



## University of Texas at Arlington School of Social Work

**Semester/Year:** Spring 2017

**Course Title:** Selected Topics in Social Welfare: Psychometrics and Measurement in Human Services

**Course Prefix/Number/Section:** SOCW 6392/5392 - 001

**Instructor Name:** Michael Killian, Ph.D., MSW

**Faculty Position:** Assistant Professor

**Faculty Profile:** <https://www.uta.edu/profiles/michael-killian>

**Office Number:** SWCA - Office 201B

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**Email Address:** [killianm@uta.edu](mailto:killianm@uta.edu)

**Office Hours:** Thursdays, 11:00am – 12:00pm

**Day and Time of Class (if applicable):** Online

**Location:** SWCA114

**Equipment:** A laptop computer with wireless capability or equivalent is required for all SSW classes. Blackboard: <https://elearn.uta.edu/webapps/login/>

### A. Description of Course Content

Topics vary from semester to semester depending on the needs and interest of the students.  
Prerequisite: permission of instructor.

This course focuses on psychometrics and measurement within social work research. Highlighting the importance of measurement in research, the course emphasizes the defining key theoretical constructs and the methodology needed to measure them. Students will focus on Classic Measurement Theory and its application to the development and validation of instruments. Item and measurement development will be examined as will advanced quantitative methods for testing psychometric properties of measures. Reliability statistics, exploratory factor analysis, confirmatory factor analysis, and Item Response Theory will be discussed. Lastly, the course serves as an opportunity to explore and critique current measurement in the student's area of interest. Measurement and research methodological responses to cultural, racial, ethnic, gender, age, and other forms of human diversity will be discussed.

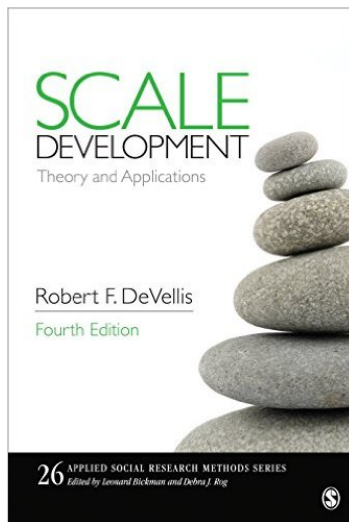
### B. Student Learning Outcomes

Students successfully completing the course should:

1. Understand the importance of measurement in social work research and understand the theoretical, conceptual, and methodological foundations of psychometrics and creation of latent constructs

2. Understand sources of measurement error and their implications for social work research
3. Understand measurement reliability and validity as key psychometric statistics and qualities
4. Conduct exploratory factor analyses to examine measurement dimensionality
5. Conduct confirmatory factor analyses to support the factor validity developed measures using appropriate analytic techniques
6. Conduct a systematic review of measurement in their area of interest while critiquing the theoretical, conceptual, and methodological foundations of a measure or measurement of a key construct
7. Understand measurement and psychometric methodological responses to cultural, racial, ethnic, gender, age, and other forms of human diversity

### C. Required Textbooks and Other Course Materials



DeVellis, R. F. (2016). *Scale development: Theory and applications (Vol. 26)*. Sage publications.

#### Recommended Readings:

Corcoran, K. & Fischer, J. (2013). *Measures for clinical practice and research: A sourcebook*. Vols 1 & 2. New York: Oxford University Press.

Kline, R.B. (2011). *Principles and practice of structural equation modeling (3rd Ed.)*. New York: Guilford.

Abell, N., Springer, D. W., & Kamata, A. (2009). *Developing and validating rapid assessment instruments*. Oxford University Press.

### D. Additional Recommended Textbooks and Other Course Materials

Additional readings per the course schedule will be provided online through the course Blackboard site.

