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**Department of Statistic**

**University of Salahddin University - Erbil**

**Subject: Set Theory**

**Course Book – (2nd Year)**

Lecturer's name: Dr.Awat Sirdar Wahdi

**Academic Year: 2022/2023**

**Course Book**

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| **1. Course name** | **Set Theory**  |
| **2. Lecturer in charge** | Awat Sirdar Wahdi  |
| **3. Department/ College** | **Statistic / Administration & Economic** |
| **4. Contact** | **e-mail:** **aemnaead@gmail.com** |
| **5. Time (in hours) per week**  | **Theory: 2****Practical: 1** |
| **6. Office hours** | **Availability of the lecturer to the student during the week** |
| **7. Course code** |  |
| **8. Teacher's academic profile**  | I have earned a Degree of Doctor of Philosophy in Statisticsfrom Statistics Department – University of BaghdadCollege of Administration & Economic. I have been teaching in Statistics department at Salahaddin University since 2007. I have taught the following subject: Statistics, the computer, Mathematics, linear algebra, Calculus, Operations Research. |
| **9. Keywords** | **Set Theory, Probability & Distribution, Elementary of Statistics, Central Tendency, Dispersion, Correlation, Regression and Survival analysis.** |
| **10. Course Reading List and References‌:****1-** Seymour, Lipschutz., Theory and problems of Probability(Schaum's Outline), McGraw-Hill Inc.1974.**2-** Tebbs, Joshua M., Introductory probability and statistics I, 1st ed.,2004.**3-** Bluman, Allan G., Elementary Statistics (A step by step approach), McGraw-Hill Pub., 8th ed.,  2012.4- Gupta,Parmanand., Business Statistics, 3rd ed., 2008.5- Mejlbro, Lief., Introduction to Probability( Probability Examples c-1),ventus publishing APS.,2009.6- Brink , David., Essentials of Statistics (Exercises),ventus publishing APS.,2009. |
| **11. The Topics:** | **Lecturer's name** |
|  **\*Set Operations** **\*Finite and Infinite sets** **\*Cartesian Product.** **\*Tree Diagrams.** **\*Permutations.** **\*Combinations.** **\*Example about Permutations and Combinations.** **\* Binomial Coefficients and theorem.**  **\*Sample space and Events.** **\*Type of Events, Theorem.** **\*Sample space and Events.****\* Type of Events.****\* Theorem.****\* Classical Probability.** **\* Example about Classical Probability.** | Dr.Awat Sirdar Wahdi (2hrs) |
| **12. Practical Topics (If there is any)** | **Lecturer's name** |
| For practical lessons, Students will be practicing all the topics thathave been taught in theory lessons. | Dr.Awat Sirdar Wahdi (1hrs) |