| Date: | Examination No.: 15367 | Version:1/2/2022 | Start: 1/6/2022 |
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| **Module Name - Code** | Engineering Statistics- GE 1021 |
| **Module Language:** | English |
| **Responsible:** | Dr.Ashty Othman Khorsheed |
| **Lecture (s):** | Dr.Ashty Othman Khorsheed |
| **College:** | College of Engineering – Salahaddin University |
| **Duration:** | 15 week – 1 semester |
| **Course outcomes:** | By the end of this course students are expected to be able: <br><br> This course would provide student with both descriptive and analytical methods for dealing with the variability in observed data. <br><br> Engineering students should take at least one course in statistics, so they can be able to apply statistics in their future everyday work. |
| **Course Content:** | Introduction, Descriptive & inferential statistics, Population parameters and sample statistics, Cumulative frequency distribution, Graphic represen<br><br>simple frequency table, Graphic representation of simple frequency table, Histogram. Frequency Polygon. Frequency curve, Measures of central t<br><br>Measures of variation, Scientific methods and experimental design including randomization and blocking. Inference for regression, Probabilities c<br><br>and compound events, Permutation and combinations, Binomial Distribution, T- Distribution, F- Distribution, Analysis of linear regression, X2 – Dist<br><br>Curve fitting by least squares, Correlation and Regression, Inference for regression. |
| **Literature:** | -Statistics – Informed Decisions Using Data <br>     Michael Sullivan , <br>-Applied statistics and Probability for Engineering <br>     Douglas C. Montgomery and George C. Runger <br>-Probability and Statistics for Engineering <br>     Miller and Friends <br>     Richard A. Johnson <br>-  Magazines and (internet) |
| **Type of Teaching:** | 4 hrs - 2 hrs in lectures |
| **Pre-requisites:** | ability to organize, summarize, analyze and present the collected data and information from their samples |
| **Frequency:** | Yearly in spring semester |

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| **Requirements for credit points:** | For the award of credit points it is necessary to pass the module exam.<br>The module exam contains:<br>Oral/Written (written if 6 students or more) [Oral minimum 30 min / Written 120 min]<br>**Student's attendance is required in all classes**. |
| **Credit point:** | 4 |
| **Grade Distribution:** | The Grade is generated from the examination result(s) with the following weights (w):<br>Oral/Written [w: 1] |

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| First course quiz& class activity     %20 | **%20** |
| Semester exam     % 20 | **%20** |
| Final exam     % 60 | **%60** |
| Total     %100 | **%10** |

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| **Work load:** | The workload is 120h. It is the result of 60h Teaching, and 60h self studies. |