# Course description form

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| 1. Course Name |
| Statistical |
| 2. Course Code |
| STAT109 |
| 3. Semester/ year |
| Second (spring) semester 2023−2024 |
| 4. Date this description was prepared |
| 2024/2/1 |
| 5. A. Available attendance forms |
| My presence |
| 6. Number of study hours (total)/number of units (total) |
| 2 theoretical + 3 practical / 3.5 units |
| 7. Name of the course administrator (if more than one name is mentioned) |
| Name: M. Raghad Naseer Walid<br>M. M. Nahid Sharif Omar |
| 8. Course objectives |

| Objectives of the study subject | |
|---|---|
| **Practical:** | **theoretical:** |
| Enabling the student to identify the most important data that controls the method of collecting them, tabulating them, and placing them in a frequency distribution table addition to the most important statistical laws in calculating results know its significance or not, based on the null and alternative theory. | − Enabling the student to understand and comprehend what is related to statistics mathematical relations and their relationship to scientific experiments. |
| | − Enable the student to know the nature of data, its components and features In the method of collecting data. |
| | − Enabling the student to become familiar with methods of collecting and classifying data And put it in a frequency distribution table. |
| | − Empowering the student with his ability to know most important mathematical standards in calculating data |
| | student can judge the significance of the results |

| | | | | according to the statistical hypotheses |

## Teaching and learning strategies .9

| :Practical | :My theory | The strategy |
|---|---|---|
| _ aptation through teamwork to reveal leadership skills. <br> _ apt tasks and reports to learn about their mental skills | – Interactive lecture <br> – Brainstorming <br> – Dialogue and discussion <br> – Adapt tasks and reports <br> - nducting a scientific visit to private research centers With statistical data | |

## Course structure .10

| Evaluation method | Learning method | Name of the unit or topic | Required learning outcomes | hours | the week |
|---|---|---|---|---|---|
| Short exams, assignments, discussions | :My theory uditory methods Writing style on the blackboard Dialogue style Direct :practical Assigning tasks And report | :My theory Introduction to statistics. <br><br> :practical nature of statistical data and symbols Statistics | oretical: The student is iliar with an introduction to... istics by definition of statistics iables, sections, and history of science Statistics . <br><br> Practical: recognizes data Statistics | 2 eoretical Practical | 1 |
| Short exams, assignments, discussions | :My theory uditory methods e of writing on the blackboard Dialogue style Direct :practical Assigning tasks And report | :My theory e nature of statistical data <br><br> :Practical nature of statistical data and symbols Statistics | oretical: Explains the nature of the data tistics in identifying data ulation, sample, and statistical symbols <br><br> ctical: learns the most important Statistical symbols | 2 eoretical Practical | 2 |

| | | | | And give examples | | |
|---|---|---|---|---|---|---|

| Short exams, assignme nts , discussio ns | :My theory uditory methods Writing style on the blackboard Dialogue style Direct :practical Assigning tasks And report | oretical: tabular entation and graphical representation  :Practical nature of statistical data and symbols Statistics | oretical: Learn about tabular presentation graphical resentation by identifying types les and some important definitions a frequency distribution table  tical: He is familiar the most important rules istical symbols and their application | 2 eoretical Practical | 3 |
|---|---|---|---|---|---|

| Short exams, assignme nts, discussio | :My theory uditory methods Writing style on the blackboard Dialogue style Direct :practical Assigning tasks And report | oretical: frequency distribution table Relative  :Practical phical representation and tabular display | oretical: Master the uency distribution table ios by explaining the e and graphical representation the relative frequency distribution table a cluster frequency .table  tical: Familiar with | 2 eoretical Practical | 4 |

| | Number | Unit | Learning Outcomes | Subject | Teaching Methods | Evaluation |
|---|---|---|---|---|---|---|
| | | | | graphical representation ...lar display consists of a ...uency distribution table and its representation | ...ns | | |
| 5 | 2 ...heoretical Practical | ...oretical: He masters measures of concentration or ...diation by defining ...andards and recognition the most important ...dards and application of the mean ...hmetic, median, and ...de for classified and unclassified values . <br><br> ...tical: Familiar with positioning standards ...diation by applying examples of mediation ...hmetic calculation of ...sified and unclassified values . | ...oretical: Measures of ...ncentration or mediation <br><br> Practical: ...asures of concentration or mediation | :My theory ...uditory methods Writing style on the blackboard Dialogue style Direct practical: Assigning tasks And report | Short exams, assignme nts, discussio ns |
| 6 | 2 ...heoretical Practical | ...oretical: Proficient in dispersion metrics ...ference in definition of ...andards and recognition the most important ...rics and estimation of variance ...e standard deviation and the mean deviation | ...oretical: Measures of dispersion or difference <br><br> Practical: ...asures of concentration or mediation | :My theory ...uditory methods Writing style on the blackboard Dialogue style Direct practical: Assigning tasks And report | Short exams, assignme nts, |

