# EDUC821: Advanced Validity Theory and Test Validation

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Office Hours for Spring 2022: Wednesdays: 1:00-4:00 Other times by appointment

Course Objectives

Validity has been described as the most important aspect in educational testing, yet many people working in educational measurement have trouble articulating what validity is, and even more trouble validating the use of a test for a particular purpose. The purpose of this course is to introduce you to different perspectives and theories of test validity and to the process of accumulating validity evidence for educational tests. We will address validation issues in educational testing, employment testing, certification testing, and other areas. The course is primarily based on the *Standards for Educational and Psychological Testing* (AERA, APA, & NCME, 2014; 2018) and Messick (1989), but we will also review and discuss many other seminal readings in the validity literature. Upon successful completion of this course, you will have a firm grasp of the technical and philosophical aspects of test validity and will have the skills to initiate and carry out a validity agenda for an educational testing program.

Topics to be covered in this course include:

* Origins and evolution of validity theory
* The AERA, APA, & NCME *Standards for Educational and Psychological Testing*
* Sources of validity evidence
* Responsibilities of test developers and test users
* Unitary conceptualization of validity
* Social considerations, fairness, and equity issues in testing
* Statistical methods for validating test scores and evaluating tests
* Accumulating evidence in support of a validity argument
* Assessing special populations—access and equity issues
* Legal versus psychometric criteria for evaluating tests
* Validity issues in employment testing
* Validating a theory of action

Course requirements

It is expected you will attend and actively participate in all classes. The reading load for this course is relatively heavy. I expect you to come to class prepared to discuss the extremely interesting reading assignments for that day. In addition, there will be weekly assignments, a midterm assignment, and a final assignment.

Grading: The course requirements are given a weight to determine your final grade as follows:

|  |  |
| --- | --- |
| Activity | % of Grade |
| Attendance/Participation | 20% |
| Midterm | 10% |
| Weekly Assignments | 35% |
| Final project | 35% |

Attendance/participation and all assignments are graded on a 0-100 scale. Each missed class reduces the attendance/participation grade by 10 points. Medical illness and other acceptable emergencies will be exceptions to this policy. Final grades of 94-100 receive an A, 90-93 receive an A-, 87-89 receive a B+, 81-86 receive a B, 78-80 receive a C+, 70-77 receive a C, and below 70 receive an F. The requirements for the final project will be described in class. You will work with me (Professor Sireci) in selecting a topic for the final project, which I need to approve by November 14, 2022.

**Late assignments:** Late assignments will be reduced by one-letter grade for each day late (e.g., a maximum grade of “C” will be given to an exceptional assignment submitted two days late). Unforeseen emergencies, as determined by the professor, will be exceptions to this policy.

Textbook

The only “textbook” required for this class is the *Standards for Educational and Psychological Testing* (American Educational Research Association, American Psychological Association, & National Council on Measurement in Education, 2014), ***which is available for free at*** https://[www.testingstandards.net/open-access-files.html.](http://www.testingstandards.net/open-access-files.html) Both English and Spanish versions are available. We will be using the English version. We will use this resource throughout the course. In addition to this text, I will distribute articles and other publications each week. I suggest you assemble these publications into a binder or electronic folder for the course.

Resources for learning course material

You have at least four resources for helping understand the material presented in this course.

1. Me: I will do my best to present material clearly in class. Your class notes should be useful for completing assignments and the final project. In addition, I am available outside of class during my office hours and by appointment. You can also ask me questions using e-mail. See the top of this syllabus for office hours and e-mail address.
2. The reading assignments: I selected these assignments because I think they are exceptional for understanding the material taught in the course and represent significant contributions to the validity literature. The only exceptions are the articles I authored. I stuck those in there just to impress you and because it helps my ego to force others to read them.
3. The handouts: I will give you numerous handouts throughout the semester. These handouts are designed to summarize and supplement the lectures. I strongly recommend you review them in completing assignments and exams.
4. Each other: I encourage you to discuss class content and reading assignments with your classmates. Illuminating class discussion is a critical feature of this course.

