


Department of Kinesiology, Measurement & Evaluation, Kin 175, Spring 2013
Course Syllabus

 <p>SAN JOSÉ STATE UNIVERSITY</p>	<p>Professor Dr. Emily H. Wughalter Office SPX 076 Telephone (408) 924-3043 E-mail Emily.Wughalter@sjsu.edu</p> <p>Class Schedule Lecture (Sec 4), Tuesdays and Thursdays, 0800-0850; Lab A (Sec 5) Tuesdays, 0930-1120 (SPX 082); Lab B (Sec 6), Thursdays, 0930-1120 (SPX 082)</p> <p>Office Hours Mondays, 1400-1600</p>
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D2L and MYSJSU Messaging

Course materials such as the course syllabus and major assignment handouts can be found on Desire to Learn (D2L) the content management system we use at SJSU. From the SJSU home page you can easily find the D2L entry page. From your D2L home page change the settings in preferences so that your e-mail is forwarded from D2L to your regularly used e-mail account. Also, you are responsible for regularly checking with the messaging system through MySJSU (or other communication system as indicated by the instructor).

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 should be able to:

1. Obtain a critical understanding and the ability to apply theoretical and scientific knowledge from the subdisciplines in kinesiology for personal fitness, healthy lifestyles, sport, and/or therapeutic rehabilitation.
2. Communicate the essential theories, scientific applications, and ethical considerations related to kinesiology.
3. Apply scholarship and practice of different movement forms to enhance movement competence in kinesiology.
4. Recognize and apply sustainable approaches as they relate to kinesiology.
5. Identify social justice and equity issues related to kinesiology for various populations.

Measurement and Evaluation Course Student Learning Objectives

Following successful completion of this course, students will meet the course student learning objectives (parenthetical statements are program learning objective correlates):

- To explain the importance and purpose of measurement and evaluation in human performance and kinesiology (PLO 1, PLO 2, PLO5)

Responses to specific multiple choice and essay items on the three exams will demonstrate how well students understand the importance and purpose of measurement and evaluation in kinesiology. Specific questions covered in laboratories force students to make explain why measurement and evaluation are embedded in accountability.

Department of Kinesiology, Measurement & Evaluation, Kin 175, Spring 2013
Course Syllabus

- To demonstrate an understanding of measurement theory related to the various subdisciplines of kinesiology (PLO 1, PLO 2)
Students make specific applications to the subdisciplines in kinesiology by responding to essay items on the three exams. In the laboratory they are prompted with questions about the use of measurement and evaluation in research project.
- To demonstrate an understanding of basic statistical procedures and competency in statistical calculations used in measurement and evaluation of human performance (PLO 1)
Students are responsible for managing data sets in laboratories and then collecting and coding their own data, and then selecting an appropriate statistical analysis for the group project. The group project will culminate in a poster presented on-line to the class.
- To identify and explain sensitively age, gender, cultural, and other individual differences that may exist in measurement and evaluation of human performance (PLO 1, PLO 2, PLO 5)
Responses to specific multiple choice items on the final exam will focus students on serving students and clients with various abilities, as well as attention to other categories (such as gender, race, or expertise).
- To identify and describe appropriate tests and equipment to measure and evaluate various aspects of human performance (PLO 1, PLO 2, PLO 4)
Specific items on the three exams will measure students' knowledge of how to select appropriate tests of motor behavior and physical activity.
- To collect reliable, valid, and objective human performance data (PLO 1, PLO 2, PLO 3) and to use statistics to analyze and interpret collected data (PLO 2)
The group project is threaded through all labs. Students develop ideas and collect data to implement a simple research design. Statistical content learned in class is used and applied to these problems. An on-line poster presentation will provide evidence of students' abilities to work collectively to conduct a research study and to create a final product to present their ideas.

Course Information

1. Textbook and materials

Morrow Jr., J., Jackson, A., Disch, J. & Mood, D. (2011). *Measurement and Evaluation in Human Performance (4th Edition)*. Champaign: IL : Human Kinetics .

