

Kevin Petti, Ph.D.
Department of Natural Sciences
Department of Health, Exercise Science and Nutrition

Exercise Science 281: Applied Kinesiology

Spring Semester 2018 CRN: 53169

Class Times: Wednesdays, 5:00-9:05 PM 1/31/2018 - 3/21/2018

Class Location: Library Room 301 (3rd floor of the Library)

Office Location: New Wing of Science Building (S-600) Room 115E

Office Hours: Mon/Wed 9:00-9:30AM and 12:45-1:45PM; Tues/Thurs 12:45-1:45PM;
Wednesday 4:30-5:00 PM (Wednesday office hours first eight weeks only).

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Course Description: This course is designed for the student in the Fitness Specialist Certificate Program to study movement as it relates to exercise under both normal and injury conditions. Students learn the practical implications of bones, joints, nerves, and muscle actions. Emphasis is placed on applying body alignment, range of motion, stabilization, and acceleration principles to the development of exercise programs.

Student Learning Outcomes:

Upon successful completion of the course the student will be able to:

1. Describe the structure, composition and movement of bones and joints.
2. Outline the roles of muscle tissue, motor units and types of muscular contractions.
3. List and explain the principles of mechanics as they apply to movement and exercise.
4. Describe the actions and exercise considerations of the body's physical structures in both normal and injury conditions.
5. Define and apply the principles of exercise training and adaptation.
6. Create exercise programs based on kinesiological principles.

Evaluation: Three exams of equal weight will be administered. Exams are not cumulative. A variety of testing methods will be employed, including but not limited to: true/false, multiple choice, essay, short answer, and model/chart identification. Due to the fact that make-up exams are virtually impossible due to the lengthy set-up time required and limited availability of materials, a missed exam will result in a student's final grade being dropped one letter grade. The nature of the course material engenders rigorous, intense exams. Students are encouraged to approach this class with diligence. Grades will be assigned according to the following scale: $\geq 90\%$ = A, 80% - 89% = B, 70% - 79% = C, 60% - 69% = D, $< 60\%$ = F. Students with disabilities who may need academic accommodations should discuss options with me during the first two weeks of class.

Attendance: The students most likely to fail are those who often miss class. Regular attendance is one component of success. You may be dropped if you have more than three unexcused absences. However, it is ultimately your responsibility to officially drop this class if that is your intent. Failure to do so may result in a "F" grade. It is your responsibility to consult the Office of Admissions for the drop, withdrawal and credit/no credit deadlines.

Classroom Decorum:

Disruption of class by cell phones will not be tolerated. Students will also not be involved in texting or gaming. Repeat offenders will be asked to leave class. Students are also expected to attend daily, arrive on time, and to stay for the duration of class.

Academic Honesty, Student Rights, and Student Responsibilities: All students shall have the right to a safe campus learning environment free from interference and disruption. Student behavior must remain in accordance with specific academic and behavior requirements. Honesty and integrity are integral components of the academic process. Students are expected to be honest and ethical at all times. You are encouraged to read San Diego Community College District Policy 3100, which outlines student rights and responsibilities. Activities violating this policy include such activities such as cheating, plagiarism, disruptions of instructional activity, fraud and/or lying. Any student found in violation will receive an “F” for that assignment and/or an “F” in the course.

Textbook: ACE Personal Trainer Manual
Lecture notes posted online

Date	Topic	Lecture	Date	Topic	Lecture
Jan. 31	Introduction, Bone Tissue, Articulations, Muscle	1 2	Feb. 28	Bone/Muscles/Movements of the Hip Joint and Pelvic Girdle	9
Feb. 7	Basic Biomechanics Bone/Muscles/Movements of the Shoulder Girdle	3 4	March 7	*** Exam II *** Bone/Muscles/Movements of the Knee Joint Ankle and Foot Joints	10 11
Feb. 14	*** Exam I *** Bone/Muscles/Movements of the Shoulder Joint Elbow and Radioulnar Joints Wrist and Hand	5 6 7	March 14	Bone/Muscles/Movements of the Trunk And Spinal Column Movement Analysis of the Lower Limb and Trunk and Spinal Column Exercises	12 13
Feb. 21	Movement Analysis of Upper Limb Exercises	8	March 21	*** Exam III ***	