### E. Descriptions of Major Assignments and Examinations

*Systematic Review and Critique of Measurement* - 40% - Students will complete a systematic review and critique of an important measure or key construct within their area of interest. This semester paper and project will require students systematically search for measurement literature or studies measuring a key construct. Synthesis and critique of the literature will focus on psychometric qualities and properties of particular measures or measurement of key constructs. Portions of the project will be due throughout the semester to allow for feedback and support for the final paper.

Statistics homework assignments (3) - 20% each - Students will complete three homework assignments worth 20% of the final grade each. Assignments will focus on conducting advanced

statistical analysis on reliability (internal consistency and inter-rater), exploratory factor analysis, and confirmatory factor analysis. All statistical analyses will be demonstrated in class using statistical analytic packages such as SPSS and R.

## **F. Grading**

The following grades will be assigned based on the percentage of points accumulated (these categories may be adjusted by the instructor at his discretion depending on students' final scores). Each item is graded on a 100 point scale, which is then multiplied by its number of points. These points are then added to equal a final grade out of 100 points. The grade breakdown is below:

Grading Scale:

90% – 100% = A

80% – 89% = B

70% – 79% = C

60% – 69% = D

< 60% = F

## **G. Make-Up Exams**

Students who do not take an exam will not earn any points. Make up exams will not be given unless the absent is authorized by the instructor (please check the “Attendance Policy” for detailed information). Generally, the professor will not grant an “incomplete” grade. The professor assigns “incomplete” grades only in rare circumstances.

## **H. Attendance**

At The University of Texas at Arlington, taking attendance is not required but attendance is a critical indicator in student success. Each faculty member is free to develop his or her own methods of evaluating students' academic performance, which includes establishing course-specific policies on attendance. However, while UT Arlington does not require instructors to take attendance in their courses, the U.S. Department of Education requires that the University have a mechanism in place to mark when Federal Student Aid recipients "begin attendance in a course." UT Arlington instructors will report when students begin attendance in a course as part of the final grading process. Specifically, when assigning a student a grade of F, faculty report the last date a student attended their class based on evidence such as a test, participation in a class project or presentation, or an engagement online via Blackboard. This date is reported to the Department of Education for federal financial aid recipients. As the instructor of this section, I allow students to attend class at their own discretion and have elected to take attendance but will not factor attendance into the grade. However, attendance is strongly encouraged.

## I. Course Schedule

Week	Date	Topics	Readings	Assignments
1	1/19	Introduction Discussing research and measurement interests Intro to Classical Measurement Theory	Syllabus	
2	1/26	Importance of measurement Systematic Reviews Introduction to Covidence	DeVellis Ch. 1 Littell et al., Ch. 1	
3	2/2	Systematic review of measures or constructs Conducting searches for systematic reviews Systematic review software	Littell et al., Ch. 2 Littell et al., Ch. 3 Liberati et al., 2009	Systematic review: search results
4	2/9	Construct identification and operationalization Instrument development overview Item development Qualitative and quantitative approaches	DeVellis, Ch. 5 Siebert et al., 2014 Boeije & Willis, 2013	
5	2/16	Reliability – Interrater and Test-retest Standard Error of Measurement Analytic techniques	DeVellis, Ch. 3 Whittaker et al., 2016 Shelvin et al., 2000	Systematic review: screening and reviewing
6	2/23	Reliability – Internal Consistency Analytic techniques	Hallgren, 2012 Krippendorff, 2004 Hayes & Krippendorff, 2007	
7	3/2	Validity – Face and Content Validity – Construct Validity – Criterion	DeVellis, Ch. 4	HW 1 due
8	3/9	Factor Validity – EFA Factor validity	DeVellis, Ch. 2 DeVellis, Ch. 6	
9	3/16	Spring Break		
10	3/23	Factor Validity – EFA Analytic techniques	Costello & Osborne, 2005 Chonody et al., In Press	HW 2 due
11	3/30	Factor Validity – CFA Factor validity	Furr & Bacharach, Ch. 12 Killian et al., 2015	
12	4/6	Factor Validity – CFA Analytic techniques	Mayes et al. Sanchez et al.	Systematic review: draft of data extraction table
13	4/13	Cross cultural validity Translation validity	Van de Vijver et al., 2004 Abell et al., 2006a Abell et al., 2006b	
14	4/20	Item Response Theory and applications to Classic Measurement Theory	DeVellis, Ch. 7 Furr & Bacharach, Ch. 13	HW 3 due
15	4/27	Item Response Theory and pragmatic implications for measurement design	Edelen & Reeve, 2007	
16	5/4	Final integration of measurement into research and pragmatic/practical considerations	DeVellis, Ch. 8 Cabrera-Nguyen, 2010	
17	5/11	Finals Week		Systematic review: Final Paper

