

COURSE APPROVAL DOCUMENT
Southeast Missouri State University

Department: Psychology _____

Course No. _PD625

Title of Course: __Test Construction_____

Date: August 1, 2015_____

Please check: X New
 Revision

I. Catalog Description (Credit Hours of Course): The course involves learning the process of test construction and validation, assessment of psychometric properties of tests, and adaptation of tests for specific populations. (2)

II. Co- or Prerequisite(s):

III. Purposes or Objectives of the Course (optional):

- 1) Students will develop a measurement instrument that meets minimum standards.
- 2) Students will develop the skills to evaluate and select measurement instruments best suited to specific needs.
- 3) Students will understand how psychometric tests are constructed and validated.

Add additional Objectives as needed

IV. Student Learning Outcomes (Minimum of 3):

- 1) The student will develop a measurement instrument that meets psychometric standards.
- 2) The student will describe the process of evaluating and selecting an appropriate instrument for specific research or assessment purposes.
- 3) The student will describe the process of adapting instruments for use in populations different from the population used for standardization.

Add additional SLOs as needed

V. Optional departmental/college requirements:

- A.
- B.

VI. Course Content or Outline (Indicate number of class hours per unit or section):

- A. See syllabus attached.
- B.
- C.

Please Attach copy of class syllabus and schedule as an example

Signature: _____
Chair

Date: _____

Signature: _____
Dean

Date: _____

**PONCE HEALTH SCIENCES UNIVERSITY
CLINICAL PSYCHOLOGY PSY.D. PROGRAM**

SYLLABUS

COURSE TITLE	Test Construction
CODING	PSY 625
CREDIT HOURS	2 credits
CONTACT HOURS	30
PREREQUISITE	None
PROFESSOR	Job Description: Statistics and Research
TEACHING ASSISTANT	
OFFICE HOURS	
EMAIL ADDRESS	
SEMESTER	

COURSE DESCRIPTION:

This course provides the student with a more in-depth exposure to the process of test construction and validation. It intends to foster a better understanding of the psychometric properties of psychological tests and to develop specific skills in the adaptation of different psychometric instruments to populations different from the one for which the test was constructed and standardized.

GENERAL OBJECTIVE:

The course provides the graduate students with the basic knowledge in the area of psychological measurement and assessment. It is expected that after the course students have the skills to evaluate and select the one measuring instrument that best suits their needs or to develop an instrument that meets the minimum requirements set by the standards of psychometric. It is also expected that students acquire the knowledge and skills that allow them to evaluate judgments about responsibility and professional measurement tools developed in the field of psychology.

SPECIFIC OBJECTIVES:

By the end of the course the students will be able to:

1. Develop a measurement instrument that meets the minimum requirements set by the psychometrics standards.
2. Evaluate and select the one best instrument that best suits his/her needs for a research or psychological assessment.

COURSE CONTENT

UNIT 1: Introduction to psychological testing and test construction

- A. Essentials of psychological testing
 1. Definition of important concepts
 - a. Test
 - b. Measurement
 - c. Evaluation
 2. Uses of tests
 3. Types of test
- B. Psychological measurement in Puerto Rico
 1. History
 2. Achievements, difficulties, and recommendations
- C. Psychometric theories
 1. Classical test theory
 2. Generalizability theory
 3. Item response theory

Upon successful completion of this unit, students will be able to:

1. Define and differentiate between the concepts of test, measurement, and evaluation.
2. Compare and contrast the different psychometric theories.
3. Identify and understand the different uses of tests.
4. Identify and understand the different types of tests.
5. Describe the history and achievements, difficulties, and recommendations of the development of psychological measurement in Puerto Rico.

Assigned readings:

- DeVellis, R.F. (2011). *Scale development: Theory and applications*. California: Sage. Chapters 1 & 2.
- Herrans, L. L., Rodríguez, J. & Cirino, G. (1988). *Primer Simposio de Medición en Puerto Rico*. San Juan, Puerto Rico: Asociación de Psicólogos de Puerto Rico.
- McIntire, S. A. & Miller, L. A. (2007). *Foundations of psychological testing: A practical approach*. Thousand Oaks, CA: SAGE Publications. Chapters 1 & 2.
- Roca de Torres, I. (2008). Perspectiva histórica sobre la medición psicológica en Puerto Rico. *Revista Puertorriqueña de Psicología*, 19, 11-48.
- Spector, P. E. (1992). *Summated Rating Scale Construction: An introduction*. California: Sage. Chapter 2.
- Tornimbeni, S., Pérez, E., Olaz, F. & Fernández, A. (2004). Introducción a los tests psicológicos. Argentina: Editorial Brujas. Chapter 3.
- Urbina, S. (2004). *Essentials of psychological testing*. New Jersey: Wiley & Sons, Inc. Chapter 1.

