

Kines 315 Assessment and Research in Physical Activity Pedagogy (3 cr.)

| Instructor: | Cindy Kuhrasch, 2027 Gym-Nat, 262-4348, ckuhrasch@education.wisc.edu Office Hours: Dan Timm, Ed.D., 1043 Gym-Nat, 262-7714, dtimm@education.wisc.edu Office Hours: MW 3:30-4:30, TR 2:30-3:30 | | | | | | | | | | | | | | | | | | |
|--|--|---|--|---------------------------------------|-----|--|-----|--------------------------|-----|-------------------------------------|-----|------------------------------|-----|---------------------------------------|-----|--|-----|-------------------------|-----|
| Schedule: | Class meets MW 2:25-3:15 and F 12:05-12:55 in 1190 Gymnasium-Natatorium | | | | | | | | | | | | | | | | | | |
| Prerequisite: | Successful completion of Math 112 or exempt status. Kinesiology major or consent of instructor. | | | | | | | | | | | | | | | | | | |
| Required Text: | Lund, J. L., Kirk, M. F. (2010). <i>Performance-based assessment for middle and high school physical education</i> (2 nd ed.). Champaign, IL: Human Kinetics. Additional materials will be posted on Learn@UW, taken from but not limited to the following sources... Baumgartner, T. A., Strong, C. H., & Hensley, L. D. (2002). <i>Conducting and reading research in health and human performance</i> (3 rd ed.). Boston, MA: McGraw-Hill. Lacy, A. C., & Hastad, D. N. (2007). <i>Measurement and evaluation in physical education and exercise science</i> (5 th ed.). San Francisco, CA: Pearson Benjamin Cummings. Miller, D. K. (2010). <i>Measurement by the physical educator: Why and how</i> (6 th ed.). New York, NY: McGraw-Hill. | | | | | | | | | | | | | | | | | | |
| Course Description: | A physical education teacher understands and uses formal and informal assessment strategies to foster physical, cognitive, social, and emotional development of learners in physical activity. This problem-based course will help students develop knowledge and skills needed to use research as the basis for program development, implementation, and assessment. Course information will be presented through readings, in-class discussions and learning activities, lab experiences, projects, and exams. The course information will be presented through four components: <ol style="list-style-type: none">1. Basic research procedures including design, methods, statistics, analysis, discussion, and conclusion.2. An overview of the concepts and theory of measurement, including validity and reliability.3. Principles for the development and implementation of evaluation procedures and tools.4. Use of quantitative and qualitative data to provide feedback and impact learning. | | | | | | | | | | | | | | | | | | |
| Evaluation: | <table><thead><tr><th><u>Research and Statistics - 50% of Final Grade</u></th><th><u>Percentage Toward Research and Statistics Grade</u></th></tr></thead><tbody><tr><td>Research Article Summary and Analysis</td><td>10%</td></tr><tr><td>Research Project Introduction and Review of Literature</td><td>10%</td></tr><tr><td>Research Project Methods</td><td>10%</td></tr><tr><td>Validity and Reliability Assignment</td><td>10%</td></tr><tr><td>Research and Statistics Exam</td><td>25%</td></tr><tr><td>Research Project Results and Analysis</td><td>10%</td></tr><tr><td>Research Project Discussion and Conclusion</td><td>15%</td></tr><tr><td>Research Project Poster</td><td>10%</td></tr></tbody></table> | <u>Research and Statistics - 50% of Final Grade</u> | <u>Percentage Toward Research and Statistics Grade</u> | Research Article Summary and Analysis | 10% | Research Project Introduction and Review of Literature | 10% | Research Project Methods | 10% | Validity and Reliability Assignment | 10% | Research and Statistics Exam | 25% | Research Project Results and Analysis | 10% | Research Project Discussion and Conclusion | 15% | Research Project Poster | 10% |
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| Research Project Poster | 10% | | | | | | | | | | | | | | | | | | |

| <u>Application - 50% of Final Grade</u> | <u>Percentage Toward Application Grade</u> |
|---|--|
| <u>Performance</u> | 80% |
| Assessment plan | |
| Assessment tool comparison | |
| Motor Skill Assignment | |
| Cognitive assignment | |
| Affective assignment | |
| Grading spreadsheet | |
| Grading System-Report card | |
| Program/Teacher Assessment | |
| <u>Knowledge</u> | 10% |
| <u>Participation</u> | 10% |

Student Expectations: Students are expected to be punctual in attending every class period, have prepared for each class, and fully participate in all class activities.

Accommodations Statement: Your success in this course is important. If there are circumstances that may affect your performance in class, please let the instructors know so a plan can be developed for you to have opportunities to be successful. Students requiring special accommodation related to a learning need should contact the McBurney Disability Resource Center, 1305 Linden Drive, 263-2741, for information and assessment.

