**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.
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| **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 EditionBluman, 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 |