Plagiarism policy:

It is expected that you will speak with others about course content and even work collaboratively on some class assignments. However, direct copying of someone else’s work is not allowed. Printing out someone else’s computer output, and handing it in as your own work, is also not allowed. Passing off someone else’s work as your own will result in failing this course. In the University’s Academic Regulations, plagiarism is defined as “knowingly representing the words or ideas of another as one's own work in any academic exercise. This includes submitting without citation, in whole or in part, prewritten term papers of another or the research of another, including but not limited to commercial vendors who sell or distribute such materials.” See [http://www.umass.edu/registrar/sites/default/files/academicregs.pdf.](http://www.umass.edu/registrar/sites/default/files/academicregs.pdf) The most common plagiarism I see is when students excerpt text from a reading, but do not properly cite where the excerpt came from. So, please make sure you cite the source for any text you do not create yourself. Please see me if you have questions about this policy, or if you have trouble completing any assignments.

Accommodation policy:

I strive to provide an equal educational opportunity for all students. If you have a physical, psychological, or learning disability, you may be eligible for reasonable academic accommodations to help you succeed in this course. If you have a documented disability that requires an accommodation, please notify me within the first two weeks of the semester so that I can make appropriate arrangements to provide any needed accommodations. If you do not have a documented disability, but have a request to make the course more manageable for you, please let me know. I am happy to provide any supports that may be helpful, and I am happy to discuss alternative ways for you to complete the assignments.

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**REVISED** Class Schedule

# Fall 2022

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| --- | --- | --- |
| **Date** | **Topic** | **Readings\*** |
| 9/12 | Overview: What we know about validity The 5 Sources of Validity Evidence | Lehman (1999); McGinn (1999);  Jenkins (1946); Guilford (1946); Ebel (1961); AERA et al. (2014, pp. 11-22)  https://[www.youtube.com/watch?v=o](http://www.youtube.com/watch?v=o) o6ebKItW2A |
| 9/19 | Validity Past, Present, and Future | Sireci (2009b), Rulon (1946), Cronbach & Meehl (1955) |
| 9/26 | Early Conceptualizations of Validity  The Construct of Construct Validity | Campbell & Fiske (1959)  Pitoniak, Sireci, & Luecht (2002) |
| 10/3 | Multitrait-Multimethod Matrix | Messick (1989b, 13-34) |
| 10/8 | Unitary Conceptualization of Validity | Messick (1989b, 34-63) |
| 10/10 | **No Class (Indigenous Peoples Day)** |  |
| 10/17 | Unitary Conceptualization of Validity | Messick (1989b, 63-92) |
| 10/24 | Consequences, Values, Social Considerations | Shepard (1993) |
| 10/31 | Construct Validation Simplified  **Midterm Due** | AERA et al. (2014), pp. 11-31, 183-  201; Kane (1992, 2006, 2013); Sireci  (2013, 2020a) |
| 11/7 | Argument-Based Approach to Validity | Linn (1984); Sireci & Talento-Miller (2006); Zwick & Schlemer (2004) |
| 11/14 | Test Validation: Gathering/Analyzing Validity Evidence Based on Relations to Other Variables **Final projects must be approved by this date.** | Byrne & van der Vijver (2010); Rios & Wells (2014); AERA et. al. (2014), pp. 49-70; 169-182; Sireci & Geisinger  (1998); Sireci & Parker (2006) |
| 11/21 | Validity Evidence Based on Internal Structure Employment Testing | Lane (2014); Randall (2021b) |
| 11/28 | Validity Evidence Based on Testing Consequences  Legal and Fairness Issues | Sireci (1998); Sireci & Faulkner-Bond (2014); AERA et. al. (2014), pp. 203-  213; Haertel, (2013); Linn (2009); U.S.  Dept. of Education (2018) |
| 12/5 | Informal Class Discussion (optional) |  |
| 12/12 | Validity Evidence Based on Test Content Validation Frameworks |  |
| 12/21 | **Final Project Due (no class)** | |

Note: Readings will be distributed on the date they are listed and ***will be discussed the NEXT class***.