Course Description

Designed to develop an understanding of measurement and evaluation concepts; application relevant to assessment in the psychomotor, cognitive and affective domains; activities include collection and computer analysis of data.

Prerequisites

General education mathematics course (Area B4) and KIN 70 - Introduction to Kinesiology.

Kinesiology Program Learning Objectives

Students will be able to:

- Demonstrate the ability to research, organize, evaluate, and communicate information in the discipline of Kinesiology, using technological resources and communication tools.
- Describe the reciprocal relationship between sport and the philosophical, historical, or sociological perspectives of society.
- Examine and analyze physical activity as it relates to the physiological responses and adaptations to exercise.
- Describe movement and analyze how mechanical concepts and principles apply to effective and efficient movement.
- Describe and analyze the acquisition and enhancement of motor skill performance and utilize methods and strategies to minimize the decline of motor skill performance.
- Utilize measurement concepts and theory to assess performance in the cognitive and psychomotor domains and assess program effectiveness.

Measurement and Evaluation Course Student Learning Objectives

Following successful completion of this course, students will be able to:

- Explain the importance and purpose of measurement and evaluation in human performance and kinesiology.
- Demonstrate an understanding of measurement theory related to the various subdisciplines of kinesiology.
- Demonstrate an understanding of basic statistical procedures and competency in statistical calculations used in measurement and evaluation of human performance.
- Identify and explain sensitively age, gender, cultural, and other individual differences that may exist in the measurement and evaluation of human performance.
- Identify and describe appropriate tests and equipment to measure and evaluate various aspects of human performance.
- Collect reliable, valid, and objective human performance data.
- Use statistics to analyze and interpret collected data.
Requirements

1. Textbook and Required Materials


   Wughalter, E.H. Measurement and Evaluation Workbook. San Jose, CA. See Dr. Wughalter’s website for your copy of class workbook.

   Index cards for writing out formulas and examples for class.

   A standard calculator that should be brought to class.

2. Students are responsible for information presented in lecture and activity sessions, whether present or not. In addition, students are responsible for material presented in the assigned readings.

3. Active participation in activity sessions is expected. Activity sessions, which primarily consist of data collection and analysis, are designed to supplement lecture material.

4. Three examinations covering lecture and activity materials as well as related assigned readings will be given during the course. The first examination will occur on Wednesday, June 16 in the afternoon, the second examination will occur on Wednesday, June 23 in the afternoon, the final exam will be given on Wednesday, July 7 in the afternoon. The final examination is a comprehensive, cumulative examination. Examinations will be closed textbook and notebook; however, statistics cards will be allowed (to be explained in class). Examinations consist of objective items consisting of multiple choice, matching, and/or true-false questions, and a second part which will involve calculations. EXAMINATIONS WILL BE GIVEN AT THE SCHEDULED TIME ONLY AND NO MAKE-UP EXAMINATIONS WILL BE GIVEN, except for dire and serious reasons. If this should occur, the instructor must be notified personally PRIOR to the examination. Students should be aware that more than a superficial understanding of concepts will be necessary in order to apply information given in class and related readings to situations presented in examination questions.

5. Students will be required to complete a measurement and evaluation project. Students will be divided into teams consisting of approximately six members. The project requires that each team design a small research project to answer one or more questions related to human performance and kinesiology. Each team will pick two tests for the project that test two variables, such as cardiorespiratory endurance, flexibility, muscular strength, muscular endurance, body composition and build, speed, power, agility, balance, motivation, eating behavior, reaction time, and/or ratings of perceived exertion. The tests selected for the project may be from the textbook or previous coursework that measure specific human performance variables. Each team will test approximately 16-20 students (8-10 females and 8-10 males) on each of the tests. The data
collected on each of the tests will then be analyzed and interpreted by the team. Each team will complete a PowerPoint presentation which will include identification of the research question(s) and human performance variables, description of the tests (e.g., measurement procedures and techniques as well as reliability, validity, and objectivity of the tests) selected to assess the human performance variables, summary of the raw data collected for each test, statistical analysis of the collected data, and interpretation of the data analyzed, conclusions within the context of the literature. Successful completion of the project requires a strong commitment and involvement of each member of the team similar to an eco challenge survival experience. Presentations of the projects by each team will occur on the morning of July 7 in the form of PowerPoint slides. Total points earned on the 30-point project will be based on both instructor evaluation (25 points) and evaluation of each team member’s contributions to the project by the other team members (5 points).

6. ACADEMIC INTEGRITY (from Office of Judicial Affairs). “Your own commitment to learning, as evidenced by your enrollment at San Jose State University, and the University’s Academic Integrity Policy requires you to be honest in all your academic course work. Faculty are required to report all infractions to the office of Judicial Affairs. The policy on academic integrity can be found at http://www2.sjsu.edu/senate/S04-12.htm.

7. AMERICANS WITH DISABILITIES ACT COMPLIANCE. “If you need course adaptations or accommodations because of a disability, or if you need special arrangements in case the building must be evacuated, please make an appointment with The Disability Resource Center (924-6000, located in Administration Building 110) as soon as possible. Presidential Directive 97-03 requires that students with disabilities register with DRC to establish a record of their disability.”

**Grading Requirements**

Grades will be based solely on accumulated points with total points allocated in the following manner.

<table>
<thead>
<tr>
<th>Evaluation Instrument</th>
<th>Point Value</th>
<th>Points Earned</th>
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<td>Exam 1</td>
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<td>Exam 2</td>
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<td>Final Exam</td>
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<td>Group Project</td>
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<td>Total Points Earned</td>
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Final grades will be assigned according to the following allocation of total points.

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<tr>
<td>A</td>
<td>90-91</td>
<td>D+</td>
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<td>88-89</td>
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<td>82-87</td>
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<td>• Models of evaluation</td>
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<td>• Normal curve: characteristics and probability</td>
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<td>• Test construction: procedure and types of test items</td>
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<td>Formation of teams for class assignments and project</td>
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<td>• Group students into teams</td>
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<td>• Completion of standard scores assignment</td>
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<td>• Probabilities</td>
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<td>• Correlation</td>
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<td>• Inferential (correlation and/or measures of difference) statistics</td>
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<td>• Confidential rating your other team members</td>
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<td>Class Project</td>
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<td>• Development of research question(s)</td>
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<td>• Selection of human performance variables and tests</td>
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<td>• Applications to Persons with Disabilities</td>
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<td>• Recruitment of subjects from class</td>
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<td>• Analysis of data</td>
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<td>• Interpretation of data</td>
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<td>• Develop and complete write-up of class project</td>
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<td>• Develop and complete class presentation</td>
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<td>• Confidential rating your other team members</td>
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<td>Date</td>
<td>Topics</td>
<td>Workbook Assignment (W)</td>
<td>Computer Assignments (C)</td>
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<tr>
<td>June 7</td>
<td>Introduction</td>
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<td>Levels of Measurement; Measurement Concerns</td>
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<td>Collect Data for Group Assignment (B)</td>
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<td>Authentic Assessment and Writing Rubrics</td>
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<td>Test Analysis; Computer Lab</td>
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<td><strong>Group Presentations (Morning)</strong></td>
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<td><strong>Final exam (Afternoon)</strong></td>
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