

Course Syllabus

Weeks	Theme	Content Description
1	Introduction to Assessment	Introduction to the role of assessment in education. • A discussion of common assessment types. • A discussion of competence and its assessment.
	*Readings	Violato C. Assessing Competence in Medicine and Other Health Professions. Ch. 1, 2 (p. 3-54). Accreditation Council for Graduate Medical Education & American Board of Medical Specialties (2000). Toolbox of Assessment Methods. Duffield KE, Spencer JA. A survey of medical students' views about the purposes and fairness of assessment. Medical Education [Internet]. 2002 Sep Nousiainen MT, Caverzagie KJ, Ferguson PC, Frank JR, Collaborators I. Implementing competency-based medical education: What changes in curricular structure and processes are needed? Med Teach. 2017;39(6):594-8. Tavakol M, Dennick R. The foundations of measurement and assessment in medical education. Medical teacher. 2017 Oct; 39 (10): 1010-1015.
2-3	Validity	The importance of face, content, criterion-related (concurrent and predictive) and construct validity to measurement and evaluation. A further investigation of consequential validity.
	Assignment	<i>Analyze Evidence of Validity (20%)</i>
	Readings	Violato C. Assessing Competence in Medicine and Other Health Professions. Section 2, Ch. 5-6 (p. 109-162) Cook, D. A., Brydges, R., Ginsburg, S., & Hatala, R. (2015). A contemporary approach to validity arguments: a practical guide to Kane's framework. Medical Education, 49(6), 560-575. doi:10.1111/medu.12678

[De Leng WE, Stegers-Jager KM, Born MP, Themmen APN. Influence of response instructions and response format on applicant perceptions of a situational judgement test for medical school selection. BMC Medical Education. 2018;18\(1\):282.](#)

[Donnon T, Oddone Paolucci E, Violato C. The predictive validity of the MCAT for medical school performance and medical board licensing examinations: A meta-analysis. Academic Medicine. 2007;82\(1\):100-106. \(UofC e-journal\)](#)

[Downing SM. Face validity of assessments: faith-based interpretations or evidence-based science? Med Educ. 2006;40\(1\):7-8.](#)

[Drill R, Nakash O, DeFife JA, Westen D. Assessment of clinical information: Comparison of the validity of a Structured Clinical Interview \(the SCID\) and the Clinical Diagnostic Interview. J Nerv Ment Dis. 2015;203\(6\):459-62.](#)

[Holmboe E, Huot S, Chung J, Norcini J, Hawkins R. Construct Validity of the MiniClinical Evaluation Exercise \(MiniCEX\). Acad Med. 2003;78\(8\):826-30.](#)

[Kessler CS, Kalapurayil PS, Yudkowsky R, Schwartz A. Validity evidence for a new checklist evaluating consultations, the 5Cs model. Acad Med. 2012;87\(10\):1408-12.](#)

[Raymond MR, Kahraman N, Swygert KA, Balog KP. Evaluating construct equivalence and criterion-related validity for repeat examinees on a standardized patient examination. Acad Med. 2011;86\(10\):1253-9.](#)

4-5	Test Reliability	The function of reliability as it applies to consistency in assessment and the influence of errors of measurement on overall test reliability.
	Assignment	<i>Estimate the Reliability of an Assessment (10%)</i>
	Readings	Violato C. Assessing Competence in Medicine and Other Health Professions. Ch. 8-9 (p. 191-212)
		Bichi A, Talib R. Item Response Theory: An Introduction to Latent Trait Models to Test and Item Development. International Journal of Evaluation and Research in Education 2018;7(2):142-51.
		Donnon T, Oddone Paolucci E. A generalizability study of the medical judgment vignettes interview to assess students' noncognitive

[attributes for medical school. BMC Medical Education. 2008, 8:58 \(10 December\).](#)

[Donnon T, Al Ansari AM, Al Alawi S, Violato C. The Reliability, Validity, and Feasibility of Multisource Feedback Physician Assessment: A Systematic Review. \[Review\]. Academic Medicine. 2014;89\(3\):511-6.](#)