As the instructor for this course, I reserve the right to adjust this schedule in any way that serves the educational needs of the students enrolled in this course.

## **J. Expectations for Out-of-Class Study**

Beyond the time required to attend each class meeting, students enrolled in this course should expect to spend at least an additional three hours (for each hour of class or lecture per week) of their own time in course-related activities, including reading required materials, completing assignments, preparing for assignments and exams, and reviewing online content.

## **K. Grade Grievances**

Or Ph.D. Program Manual at: [https://www.uta.edu/ssw/\\_documents/phd/phd-manual.pdf](https://www.uta.edu/ssw/_documents/phd/phd-manual.pdf)

## **L. Student Support Services**

UT Arlington provides a variety of resources and programs designed to help students develop academic skills, deal with personal situations, and better understand concepts and information related to their courses. Resources include [tutoring](#), [major-based learning centers](#), developmental education, [advising and mentoring](#), personal counseling, and [federally funded programs](#). For individualized referrals, students may visit the reception desk at University College (Ransom Hall), call the Maverick Resource Hotline at 817-272-6107, send a message to [resources@uta.edu](mailto:resources@uta.edu), or view the information at <http://www.uta.edu/universitycollege/resources/index.php>.

The IDEAS Center (2<sup>nd</sup> Floor of Central Library) offers **free** tutoring to all students with a focus on transfer students, sophomores, veterans and others undergoing a transition to UT Arlington. To schedule an appointment with a peer tutor or mentor email [IDEAS@uta.edu](mailto:IDEAS@uta.edu) or call (817) 272-6593.

The UT Arlington School of Social Work community is committed to and cares about all of our students. If you or someone you know feels overwhelmed, hopeless, depressed, and/or is thinking about dying by suicide or harming oneself or someone else, supportive services are available. For immediate, 24-hour help call MAVS Talk at 817-272-TALK (817-272-8255). For campus resources, contact Counseling and Psychological Services (817-272-3671 or visit <http://www.uta.edu/caps/index.php>) or UT Arlington Psychiatric Services (817-272-2771 or visit <https://www.uta.edu/caps/services/psychiatric.php>) for more information or to schedule an appointment. You can be seen by a counselor on a walk-in basis every day, Monday through Friday, from 8:00 AM to 5:00 PM in Ransom Hall, Suite 303. Getting help is a smart and courageous thing to do - for yourself and for those who care about you.

## **M. Librarian to Contact**

The Social Sciences/Social Work Resource Librarian is John Dillard. His office is in the campus Central Library. He may also be contacted via E-mail: [dillard@uta.edu](mailto:dillard@uta.edu) or by Cell phone: **(817) 675-8962**, below are some commonly used resources needed by students in online or technology supported courses: <http://www.uta.edu/library/services/distance.php>

The following is a list, with links, of commonly used library resources:

Library Home Page..... <http://www.uta.edu/library>

Subject Guides.....	<a href="http://libguides.uta.edu">http://libguides.uta.edu</a>
Subject Librarians.....	<a href="http://www.uta.edu/library/help/subject-librarians.php">http://www.uta.edu/library/help/subject-librarians.php</a>
Course Reserves.....	<a href="http://pulse.uta.edu/vwebv/enterCourseReserve.do">http://pulse.uta.edu/vwebv/enterCourseReserve.do</a>
Library Tutorials .....	<a href="http://www.uta.edu/library/help/tutorials.php">http://www.uta.edu/library/help/tutorials.php</a>
Connecting from Off- Campus.....	<a href="http://libguides.uta.edu/offcampus">http://libguides.uta.edu/offcampus</a>
Ask a Librarian.....	<a href="http://ask.uta.edu">http://ask.uta.edu</a>