Academic Integrity: The University of Wisconsin is a highly respected institution of higher education. To help maintain the reputation of the university, and ultimately the credibility of your degree, you are expected to demonstrate academic integrity during this course. Please review the university's statement on academic integrity at <http://students.wisc.edu/doso/academicintegrity.html> and information regarding academic integrity for students at <http://students.wisc.edu/doso/students.html> Examples of academic misconduct include:

- Seeking to claim credit for the work or efforts of another without authorization or citation
- Using unauthorized material or fabricating data in any academic exercise
- Forging or falsifying academic documents or records
- Intentionally impeding or damaging the academic work of others
- Engaging in conduct aimed at making false representation of a student's academic performance
- Assisting other students in any of these acts

Unless otherwise indicated by the instructor, all assignments and tests are to be completed independently without consultation with others.

Assignments: **Research Article Summary and Analysis** (Due February 2)
For physical education teachers to stay current with new discoveries and trends in the field, they need to be able to read and analyze research. In the Research Article Summary and Analysis, students will critically read primary source literature and analyze the results of a study and its implications for teaching physical education. Students will be evaluated on their ability to summarize an article, analyze the research components of the article, and discuss implications of the study.

Research Project Introduction and Review of Literature (Due February 9)
Every research project includes an introduction to the project and a review of related literature. For the Research Project Introduction and Review of Literature, students will review literature related to their research project to become familiar with previous research on the topic. Students will then write an introduction to their respective research project and present a review of related literature. Students will be evaluated on their ability to introduce the research topic to the reader, present a review of previous research, write a research question and a research hypothesis, and correctly list references.

Research Project Methods (Due March 9)

For a research project to be successfully conducted, its methods must be precise. In the Research Project Methods, students will write the methods for their respective research project. Students will be evaluated on their specificity and conciseness in discussing the location for the data collection, the data collection process, data collection instruments that will be used, who will collect the data, and how the data will be analyzed.

Validity and Reliability Assignment (Due March 16)

Teachers inform their practice by assessing students. For these assessments to be useful, the assessment instruments used must be credible. The Validity and Reliability Assignment will introduce students to ways of checking an instrument to see if it assesses what it intends to assess and if it repeatedly assesses what it intends to assess. Students will read three articles regarding validity and reliability. Students will be evaluated on their ability to identify (a) the type of validity and reliability used in each article, (b) how validity and reliability was measured, and (c) the results of the testing, and their interpretation of the results.

Research Project Results and Analysis (Due April 29)

Data collected as part of a research project is useless unless it is analyzed. The Research Project Analysis and Results provides students an opportunity to statistically analyze research data. Using the statistical testing described in the methods, students will analyze their research project data. Students will be evaluated on their ability to describe the research hypothesis and null hypotheses, show the collected data, accurately analyze the collected data, and present the results of the statistical analysis.

Research Project Discussion and Conclusion (Due May 6)

Research project results alone do not tell the researcher anything. After the research project data has been analyzed, students must explain the results of the analysis. The Research Project Discussion and Conclusion will tell the researcher what the results of the research project mean. Students will be evaluated on their ability to relate the results of the study to the research hypothesis and literature, interpret the results of the study, identify factors that may have influenced results of the study, draw conclusions based on the results, and identify the significance of the study.

Research Project Poster (Presentation due Wednesday, May 13, 12:25 p.m.)

Physical education research project results must be shared for the physical education profession to move forward. The Research Project Poster will give students an opportunity to communicate their results to others. As the final part of the research project, students will develop a poster that concisely communicates their research project. Students will be evaluated on their ability to organize the poster, develop an inviting and readable poster, and verbally present the poster to an audience.

Assessment Plan

Using the information in the “why assess” and “what to assess” modules, students will write 3-4 statements that exemplify their basic beliefs about assessment. Review your “perfect PE student” and identify the knowledge, skills and behaviors that you would assess. Organize those items into the attached assessment template and identify how often they will be assessed and which SHAPE America standards they meet.

Assessment Tool Comparison

Review the information in the “assessment tool” module. After hearing the presentations on each of the assessment tools, create a chart that includes a description, the level of teacher preparation, the strengths and weaknesses, the context in which each would work best, and an example of an appropriate use for each assessment tool.

Motor Skill Assignment

Use the standards document to select appropriate psychomotor skills you wish to assess in your unit. Create a listing of the 3-5 skills and develop a rubric for each.
Develop a task analysis for at least three of the skills
Develop a learning activity that incorporates at least one of the concepts and includes an assessment opportunity

Movement Concepts, Strategies, Game Play Assignment

Use the standards document to select appropriate cognitive concepts you wish to assess. Develop the following:

- A task analysis for cognitive mastery
- A cognitive assessment tool-can be individual or partner if you choose
- A worksheet OR communication tool for student learning
- A learning activity that incorporates one of the concepts

Social Skills and Values Assessment Assignment

Use the standards document to select appropriate affective concepts you wish to assess in your unit plan. Create a listing of the 3-5 affective skills you plan to teach and develop a rubric for each.

