Course Code	HP3804
Course Title	Psychological Testing
Pre-requisites	1. HP1000 Introduction to Psychology , and 2. HP1100 Fundamentals of Social Science Research, or CS2008 Fundamentals of Research
No of AUs	3 AUs

Course Aims

This is an introductory course focusing on the theories and concepts related to psychological measurement. The topics covered include test score interpretation, scaling, reliability, validity, test construction and item analysis, with special emphasis in classical test theory. Modern psychometric approaches such as item response theory (IRT) will also be introduced. At the end of the course, students are expected to understand the basics of test theory and gain some experience in developing a scale.

Intended Learning Outcomes (ILO)

Upon successful completion of the course, students are expected to be able to:

1) *describe* and *explain* the basics of test theory and process of test development;
2) critically *evaluate* the quality of tests commonly used in the field of psychological testing with empirical evidence;
3) *apply* the test theory and test construction procedures discussed in the class to create a psychological test with sounded psychometric properties
4) *conduct* statistical analysis using software package such as SPSS or R to test the dimensionality of the test and evaluate reliability and validity of a given test

Course Content

This course is an introduction to the principles underlying educational and psychological measurement and testing. The general goals of this course are to explore the nature, problems, challenges and potential of psychological testing.

Assessment (includes both continuous and summative assessment)

Component	ILO Tested	Related Programme LO or Graduate Attributes	Weighting	Team/Individual
1. Assignment	1, 2, 3, 4	Competence Communication Creativity	20%	Individual
2. Quiz 1	1, 2, 3, 4	Competence Communication	20%	Individual
3. Quiz 2	1, 2, 3, 4	Competence Communication	20%	Individual
4. Group Project (Report and presentation)	1, 2, 3, 4	Competence Communication Character Creativity	40%	Team/Individual
Total			100%	

Formative feedback

Feedback is central to this course. Students will receive feedbacks from the course instructor about their quizzes, and assignments. For group project, students can arrange consultation with instructors to discuss their ideas. Feedback will be provided to them on the data analysis plan so to ensure students on the right track.

Learning and Teaching approach

Approach	**How does this approach support you in achieving the learning outcomes?**
Lecture	Interactive lectures on each topic to introduce students to the relevant concepts, knowledge areas, and practical concerns. [ILO 1,2,3,4]
Group project and project Presentation	Team based learning – allows students to apply theoretical and practical knowledge to develop a psychological test with sounded psychometric properties (good reliability and validity). [ILO 1,2,3,4]

Reading and References

Recommended References

Gregory, R. J. (2015). Psychological Testing: History, Principles, and Applications. Wheaton College, Pearson.

Kline T. J. (2005). Psychological Testing: A Practical Approach to Design and Evaluation. Thousand Oaks, CA: Sage Publications.

McDonald, R.P. (1999). Test Theory: A Unified Treatment. New York, NY: Taylor & Francis.

Course Policies and Student Responsibilities

Students are expected to complete all assigned class readings and activities, attend classes punctually and complete all scheduled assignments and quiz by due dates. Students are expected to take responsibility to follow up with course notes, assignments, and course related announcements for classes they have missed. Participation is expected in all discussions and activities. No make-up quiz or extension will be given without a signed letter from a doctor or head of a university-sponsored extra-curricular program documenting illness. All missed quizzes and assignments will have a zero grade. As Psychology students, the guidelines of the American Psychological Association on referencing and citation are expected to be followed (see APA Publication Manual, 7th Edition).

Academic Integrity

Originality of work and appropriate acknowledgement of reference source are extremely important in the academic context. See here for the details:

https://ntulearn.ntu.edu.sg/bbcswebdav/courses/AI0001-Master/m/index.htm

As a psychology student, you are expected to follow the guidelines of the American Psychological Association on referencing and citation (see APA Publication Manual, 7th Edition).

As a student of NTU, you are expected to uphold the Honor Code against plagiarism and collusion. Plagiarism and collusion are defined as the following in the Honor Code:

> Plagiarism: "To use or pass off as one's own, the writings or ideas of another, without acknowledging or crediting the source from which the ideas are taken."
>
> Collusion: "Submitting an assignment, project or report completed by another person and passing it off as one's own; Preparing an assignment, project or report for a fellow student who submits the work as his or her own."

Committing plagiarism and/or collusion in this course warrants serious penalty, see here for more details:

http://www.sss.ntu.edu.sg/Programmes/Undergraduate/CurrentStudents/Pages/Plagiarism.aspx

Planned Weekly Schedule

Week	Topic	Course LO	Readings/ Activities
1	Fundamentals of Measurement, Designing and Writing Items	1	Kline Ch.1&2
2	Designing & Scoring Responses	1	Kline Ch.3
3	Classical Test Theory: reliability theory for total test scores	1,2	Kline Ch.5
4	Common Factor Model 1 : Basics	1,2	References will be provided in NTULearn
5	Common Factor Model 2 : Application	1,2,3	References will be provided in NTULearn
6	Software Hand-on session 1:	3,4	Handout will be posted in NTULearn
7	Quiz 1	1,2,3,4	
8	Validity	2,3	Kline 9
9	Classical Item Analysis	2,3	References will be provided in NTULearn
10	Item Response Models	1,3	Kline 6
11	Software Hand-on session 2	3,4	Handout will be posted in NTULearn
12	Project Presentation	1,2,3,4	Nil
13	Quiz 2	1,2,3,4	NIL