

SCHOOL OF HEALTH AND SCIENCES

SYLLABUS

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| TITLE: | Measurement |
| CODE: | PSI 413 |
| PREREQUISITE | PSI 303 |
| CREDITS: | 3 credits 45 contact hours 1 term |

DESCRIPTION

This course studies the theories and techniques of measurement, construction, and test development. It discusses the various existing tests, their uses, standards, and characteristics, and emphasizes their reliability and validity.

JUSTIFICATION

Within the work carried out by a psychologist, it is necessary to have knowledge about the development and use of psychometric tests as a tool to offer a science-based service with objective criteria. The course studies the history, origin, development, importance and use of these tests. This course allows students to become familiar with the use of existing tests and the parameters that currently exist, giving a frame of reference on the complexity and responsibility that Psychometrics deserves as part of the work of a human behavior professional.

COMPETENCES

The course develops the following competences in students:

- **Ethical sense and social justice**
- **Critical questioning**

OBJECTIVES

After completion of the course, students will be able to:

1. Examine the historical trajectory of test measurement and construction.

2. Define the basic concepts associated with measuring and constructing tests.
3. Analyze the relevance of the use of tests as part of the various techniques that are used together to carry out evaluations.
4. Analyze various tests identifying, understanding, and effectively applying aspects of their construction in relation to validity, reliability, and standards development.
5. Distinguish the various types of tests, their use, and the population for which they are constructed.
6. Identify the most commonly used psychometric instruments and their functions.
7. Compare the components of psychometric assessments and psychoeducational assessments around the tests provided in each.
8. Know the Code of Ethics that governs the profession of Psychology in Puerto Rico regarding the administration of tests.

CONTENTS

- I. Fundamentals
 - A. Definitions of important concepts in test measurement and construction
 - B. Origin of measurement and test construction
 - C. Historical development of Psychometrics (measurement)
 - D. Development of measurement in Puerto Rico
- II. The Code of Ethics of Psychology in Puerto Rico and the administration of tests
 - A. Elements of the Code of Ethics governing the profession regarding the use and administration of tests
- III. Types of tests
 - A. Reasons for controlling their use
 - B. Factors affecting the application of tests
 - C. Use of tests by professional areas
 1. Clinical Psychology
 2. Psychological Counseling
 3. Industrial Psychology
 4. School Psychology
 5. Neuropsychology
 6. Other areas
- IV. Characteristics of the Tests

A. Standards

1. General statistical concepts
2. Age scores
3. Percentiles
4. Typical scores

B. Reliability

1. What does it consist of?
2. Types of reliability
 - a. Test-retest external reliability method
 - b. Parallel or Equivalent form method
 - c. Split-Half
 - d. Kuder-Richardson method
3. Techniques for measuring reliability
4. Factors that affect the reliability of a test

C. Validity

1. What does it consist of?
2. Types of validity
 - a. Validity of content
 - b. Criterion validity
 - 1) Concurrent validity
 - 2) Predictive validity
 - c. Construct validity
 - 1) Convergent
 - 2) Discriminant
3. Techniques for measuring validity
4. Factors affecting the validity of a test

V. Item Development

- A. Objectives and schemes
- B. Specifications
- C. Writing items
- D. Item analysis
- E. Other considerations when choosing an item
- F. Item constructions

VI. Intelligence Tests

A. History and development of intelligence testing

B. Types of intelligence test

1. Wechsler Intelligence Scale (children and adults)
2. Raven test
3. Stanford-Binet Intelligence Test
4. Woodcock-Johnson Test
5. Kaufman Assessment Battery for Children
6. Reynolds Intellectual Assessment Scale

C. Application of each of the tests

D. Populations to which it may be applied (as applicable to each test)

VII. Personality Tests

A. What do they consist of?

B. What they measure

C. What it is used for

D. Populations to which it may apply

E. Types of personality tests

1. Minnesota Multiphasic Personality Inventory (MMPI)
2. Raymond B. Cattell's Factorial Personality Questionnaire (16 PF)
3. Millon Clinical Multiaxial Inventory (MCMI)

VIII. Projective Tests

A. What do they consist of?

B. What they measure

C. Uses of projective testing

D. Populations to which it may apply

E. Types of projective tests

1. Thematic Apperception Test (TAT)
2. CAT-A/CAT-H (Thematic apperception tests in children)
3. Rorschach Inkblot Test
4. Human Figure Drawing Test
5. Family Drawing Test

IX. Aptitude Test

A. What do they consist of?

- B. What they measure
- C. Uses of aptitude tests
- D. Populations to which it may apply
- E. Types of aptitude tests
 - 1. College Board, SAT, GRE, PMA, TABA, BAC, among others
- X. Achievement Tests
 - A. What do they consist of?
 - B. What they measure
 - C. Uses of Achievement Testing
 - D. Populations to which it may apply
 - E. Types
 - 1. META tests, among others
- XI. Vocational Tests
 - A. What do they consist of?
 - B. What they measure
 - C. Uses of Vocational Tests
 - D. Populations in which it can be applied
 - E. Types
 - 1. Harrington O'Shea Career Decision Making
 - 2. Cirino System for Career Planning
- XII. Tests to Measure Visuomotor Functioning and Visual Perception
 - A. What do they consist of?
 - B. What they measure
 - C. What they are used for
 - D. Populations in which it can be applied
 - E. Types
 - 1. Bender Gestalt
 - 2. VMI (Berry-Buktenica)
- XIII. Types of Evaluations
 - A. Psychometric Assessments
 - 1. What is a psychometric assessment?
 - 2. What is the purpose of a psychometric assessment?
 - 3. What tests should this type of assessment contain? (Example)

B. Psychoeducational evaluations

1. What is a psychoeducational evaluation?
2. What is the purpose of a psychoeducational evaluation?
3. What tests should this type of assessment contain? (Example)

C. Differences between psychometric assessment and psychoeducational assessment

XIV. Analysis of psychometric services in the Puerto Rican community

A. Tests used in Puerto Rico

1. School/academic context
2. Industrial or organizational context
3. Clinical context

B. Services offered associated with test administration in Puerto Rico

METHODOLOGY

The following strategies from the active learning methodology are recommended:

- Flipped classroom
- Lectures
- Discussion
- Collaborative work
- Analysis of instruments

EVALUATION

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| Compositions | 25% |
| Oral presentations | 25% |
| Partial assignments | 25% |
| Final project | 25% |
| Total | 100% |

LEARNING ASSESSMENT

The institutional assessment rubric is applied to the course's core activity.

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ELECTRONIC RESOURCES

www.psychologicaltesting.com

Psychological testing: A guide to psychological assessment methods.

www.apa.org/science/faq-findtests.html

For more information resources related to the course's topics, access the library's webpage <http://biblioteca.sagrado.edu/>

REASONABLE ACCOMMODATION

For detailed information on the process and required documentation you should visit the corresponding office. To ensure equal conditions, in compliance with the ADA Act (1990) and the Rehabilitation Act (1973), as amended, any student in need of reasonable accommodation or special assistance must complete the process established by the Vice Presidency for Academic Affairs.

ACADEMIC INTEGRITY

This policy applies to all students enrolled at Universidad del Sagrado Corazón to take courses with or without academic credit. A lack of academic integrity is any act or omission that does not demonstrate the honesty, transparency, and responsibility that should characterize all academic activity. Any student who fails to comply with the Honesty, Fraud, and Plagiarism Policy is exposed to the following sanctions: receive a grade of zero in the evaluation and / or repetition of the assignment in the seminar, a grade of F (*) in the seminar, suspension, or expulsion as established in the Academic Integrity Policy effective in November 2022.

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