## **N. Emergency Exit Procedures**

Should we experience an emergency event that requires us to vacate the building, students should exit the room and move toward the nearest exits, which are the stairwells located at either end of the adjacent hallway. When exiting the building during an emergency, one should never take an elevator but should use the stairwells. Faculty members and instructional staff will assist students in selecting the safest route for evacuation and will make arrangements to assist individuals with disabilities.

## **O. Drop Policy**

Students may drop or swap (adding and dropping a class concurrently) classes through self-service in MyMav from the beginning of the registration period through the late registration period. After the late registration period, students must see their academic advisor to drop a class or withdraw. Undeclared students must see an advisor in the University Advising Center. Drops can continue through a point two-thirds of the way through the term or session. It is the student's responsibility to officially withdraw if they do not plan to attend after registering. **Students will not be automatically dropped for non-attendance.** Repayment of certain types of financial aid administered through the University may be required as the result of dropping classes or withdrawing. For more information, contact the Office of Financial Aid and Scholarships (<http://wweb.uta.edu/aao/fao/>).

## **P. Disability Accommodations**

UT Arlington is on record as being committed to both the spirit and letter of all federal equal opportunity legislation, including *The Americans with Disabilities Act (ADA)*, *The Americans with Disabilities Amendments Act (ADAAA)*, and *Section 504 of the Rehabilitation Act*. All instructors at UT Arlington are required by law to provide “reasonable accommodations” to students with disabilities, so as not to discriminate on the basis of disability. Students are responsible for providing the instructor with official notification in the form of a **letter certified** by the Office for Students with Disabilities (OSD). Only those students who have officially documented a need for an accommodation will have their request honored. Students experiencing a range of conditions (Physical, Learning, Chronic Health, Mental Health, and Sensory) that may cause diminished academic performance or other barriers to learning may seek services and/or accommodations by contacting:

**The Office for Students with Disabilities, (OSD)** [www.uta.edu/disability](http://www.uta.edu/disability) or calling 817-272-3364. Information regarding diagnostic criteria and policies for obtaining disability-based academic accommodations can be found at [www.uta.edu/disability](http://www.uta.edu/disability).

**Counseling and Psychological Services, (CAPS)** [www.uta.edu/caps/](http://www.uta.edu/caps/) or calling 817-272-3671 is also available to all students to help increase their understanding of personal issues, address mental and behavioral health problems and make positive changes in their lives.

### **Q. Non-Discrimination Policy**

*The University of Texas at Arlington does not discriminate on the basis of race, color, national origin, religion, age, gender, sexual orientation, disabilities, genetic information, and/or veteran status in its educational programs or activities it operates. For more information, visit [uta.edu/eos](http://uta.edu/eos).*

### **R. Title IX Policy**

The University of Texas at Arlington (“University”) is committed to maintaining a learning and working environment that is free from discrimination based on sex in accordance with Title IX of the Higher Education Amendments of 1972 (Title IX), which prohibits discrimination on the basis of sex in educational programs or activities; Title VII of the Civil Rights Act of 1964 (Title VII), which prohibits sex discrimination in employment; and the Campus Sexual Violence Elimination Act (SaVE Act). Sexual misconduct is a form of sex discrimination and will not be tolerated. *For information regarding Title IX, visit [www.uta.edu/titleIX](http://www.uta.edu/titleIX) or contact Ms. Jean Hood, Vice President and Title IX Coordinator at (817) 272-7091 or [jmhood@uta.edu](mailto:jmhood@uta.edu).*

