**GAU, Faculty of Humanities**

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| **Course Unit Title** | | Research Methods and Statistics 1 | | |
| **Course Unit Code** | | PSY 218 | | |
| **Type of Course Unit** | | Compulsory, All Psychology Students | | |
| **Level of Course Unit** | | Second year, Bacherlors Degree | | |
| **National Credits** | | 3 | | |
| **Number of ECTS Credits Allocated** | | 7 ECTS | | |
| **Theoretical (hour/week)** | | 2 | | |
| **Practice (hour/week)** | | 1 | | |
| **Laboratory (hour/week)** | |  | | |
| **Year of Study** | | 2 | | |
| **Semester when the course unit is delivered** | | 4 | | |
| **Mode of Delivery** | | Face to Face | | |
| **Language of Instruction** | | English | | |
| **Prerequisities and co-requisities** | | Psy 103, psy211 | | |
| **Recommended Optional Programme Components** | | None | | |
| **Objectives of the Course:**   * This course is designed to be an intensive investigation into statistical analyses commonly used in Psychology and other social-behavioral sciences. * Psychology is a science. Science requires specific methods that tests, confirms, or disconfirms hypotheses that provide supporting evidence or no evidence to a theory. * One of the main goals of this module is to develop your skills in psychology research. | | | | |  |
| **Learning Outcomes** | | |  | |
| When this course has been completed the student should be able to | | | Assesment. | |
| 1 | Describe and discuss the main concepts in psychological research methods and design. | | 1,2 | |
| 2 | Formulate and test hypotheses about a population mean, variance and/or a population proportion. | | 1,2 | |
| 3 | Be able to critically analyze published papers | | 1,2 | |
| 4 | Understand the types of errors possible when conducting a hypothesis testing. | | 1,3 | |
| 5 | Be able to compute and interpret covariance and correlation as measures of association between two variables. | | 1,2 | |
| 6 | Understand how regression analysis can be used to develop an equation that estimates mathematically how two variables are related. | | 1,2 | |
| 7 | Understand the differences between the regression model, the regression equation, and the estimated regression equation | | 1,2 | |
| Assesment Methods: 1. Written Exam, 2. Assignment 3. Project/Report, 4.Presentation, 5 Lab. Work | | | | |
| **Course’s Contribution to Program** | | | | |
|  |  | | | CL |
| 1 | Ability to identify the current and historical core content of and what is known in psychology. | | | 3 |
| 2 | Differentiate the various areas of Psychology and identify what is known in each. | | | 5 |
| 3 | Ability to show familiarity with the major concepts, theoretical perspectives, empirical findings, and historical trends in psychology. | | | 5 |
| 4 | Ability to apply psychological content and skills to career goals. | | | 4 |
| 5 | Ability to identify, and evaluate construct and critically analyze complex arguments. | | | 5 |
| 6 | Ability to apply basic research methods in psychology, with sensitivity to ethical principles. | | | 5 |
| 7 | Ability to identify the writing format of the American Psychological Association (APA). | | | 4 |
| 8 | Ability to understand the role of academic, professional, and personal integrity in maintaining a healthy community. | | | 2 |
| 9 | Ability to recognize and describe the ways in which diversity influences psychological processes. | | | 2 |
| 10 | Ability to distinguish important behavioral factors associated with personal and cultural diversity that enable intervention process in therapy. | | | 4 |
| 11 | Ability to demonstrate effective communication skills following professional conventions in psychology appropriate to purpose and context. | | | 3 |
| CL: Contribution Level (1: Very Low, 2: Low, 3: Moderate 4: High, 5:Very High) | | | | |

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| **Course Contents** | | | | | | | | |
| Week |  |  | | | | | | Exam**s** |
| 1 |  | Introduction – Scientific Research and Statistics Overwiew . Methodology and Designs | | | | | |  |
| 2 |  | Hypotheses Testing Comparisons Involving Means | | | | | |  |
| 3 |  | Comparisons Involving Variances. | | | | | |  |
| 4 |  | Comparisons Involving Proportions. | | | | | |  |
| 5 |  | Correlation | | | | | |  |
| 6 |  | Regression Analysis | | | | | |  |
| 7 |  | Mid term exam | | | | | |  |
| 8 |  |  | | | | | | Mid Term |
| 9 |  | One - way Analysis of Variance | | | | | |  |
| 10 |  | Two - way Analysis of Variance | | | | | |  |
| 11 |  | parametric statistics e.g.- the sign test, Wilcoxon rank test, Wilcoxon signed rank test, | | | | | |  |
| 12 |  | Kruskal Walis test | | | | | |  |
| 13 |  | spearman rank correlation coefficient/ Chi- Square Tests | | | | | |  |
| 14 |  | Revisions | | | | | |  |
| 15 |  |  | | | | | | Final |
| **Recommended Sources** | | | | | | | | |
| **Textbook:** Elmes, Kantowtiz & Roedigger III (2006). Research Methods in Psychology. Thomson.  Arthur Aron, Elliot j.Coups & Elaine N. Aron Statistics for Psychology sixeth edition (2013). Pearson International Edition  Bluman, G.A.( 2008). Elementary statistics.( 6th Ed.)  McGraw.HillNorusis, M. J. (1985). *SPSS-X advanced statistics guide*. NY : McGraw-Hill.  **Supplementary Material (s):** | | | | | | | | |
| **Assessment** | | | | | | | | |
| Attendance | | | % |  | | | | |
| Laboratory | | | % |  | | | | |
| Midterm Exam (Written) | | | 30% |  | | | | |
| Quiz (Written) | | | 20% |  | | | | |
| Final Exam (Written) | | | 50% |  | | | | |
| Total | | | 100% |  | | | | |
| **ECTS Allocated Based on the Student Workload** | | | | | | | | |
| Activities | | | | | Number | Duration (hour) | Total Workload(hour) | |
| Course duration in class (including the Exam week) | | | | | 15 | 3 | 45 | |
| Labs and Tutorials | | | | |  |  |  | |
| Assignments | | | | | 14 | 3 | 42 | |
| Project/Presentation/Report Writing | | | | |  |  |  | |
| E-learning Activities | | | | | 2 | 10 | 20 | |
| Quizzes | | | | | 3 | 10 | 30 | |
| Midterm Examination | | | | | 1 | 14 | 14 | |
| Final Examination | | | | | 1 | 22 | 22 | |
| Self Study | | | | | 11 | 4 | 44 | |
| Total Workload | | | | | | | 229 | |
| Total Workload/30 (h) | | | | | | | 7,2 | |
| ECTS Credit of the Course | | | | | | | 7 | |