SOCIAL WORK 602: Research for Social Work Practice II (3 credits)

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Ph.D. Program Mission
The purpose of social work education at the doctoral level is to develop an understanding and appreciation of the scientific method so that graduates can improve and extend the knowledge base of social work practice, and inform social policy, through empirical research. Graduates of doctoral programs assume leadership roles in social work education, research, and practice.

The Ph.D. program in social work provides training in social and behavioral science research methods and the opportunity for students to apply these methods to social problems and social work practice areas. Doctoral research is directed toward developing knowledge that can be used by social work educators, practitioners, administrators, and policy makers. Graduates of the Ph.D. program are prepared to contribute to the improvement of the design and implementation of social services and to develop and disseminate social work knowledge through research and teaching.

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.

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 College of Social Work Ph.D. Student Handbook (www.csw.utk.edu).

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.

**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/)

**Disability Services**
If you need course adaptation or accommodations because of a documented disability or if you have emergency information to share, please contact the Office of Disability Services at 100 Dunford Hall phone number 865-974-6087. This will ensure that you are properly registered for services.

**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 Policy Statement), “the dimensions of diversity are understood as the intersectionality of multiple factors, including” age, class, color, culture, mental or physical disability and the 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.

**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 research design and proposal writing

**Course Competencies**
By the completion of this course, the students are expected to be able to demonstrate (through course activities, assignments, and/or exams):

- use and interpret results from different types of measurement methods (e.g., standardized scales, behavioral observation)
• apply basic principles of item construction to the development of new items and the interpretation of potential biases in existing items
• apply basic concepts of classical measurement theory to the estimation and interpretation of reliability
• apply contemporary conceptualizations of validity to the estimation and interpretation of a broad array of different processes for developing validity evidence
• 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)
• interpret and compute different types of scores derived from measures (e.g., T-scores, percentile ranks, sten scores, clinical cutting scores, etc.)
• apply considerations involved in cross-cultural measurement to the development, selection, and interpretation of scores derived from measures
• specify, test, and interpret confirmatory factor analysis models
• apply generalizability theory to measurement development and testing, in particular in computing dependability indices for criterion-referenced measurement applications
• 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)

Course Requirements

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. The first will be a midterm approximately the week of March 15, 2016, depending on progress through course content. The second will be a cumulative final exam at the end of the course.

Quizzes

There will be frequent quizzes that cover course material. Most will be both conceptual and computational, so bring a calculator to class each day. The total of your quizzes will count 10% of your final grade. Quizzes will be approximately one every two weeks.

Homework

There will be homework assignments of a variety of forms, and these will count a total of 10% of your final grade. Homework will be assigned each class.

Online UT Human Subjects Course

You will need to take and complete the UT CITI online course on the protection of human subjects in research. This online course can be found at:
http://research.utk.edu/training/citi.shtml. Completion of this course will count 5% of your grade. This must be completed, and the course certificate handed in to the course instructor, by the last week of classes. It takes a total of about 8 – 10 hours to complete the course. The certificate of completion is due by the last day of classes.

In-Class Projects

We will do in-class projects (see below) designed to help you develop research and data analysis skills. We will also make use of the Discussion Board on Blackboard in a variety of ways. Your participation in these discussion boards, participation in class projects, and in-class participation together will count 10% of your grade.

DIF Project

During the term you will learn how to do DIF analyses using both binary and ordinal logistic regression. As a final project for this portion of the course you will be given data on item responses from scale with dichotomously scored items and will do a DIF study of these items, including creating graphs (using Power Point) showing DIF in items, and write up the results. Details will be given in class.

Item Analysis Project

During the term you will learn how to do an item analysis. As a final project for this portion of the course you will be given data on item responses from a scale and will do an item analysis of these items and write up the results. Details will be given in class.

Development of a Measurement Scale

During the term you will learn how to develop a measurement scale and how to do a validity study of the scores on this scale. As a part of this project you will gather some data, enter it into an SPSS data file, and do several forms of analysis relevant for validity. Details will be given in class.

