



RHODE ISLAND COLLEGE
FEINSTEIN SCHOOL OF EDUCATION & HUMAN DEVELOPMENT
Department of Counseling, Educational Leadership & School Psychology
Syllabus of Record – edited November 2010

Course: CEP 534 Quantitative Measurement and Test Interpretation

Prerequisites: matriculation in a graduate program in counseling or school psychology, CEP 532 or consent of department chair

Required Texts:

Kaplan, R. M., & Saccuzzo, D. P. (2009). *Psychological testing: Principles, applications, and issues* (7th ed.). Belmont, CA: Wadsworth.

Optional/ Recommended Texts:

American Psychological Association. (2010). *Publication Manual of the American Psychological Association* (6th ed.). Washington, DC: Author.

CEP 534 Faculty Fall 08 – Fall 10			
	Heard, Kenneth	Adjunct	Ph.D.
	Tortolani, Christina	Adjunct	Ph.D.
	Howes, Sarah	Adjunct	Ph.D.
	Walker, Robert	Adjunct	Ph.D.

Course description:

Students develop techniques for the effective use of test results in counseling including statistical and data analysis techniques.

Relationship of course to program:

The course is required of all students in counseling and school psychology programs. It is designed to provide graduate students an advanced level understanding of standardized tests commonly used in educational and clinical counseling settings. It is the only assessment course that the students are required to take in relation to understanding educational and psychological measurement. As the profession dictates, the students are to be able to interpret and explain the meaning of test results. They, therefore, incorporate this information into their counseling in assisting students and adults in achieving their academic and personal goals. The knowledge gained through their testing is infused within their counseling plans. As well, counselors help schools and society embrace cultural and ethnic diversity and uniqueness in cognitive, personality, and physical characteristics.

Relationship of Course to Conceptual Framework and FSEHD:

This course is based on the reflective practitioner model that is compatible with the guiding principles for all instruction at FSEHD. Course material emphasizes: understanding psychometric theories and approaches to student and clinical appraisal; data and information gathering methods; validity, reliability, descriptive statistics, and factors influencing evaluation; and the use of evaluation results in the educational and counseling process. This basis of information allows counseling practitioners to *plan, analyze and reflect* on the diagnostic and assessment instruments available to them in their respective professions.

By the end of this course, students will be able to:

<u>Course Learning Objectives</u>	<u>SPA</u>	<u>Conceptual Framework: Advanced Competencies</u>
1. Understand the philosophy and history underlying measurement and testing	CACREP Standard 7a School Counseling Curriculum Domain C NASP 2.1, 2.10	Knowledge - 1
2. Evaluate the variables which influence development and achievement	CACREP Standard 7f School Counseling Curriculum Domain C NASP 2.1,2.9	Practice - 3
3. Calculate and interpret commonly used descriptive statistics including central tendency and variability measures	CACREP Standard 7c, 7d, 7e NASP 2.9	Practice - 1
4. Calculate and critically interpret and utilize correlational procedures	CACREP Standard 7c NASP 2.9	Practice - 1
5. Utilize the concepts of reliability and validity in selection and evaluation of tests	CACREP Standard 7b, 7c, 7d NASP 2.9	Practice - 1
6. Utilize concepts of measurement theory, i.e., standard error of measurement in the interpretation of scores	CACREP Standard 7b, 7c NASP 2.9	Practice - 1
7. Demonstrate competence in statistical interpretation of standardized test scores	CACREP Standard 7b, 7g NASP 2.9 ASCA 3.2	Knowledge - 1
8. Understand within an ethical and culturally-sensitive framework how tests can be utilized to	CACREP Standard 7f, 7g School Counseling Curriculum Domain	Knowledge - 1

improve educational and clinical decision making	B,C ASCA 3.2 NASP 2.1,2.9	
9. Become familiar with a wide variety of standardized intelligence, developmental, achievement, attitude, and computer-managed assessment applications	CACREP Standard 7b, 7g School Counseling Curriculum Domain B,C NASP 2.1,2.9,2.11	Knowledge - 2
10. Demonstrate proficiency in locating, evaluating, and selecting tests for educational and counseling purposes	CACREP Standard 7b, 7f, 7g School Counseling Curriculum Domain B,C NASP 2.1,2.9	Practice - 3
11. Demonstrate competence in making ethically and clinically appropriate inferences from testing individuals with diverse cultural ethnic backgrounds.	CACREP Standard 7f, 7g School Counseling Curriculum Domain B,C NASP 2.1,2.5,2.9 ASCA 3.2	Practice – 3, 4