Develop a task analysis for at least three of the skills

Develop a learning activity that incorporates at least one of the concepts and includes an assessment opportunity

Grading Spreadsheet

Students will review the validity and reliability information for each of the Fitnessgram tests and select at least one test to measure each of the fitness components. Students will then create a spreadsheet that can be used to collect and calculate fitness measures. Include the following:

Column(s) for any personal data required for formula calculations

Column(s) associated with each fitness component in which you can add a formula or generate a percentile ranking

Insert formulas provided to calculate VO2Max and BMI

Test your functions and formulas using your data

Grading System-Report Card

Students will select a grade level and identify all of the movement themes, movement concepts and affective skills that you would deem important to include in a curriculum at that level. Students will create a report card form that delineates all of the items, and organize them in a readable format.

Include information on student performance, and be sure to include a description of the possible levels of performance as well. The form should be designed in such a way that it clearly describes the information for the parent as s/he reads it. The report card should be attractive and easily understood even by those who are outside of the field, and should also be designed in such a way that it fairly reports student growth in each area.

Program/Teacher Assessment

Students will review one resources provided to create a list of indicators that should be included in a PE program evaluation tool. They will evaluate and select the indicators that they feel fairly and comprehensively evaluate a Physical Education program and organize the indicators in an easy-to-use format. In addition, students will develop a scoring system to assess the indicators.

Class Schedule

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| January 21 | Introduction to Course Introduction to Excel |
| January 23 | Overview of Research; Reading Research Reading: Baumgartner, Strong, & Hensley, p. 9-25, 79-82, 175-178 |
| January 26 | Research Design; Research Group Formation |
| January 28 | Measurement and Evaluation in Physical Education Reading: Lacy & Hastad, chapter 1 |
| January 30 | Measurement and Evaluation in Physical Education; Work on Introduction and Literature Review |
| February 2 | Work on Research Question and Hypothesis Reading: Baumgartner, Strong, & Hensley, p. 56-70 <i>Research Article Summary and Analysis Due</i> |

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| February 4 | Write Research Question and Hypothesis; Descriptive Statistics and Distribution of Scores Reading: Miller, chapter 2 |
| February 6 | Descriptive Statistics and Distribution of Scores |
| February 9 | Work on Research Project Methods Reading: Baumgartner, Strong, & Hensley, p. 144-149 <i>Research Project Introduction and Literature Review Due</i> |
| February 11 | Work on Research Project Methods; Correlation Reading: Miller, p. 31-37 |
| February 13 | Correlation |
| February 16 | Regression Reading: Lacy & Hastad, p. 74-76 |
| February 18 | Regression; Differences among Means: t-test Reading: Lacy & Hastad, p. 77-81 |
| February 20 | Differences Among Means: t-test; Statistics Lab |
| February 23 | One-Way ANOVA Reading: Miller, p. 41-51 |
| February 25 | One-Way ANOVA; ANOVA With Repeated Measures Reading: Miller, p. 51-54 |
| February 27 | ANOVA With Repeated Measures |
| March 2 | Factorial ANOVA Reading: Baumgartner, Strong, & Hensley, p. 304-310 |
| March 4 | Factorial ANOVA; Data Analysis |
| March 6 | Work on Research Project Methods; Criteria for a Good Assessment Instrument Reading: Lacy & Hastad, p. 85-93 |
| March 9 | Criteria for a Good Assessment Instrument <i>Research Project Methods Due</i> |
| March 11 | What to assess Reading: Learn@UW |
| March 13 | Assessment plan Reading: Learn@UW |
| March 16 | Assessment types Reading: Learn@UW <i>Validity and Reliability Assignment Due</i> |
| March 16-20 | <i>Research and Statistics Exam</i> |
| March 18 | Creating assessments Reading: Learn@UW |

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| March 20 | Assessment tool comparison Reading:Learn@UW |
| March 23 | Effective grading in PE Reading:Learn@UW |
| March 25 | Technology in assessment Reading:Learn@UW |
| March 27 | Assessment routines, Technology resource listing Reading:Learn@UW |
| April 6 | Motor Skill Assessment Reading:Learn@UW |
| April 8 | Motor Skill Assessment Reading:Learn@UW |
| April 10 | Motor Skill Assessment tool design Reading:Learn@UW |
| April 13 | Movement Concepts, strategies, game play Reading:Learn@UW |
| April 15 | Movement Concepts, strategies, game play Reading:Learn@UW |
| April 17 | Cognitive assessment tool design |
| April 20 | Social Skills and values assessment Reading:Learn@UW |
| April 22 | Social Skills and values assessment Reading:Learn@UW |
| April 24 | Social Skills and values assessment tool design Reading:Learn@UW |
| April 27 | Fitness skill assessment Reading:Learn@UW |
| April 29 | Fitness assessment Reading:Learn@UW <i>Research Project Results and Analysis Due</i> |
| May 1 | Fitness Spreadsheet design Reading:Learn@UW |
| May 4 | Using assessment data Reading:Learn@UW |
| May 6 | Report card design Reading:Learn@UW <i>Research Project Discussion and Conclusion Due</i> |
| May 8 | Teacher/Program assessment Reading:Learn@UW |

