COURSE SYLLABUS
Southeast Missouri State University

Department: Health, Human Performance and Recreation **Course No:** PE 310
Course Title: Tests and Measurements in Physical Activity/Sport **Revision**: Spring 2010

Department Approved: April 12, 2010
College Council Approved: May 5, 2010

I. Catalog Description and Credit Hours:

Analysis, construction, administration, and use of tests in physical activity and sport. Two lecture and two lab hours per week. (3)

II. Prerequisite(s): None

III. Course Objectives:

Upon completion of the course the teacher candidate will be able to:

A. Demonstrate competent motor skill performance; and physical fitness performance in a variety of physical activities. (1.2) **[Q 1.2.1.1]**
B. Demonstrate an understanding of the major health risks and how they can be assessed practically. (1.4) **[Q 1.2.1.1]**
C. Identify, select, and implement appropriate learning/practice opportunities based on expected progressions and related to ranges of individual variations and levels of readiness. (2.2**) [Q 1.2.1.3]**
D. Select and implement appropriate (i.e., comprehensive, accurate, useful, and safe) teaching resources and curriculum materials. (6.7) **[Q 1.2.5.1]**
E. Identify key components of various types of assessment, describe their appropriate and inappropriate use, and address issues of validity, reliability, and bias. (7.1) **[Q 1.2.8.1]**
F. Use statistical programs to manage and analyze data. (7.1) **[Q 1.2.8.1]**
G. Use a variety of formal and informal assessment techniques to assess learner performance, provide feedback, and communicate learner progress. (7.2) **[Q 1.2.8.1]**
H. Involve students in self and peer assessment. (7.3) **[Q 1.2.8.2]**
I. Interpret and use performance data to inform curricular and instructional decisions. (7.4) **[Q 1.2.8.3]**
J. Identify the strengths and weaknesses of the major health-related physical fitness test batteries and how they can be used to motivate learners to participate in physical activity outside of the school. (7.1; 4.3) **[Q 1.2.8.1; 1.2.6.1]**
K. Demonstrate knowledge of current technologies and their application to physical education. (9.1) [**Q 1.2.11.1]**
L. Design, develop, and implement student learning activities that integrate information technology. (9.2) **[Q 1.2.11.2; 1.2.11.3]**
M. Use technologies to communicate, network, locate resources, and enhance continuing professional development. (9.3) **[Q 1.2.11.5]**

IV. Expectations of the Student:

A. Each preservice teacher will participate actively in class discussions.
B. Each preservice teacher will complete course assignments and examinations in a timely manner.
C. Each preservice teacher will participate in experiential laboratory and out of class experiences.
D. Each preservice teacher will complete a unit of instruction involving the administration and analysis of FitnessGram/ActivityGram and other standardized tests in PK-12 settings.

V. Course Outline/Learning Experiences: **Hours**

A. Introduction of Course 2
1. Definitions and functions of Measurement and Evaluation
2. Public Health Initiatives

B. Describing and presenting test scores 4
1. Scales of measurement
3. Measures of Central Tendency
4. Measures of Variability
5. Percentiles and Percentile Ranks
6. The Normal Curve
7. Standard Scores
8. Frequency Distribution
9. Lab

C. Tests of Significance 4
1. Correlation—Pearson-correlation; Spearman correlation
2. t-Test—independent and dependent t-Test analyses
3. One Way Analysis of Variance (ANOVA)
4. Regression analysis
5. Chi-Square analysis
6. Lab

D. Reliability and Objectivity 4
1. Types of reliability
2. Estimation of reliability
3. Factors affecting reliability
4. Types of objectivity
5. Estimation of objectivity
6. Factors affecting objectivity
9. Lab

E. Validity 4
1. Types of validity
2. Estimation of validity
3. Factors affecting

F. Test characteristics, administration, and interpretation 5
1. Test characteristics
    a. Content-related attributes
    b. Participant concerns

c. Administrative concerns
d. Lab

2. Administration
   a. Pretest procedures
   b. Giving the test
   c. Posttest procedures
   d. Lab
3. Evaluation
   a. Types of evaluation
   b. Standards for evaluation
   c. Lab

G. School-based evaluation 4
1. Issues in grading
2. Methods of grading
3. Reporting final grades
4. Lab

H. Authentic and Alternative Assessment 5
1. Characteristics of authentic and alternative assessment
2. Rubrics
3. Types of authentic and alternative assessment
4. Lab

I. Evaluating sport skill achievement 4
1. Sport skill tests
2. Subjective and objective evaluation
3. Constructing and using rating scales
4. Lab

J. Measuring physical activity 5
1. Importance of measuring physical activity
2. Instruments for measuring physical activity
3. Lab

K. Measuring physical abilities 4
1. Theory of basic abilities
2. .Muscular strength
3. Muscular endurance
4. Flexibility
5. Balance
6. Lab

L. Evaluating aerobic fitness 4
1. Laboratory-based aerobic fitness tests
2. Field-based aerobic fitness tests
3. Lab

M. Evaluating body composition 4
1. Public health risks
2. Laboratory body composition methods

3. Anthropometric assessment of body composition
4. Lab

N. Measuring in competitive sports and coaching 2
1. Measurement challenges in competitive sport
2. Measuring recruits in professional sport
3. Measuring recruits in high school and collegiate sport
4. Advances in sport measurement

O. Evaluating knowledge 3
1. Levels of knowledge
2. Types of knowledge tests
3. Construction and administration of knowledge tests
4. Analyses of knowledge tests
5. Lab

P. Exercise psychological measurement 2
1. Measuring attitudes
2. Psychological determinants of physical activity
3. Eating disorders
4. Body image

Total Hours **60**

V. Required Textbook:

Bishop, P. A. (2008). *Measurement and evaluation in physical activity applications.* Scottsdale, AZ: Holcomb Hathaway.

VI. Basis for Student Evaluation:

A. Quizzes	15 %
B. Assignments/Lab	25 %
C. Physical Fitness (Health-Related) Assessment	10 %
D. Exams	40 %
E. Preservice teacher-constructed Assessment tools	10 %
Total	**100 %**

VI. Grading Scale:

90-100% = A
80-89% = B
70-79% = C
60-69% = D
< 59% = F

VII. Knowledge Base:

Baumgartner, T.A., Jackson, A.S., Mahar, M.T., & Rowe, D.A. (2007). *Measurement for evaluation in physical education & exercise science, 8th ed*. St. Louis, MO: McGraw Hill.

Brian C. C. (2008). *How to use SPSS: A step-by-step guide to analysis and interpretation, 5th ed*. Los Angeles, CA: Pyrczak Publishing.

The Cooper Institute (2007). Fitnessgram/Activitygram: *Test administration manual.* Champaign, IL: Human Kinetics.

X. Academic Honesty Statement:

Southeast Missouri State University's policy on Academic Honesty is summarized in the 2009-2010 Undergraduate Bulletin. Suspected academic dishonesty (plagiarism and cheating) will be handled following the *Protocol for Adjudicating Alleged Violations of Academic Honesty* as described in the policy.

XI. Students with Disabilities:

Southeast Missouri State University and Disability Support Services remain committed to making every possible educational accommodation for students with disabilities. Many services and accommodations which aid a student's educational experience are available for students with various types of disabilities. It is the student's responsibility to contact Disability Support Services to become registered as a student with a disability. Accommodations are implemented on a case by case basis. For more information visit the following site: http://www6.semo.edu/lapdss/index.htm.