UNIT 2: Approaches in test construction and general steps in the development of a test

- A. Approaches in test construction
 1. Analytical approach
 2. Empirical approach
 3. Rational approach
- B. General steps in the development of a test
 1. Determine what you want to measure
 2. Generate a bank a items
 3. Determine response format
 4. Review of items by experts
 5. Inclusion of items for validation
 6. Administer the items to a sample
 7. Evaluate the items
 8. Construct the final version of test

Upon successful completion of this unit, students should be able to:

1. Describe the three approaches to develop a test.
2. Describe the general steps in the development of a test.
3. Write a bank of items and select a response format for a test.

Assigned Readings:

- DeVellis, R.F. (2011). *Scale development: Theory and applications*. California: Sage. Chapter 5.
- Golden, C.J., Sawicki, R.F., & Franzen, M.D. (1990). Test construction. In G. Goldstein & M. Hersen (Eds.), *Handbook of Psychological Assessment (pgs.21-40)*. New York: Pergamon Press.
- McIntire, S. A. & Miller, L. A. (2007). *Foundations of psychological testing: A practical approach*. Thousand Oaks, CA: SAGE Publications. Chapters 10 & 11.
- Spector, P. E. (1992). *Summated Rating Scale Construction: An introduction*. California: Sage. Chapters 3 & 4.

UNIT 3: The concept of Validity

- A. Definition
- B. Types of validities
 1. Face validity

2. Content validity
 - a. Lawshe method
 - b. Other methods
3. Criterion related validity
 - a. Concurrent validity
 - b. Predictive validity
4. Construct validity
 - a. Convergent validity
 - b. Divergent validity
- C. Factor analysis techniques to examine factor structure of tests
 - a. Exploratory factor analysis
 - b. Confirmatory factor analysis
- D. Implications of test validity for research

Upon successful completion of this unit, students should be able to:

1. Describe and understand the concept of validity.
2. Describe and understand the different types of validities.
3. Utilize the appropriate factor analytic techniques to examine the factor structure of tests.
4. Understand and comprehend the implications of test validity for research.

Assigned Readings:

- DeVellis, R.F. (2011). *Scale development: Theory and applications*. California: Sage. Chapters 4 & 6.
- Kline, P. (1993). *The Handbook of Psychological Testing*. New York: Routledge. Chapters 7 & 8.
- Lawshe, C. H. (1975). A quantitative approach to Content Validity. *Personnel Psychology*, 28, 563-575.
- McIntire, S. A. & Miller, L. A. (2007). *Foundations of psychological testing: A practical approach*. Thousand Oaks, CA: SAGE Publications. Chapters 7, 8 & 9.
- Spector, P. E. (1992). *Summated Rating Scale Construction: An introduction*. California: Sage. Chapter 6.

UNIT 4: The concept of reliability

- A. Definition
- B. Types of reliabilities
 1. Temporal stability techniques
 - a. Test-retest reliability
 - b. Parallel forms/equivalent tests
 2. Internal consistency
 - a. Cronbach's alpha
 - b. Kuder-Richardson Formula (KR-20)
 - c. Split-half reliability
 - i. Spearman-Brown prophecy formula
- C. Factor affecting reliabilities coefficients
- D. Standard error of measurement (Sem)
- E. Confidence interval of 95%
- F. Implications of test reliability for research

Upon successful completion of this unit, students should be able to:

1. Identify and understand the different types of reliabilities.
2. Describe and understand factors affecting reliabilities coefficients of tests.
3. Perform the different reliability analysis using the SPSS program.
4. Describe, understand, and calculate the standard error of measurement and confidence intervals.
5. Describe and understand the implications of test reliability for research.