[Ginsburg S, van der Vleuten CPM, Eva KW. The Hidden Value of Narrative Comments for Assessment: A Quantitative Reliability Analysis of Qualitative Data. Acad Med. 2017;92\(11\):1617-21.](#)

[Lee M, Wimmers PF. Validation of a performance assessment instrument in problem-based learning tutorials using two cohorts of medical students. Adv Health Sci Educ Theory Pract. 2016;21\(2\):341-57.](#)

[Vispoel WP, Morris CA, Kilinc M. Practical Applications of Generalizability Theory for Designing, Evaluating, and Improving Psychological Assessments. J Pers Assess. 2018;100\(1\):53-67.](#)

6-7	Assessment of Knowledge in Medical Education	Design and development of Multiple Choice, Short Answer and Essay Questions. Using Item Analysis statistics to make informed decisions about quality of test items.
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Assignment

Assessing Knowledge (15%)

Readings

Violato C. Assessing Competence in Medicine and Other Health Professions. Ch. 10-11 (p. 235 -283)

[Daniel, M., Rencic, J., Durning, S. J., Holmboe, E., Santen, S. A., Lang, V., . . . Gruppen, L. D. \(2019\). Clinical Reasoning Assessment Methods: A Scoping Review and Practical Guidance. Academic Medicine: Journal of the Association of American Medical Colleges, 94\(6\), 902-912. doi:10.1097/ACM.0000000000002618](#)

[Haladyna, T. M., Downing, S. M., & Rodriguez, M. C. \(2002\). A Review of Multiple-Choice Item-Writing Guidelines for Classroom Assessment. Applied Measurement in Education, 15\(3\), 309-333. doi:10.1207/s15324818ame1503_5](#)

[McCoubrie P. Improving the fairness of multiple-choice questions: a literature review. Med Teach. 2004;26\(8\):709-12.](#)

[Minihan PM, Robey KL, Long-Bellil LM, Graham CL, Hahn JE, Woodard L, et al. Desired educational outcomes of disability-related training for the generalist physician: knowledge, attitudes, and skills. Acad Med. 2011;86\(9\):1171-8.](#)

NBME. (2016). Constructing Written Test Questions For the Basic and Clinical Sciences.

[Zaidi Nikki L, Bibler, Grob Karri L, Monrad Seetha M, Kurtz Joshua B, Tai Andrew, Ahmed Asra Z, et al. Pushing Critical Thinking Skills With Multiple-Choice Questions - Does Bloom's Taxonomy Work? Academic Medicine. 2018 Jun;93 \(6\): 856-859.](#)

8-9	Assessment of Skills in Medical Education	Overview of Objective Structured Clinical Examinations (OSCEs) as a performance measurement in medical education
	Assignment	<i>Assessing Skills (15%)</i>
	Readings	Violato C. Assessing Competence in Medicine and Other Health Professions. Ch. 13 (p. 301-317), Reread Ch. 10, (p. 235 -265)
		Brannick MT, Erol-Korkmaz HT, Prewett M. A systematic review of the reliability of objective structured clinical examination scores. Med Educ. 2011;45(12):1181-9.
		Casey PM, Goepfert AR, Espey EL, Hammoud MM, Kaczmarczyk JM, Katz NT, et al. To the point: reviews in medical education--the Objective Structured Clinical Examination. American journal of obstetrics and gynecology. 2009 Jan; 200 (1): 25-34.
		Dedy NJMDa, Szasz PMDa, Louridas MMDa, Bonrath EMMDa, Husslein HMDb, Grantcharov TP. Objective structured assessment of nontechnical skills: Reliability of a global rating scale for the in-training assessment in the operating room. Surgery. 2015;157(6):1002-13.
		Khan KZ, Ramachandran S, Gaunt K, Pushkar P. The Objective Structured Clinical Examination (OSCE): AMEE Guide No. 81. Part I: an historical and theoretical perspective. Med Teach. 2013;35(9):e1437-46.
		Khan, K. Z., Gaunt, K., Ramachandran, S., & Pushkar, P. (2013). The Objective Structured Clinical Examination (OSCE): AMEE Guide No.

