I. COURSE PURPOSE

In order to determine whether an intervention is effective in changing behavior, to assess the extent to which a social program has an impact, or to collect data to test a hypothesis, researchers need to select appropriate measures and instruments. The process of selecting and creating such an instrument involves a solid understanding of: the purpose of the measure, the reliability and validity of the measure, the structure of the measure, and the data source for the measure. In some cases, there is no previously developed instrument that fits the program or practice to be assessed or the research question posed. In this situation, social workers need to know how to develop an instrument that can be used to collect the necessary data.

This course will present the skills needed to develop instrument questions, assess the reliability, validity, and dimensionality of individual items, and gauge potential biases in responses and non-responses. The course will expand the knowledge and skills of evaluating standardized instruments for reliability, validity, and sensitively and specificity in order to enhance the ability to select the most effective measure based on setting, population, and purpose of data collection. The mode of dissemination of the measurement will be covered so students will be able to determine the most effective method based on the practice setting, the population, and sensitivity of the questions. Additionally, the course will introduce methods for evaluating instruments for cultural and linguistic suitability. Thus, this course will focus on the selection, evaluation, and development of instruments for use in practice settings. The course will extend the students’ knowledge of evaluating reliability and validity, including the use of factor analysis in instrument development and evaluation. The theory that informs instrument development, translation, and testing and the ethical issues of data collection will be addressed throughout the course.
II. EDUCATIONAL OBJECTIVES

Upon completion of this course, students will:

1. Develop skills to contribute to the development of evidenced-based practice.
2. Have an increased understanding of instrument selection based on the objectives of the evaluation or research.
3. Evaluate the reliability of standardized instruments and testing new instruments for reliability.
4. Evaluate the validity of standardized instruments and testing new instruments for validity.
5. Evaluate the sensitivity and specificity of standardized instruments.
6. Identify the role of theory in instrument development.
7. Have an increased understanding of questionnaire item construction, and relative ordering.
8. Have an increased knowledge of the language of instrument development and testing.
9. Develop a survey based on the purpose of a program or practice need.
10. Evaluate the developed survey utilizing cognitive interviewing techniques.
11. Identify the challenges in developing or translating an instrument for more than the Eurocentric population.
12. Identify the ethical issues around survey development and use in practice.
13. Develop the most effective methodology for data collection – hard copy vs. online vs. in-person interviews.
14. Select the most effective data collection methodology for any given evaluation purpose.

III. COURSE REQUIREMENTS

A. Required readings


Additional reading will be assigned over the course of the semester and will be available on Blackboard.

B. Other Resources and Media
   American Association of Public Opinion Research (AAPOR) http://www.aapor.org/Home.htm


C. Course Assignments

   **Evaluation of survey:** Using the Fowler and Cosenza, Czaja and Blair, or Dillman, and the GAO survey assessment checklist(s) as a guide evaluate the survey provided by the instructor. This will be a 5 to 8 page paper. Be prepared to discuss in class the process of the evaluation, including the strengths and weaknesses of the survey, and suggestions made to improve the survey.

   **Group project:** Develop a short instrument to evaluate the effectiveness of a specific program. Each group will be provided with extensive information about an intervention or program. Based on this content the group will develop an instrument to evaluate the intervention or program. Each group member will
conduct three cognitive interviews to evaluate the instrument. All members will bring this information obtained from the cognitive interviews back and the group will incorporate the information to develop a final draft of the instrument. Each group member will write a paper on the process of the development of the survey, the information garnered from the cognitive interviews, and how all the information was used to develop the final instrument. Be prepared to do a presentation on the process and the outcome.

**Presentations:** Students will be required to make a number of presentations in class. Each student will sign up to present at least one required reading during the semester.

D. **Grading policy**

<table>
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<tr>
<th>Component</th>
<th>Percentage</th>
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<tr>
<td>Evaluation of Survey</td>
<td>20%</td>
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<tr>
<td>Group project</td>
<td>20%</td>
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<tr>
<td>Group project paper</td>
<td>20%</td>
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<tr>
<td>Presentations</td>
<td>20%</td>
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<tr>
<td>Participation</td>
<td>20%</td>
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E. **Preparation, Attendance & Participation**

Students are required to attend classes and are expected to participate meaningfully in class discussion/exercises. The class participation grade will be determined by the instructor’s perception of the student’s preparation for and contributions to class discussion/activities. Different students will make different kinds of contributions. Some will have an easy time with spontaneous interactions while others will be more comfortable making planned statements about key ideas from the readings or other sources. Both types of contributions are valued.