Course Requirements	Course Learning Objectives	Points	Conceptual Framework/ Professional Association
Class participation: When class meets, students are expected to attend each class meeting, arrive on time, and participate positively in class activities and discussions. This means candidates are to show respect for others by listening attentively while others speak, not dominating class discussions, and avoiding disruptions (cell phones, arriving late, etc.). The participation grade will also take into consideration each candidate's efforts in completing in-class activities.	1-11	15	Knowledge - 4 Practice - 4 CACREP Standard – 1b
Written responses to discussion questions: In addition to participating in in-class discussion, students will be required to submit written responses to weekly discussion topics and assignments.	1, 9, 10, 11	30	Knowledge – 1 Practice - 1 CACREP Standard – 7b, 7f

Quizzes: Six quizzes will be in the format of multiple choice and fill-in questions. Quizzes will be given weekly on the chapters assigned the previous week.	1-11	30	Knowledge - 1 CACREP Standard - 7a-7g
<u>Test Development Project (25%)</u> . Each student will design a test to measure a construct. The project includes the 5 assignments, following the steps of test development: conceptualization, construction, tryout, item analysis and test revision (see Chapter 7). [1] Conceptualizing the test will include a brief literature review of the construct to be tested (such as information from previous tests and characteristics of people who get high or low scores on this construct). The literature review must include at least two references from professional journals (see examples on page 5 of syllabus). [2] Students will submit a 2-page evaluation of a test review (from the Buros Mental Measurements Yearbooks) for a test in print (see questions in Appendix A). [3] Students will construct a test with 20 or more questions. Test construction will consider issues such as item selection and response formats. [4] Students will then give their measure to 20 individuals, and will run an item analysis. [5] A final written report of the literature review, test (items included), test results and suggestions for test revision will be submitted on the last day of class.	2, 3,4, 5, 6, 7, 8	25	Knowledge - 1 Practice – 1, 3 CACREP Standard – 7a-7g

Course Grading

A = 100-94 points

A- = 90-93 points

B+ = 87-89 points

B = 84-86 points

B- = 80-83 points

C+ = 77-79 points

C = 74-76 points

C- = 70-73 points

D = 65-69 points

F = 64 and below

Note:

- *Rhode Island College is committed to making reasonable efforts to assist students with documented disabilities. If you are seeking reasonable accommodations under the Americans with Disabilities Act, and/or Section 504 of the Rehabilitation Act of 1973, you are required to register with the Student Life Office in Craig-Lee Hall Room 127 (456-8061). To receive*

accommodations, please obtain the proper forms from the Student Life Office and meet with me at the beginning of the semester.

- *Academic dishonesty, including plagiarism and/or the use of other students' work, will not be tolerated and will result in a failure for the class grade.*

References

American Psychological Association, American Education Research Association (1999). *Standards for educational and psychological testing*. Washington, DC: Author.

National Association of School Psychologists (1992). *Principles for professional ethics. Professional conduct manual*. Pp. 1-23. Washington, DC: Author.

Sattler, JM (1988). *Assessment of Children*. San Diego: Jerome Sattler Publisher.

Professional Journals:

Applied Measurement in Education

Applied Psychological Measurement Educational Assessment

Educational Measurement: Issues and Practice Intelligence

Journal of Applied Psychology

Journal of Counseling Psychology

Journal of Educational Psychology Journal of Educational Measurement Journal of

Personality Assessment Journal of School Psychology Measurement and Evaluation in

Counseling and Development

**CEP 534: QUANTITATIVE MEASUREMENT AND TEST INTERPRETATION
TEST DEVELOPMENT PROJECT RUBRIC**

About research methodology: This instrument has been developed for use with research proposals employing qualitative, quantitative, and mixed research designs.

Using the rating scale: A four level rating scale is used for scoring each of the quality indicators in the rubric. In general, ratings of 3 or above are considered satisfactory, while ratings of 1 or 2 do not achieve minimal standards for passing.

