University of Tennessee College of Social Work

Social Work 602 - Research for Social Work Practice II Spring 2019

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Code of Conduct
It is the student's responsibility to have read the College of Social Work Ethical Academic and Professional Conduct code that is in the student handbook (www.csw.utk.edu). You also need to become familiar with what constitutes plagiarism, and must write all of your course assignments without plagiarizing any materials. The Library web pages have information on this topic.

The Honor Statement
An essential feature of The University of Tennessee is a commitment to maintaining an atmosphere of intellectual integrity and academic honesty. As a student of the University, I pledge that I will neither knowingly give nor receive any inappropriate assistance in academic work, thus affirming my own personal commitment to honor and integrity. I also affirm that I will not plagiarize from any source. (Hilltopics, https://hilltopics.utk.edu/).

Disability
If you need course adaptations or accommodations because of a documented disability or if you have emergency information to share, please contact the University of Tennessee Office of Disability Services, 915 Volunteer Blvd/100 Dunford Hall, Knoxville, TN 37996, Tel: 865-974-6087, Fax: 865-974-9552, VP: 865-622-6566, email: sds@utk.edu. This will ensure that you are properly registered for services.

University Civility Statement
Civility is genuine respect and regard for others: politeness, consideration, tact, good manners, graciousness, cordiality, affability, amiability and courteousness. Civility enhances academic freedom and integrity, and is a prerequisite to the free exchange of ideas and knowledge in the learning community. Our community consists of students, faculty, staff, alumni, and campus visitors. Community members affect each other’s well-being and have a shared interest in creating and sustaining an environment where all community members and their points of view are valued and respected. Affirming the value of each member of the university community, the campus asks that all its members adhere to the principles of civility and community adopted by the campus: http://civility.utk.edu/

Dimensions of Diversity
The College of Social Work and the University of Tennessee welcome and honor all people. In accordance with the U.S. National Association of Social Workers (NASW) and the U.S. Council on Social Work Education (CSWE 2015 Educational Policy Statement), “the dimensions of
diversity are understood as the intersectionality of multiple factors including age, class, color, culture, mental or physical disability and ability, ethnicity, gender, gender expression, gender identity, immigration status, marital status, national origin, political ideology, race, regionality, religion and spirituality, sex, sexual orientation, and tribal sovereign status. The College values intellectual curiosity, pursuit of knowledge, and academic freedom and integrity. “A person’s diverse life experiences may include oppression, poverty, marginalization, and alienation as well as privilege, power, and acclaim” (CSWE 2015 Educational Policy Statement). The College of Social Work promotes social justice and social change, and strives to end discrimination, oppression, poverty, and other forms of social injustice.

**Ph.D. Program Competencies**

Upon completion of the UT CSW Ph.D. program, students will be able to:

1. Demonstrate expert knowledge in a focused substantive area relevant to social work;
2. Conduct independent and original scientific research that advances knowledge in a substantive area;
3. Communicate scientific findings in an effective way to a range of audiences (from lay persons to other scientists);
4. Secure funding for a substantive research agenda;
5. Teach students the knowledge, skills, and values they need to be proficient social workers in a substantive area.

**Course Description**

Intermediate methods for quantitative and qualitative research for social work practice, including applied measurement theory; reliability and validity; scale development; item analysis; differential item functioning; and measurement equivalence.

**Course Competencies**

By the end of this course students should be able to:

1. Use and interpret results from different types of measurement methods (e.g., standardized scales, behavioral observation)
2. Apply basic principles of item construction to the development of new items and the interpretation of potential biases in existing items
3. Apply basic concepts of classical measurement theory to the estimation and interpretation of reliability
4. Apply contemporary conceptualizations of validity to the estimation and interpretation of a broad array of different processes for developing validity evidence
5. Select, compute, and interpret statistics relevant to determining the reliability and validity of scores derived from different types of measures and for both norm-referenced and criterion-referenced measurement applications (e.g., measures resulting in continuous or discrete scores)
6. Interpret and compute different types of scores derived from measures (e.g., T-scores, percentile ranks, sten scores, clinical cutting scores, etc.)
7. Apply considerations involved in cross-cultural measurement to the development, selection, and interpretation of scores derived from measures
8. Specify, test, and interpret confirmatory factor analysis models
9. Apply generalizability theory to measurement development and testing, in particular in computing dependability indices for criterion-referenced measurement applications
10. Evaluate and select existing measures based on a critical appraisal of evidence concerning the reliability and validity of scores derived from measures and other important considerations (e.g., diverse factors that might influence scores on a measure such as characteristics of normative groups, administration methods, purpose)
11. Use confirmatory factor analysis to conduct measurement equivalence studies
12. Use path analysis to test mediation and moderation hypotheses
13. Develop and conduct a validity study of a measurement instrument

**Required Text**
There is no required text for this course. The course instructor will assign readings from texts and journal articles. These materials will be emailed to students or handed out in class.

**Grading**
Exams (2)  
40% (20% each)  
Quizzes  
30% (total)  
Homework and experiential projects  
30%  
Total  
100%

**Grading Standards**
A  92% - 100%
B+  86% - 91.99%
B  80% - 85.99%
C+  75% - 79.99%
C  70% - 74.99%
D  65% - 69.99%
F  below 65%

Your grade will be the weighted average of your grades on exams, quizzes, etc. Each grade will be weighted by the percentages above under **Grading**.

**Exams**
There will be two exams, one at approximately mid-term, and the other at the end of the semester. Each exam will account for 20% of your course grade.

**Quizzes**
There will be frequent quizzes that will cover course material, including readings. The total of your quizzes will count 30% of your final grade.

**Homework**
There will be homework assignments to help students develop skills using SPSS for analyses and for doing certain hand computations.
Homework and Experiential Learning Projects
There will be homework assignments of a variety of forms. There will be projects that will be
done in class and as homework designed to help you learn important research concepts and
skills. These will include learning projects on scale development and validity studies; doing a
CFA measurement equivalence study gathering real data and doing CFA multiple groups
analyses; using path analysis to test hypotheses about mediation and moderation hypotheses; and
the use of structural equation modeling (SEM) to test for measurement equivalence using the
MIMIC method. Specifics of these projects will be given out in class. As a part of these projects
students will learn how to use AMOS for CFA and MIMIC analyses. At the end of the course
there will be a brief introduction to using Mplus for CFA and SEM analyses.

Reading Assignments
Reading assignments will be given out each class by the course instructor. The tentative
ordering of course content and subjects is below:

   A. Introduction to measurement theory
      a. Classical measurement theory
      b. Classical observed score breakdown
      c. Classical observed score variance breakdown
      d. Reliability
      e. Reliability and item analysis using SPSS
      f. The correction for attenuation formula
      g. General Spearman-Brown formula

   B. Modern Validity Theory
      a. What is validity?
      b. Forms of validity evidence
      c. Latent variable models of validity and validity evidence
      d. What is measurement equivalence?
      e. Measurement equivalence from a CFA perspective
         i. Form equivalence
         ii. Metric invariance
         iii. Scalar invariance
      f. What is differential item functioning (DIF)?

   C. Introduction to AMOS
      a. Use of AMOS for validity studies
      b. Use of AMOS for measurement equivalence studies
      c. Multiple groups measurement equivalence studies
      d. MIMIC methods for measurement equivalence studies

   D. Use of AMOS for mediation and moderation analyses

   E. Reliability and validity of diagnostic/classification decisions
      a. Prevalence
      b. Sensitivity
      c. Specificity
      d. Positive predictive value
      e. Negative predictive value

   F. Brief introduction to Mplus for CFA and MIMIC analyses