| | | | | | |
|---|---|---|---|---|---|
| | | | ssified and unclassified values. | | |
| | | | Practical: iliar with positioning standards diation by applying examples of mediation ssified and unclassified values | | |
| Short exams, assignments, discussions | My theory uditory methods Writing style on the blackboard Dialogue style Direct practical: Assigning tasks And report | oretical: Principles of probability theory Practical: asures of concentration or mediation | oretical: Explains theoretical principles babilities by defining probabilities most important terms used discrete probability ributions and properties Binomial distribution tical: Familiar with positioning standards diation by applying examples along the lines ssified and unclassified values | 2 eoretical Practical | 7 |

| Assessment methods | Teaching methods | Content | Learning outcomes | | |
|---|---|---|---|---|---|
| Short exams, assignments, discussions | My theory / auditory methods / Writing style on the blackboard / Dialogue style / Direct / practical: / Assigning tasks / And report | Theoretical: testing hypotheses / Practical: ...asures of dispersion or difference | Theoretical: proficient in ...ng hypotheses through identification the most important statistical hypotheses And make decisions / ...tical: Familiar with dispersion standards ...ference by applying examples to the term ...iance, mean and standard deviation | Theoretical Practical | 8 |
| Short exams, assignments, discussions | My theory / auditory methods / Writing style on the blackboard / Dialogue style / Direct / practical: / Assigning tasks / And report | Theoretical: Chi– square distribution / Practical: ...nciples of probability theory | Theoretical: Identify the ...square distribution by definition of chi square and steps ...t and apply an example distribution Chi square . / ...tical: mastering theoretical principles ...sibilities by taking applications on Possibilities | Theoretical Practical | 9 |

| Short exams, assignments, discussions | :My theory auditory methods Writing style on the blackboard Dialogue style Direct :practical Assigning tasks And report | heoretical: statistical tests :Practical Hypothesis testing | oretical: Familiar with statistical tests learning about the most important steps Statistics for tests ctical: demonstrates hypothesis testing mating hypotheses after solving an example On that | heoretical Practical | 10 |
|---|---|---|---|---|---|
| Short exams, assignments, discussions | :My theory auditory methods Writing style on the blackboard Dialogue style Direct :practical Assigning tasks And report | oretical: normal distribution :Practical Statistical tests | oretical: Learn about the normal distribution ining normal ribution and methods for estimating it . ctical: suggests methods most important statistical tests Chi – square test | heoretical Practical | 11 |
| Short exams, assignments, discussions | :My theory auditory methods Writing style on the blackboard Dialogue style Direct :practical Assigning tasks And report | mples of : Theoretical normal distribution :Practical Statistical tests | oretical: Experiments examples of distribution ural by applying an mple to the distribution Natural ctical: suggests methods most important statistical tests (t ) distribution | heoretical Practical | 12 |
| Short exams, | :My theory auditory methods Writing style on the blackboard | z test :Theoretical :Practical | oretical: Familiar with By definition z test the test and its estimation methods | heoretical Practical | 13 |

| | | | | | |
|---|---|---|---|---|---|
| assignments, discussions | Dialogue style Direct practical: Assigning tasks And report | Statistical tests | ctical: suggests methods e most important statistical tests (z) test | | |
| Short exams, assignments, discussions | My theory: uditory methods Writing style on the blackboard Dialogue style Direct practical: Assigning tasks And report | Theoretical: distribution Practical: Statistical tests | oretical: familiar with t distribution the definition test and its estimation methods  tical: Master the normal distribution dying applications on normal distribution | Theoretical Practical | 14 |
| Short exams, assignments, discussions | My theory: uditory methods Writing style on the blackboard Dialogue style Direct practical: Assigning tasks And report | oretical: Correlation and regression Practical: orrelation and regression | oretical: familiar with orrelation and regression inition of correlation and regression methods Appreciate it  tical: Explains relation and regression solving examples of orrelation and regression | Theoretical Practical | 15 |

| | | | | Course evaluation  .11 |
|---|---|---|---|---|

Distribution of the grade out of 100 according to the tasks assigned to the student, such as daily preparation, daily, oral, monthly, written exams, reports, etc.