University of Wisconsin School of Education Teacher Licensing Standards

Following are the University of Wisconsin School of Education “old” standards addressed through Assessment and Research in Physical Activity Pedagogy and how those standards will be assessed...

- Standard 2 Understands Social Context of Schooling**
2.3 Interpret qualitative and quantitative research about student experiences in physical education across regional and historical variations.
Assessment: Research Article Summary and Analysis
- Standard 3 Demonstrate Sophisticated Curricular Knowledge**
3.7 Employ concepts, assumptions, and debates central to the process of inquiry in the study of physical activity.
Assessment: Research Project Introduction and Literature Review
Assessment Plan
- Standard 4 Demonstrates Pedagogical Knowledge in Specific Domains**
4.1 Evaluate research and best practices about ways student learning is used to construct and integrate knowledge in physical education.
Assessment: Research Project Results and Analysis
Research Project Discussion and Conclusion
- Standard 6 Understands and Adapts to Multiple Forms of Communication**
6.5 Actively participate in the professional physical education community (e.g., local, state, district, national) and within the broader education field.
Assessment: Research Project Poster
- Standard 8 Employs Varied Assessment Processes**
8.4 Identify key components of various types of assessment, describe their appropriate and inappropriate use, and address issues of validity, reliability, and bias.
Assessment: Validity and Reliability Assignment
Assessment Tool Comparison
Motor Skill Assessment Tool
Cognitive Assessment Tool
Affective Assessment Tool
Fitness Spreadsheet
Report Card Design
- Standard 9 Manages Learning Environment**
9.4 Use managerial and instructional routines that create smoothly functioning learning experiences.
Assessment: Research Project Methods
- Standard 13 Is a Reflective Practitioner**
13.1 Use a reflective cycle involving description of teaching, justification of teaching performance, critique of the teaching performance, the setting of teaching goals, and implementation of change.
Assessment: Teacher/Program Evaluation

Following are the University of Wisconsin School of Education “new” standards addressed through Assessment and Research in Physical Activity Pedagogy and how those standards will be assessed...

Conceptual Area 2

Planning

Standard 2.2

Choose, modify, and/or create formative and summative assessments to measure each learner’s progress toward instructional goals.

Assessment: Assessment Plan
Motor Skill Assessment Tool
Cognitive Assessment Tool
Affective Assessment Tool

Standard 2.4

Reflect on and meaningfully justify planning decisions and base justifications in knowledge of learners, development, curriculum, pedagogies, and resources.

Assessment: Teacher/Program Evaluation

Conceptual Area 3

Engagement and Instruction

Standard 3.1

Use a variety of teaching strategies, and evidence-based technologies and information resources to engage learners in meaningful activities that lead to content knowledge, critical thinking, creativity, innovation, self-evaluation, and self-directed learning.

Assessment: Research Article Summary and Analysis
Validity and Reliability Assignment
Research Project Results and Analysis

Standard 3.5

Support learners to develop and apply different perspectives of authentic (real-world) issues

Assessment: Research Project Discussion and Conclusion

Conceptual Area 4

Assessment

Standard 4.2

When appropriate, work with others to create and implement comprehensive and appropriate assessment.

Assessment: Fitness Spreadsheet

Standard 4.4

Clearly and accurately communicate assessment results to parents/guardians and other professionals.

Assessment: Research Project Poster

Standard 4.5

Reflect and meaningfully justify assessment decisions, considering the strengths and limitations of assessment methods in relation to learners’ characteristics and experiences, development, curriculum, pedagogies, and resources.

Assessment: Research Project Discussion and Conclusion
Assessment Tool Comparison

Conceptual Area 5

Professionalism and Ethics

Standard 5.4

Use professional ethics, and school and district, state and federal policies and regulations to guide their practices, decisions, and relationships with others, including learners, colleagues, and families from different cultural and linguistic backgrounds.

Assessment: Research Project Methods

Standard 5.5

Communicate and collaborate with learners, families, colleagues, other school professionals, and community members to ensure learner growth, and to advance the profession.

Assessment: Research Project Introduction and Literature Review
Report Card Design