[81. Part II: organisation & administration. Medical Teacher, 35\(9\), e1447-1463. doi:10.3109/0142159X.2013.818635](#)

[Mema B, Park YS, Kotsakis A. Validity and Feasibility Evidence of Objective Structured Clinical Examination to Assess Competencies of Pediatric Critical Care Trainees. Crit Care Med. 2016;44\(5\):948-53.](#)

[Mookherjee Somnath, Chang Anna, Boscardin Christy K, Hauer Karen E. How to develop a competency-based examination blueprint for longitudinal standardized patient clinical skills assessments. Medical Teacher.2013 Nov; 35 \(11\): 883-890.](#)

[Kaufman DM, Mann KV, Muijtjens AM, van der Vleuten CP. A comparison of standard-setting procedures for an OSCE in undergraduate medical education. Academic medicine: journal of the Association of American Medical Colleges. 2000 Mar; 75 \(3\): 267-71.](#)

10-11	Assessment of Attitude in Medical Education	Using scales to measuring attitudes, behaviors, and professionalism. Practice review assessment processes/methods and multi-source feedback.
	Assignment	<i>Assessing Professionalism (15%)</i>
	Readings	Violato C. Assessing Competence in Medicine and Other Health Professions. Ch. 14 (p. 235 -283)
		Brody, H., & Doukas, D. (2014). Professionalism: a framework to guide medical education. Medical Education, 48(10), 980-987. doi:10.1111/medu.12520
		Cruess RL, Cruess SR, Steinert Y. Amending Miller's Pyramid to Include Professional Identity Formation. Acad Med. 2016;91(2):180-5.
		Doukas, D. J., & Volpe, R. L. (2018). Why Pull the Arrow When You Cannot See the Target? Framing Professionalism Goals in Medical Education. Academic Medicine: Journal of the Association of American Medical Colleges, 93(11), 1610-1612. doi:10.1097/ACM.0000000000002264
		Dunning, D., Johnson, K., Ehrlinger, J., & Kruger, J. (2016). Why People Fail to Recognize Their Own Incompetence. Current Directions in Psychological Science, 12(3), 83-87. doi:10.1111/1467-8721.01235

[Hodges, B. D., Ginsburg, S., Cruess, R., Cruess, S., Delpont, R., Hafferty, F., . . . Wade, W. \(2011\). Assessment of professionalism: recommendations from the Ottawa 2010 Conference. *Medical Teacher*, 33\(5\), 354-363. doi:10.3109/0142159X.2011.577300](#)

[Irby, D. M., & Hamstra, S. J. \(2016\). Parting the Clouds: Three Professionalism Frameworks in Medical Education. *Academic Medicine: Journal of the Association of American Medical Colleges*, 91\(12\), 1606-1611. doi:10.1097/ACM.0000000000001190](#)

[Fornari, A., Akbar, S., & Tyler, S. \(2014\). Critical Synthesis Package: Assessment of Professional Behaviors \(APB\). *MedEdPORTAL Publications*. doi:10.15766/mep_2374-8265.9902](#)

[Papadakis, M., Hodgson, C., Teherani, A., & Kohatsu, N. \(2004\). Unprofessional behavior in medical school is associated with subsequent disciplinary action by a state medical board. *Academic Medicine: Journal of the Association of American Medical Colleges*, 79\(3\), 244-249.](#)

[Violato C, Lockyer J. Self and peer assessment of Pediatricians, Psychiatrists and Medicine Specialists: Implications for Self-Directed Learning. *Advances in Health Sciences Education*. 2006; 11:235-244.](#)

[Ziring D, Danoff D, Grosseman S, Langer D, Esposito A, Jan MK, et al. How Do Medical Schools Identify and Remediate Professionalism Lapses in Medical Students? A Study of U.S. and Canadian Medical Schools. *Acad Med*. 2015;90\(7\):913-20.](#)

12-13	Assessment Construction	What are you trying to teach someone? What are your learning objectives? How will you assess those learning objectives?
	Assignment	<i>Measurement in Medical Education Paper (25%)</i>
	Readings	Violato C. Assessing Competence in Medicine and Other Health Professions.