### **S. Academic Integrity**

Students enrolled all UT Arlington courses are expected to adhere to the UT Arlington Honor Code:

*I pledge, on my honor, to uphold UT Arlington’s tradition of academic integrity, a tradition that values hard work and honest effort in the pursuit of academic excellence.*

*I promise that I will submit only work that I personally create or contribute to group collaborations, and I will appropriately reference any work from other sources. I will follow the highest standards of integrity and uphold the spirit of the Honor Code.*

UT Arlington faculty members may employ the Honor Code in their courses by having students acknowledge the honor code as part of an examination or requiring students to incorporate the honor code into any work submitted. Per UT System *Regents' Rule* 50101, §2.2, suspected violations of university's standards for academic integrity (including the Honor Code) will be referred to the Office of Student Conduct. Violators will be disciplined in accordance with University policy, which may result in the student’s suspension or expulsion from the University. Additional information is available at <https://www.uta.edu/conduct/>.

## **T. Electronic Communication**

UT Arlington has adopted MavMail as its official means to communicate with students about important deadlines and events, as well as to transact university-related business regarding financial aid, tuition, grades, graduation, etc. All students are assigned a MavMail account and are responsible for checking the inbox regularly. There is no additional charge to students for using this account, which remains active even after graduation. Information about activating and using MavMail is available at <http://www.uta.edu/oit/cs/email/mavmail.php>.

## **U. Campus Carry**

Effective August 1, 2016, the Campus Carry law (Senate Bill 11) allows those licensed individuals to carry a concealed handgun in buildings on public university campuses, except in locations the University establishes as prohibited. Under the new law, openly carrying handguns is not allowed on college campuses. For more information, visit <http://www.uta.edu/news/info/campus-carry/>

## **V. Student Feedback Survey**

At the end of each term, students enrolled in face-to-face and online classes categorized as “lecture,” “seminar,” or “laboratory” are directed to complete an online Student Feedback Survey (SFS). Instructions on how to access the SFS for this course will be sent directly to each student through MavMail approximately 10 days before the end of the term. Each student’s feedback via the SFS database is aggregated with that of other students enrolled in the course. Students’ anonymity will be protected to the extent that the law allows. UT Arlington’s effort to solicit, gather, tabulate, and publish student feedback is required by state law and aggregate results are posted online. Data from SFS is also used for faculty and program evaluations. For more information, visit <http://www.uta.edu/sfs>.

## **W. Final Review Week**

For semester-long courses, a period of five class days prior to the first day of final examinations in the long sessions shall be designated as Final Review Week. The purpose of this week is to allow students sufficient time to prepare for final examinations. During this week, there shall be no scheduled activities such as required field trips or performances; and no instructor shall assign any themes, research problems or exercises of similar scope that have a completion date during or following this week *unless specified in the class syllabus*. During Final Review Week, an instructor shall not give any examinations constituting 10% or more of the final grade, except makeup tests and laboratory examinations. In addition, no instructor shall give any portion of the final examination during Final Review Week. During this week, classes are held as scheduled. In addition, instructors are not required to limit content to topics that have been previously covered; they may introduce new concepts as appropriate.

## References and Course Readings

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- Mayes, T. L., Kennard, B. D., Killian, M. O., Carmody, T., Granneman, B., Emslie, G. J., & Trivedi, M. H. (Under review). Psychometric properties of the Concise Health Risk Tracking (CHRT-SR) in adolescents with suicidality. *Journal of the American Academy of Child and Adolescent Psychiatry*.
- Sanchez, K., Killian, M. O., Greer, T. L., Trombello, J. M., Lindblad, R., Grannemann, B. D., Carmonday, T. J., Rush, A. J., Walker, R., & Trivedi, M. (Under review). The Concise Health Risk Tracking Self-Report (CHRT-SR) to evaluate suicidality in stimulant use disorder patients: a psychometric evaluation. *International Journal of Methods in Psychiatric Research*.
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