F. **Course and Instructor Evaluation**

NCSSS requires electronic evaluation of this course and the instructor. At the end of the semester, the evaluation form may be accessed at [http://evaluations.cua.edu/evaluations](http://evaluations.cua.edu/evaluations) using your CUA username and password. Additional, informal written or verbal feedback to the instructor during the semester is encouraged and attempts will be made to respond to requests.

IV. **CLASS EXPECTATIONS**

A. **Scholastic Expectations**

Please refer to NCSSS Announcements or appropriate Program Handbook for Academic Requirements, including scholastic and behavioral
requirements. All written work should reflect the original thinking of the writer, cite references where material is quoted or adapted from existing sources, adhere to APA format, and should be carefully proof read by the student before submission to the instructor for grading.

B. Academic Honesty

Joining the community of scholars at CUA entails accepting the standards, living by those standards, and upholding them. Please refer to University Policy and appropriate Program Handbooks.

C. Accommodations

Students with physical, learning, psychological or other disabilities wishing to request accommodations must identify with the Disability Support Services (DSS) and submit documentation of a disability. If you have documented such a disability to DSS that requires accommodations or an academic adjustment, please arrange a meeting with the instructor as soon as possible to discuss these accommodations.
<table>
<thead>
<tr>
<th>Class</th>
<th>Topic</th>
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<tbody>
<tr>
<td>1</td>
<td><strong>Introduction and Overview of the Semester</strong>&lt;br&gt;Why do social workers need to know more about measurement?&lt;br&gt;How to select an instrument</td>
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<td>2</td>
<td><strong>What is a survey?</strong>&lt;br&gt;Understanding the stages of the survey/instrumentation process&lt;br&gt;How to develop good questions&lt;br&gt;Dillman, Smyth, &amp; Christian. Chapters 1 - 2.&lt;br&gt;Scheuren, <em>What is a survey</em>. Chapters 1 – 4.&lt;br&gt;Henning, <em>A fitness program for flabby surveys.</em></td>
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<td>4</td>
<td><strong>Systematic Review of Survey/Instrument</strong>&lt;br&gt;Four means of systematic review of survey/instruments&lt;br&gt;The importance of the design of the survey/instrument&lt;br&gt;Dillman, Smyth, &amp; Christian. Chapter 4 – 5&lt;br&gt;Willis: Chapter 1: <em>Introduction to cognitive interviewing; Chapter 2: Setting the stage for cognitive interviewing: First principles of questionnaire design.</em></td>
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<td>5</td>
<td><strong>Selecting the mode of data collection</strong>&lt;br&gt;Survey Mode Selection Issues&lt;br&gt;Implementation Issues&lt;br&gt;Dillman, Smyth, &amp; Christian. Chapter 3</td>
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<tr>
<td>6</td>
<td><strong>Presentation of programs that the class will develop survey/instrument to evaluate.</strong>&lt;br&gt;Systematic review of instrument Due</td>
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7 **Writing the Questions**
   Writing effective questions
   Open-ended questions vs. closed-ended questions
Dillman, Smyth, & Christian. Chapter 6 – 7
Tran: Chapter 5: Developing new instruments

8 **Group work on survey/instrument development to evaluate program.**

9 **Am I measuring what I think I am measuring?**
   Cognitive Interviewing
Willis: Chapter 3 – 11

10 **Standardized Instruments**
   How to select a standardized instrument
   Reliability
   Validity
Trochim: Measurement

11 **Standardized Instruments con’t**
   Translating instruments for different language/culture
Tran: Chapter 4: Adopting or Adapting existing instruments; Chapter 6: Assessing measurement equivalence

12 Presentation of group instrument development process and outcome
**Group survey development paper due.**

13 **Standardized Instruments con’t**
   The role of factor analysis in instrument development
   Interpreting reliability testing
   Interpreting factor analysis
   Sensitivity and specificity
Berwin. Systematic review of screening instruments for adults at risk of PTSD

14 **Review and evaluation.**