Research Proposal Quality Indicators

<p>4 = All elements of indicator are thoroughly addressed. Description demonstrates superior insight and application of course content.</p> <p>3 = All elements of indicator are addressed. Description demonstrates good insight and application of course content.</p> <p>2 = Most elements of indicator are addressed. Description is limited and reflects poor application of course content.</p> <p>1 = Many elements of indicator are not addressed. Description is incomplete, unclear, and reflects little attempt to apply course content.</p>

Introduction (CACREP Standard – 7b; 7f; Knowledge 1, 2; Practice – 1, 2)

<i>Indicator</i>	<i>Points</i>
1. The construct of interest is introduced, and its potential importance for research and applied practice is described. Author makes a clear and convincing case for why a measure of the construct is needed.	
2. Purpose of the study is clearly defined	

Subtotal: ____/8

Construct Definitions (CACREP Standard – 7b; 7c; NASP 2.9, Practice – 1; Knowledge – 1, 2)

<i>Indicator</i>	<i>Points</i>
1. Operational definition of construct is provided	
2. Theory used to operationalize the construct are presented and discussed	
3. Author proposes a nomological network of related constructs, including hypotheses outlining these expected relationships	
4. Construct is clearly related to other, related constructs, and author discusses why s/he expects such relationships in the nomological network	
5. Appropriate research and theory are cited to substantiate above points	

Subtotal: ____/20

Method (CACREP Standard – 7b; 7c; 7d; 7e; 7f;,, NASP 2.9, Knowledge- 1, 2; Practice – 1, 4)

<i>Indicator</i>	<i>Points</i>
Process used to develop measure is presented, including:	
1. How items were generated and screened	
2. How items were scaled and scale anchors were used	
3. Process and results of item try-out process	
Other measures used as construct validity evidence are described, including:	
4. Items in each measure	
5. Scale anchors	
6. Previous reliability and validity evidence	
Methods used to collect data are described, including:	
7. Who participated in item try-outs	
8. Number of surveys distributed and completed	
9. Demographics of sample (e.g., age, race/ethnicity, year in school, work experience, other relevant characteristics, etc.)	

Subtotal: ____/36

Results (CACREP Standard- 7f; 7g; NASP 2.9, Knowledge – 1, 2; Practice - 1)

<i>Indicator</i>	<i>Points</i>
1. Specific analyses performed are described, and purpose of each is presented	
2. Results of reliability analysis are clearly and thoroughly presented and interpreted correctly	
3. Results of item analysis are clearly and thoroughly presented and interpreted correctly	
4. Results of factor analysis are clearly and thoroughly presented and interpreted correctly	
5. Tables of results are provided in addition to narrative descriptions of results	

Subtotal: ____/20

Discussion (CACREP Standard 7c; 7f, 7g; School Counseling Curriculum Domain B,C; NASP 2.1,2.9 Knowledge – 1, 2)

<i>Indicator</i>	<i>Points</i>
Results from previous section are thoroughly discussed	
1. Author discusses why the particular results were found, using previous research and theory to substantiate points	
2. Author elaborates on findings and interprets them in light of what was expected (e.g., if certain items did not work for the measure, why might this be?)	
3. Author discusses patterns of correlations found with constructs in the nomological network (significant and non-significant ones) and what these correlations mean	
4. Author discusses limitations of the study (e.g., generalizability, idiosyncratic testing conditions, whatever else seems relevant)	
5. Author discusses practical implications of study	
6. Author presents specific suggestions for revision of the instrument and ideas for future research with the construct	

Subtotal: ____/24

References, Appendices, and Tables (Knowledge 1,2 ; Practice1, 2)

<i>Indicator</i>	<i>Points</i>
A section including a list of references, a copy of the actual survey used to collect data, and tables of results is provided	

Subtotal: ____/4

Writing Style and Composition (Practice 4)

<i>Indicator</i>	<i>Points</i>
The proposal is written in scholarly language (accurate, balanced, objective, tentative). The writing is clear, precise, and avoids redundancy. Statements are specific and topical sentences are established for paragraphs. The flow of words is smooth and comprehensible. Bridges are established between ideas. APA style is implemented correctly and consistently.	

Subtotal: ____/4

Organization and Form (Practice 4)

<i>Indicator</i>	<i>Points</i>
The proposal is logically and comprehensively organized. The sections add up to an integrated "whole." Subheadings are used to identify the logic and movement of the proposal, and transitions between sections are smooth and coherent.	