Wughalter, E.H. *Measurement and Evaluation Workbook*. San Jose, CA.
(Go to www.sjsu.edu/ecampus; log onto D2L)

Index cards should be used for calculating an exemplar formula for in class tests.

A standard calculator should be brought to class.

- #### 2. Students are responsible for materials delivered in lecture and laboratory sessions, whether present or not. In addition, students are responsible for material presented in assigned readings.
- #### 3. Active participation in laboratory activity sessions is expected. Activity sessions, which primarily consist of data collection and analysis, are designed to supplement lecture material.
- a. 5 points: characterizes a team member who can be counted on for ideas, an investment of time, and very high or excellent quality contributions overall.
 - b. 4 points: characterizes a team member that can be counted on almost all of the time, makes an investment of time, and makes a high quality of contributions overall.

Department of Kinesiology, Measurement & Evaluation, Kin 175, Spring 2013
Course Syllabus

- c. 3 points: characterizes a team member that can be counted on almost all of the time, makes an investment of time when available, and makes a good quality of contributions overall.
 - d. 2 points: characterizes a team member that can be counted on only sometimes, makes an investment of time when available, makes less than moderate contributions.
 - e. 0 points: characterizes a team member that contributes nothing to the group.
4. Three examinations cover lecture and laboratory materials as well as related assigned readings. The first two exams are scheduled during the lecture class on Tuesday, March 20 and Tuesday, April 17. The final exam is scheduled in accordance with the University schedule of final exams and will take place on Tuesday, May 22 at 1215-1430. The final examination is a comprehensive, cumulative examination. Examinations are closed textbook and notebook; however, index cards with statistical formulas are allowed. The index card will be explained in class. Exams may consist of objective items consisting of multiple choice, matching, and/or true-false questions, and a second part involving 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 to apply information from class and related readings to situations presented in examination questions.
5. Students will be assigned to a lab team. Teams will consist of approximately five members to complete a project. The team will create an idea and design a small research project to answer one or more questions related to human performance and kinesiology. Each team will identify and measure an acceptable variable and identify how it (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) changes due to the manipulation or measurement of other factors or variables. The identification of measure(s) selected for the project may be garnered from the textbook or from readings in previous coursework that quantify specific human performance variables. Each team will test approximately 10 students (approximately 5 females and 5 males) on each of the tests. The data collected on each of the tests shall then be analyzed and interpreted by the team. A poster presentation will be developed using PowerPoint that includes identification of the research question(s) and human performance variables. The slide should include a description of the tests (e.g., measurement procedures and techniques as well as reliability, validity, and objectivity) 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, and conclusions within the context of the literature. Successful completion of the project requires a strong commitment and involvement of each member of the team. Presentations of the projects are due on-line on the morning of July 7, 2011. Total points earned on the 15 point project will be based on instructor evaluation (10 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 José 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>".

Department of Kinesiology, Measurement & Evaluation, Kin 175, Spring 2013
Course Syllabus

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”.
8. Our LIBRARY LIASON is Peggy Cabrera. She can be reached at: peggy.cabrera@sjsu.edu.
9. CLASSROOM PROTOCOL requires that students are courteous during class. Any student engaging in disruptive behavior will be asked to leave. This includes arriving more than 10 minutes late to class. Please turn off all cell phones, pagers, PDA’s or other electronic device. The use of anything that beeps or vibrates during class is disruptive and will not be tolerated. If you are caught using a telephone (even silently, e.g. texting), you will be asked to leave the classroom.
10. DROPPING and ADDING. Students are responsible for understanding the policies and procedures about add/drop, grade forgiveness, etc. Refer to the current semester’s [Catalog Policies](http://info.sjsu.edu/static/catalog/policies.html) section at <http://info.sjsu.edu/static/catalog/policies.html>. Add/drop deadlines can be found on the [current academic calendar](http://www.sjsu.edu/academic_programs/calendars/academic_calendar/) web page located at http://www.sjsu.edu/academic_programs/calendars/academic_calendar/. The [Late Drop Policy](http://www.sjsu.edu/aars/policies/latedrops/policy/) is available at <http://www.sjsu.edu/aars/policies/latedrops/policy/>. Students should be aware of the current deadlines and penalties for dropping classes. Information about the latest changes and news is available at the [Advising Hub](http://www.sjsu.edu/advising/) at <http://www.sjsu.edu/advising/>.