Assigned Readings:

- Cirino, G. (1984). *Introducción al Desarrollo de Pruebas Escritas*. Rio Piedras: Editorial Bohío. Chapter 10.
- DeVellis, R.F. (2011). *Scale development: Theory and applications*. California: Sage. Chapter 3.
- McIntire, S. A. & Miller, L. A. (2007). *Foundations of psychological testing: A practical approach*. Thousand Oaks, CA: SAGE Publications. Chapter 6.
- Spector, P. E. (1992). *Summated Rating Scale Construction: An introduction*. California: Sage. Chapter 7.

UNIT 5: Evaluation of Items

- A. Item characteristics and item analysis
 - a. Item discrimination
 - b. Item difficulty
- B. The use of factor analysis as an item analysis technique
 - a. Factor loadings
- C. Factors and variables to consider in the evaluation of items

Upon successful completion of this unit, students should be able to:

1. Describe and understand the importance of item analysis.
2. Identify and understand item characteristics.
3. Describe and understand the use of factor analysis as an item analysis technique.
4. Describe and understand factors to consider in the evaluation of items.

Assigned Readings:

- Cirino, G. (1984). *Introducción al Desarrollo de Pruebas Escritas*. Rio Piedras: Editorial Bohío. Chapter 9.
- Hogan, T. P. (2004). *Pruebas psicológicas: Una introducción práctica*. México: Editorial El Manual Moderno. Chapter 6.
- Kline, P. (1993). *The Handbook of Psychological Testing*. New York: Routledge. Chapter 10.
- Kline, P. (1994). *An easy guide to factor analysis*. New York: Routledge. Chapter 8.
- Tavella, N. M. (1978). *Análisis de los ítemes en la construcción de instrumentos psicométricos*. México: Editorial Trillas. Chapters 1 & 5.

UNIT 6: Basic concepts of statistics and the standardization process

- A. Types of scale
- B. Frequency distribution
- C. Central tendency measures
 1. Mean
 2. Mode
 3. Median
- D. Variability tendency measures
 1. Range
 2. Semi-interquartile range
 3. Standard deviation
 4. Variance
- E. Standard scores
 1. Z scores
 2. T scores
 3. Stanine
 4. Intellectual Quotient
- F. Relative position scores
 1. Percentiles
 2. Percentile range
- G. Correlation
 1. Types of correlation

- i. Pearson product moment correlation coefficient
 - ii. rho
 - 2. Elements to consider
 - i. Direction
 - ii. Magnitude
 - iii. Significant
- H. The standardization process
 - 1. Selection of a representative sample
 - 2. Administration of test to the standardization sample
 - 3. Setting of norms
 - 4. Conversion of raw scores to standardize scores

Upon completion of this unit, students should be able to:

1. Identify and understand the basic concepts of statistics related to test construction and norms development.
2. Describe and understand the standardization process of a test.

Assigned Readings:

- Cirino, G. (1984). *Introducción al Desarrollo de Pruebas Escritas*. Rio Piedras: Editorial Bohío. Chapter 12.
- Herrans, L.L. (2000). *Psicología y medición: El desarrollo de pruebas psicológicas en Puerto Rico*. México: McGraw-Hill Interamericana. Chapter 3.
- Kline, P. (1986). *Handbook of test construction*. London: Routledge. Chapter 7.
- Lyman, H. B. (1998). *Test scores and what they mean*. Boston: Allyn & Bacon. Chapter 8.
- Sánchez Viera, J. A. (1997). *Fundamentos del razonamiento estadístico*. San Juan: Centro Caribeño de Estudios Postgraduados. Chapters 3, 6, 7, 8, & 9.
- Sattler, J.M. (2003). *Evaluación infantil: Aplicaciones cognitivas*. México: Editorial El Manual Moderno. Chapter 4.
- Tavella, N. M. (1978). *Análisis de los ítemes en la construcción de instrumentos psicométricos*. México: Editorial Trillas. Chapter 3.

UNIT 7: Elaboration of the test manual and ethical use of psychological tests

- A. Information to be included in the test manual.
- B. Ethical code related to the use of psychological tests.

Upon completion of this unit, students should be able to:

1. Describe and understand the necessary information to be included in the test manual.
2. Comprehend the ethical code in the use of psychological tests.