Subtotal: ____/4

Total Points: _____/120**CHALK AND WIRE**

The Feinstein School of Education and Human Development has adopted *Chalk & Wire* as its data collection and assessment system. All students admitted to the Feinstein School and/or enrolled in any education course are required to purchase a *Chalk & Wire* electronic code at the RIC Bookstore. The *Chalk & Wire* electronic code purchase is a required one-time textbook purchase. This code allows students to access *Chalk & Wire* for a four year period while enrolled at Rhode Island College. The electronic code is a personal code and cannot be exchanged among students. Students receiving financial aid may use their financial aid to purchase the *Chalk & Wire* electronic code. *Chalk & Wire* allows students to submit assignments electronically and receive electronic feedback from Education course instructors. Students also have the opportunity to create personal portfolios on *Chalk & Wire*. To assist students with this transition, instructions about how to use the *Chalk & Wire* system will be available in one or more of their education courses.

STUDENTS WITH DISABILITIES

Rhode Island College is committed to making reasonable efforts to assist students with documented disabilities. If you are seeking reasonable accommodations under the Americans with Disabilities Act, and/or Section 504 of the Rehabilitation Act of 1973, you are required to register with the Student Life Office in Craig-Lee Hall Room 127 (456-8061). To receive accommodations, please obtain the proper forms from the Student Life Office and meet with me at the beginning of the semester.

ACADEMIC HONESTY STATEMENT

Students in this course are expected to abide by the principles of academic honesty. Students who willfully violate these principles (e.g., by cheating on examinations and assignments, plagiarizing, altering or changing records, etc.) cheat themselves, destroy any presumption of personal integrity, and degrade the value of education. It is especially important that all students understand the nature of plagiarism, for their written work will be judged rigorously for honesty.. There are various forms of plagiarism of which the following are most common:

1. **Word-for-word plagiarism:** This includes (a) the submission of another student's work as one's own; (b) the submission of work from any source whatever (book, magazine or newspaper article, unpublished paper or thesis) without proper acknowledgement by footnote or reference within the text of the paper; (c) the submission of any part of another's work within your paper use of quotation marks.
2. **Patchwork plagiarism:** This consists of a piecing together of unacknowledged phrases and sentences quoted verbatim (or nearly verbatim) from a variety of sources. The mere reshuffling of other people's words does not constitute original work.
3. **Unacknowledged paraphrase:** It is perfectly legitimate to set forth another author's facts or ideas in one's own words, but if one is genuinely indebted to the other author for these facts or ideas, the debt must be acknowledged by footnote or reference with the text of the paper.
4. Many facts, ideas, and expressions are common property and need not be acknowledged, (e.g., the fact that the Declaration of Independence was signed in 1776; the idea that universal public education is essential to the survival of democratic institutions; such proverbial expressions as "A rolling stone gathers no moss," or "New York-It's a great place to visit, but I wouldn't want to live there"), to acknowledge indebtedness.

(Note: The above paragraphs are based largely on D. Sears, Harbrace Guide to the Library and the Research, p. 39). It is especially important that all students understand the nature of plagiarism; for further explanation, see Sears, Harbrace, *Guide to the Library and Research paper*. Student Handbook, pg 35

5. **Self-plagiarism:** Unauthorized multiple submissions of work for credit is a form of academic dishonesty. It occurs when a student, who has not been given permission to do so, submits for academic credit work that is the same or substantially the same as work that has been submitted for credit in another course. Many professors allow re-working or building on prior work; however, multiple submissions are permitted only with the prior permission of the instructor(s), and only when the student acknowledges the multiple submission in the work itself. *Adopted by the Rhode Island College Council, spring 2006.*

A student who commits academic dishonesty will incur one of the following penalties depending on the severity of the infraction:

1. A low or failing grade on the assignment in which the offense occurred.
2. An additional assignment.
3. Reduction of the final grade up to and including course failure
4. Any combination of the above.

Students who willfully violate the principles of academic honesty (e.g., through cheating on examinations or assignments, plagiarism [see below], altering or changing records, etc) are subject to consequences ranging from an effect on their grade to academic probation or expulsion depending on the seriousness of the act. Any student accused of academic dishonesty may appeal to the Board of College Discipline.