



King Saud University
Applied Medical Sciences College
Course Syllabus 1st Semester 1447H 2026G

Program in which the course is offered	Physical therapy program
Course title and code	Test and measurement (RHS 503)
Department	Rehabilitation Health Sciences/ Master of sciences in physical therapy
Credit hours	2 hours (1hr Theory+1 hr Practical)
Total contact hours per semester	45
Level at which this course is offered	1 st level
Course prerequisites	None
Time	Thursday Theory: 9 – 10 am Practical: 10-12
Location	College of Applied Medical Sciences Male section 1 st floor, Room B-031
Course coordinator	Prof. Dr. Mohammed T Omar
Contact information	
Office Number	2074 second floor building 24-CAMS
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Office hours	Please send an email with your query to arrange a meeting time.

Course Description

This course discusses the concept of measurement related to rehabilitation. Measurement theories will be discussed with an emphasis on classical test theory. The course focuses on the evaluation of the measurement properties of patient-reported outcome measures including its reliability, validity, responsiveness, and interpretability

Course Objectives

By the end of this course, students should be able to:

1. Demonstrate deep knowledge about the level of measurements and the benefits of using outcome measures in rehabilitation and research settings
2. Identify the framework of measurements (cross-cultural adaptation, validity, reliability, and responsiveness) used by rehabilitation professionals.
3. Explain the basic technical and methodological principles necessary for the appropriate selection, and use of outcome measures as well as appropriate reporting of results
4. Apply the principles of psychometric properties of different outcome measurement based on the patient/client's condition in various physical therapy specialties.
5. Inspect the administration, data, and scoring concerning reliability, validity, and their significant and clinically important changes using different statistical software
6. Interpret the scores generated from the outcome measures to facilitate clinical decision-making and patient management.
7. Practice ethically and cooperatively in a small group environment (e.g., with colleagues, and clinical staff)

Teaching Strategies

Interactive Lectures including:

1. Lectures, class discussions, seminars and student presentations
2. Problem-solving with case scenarios, scientific videos, ...etc.
3. Laboratory sessions (demonstration, scientific videos, and role player)

Course Content:

Module I:	Week due
Introduction to Outcomes Measures in Physical Therapy Practice	1-2
Types, implementation and uses of outcome measures (OMs) in physical therapy	3-4
Types of Data and Levels of Measurement	5
International Classification of Functioning, Disability and Health (ICF)	6
Midterm exam	7
Module II: Measurement Properties of Selecting Outcome Measurements	
Psychometric properties of outcome measures: Reliability and responsiveness to change	8-9
Psychometric properties of outcome measures: Validity	9-11
Guideline for cross cultural adaptation	12-13
Critical appraisal of outcome measures research	13-14
Projects Final Presentations	15
Final Exam	16

Students Assessment Activities

No	Assessment Activities *	Assessment timing (in week no)	Percentage of Total Assessment Score
1.	1 st midterm theory	7	20%
2.	Practical evaluation (Assignments, projects, and/or presentations).	All along	40%
3.	Final theoretical exam	11-14	40%

Learning Resources and Facilities:

Essential References	1. Henrica C.W. de Vet, Caroline B. Terwee, Lindwine B. Mokknik. Measurement in Medicine: A Practical Guide. Cambridge University Press.
Supportive References	1. Browne, J E and O'Hare, N J. Review of the different methods for assessing standing balance', Physiotherapy, 2001;87, 9, 489-495. 2. Jette DU, Halbert J, Iverson C, et al. Use of standardized outcome measures in physical therapist practice: perceptions and applications. Phys Ther. 2009;89: 125-135. 3. Pynsent P, Fairbank J, Carr, outcome measures in orthopedics and orthopedics trauma, 2nd ed 2004 4. Finch E, Brooks D, Stratfordd PW, Mayo N. Physical rehabilitation outcome measures; A guide to enhanced clinical decision making. 2nd. Ed., Lippincott, Williams & Wilkins, 2002 5. Emma K. Stokes. Rehabilitation Outcome Measures, Edinburgh; New York: Churchill Livingstone, 2009
Electronic Materials	https://www.cosmin.nl/ https://journals.lww.com/cptj/pages/default.aspx https://www.sralab.org/rehabilitation-measures