Assigned Readings:

- Código de Ética de la Junta Examinadora de Psicólogos de Puerto Rico.
- Lyman, H. B. (1998). *Test scores and what they mean*. Boston: Allyn & Bacon. Chapter 7.

TEACHING STRATEGIES AND ACTIVITIES

1. Conference
2. Class activities
3. Practical exercises

RESOURCES

1. Audiovisual media
2. Videos
3. Library database

STUDENT'S EVALUATION CRITERIA AND GRADING SYSTEM:

1. Midterm examination.....25%
2. Final examination.....25%
3. Class participation.....10%
4. Class attendance.....5%
5. Special assignment.....35%

Note: As part of the requirements of the course, students must develop a test and administer it to a sample of 50 subjects. This special assignment can be done individually or in a group of no more than five students. A paper must be written about the development of the test following APA style guidelines.

OTHER IMPORTANT INFORMATION

Diversity Statement

Diversity relates to the acknowledgement of the human condition in all manifestations; its similarities and differences. Diversity seeks to understand different biopsychosocial experiences. It strives towards the human values of equality, respect, and acceptance, within a multicultural world whose boundaries have been overshadowed by technology and globalization. Diversity is the antithesis to oppression in all its manifestations (e.g. sexism, racism, exploitation) and to discrimination in any form, including discrimination due to sexual orientation, physical (dis) Abilities, socioeconomic status, worldviews, places of origin, cultural orientation, primary language, or to any other human characteristic, preference or state.

The notion of diversity is central to the study of human behavior. It requires the development of self-awareness of prejudiced attitudes. It includes understanding of differences in worldviews associated to the psycho-cultural and psycho-economic background of recipients of psychological services. Our training program promotes the awareness of subtle and “invisible” prejudice (e.g. homophobia) acquired during formative years.

Request for Reasonable Accommodations

Students in need of accommodation based on the impact of a disability should contact the professor privately to discuss the specific need. Students with documented disabilities should contact the Academic Deanship Office to coordinate reasonable accommodations.

Attendance Policy

After 2 absences for this 2 credit course, the student will automatically be dropped from the class unless the professor recommends otherwise. The complete institutional attendance policy is included in the Appendix.

Honor Code Reminder

Any violation of the ethical dispositions of our institution or program will be automatically referred to the corresponding authorities. For the present course, plagiarism may lead to obtaining a grade of “0” on the plagiarized work and this would most probably lead to a failing grade in the course. Students found to violate this policy may be referred to the institutional Promotions Committee with a recommendation of dismissal from the program. The complete plagiarism policy is included in the Appendix.

Note

This syllabus is a guide and is subject to change according to circumstances that may arise during the semester. Students are responsible for all announced changes in the syllabus.

TEXTBOOKS

DeVellis, R.F. (2011). *Scale development: Theory and applications*. California: Sage. Third Edition.
Spector, P. E. (1992). *Summated Rating Scale Construction: An introduction*. California: Sage.

BIBLIOGRAPHY

Aiken, L.R. (1996). *Tests psicológicos y evaluación*. México: Prentice Hall.

