmology and myology, with special emphasis on movement analysis. In addition, muscle groups and their functional relationships will be presented with application to simple mechanical principles. Course emphasis will be placed on anatomical and mechanical analysis of motion as it pertains to human movement in sports and exercise.

School Learning Goals & Objectives:  
Learning Goal 1 Demonstrate core critical skills and depositions to ask and answer questions relevant to exercise and nutritional science.  
Learning Goal 2 Demonstrate effective and oral, written, and other interpersonal skills to help communicate knowledge and promote health and wellbeing in diverse communities.  
Objective 2.2 Use effective oral presentation skills to present information to peers and other professionals.  
Learning Goal 4 Use an array of technologies to support inquiry and professional practices.  
Objective 4.4 Use presentation software to report project findings.  
Learning Goal 8 Demonstrate the ability to integrate and apply knowledge and skills through experiential learning opportunities.  
Objective 8.3 Organize and structure learning and research to maximize their safety and quality.
Course Objectives:
At the end of this course, the students will be able to:

1. Understand the basic anatomy and physiology of the muscular, skeletal and neurological systems as applied to the study of movement.
2. be able to identify movements produced in relation to muscle function.
3. Understand muscle function in relation to position of attachment.
4. Associate the principles of physical science with muscle function.
5. Be knowledgeable in the types of tests designed to measure and analyze human movement.
6. be able to recognize appropriate motor skills and differentiate them from inappropriate skills.
7. Apply the knowledge of kinesiology to improving performance.
8. Understand the principles related to the mechanics of injury.

Prerequisites:
Biology 212 (anatomy) and ENS 210

Course Requirements:
1. Exams:
   1. Exam 1 - 100 points
   2. Exam 2 - 100 points
   3. Exam 3 - 100 points

   FINAL PROJECT - 50 POINTS

   ASSIGNED CLASS WORK - 50 POINTS

   TOTAL POINTS - 400 POINTS

Course Grading:
Assessment of:

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<tr>
<th>School Learning Objectives</th>
<th>Course learning objectives</th>
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Course Policies

1. Class Etiquette: Talking while the instructor is teaching is considered both rude and discourteous to your fellow classmate and instructor. Any student deemed to be rude or discourteous by the instructor will be asked to leave. If you are asked to leave you need to discuss the reason for being rude/discourteous with the instructor prior to coming to the next class.

The use of cell phones during class is not allowable. Computer use for e-mails or use other than for class is also not allowable.

If a message by phone or computer are necessary for you to send or take I would prefer you leave the classroom and your return to class is at your discretion.

2. Participation
   A. Attendance and discussion-Each student will be expected to attend all classes and actively participate in class discussions.
   B. Absence and Tardiness-Two absence are allowed without penalty to your grade. Absences greater than two will affect your grade by losing two points from your final grade per missed class. You are responsible for the information missed and the announcements made while you were absent.
   C. Make-Up Policy-Exams: Missed exam make up is at the determination of the instructor. You are to notify the instructor at least 1 week prior to your missing an exam so the instructor can make some sort of arrangements. Following instructor and student discussion it will be determined by the instructor if you will be allowed to take the test.
   D. Anyone caught cheating will automatically fail the course.
   E. Course readers will be available as soon as possible, with the beginning lecture information available to all students at no cost. All information for the first test will be
Course Outline:
I. Introduction
   A. Terminology
   B. Basic mechanical principles - applied to movement
   C. Material properties of biological tissue
   D. Methods for normal and pathological motion
II. Anatomical and Physiological Principles of Movement
   A. Musculoskeletal system
      1. Skeletal action
      2. Joint action
      3. Muscular action
   B. Neuromuscular system
      1. Motor units
      2. Reflexes
      3. Integration
III. Principles and Application of Kinesiology
   A. Analysis of motion
   B. Motor skills
   C. Principles of training and performance
IV. Structure and Movements of the Upper Limb
   A. Shoulder girdle
   B. Shoulder, elbow and forearm
   C. Wrist and hand
   D. Analysis of common movements and exercises
V. Structure and movements of the Head, Neck and Trunk
   A. Spinal column (posture)
   B. Thorax (respiration and abdominal wall)
   C. Analysis of common movements and exercises
VI. Structure and Movements of the Lower Limb
   A. Pelvic girdle
B. Hip and thigh
C. Knee joint
D. Ankle and foot
E. Analysis of common movements and exercises

VII. Posture, Balance and Gait

A. Posture- standing, sitting and lower limb injuries
B. Balance- normal, control, changes with age
C. Gait- kinematics, kinetics, application of mechanics

Ways to be successful in this class

Student Add Policy

Graduating ENS majors for whom the course is required, conditionally classified ENS graduate students, and international students.

ENS majors for whom the course is required for the major and in order of total number of units completed in the major.

Undergraduate non-major seeking a specialization or minor for whom the course is required and in order of total number of units earned at or transferred to SDSU.

Any other students the instructor wishes to add in order of total number of units earned at or transferred to SDSU.

The total number of students who will be able to add up to the last day will be fifteen.

Academic Integrity

All work submitted in this course must be your own and produced exclusively for this course. The use of sources (ideas, quotations, and paraphrases) must be properly acknowledged and documented. If in doubt, you are encouraged to review guidelines for the proper use of sources (e.g., http://www.hamilton.edu/academics/resource/wc/usingsources.html), as well as the University guidelines (including definition and policy) regarding cheating and plagiarism http://its.sdsu.edu/resources/turnitin/pdf/Plagiarism_AcadSen.pdf

Attendance
Attendance is required for all class sessions. You are allowed 3 absences and this includes oversleeping. If you miss more than 3 classes with unexcused absences, your grade will drop one full letter grade. This is not a traditional lecture class, therefore, you will miss a lot of information if you miss class. I highly recommend that you attend class on a regular basis if you want to be successful in this class. There will be no make-up on unit examinations.

**Tardiness**

Please make every effort to arrive to class on time. I understand that there are circumstances that arise that may cause you to be late to class, but do not make it a habit. You miss valuable information when you arrive late to class, not to mention that it is disruptive to the rest of the class. If attendance is taken before you arrive, you will be counted absent.

**Cell Phone Usage/Computer Usage**

Use of cell phones/texting are not permitted in class except in emergencies. Please be respectful of the instructor and other students and turn your cell phone to off or vibrate during class. Computers that are used to send email messages during class will be taken and you can obtain your computer back at the end of the class.

**Disability/Medical Restrictions**

Students with medical concerns in relation to physical activity must discuss this with the instructor prior to the third class period. Documentation of other disabilities or special accommodations should be brought to the instructor within the first week of school.

**Academic Honor Code**

I expect that you will possess a high level of academic integrity.

All academic endeavors at San Diego State University are based on the expectation and assumption that each student will uphold the highest principles of honesty and fairness. This expectation and assumption finds expression in the Academic Honor Code, which every student is committed to uphold.

**Class Decorum**

Once class has started all students are expected to only speak if they have questions. Please turn cell phones off or on silent mode. I will be glad to answer questions but do not expect or will tolerate rude behavior. If it occurs you will be asked to leave the classroom immediately. If it occurs a second time you may be removed from the class for a longer period of time.

**Office Hours**
Please use email on this syllabus to contact me, not the one on blackboard

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<td>Mechanics &amp; conditions affecting human motion</td>
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Schedule subject to change. Test dates will always be announced 7-10 days prior to any exam.