Cut Score Project

You will learn how to establish a cut score on a measurement procedure and how to evaluate the cut score using ROC analysis.

Confirmatory Factor Analysis (CFA) Project

You will learn how to do a CFA using AMOS for simple CFA models.

Presentation of Methodological Critique

You will do a brief in-class presentation of a methodological critique of one of the studies you included in your Critical Literature Review paper. In this presentation you will pick one of the studies that was included in your literature review from last term and do an in-depth
methodological critique. This will be presented in class. More details will be given out in class.

Discussion Boards

Discussion board assignments will be used to help develop your skills at doing methodological critiques of published research. Details on these will be discussed in class.

The course grade will be computed as follows:

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
</tr>
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<tbody>
<tr>
<td>Exams (2)</td>
<td>40% (20% each)</td>
</tr>
<tr>
<td>Quizzes</td>
<td>10% (total)</td>
</tr>
<tr>
<td>Homework</td>
<td>5% (total)</td>
</tr>
<tr>
<td>DIF, Item analysis, and other projects, including the in-class presentation and discussion boards</td>
<td>35% total</td>
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<tr>
<td>Online UT course on protection of human subjects in research</td>
<td>5%</td>
</tr>
<tr>
<td>In-Class projects and participation</td>
<td>5%</td>
</tr>
<tr>
<td></td>
<td>100%</td>
</tr>
</tbody>
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The grading scale is:

- **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.

**Required Texts**
The required text for this course is *Research design in clinical psychology* (4th ed.) by A. Kazdin (2002; Allen & Bacon); and, *A Handbook on the Theory and Methods of Differential Item Functioning (DIF)*, by Bruno D. Zumbo, Ph.D. (1999); Professor of Psychology & of Mathematics University of Northern British Columbia. This handbook will be emailed to you (and is posted on the Blackboard course site) by the course instructor. There will be several assigned readings from other texts and book chapters through the course, including:

- Chapter 6 from an edited book by Stuart Kirk (*Mental Disorders in the Social Environment*), a chapter on measurement issues in clinical diagnosis;

These readings will be emailed to you by the course instructor and are posted on the Blackboard course site.

**Tentative Class Schedule. The exact content of classes may change depending on how quickly you are “getting” the content.**

January 19, 2016
- Overview of course
- Developing a measurement scale
- Validity theory
- Begin class project on validity study
- Readings: Validity readings Messick (assigned pages); Zumbo

January 26, 2016
- Continue on validity
- Differential item functioning
- Continue validity project
- Readings: Continue validity chapters; DIF Handbook

February 2, 2016
- Reliability theory: Introduction to classical true score theory
- Reliability coefficients
- Classical attenuation formula; generalized Spearman-Brown
- Homework on use of attenuation formula and Spearman Brown formulas
- Readings: chapter on reliability in Zumbo book

February 9, 2016
- Computing dependability indices for criterion references measurement
    Using generalizability theory
- Homework: Computing dependability indices
Readings: chapter on reliability in Zumbo book

February 16, 2016
  Inter-rater agreement indices; kappa
  Item analysis using SPSS; item analysis assignment
Readings: chapter on reliability

February 23, 2016
  Positive predictive value (PPV) and negative predictive value (NPV)
Readings: Chapter 6 from Kirk
Homework assignment on PPV and NPV

March 1, 2016
  Catch-up class to make sure you understand all content to date.
March 8, 2016
  Catch-up class to make sure you understand all content to date.

March 15, 2016
  Approximate date of midterm.

March 22, 2016
  Introduction to CFA
  Introduction to CFA using AMOS
Readings: Albright and Park

March 29, 2016
  Continue with CFA

April 5, 2016
  Continue with CFA

April 12, 2016
  Complete data analyses for validity project

April 19, 2016
  Presentations of Methodological critiques

April 26, 2016
  Last day of class
  Class wrap up
  Prepare for Final exam