- Aiken, L.R. & Groth-Marnat, G. (2006). *Psychological testing and assessment*. Boston: Allyn & Bacon.
- Álvaro Page, M. (1993). *Elementos de psicometría*. España: Eudema, S.A.
- American Educational Research Association (1985). *Standards for educational and psychological testing*. Washington: American Psychological Association.
- Anastasi, A. (1988). *Psychological Testing*. New York: MacMillan Publishing Company.
- Anastasi, A., & Urbina, S. (1997). *Psychological Testing*. New Jersey: Prentice-Hall.
- Bernal, G. (2000). *Psicoterapia: El reto de evaluar efectividad ante el Nuevo milenio*. San Juan, Puerto Rico: Publicaciones Puertorriqueñas.
- Brown, F.G. (1980). *Principios de la medición en psicología y educación*. México: El Manual Moderno, S.A.
- Brown, T.A. (2006). *Confirmatory factor analysis for applied research*. New York: The Guilford Press.
- Burisch, M. (1984). Approaches to personality inventory construction. *American Psychologist*, 39, 214-227..
- Butcher, J.N., Cabiya, J., Lucio, E., & Garrido, M. (2009). *Aplicación del MMPI-2 y el MMPI-A en pacientes hispanos*. México: Manual Moderno.
- Campbell, D. T. (1960). Recommendations for the APA test standards regarding construct, and discriminant validity. *American Psychologist*, 15, 546-553.
- Campbell, D. T. y Fiske, D. W. (1959). Convergent and discriminant validation by the multitrait-multimethod matrix. *Psychological Bulletin*, 56, 81-105.
- Campion, J. E. (1972). Work sampling for personnel selection. *Journal of Applied Psychology*, 56, 40-44.
- Carmine, E. G. y Zeller, R. A. (1979) *Reliability and Validity Assessment*. California: SAGE Publications.
- Cirino, G. (1984). *Introducción al Desarrollo de Pruebas Escritas*. Rio Piedras: Editorial Bohío.
- Cohen, R.J. & Swerdlik, M.E. (2010). *Psychological testing and assessment: An introduction to tests & measurement*. Boston: McGraw-Hill.
- Colton, D, & Covert, R.W. (2007). *Designing and constructing instruments for social research and evaluation*. San Francisco: Jossey-Bass/John Wiley & Sons.
- Covert, M.D. y McNelis, K. (1988). Determining the number of common factors in factor analysis: a review and program. *Educational and Psychological Measurement*, 48, 687-692.
- Crocker, L. y Algina, J. (1986). *Introduction to Classical and Modern Test Theory*. New York: Holt, Rinehart and Winston, Inc.
- Cronbach, L.J. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika*, 16, 297-334.
- Cronbach, L.J. (1960). *Essentials of Psychological Testing*. New York: Harper and Row.
- Cronbach, L. J. (1971). Test Validation. En Robert L. Thorndike (Ed.). *Educational Measurement*. Washington, D.C.: American Council on Education.
- Cronbach, L.J. (1984). *Essentials of Psychological Testing*. New York: Harper y Row.
- De Ayala, R.J. (2009). *The theory and practice of item response theory*. New York: The Guilford Press.
- De Vellis, R. F. (1991). *Scale Development: Theory and Applications*. California: SAGE Publications.

- De Vellis, R. F. (2003). *Scale Development: Theory and Applications*. California: SAGE Publications. Segunda Edición.
- Ebel, R.L. (1966). Writing the test items. En E.F. Linn (Ed.). *Educational measurement*. Washington, D.C.: American Council on Education.
- Embretson, S.E. & Reise, S.P. (2000). *Item response theory for psychologists*. New Jersey: Lawrence Erlbaum Associates Publishers.
- Furr, R.M. (2011). *Scale construction and psychometrics for social and personality psychology*. Los Angeles: SAGE Publications.
- Furr, R.M. & Bacharach, V.R. (2008). *Psychometrics: An introduction*. Los Angeles: SAGE Publications.
- Goldstein, G. y Hersen, M. (1990). *Handbook of Psychological Assessment*. New York: Pergamon Press.
- Green, G. F. (1954). *Attitude Measurement*. En Gardner Lindzey (Ed.). *Handbook of Social Psychology: Theory and Method*. Massachusetts: Addison-Wesley.
- Gronlund, N. E. (1974). *Elaboración de tests de aprovechamiento*. México: Editorial Trillas.
- Guion, R. M. (1974). Open a new window: Validities and values in psychological measurement. *American Psychologist*, 29, 287-296.
- Hambleton, R.K., Swaminathan, H., & Rogers, H.J. (1991). *Fundamentals of item response theory*. Newbury Park: SAGE Publications.
- Henerson, M. E., Morris, L. L. y Fitz-Gibbon, C. T. (1987). *How to Measure Attitudes*. California: SAGE Publications.
- Herrans, L. L. (1985). *Psicología y Medición: El desarrollo de Pruebas Psicológicas en Puerto Rico*. Puerto Rico: Editorial Limusa.
- Herrans, L. L. (2000). *Psicología y Medición: El desarrollo de Pruebas Psicológicas en Puerto Rico*. México: McGraw-Hill Interamericana.
- Hogan, T. P. (2004). *Pruebas psicológicas: Una introducción práctica*. México: Editorial El Manual Moderno.
- Kaplan, R. M. y Saccuzzo, D. P. (1997). *Psychological Testing: Principles, Applications and Issues*. California: Brooks/Cole Publishing Company.
- Kaplan, R. M. y Saccuzzo, D. P. (2009). *Psychological Testing: Principles, Applications and Issues*. California: Wadsworth Cengage Learning.
- Kim, J. O. y Mueller, C. W. (1978). *Introduction to Factor Analysis: What it is and How to do it*. California: SAGE Publications.
- Kline, P. (1986). *Handbook of test construction*. London: Routledge.
- Kline, P. (1991). *Intelligence: the psychometric view*. London: Routledge.
- Kline, P. (1993). *Personality: the psychometric view*. London: Routledge.
- Kline, P. (1993). *The Handbook of Psychological Testing*. New York: Routledge.
- Kline, P. (1994). *An easy guide to factor analysis*. New York: Routledge.
- Kline, P. (2000). *A psychometric primer*. London: Free Association Books.
- Lawshe, C. H. (1975). A quantitative approach to Content Validity. *Personnel Psychology*, 28, 563-575.