Grading Requirements

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

<i>Evaluation Instrument</i>	<i>Point Value</i>	<i>Points Earned</i>
Course Workbook: D2L submission; record of lab and group activities	15	
Exam 1: in lecture class; multiple choice and essay items	30	
Final Exam: on D2L; multiple choice and essay items	35	
Team Project, poster on Powerpoint submitted on D2L; includes team members’ ratings	15	
Pop Quizzes – in class and on-line discussion	5	
Total Points Earned	100	

Final grades will be assigned according to the following allocation of total points.

	A+	99-100.00		B	83-86.99		C-	70-72.99		F	<60
	A	93-98.99		B-	80-82.99		D+	67-69.99			
	A-	90-92.99		C+	77-79.99		D	63-66.99			
	B+	87-89.99		C	73-76.99		D-	60-61.99			

University Resources

Computer labs for student use are available in the Academic Success Center located on the 1st floor of Clark Hall and on the 2nd floor of the Student Union. Additional computer labs may be available in your department/college. Computers are also available in the Martin Luther King Library.

A wide variety of audio-visual equipment is available for student checkout from Media Services located in IRC 112. These items include digital and VHS camcorders, VHS and Beta video players, 16 mm, slide, overhead, DVD, CD, and audiotape players, sound systems, wireless microphones, projection screens and monitors.

Learning Assistance Resource Center (LARC)

The Learning Assistance Resource Center (LARC) is located in Room 600 in the Student Services Center. It is designed to assist students in the development of their full academic potential and to inspire them to become independent learners. The Center's tutors are trained and nationally certified by the College Reading and Learning Association (CRLA). They provide content-based tutoring in many lower division courses (some upper division) as well as writing and study skills assistance. Small group, individual, and drop-in tutoring are available. Please visit [the LARC website](http://www.sjsu.edu/larc/) for more information at <http://www.sjsu.edu/larc/>.

SJSU Writing Center

The SJSU Writing Center is located in Room 126 in Clark Hall. It is staffed by professional instructors and upper-division or graduate-level writing specialists from each of the seven SJSU colleges. Our writing specialists have met a rigorous GPA requirement, and they are well trained to assist all students at all levels within all disciplines to become better writers. The [Writing Center website](http://www.sjsu.edu/writingcenter/about/staff/) is located at <http://www.sjsu.edu/writingcenter/about/staff/>.

Peer Mentor Center

The Peer Mentor Center is located on the 1st floor of Clark Hall in the Academic Success Center. The Peer Mentor Center is staffed with Peer Mentors who excel in helping students manage university life, tackling problems that range from academic challenges to interpersonal struggles. On the road to graduation, Peer Mentors are navigators, offering “roadside assistance” to peers who feel a bit lost or simply need help mapping out the locations of campus resources. Peer Mentor services are free and available on a drop-in basis, no reservation required. The [Peer Mentor Center website](http://www.sjsu.edu/muse/peermentor/) is located at <http://www.sjsu.edu/muse/peermentor/>

Topics for Course

Importance and purpose of measurement and evaluation in human performance

- Functions of measurement and evaluation
- Formative and summative evaluation
- Norm- and criterion-referenced standards
- Models of evaluation
- Computer Literacy for measurement and evaluation

General Measurement Concepts

- Types of scores
- Common units of measure
- Selecting a criterion score
- Types of reliability and reliability theory
- Acceptable reliability and factors affecting reliability
- Reliability of difference scores
- Objectivity or inter-rater reliability and factors affecting objectivity
- Validity and norm-referenced tests
- Validity and the criterion score
- Validity and criterion-referenced tests