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- Matesanz, A. (1997). *Evaluación estructurada de la personalidad*. España: Ediciones Pirámide.
- Messick, S. (1975). The standard problem: Meanings and values in measurement and evaluation. *American Psychologist*, 30, 955-966.
- McIntire, S. A. & Miller, L. A. (2000). *Foundations of psychological testing*. New York: McGraw-Hill.
- McIntire, S. A. & Miller, L. A. (2007). *Foundations of psychological testing: A practical approach*. Thousand Oaks: SAGE Publications.
- McIver, J. P. y Carmines, E. G. (1981). *Unidimensional Scaling*. California: Sage.
- McKeown, B. & Thomas, D. (1988). *Q methodology*. Newbury Park: Sage Publications.
- Muchinsky, P. M. (1997). *Psychology applied to work: An introduction to Industrial and Organizational Psychology*. California: Brooks/Cole.
- Murphy, K. R. y Davidshofer, C. O. (1994). *Psychological Testing: principles and applications*. New Jersey: Prentice Hall.
- Nunnally, J. C. (1978). *Psychometric Theory*. Nueva York: McGraw-Hill.
- Nunnally, J. C. y Bernstein, I. H. (1994). *Psychometric Theory*. New York: McGraw-Hill.
- Pett, M.A., Lackey, N.R. & Sullivan, J.J. (2003). *Making sense of factor analysis: The use of factor analysis for instrument development in health care research*. Thousand Oaks, CA: SAGE Publications.
- Pons, J.I, Flores-Pabón, L., Matías-Carrelo, L., Rodríguez, M., Rosario-Hernández, E., Rodríguez, J.M., Herrans, L.L., Yang, J. (2008). Confiabilidad de la Escala de Inteligencia Wechsler para Adultos Versión III, Puerto Rico (EIWA-III). *Revista Puertorriqueña de Psicología*, 19, 112-132.
- Pons, J.I., Matías-Carrelo, L., Rodríguez, M., Rodríguez, J.M., Herrans, L.L., Jiménez, M.E., Negrón, A., Flores, L., Mañón, S., Jiménez, K., Medina, G., Rosario-Hernández, E., Ortiz Nolasco, N. (2008). Estudios de validez de la Escala de Inteligencia Wechsler para Adultos Versión III, Puerto Rico (EIWA-III). *Revista Puertorriqueña de Psicología*, 19, 75-111.
- Pons, J.I, Rosario-Hernández, E. y Mañón, S. (2009). Inteligencia emocional: Hacia el desarrollo y validación de un cuestionario para la evaluación de dimensiones de inteligencia emocional en adultos puertorriqueños. *Revista Puertorriqueña de Medicina y Salud Pública*, XVII, 55-62.
- Rivera, E., Pons, J.I, Rosario-Hernández, E. y Ortiz, N. (2008). Traducción y adaptación para la población puertorriqueña del Inventario Bar-On de Cociente Emocional (Bar-On EQ-i): Análisis de propiedades psicométricas. *Revista Puertorriqueña de Psicología*, 19, 148-182.
- Robinson Kurpius, S.E. & Stafford, M.E. (2006). *Testing and measurement: A user-friendly guide*. Thousand Oaks: SAGE Publications.
- Roca de Torres, I. (2008). Perspectiva histórica sobre la medición psicológica en Puerto Rico. *Revista Puertorriqueña de Psicología*, 19, 11-48.
- Rodríguez Irlanda, D. (1991). *Medición y evaluación*. Puerto Rico: Publicaciones Puertorriqueñas.

- Rosario-Hernández, E. (1996). *Construcción y validación de una prueba de actitudes hacia compañeros de trabajo con el VIH-SIDA*. Disertación doctoral para el Centro Caribeño de Estudios Postgraduados, San Juan, Puerto Rico (sin publicar).
- Rosario-Hernández, E. (2002). Desarrollo y validación de la Escala de Compromiso Organizacional. *Revista Puertorriqueña de Psicología*, 13, 185-198.
- Rosario-Hernández, E., Andújar Rojas, C., & Sánchez Figueroa, J.D. (1996). Construcción y validación de una prueba de actitudes hacia compañeros de trabajo con el VIH-SIDA. *Revista Ciencias de la Conducta*, 11, 27-46.
- Rosario-Hernández, E., Rodríguez Irizarry, A. & Rovira Millán, L.V. (2004). Estudio exploratorio de las propiedades psicométricas del Inventario de los Cinco Factores de la Personalidad. *Revista Puertorriqueña de Psicología*, 15, 26-40.
- Rosario-Hernández, E. & Rovira Millán, L.V. (2002). Desarrollo y validación de una escala para medir la Actitudes hacia el Retiro. *Revista Puertorriqueña de Psicología*, 13, 45-60.
- Rosario-Hernández, E. & Rovira Millán, L.V. (2004). Desarrollo y validación de la Escala de Ciudadanía Organizacional. *Revista Puertorriqueña de Psicología*, 15, 1-25.
- Rosario-Hernández, E. & Rovira Millán, L.V. (2007). Desarrollo y validación de la Escala de Justicia Organizacional. *Revista Ciencias de la Conducta*, 22(1), 61-78.
- Rosario-Hernández, E. & Rovira Millán, L.V. (2008). Desarrollo y validación del Índice de Conductas Laborales Contraproducentes (ICLC). *Revista Interamericana de Psicología Ocupacional*, 2008, 27(1), 16-27.
- Rosario-Hernández, E. & Rovira Millán, L.V. (2008). Desarrollo y validación de la Escala de Contrato Psicológico Organizacional. *Revista Caribeña de Psicología*, 1(1), 16-23.
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APPENDIX

INSTITUTIONAL ATTENDANCE POLICY

Attendance at lectures and laboratory exercises is mandatory unless excused because of illness or by previous authorization of the professor in charge of the course. Each department will decide the relative weight to be given to the attendance in calculating the final grade.

Attendance to clinical activities involving patients, patient models, and similar types of activities is considered part of the students' professional responsibility and is mandatory. Absence may be excused after the student consults with the respective department chairperson. Three unexcused absences may adversely affect the final grade for a course.

Incomplete work due to illness or other serious circumstances during the course will be handled according to departmental policies, which must be provided to the students in writing at the beginning of each term. Faculty are not obligated to repeat lecture/laboratory topics that were presented at scheduled times and dates.

PROGRAM POLICY ON ACADEMIC HONESTY AND PLAGIARISM

There are different ways in which a student may incur in one of the various forms of academic dishonesty. Lack of knowledge does not justify academic dishonesty as common sense usually helps to prevent potentially problematic situations. In case of doubt, the standards of academic honesty call for the student to ask the professor or advisor. The most frequent form of academic dishonesty is plagiarism. According to the Random House Webster's college Dictionary plagiarism is: "the unauthorized use of the language and thoughts of another author and the representation of them as one's own. 2. something used and represented in this manner".

Our faculty recognizes that plagiarism in any of its forms and/or manifestation is a serious offense both in the academic and the professional world. Some of the acts that constitute plagiarism are:

- a. using words or thoughts of authors without giving due credit.
- b. presenting work done for one course to fulfill the requirements of another course (self-plagiarism).
- c. taking credit for phrases or ideas of other authors to produce a collage of ideas that have not been created by the student.
- d. not using quotation marks to identify the exact words of an author.
- e. taking information from Internet without citing the source.
- f. buying papers from the Internet or from other sources.
- g. Using another student's paper or clinical report to satisfy course requirements.

Each professor will evaluate alleged cases of academic dishonesty and will proceed to deal with each case according to institutional policies and procedures.