Nature and Administration of Tests

- Reliability, objectivity, and validity
- Content-related attributes
- Student and participation concerns
- Administrative concerns
- Pretest procedures and pilot testing
- Giving the test
- Posttest procedures
- Measuring individuals with disabilities

Statistical Tools in Evaluation

- Organizing and graphing data
- Descriptive statistics
- Measuring group position
- Standard scores
- Normal curve: characteristics and probability
- Relationships between scores: correlation analysis
- Simple prediction analysis
- Measures of difference: t-tests and analysis of variances (ANOVAs)
- Estimating reliability, objectivity, and validity

Evaluating Knowledge

- Levels of knowledge
- Types of knowledge tests: essay/objective and mastery/discrimination
- Test construction: procedure and types of test items
- Test administration and scoring
- Test analysis and revision

Evaluating Achievement and Grading

- Evaluation: subjective versus objective and formative versus summative
- Standards for evaluation: criterion –referenced versus norm-referenced
- Grading issues

- Grading methods: natural breaks, teacher's standard, rank order, and norms
- Final grades: sum of letter grades, point systems, and sum of T-scores
- Authentic assessment and rubrics

Cognitive and Affective Testing

- Measuring attitudes
- Semantic differential scale

Activities for Course

Formation of teams for class assignments and project

- Group students into teams
- Selection of team name


Team completion of class assignments

- Identifying types of scores
- Descriptive measurement
- Central tendency and measure of variability
- Completion of standard scores assignment
- Probabilities
- Correlation
- Measures of difference
- Inferential statistics (correlation and/or measures of difference)
- Confidential rating your other team members

Class Project

- Development of research question(s)
- Selection of human performance variables and tests
 - Evaluating skill achievement
 - Measuring physical activity
 - Measuring physical abilities
 - Evaluating aerobic fitness
 - Evaluating body composition
 - Evaluating youth fitness and physical activity
 - Evaluating aging and adult fitness
 - Applications to Persons with Disabilities
 - Measuring psychological factors
- Recruitment of subjects from class
- Collection of data
- Analysis of data
- Interpretation of data
- Develop and complete write-up of class project
- Develop and complete class presentation
- Confidential rating your other team members

Department of Kinesiology, Measurement & Evaluation, Kin 175, Spring 2013
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Week	Lecture Topics	At Home (W)
1 (1/25)	Introduction to course	
2 (1/29, 1/31)	Levels of measurement and measurement concerns Chapter 1	W1, p.5
3 (2/5, 2/7)	Introduction to measurement theory; organizing and graphing data Chapter 2, Chapter 3	W2, p.6
4 (2/12, 2/14)	Measures of central tendency; measures of variability Chapter 3 Lecture classes may be on-line, Jury Duty	W3, p.7
5 (2/19, 2/21)	Percentile ranks and standard scores	W4, p.8
6 (2/26, 2/28)	Standard scores and measurement and evaluation of fitness Chapter 9, Chapter 10	W5, p.9
7 (3/5, 3/7)	Review for Exam 1 on Tuesday Exam will be in class during lecture on Thursday	
8 (3/12, 3/14)	Defining variables Chapter 5	
9 (3/19, 3/21)	Tests of relationships (correlations)	W6, p.10
10 (4/9, 4, 11)	Spring Break (March 25-March 29)	
11 (4/16, 4/18)	Measures of difference (t-test)	W7, p.11
12 4/23, 4/25	Class on-line AAHPERD National Convention	W8, p.12
13 4/30, 5/2	Measures of difference (ANOVA)	W9, p.14
14 5/7, 5/9	Measuring reliability Test analysis; new assessment techniques Chapter 6, Chapter 7 Chapter 8, Chapter 14	W10, p.17
15 5/20	Final Exam Exam is scheduled according to the University schedule of classes for Monday, May 20 at 0715-0930	