| Relative % weight | Class | Calendar date (week) | Calendar methods | T |
|---|---|---|---|---|
| 13% | 7 theoretica +1 6 practical | My theory for a week (15) My work week (15) | A theoretical final report + a final report on the subject the operation | 1 |
| 6% | 4 | week (3) | Quiz Short test (1) | 2 |

| | | | | |
|---|---|---|---|---|
| | Theoretic al + 2Practic al | | | |
| %15 | 10 theoretica l+1 5 practical | week (9) | Midterm test (theoretical and practical) | 3 |
| %6 | 4Theoret ical + 2Practic al | week (12) | Quiz Short test (2) | 4 |
| %20 | 20 | Practical exams week | Final practical test | 5 |
| %40 | 40 | The week of theoretical exams | Final theoretical test | 6 |
| %100 | 100 | | the total | |

## Learning and teaching resources  12.

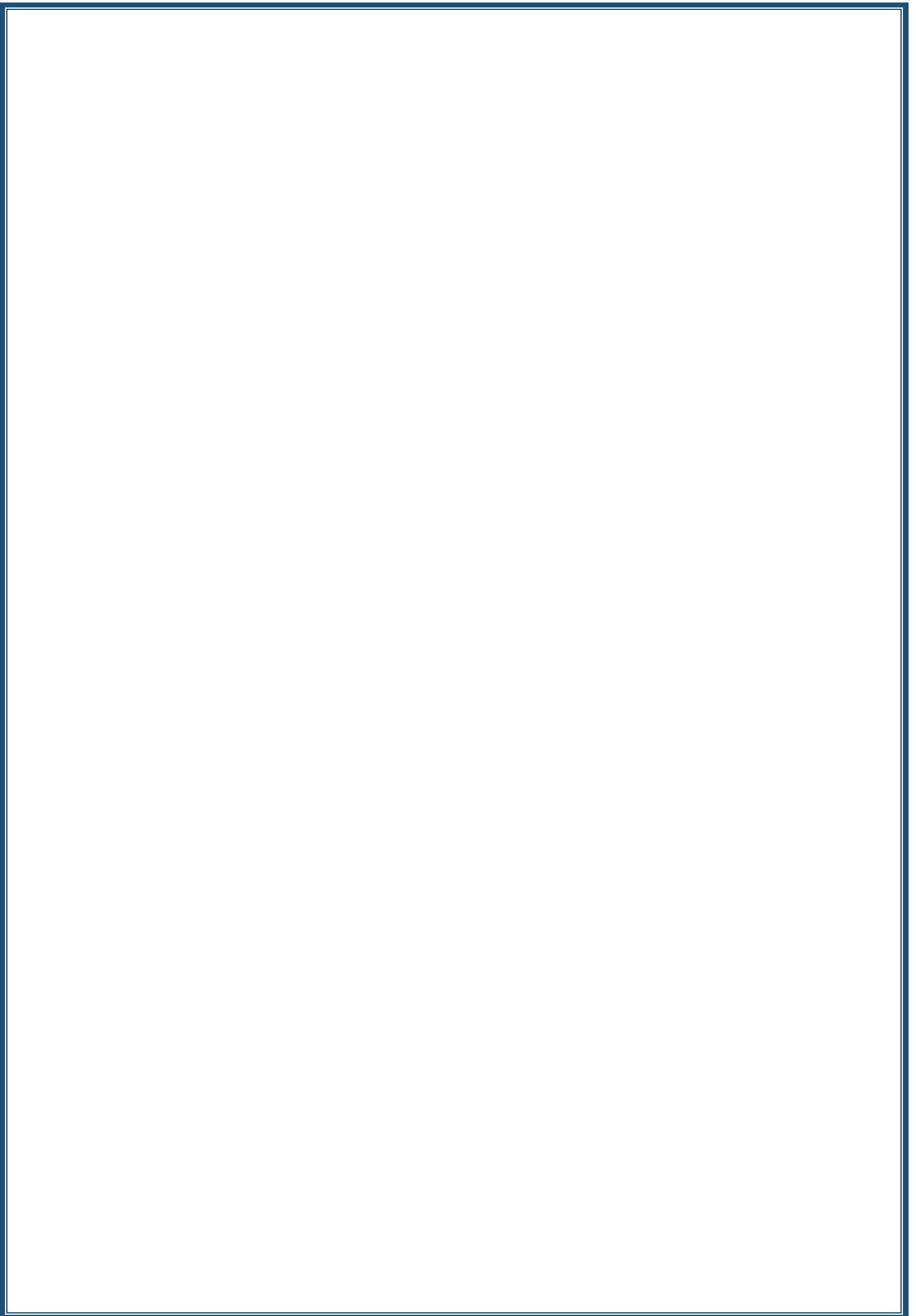| Principles of Statistics book | Required textbooks (methodology, if any) |
|---|---|
| | Main references (sources) |
| :tures and books published in universities Iraqi | Recommended supporting books and references (scientific journals, reports….) |
| bsites specialized in statistics principles | Electronic references, Internet sites |

School of theoretical subject: M. Raghad Naseer Walid

Practical subject teacher: Lecturer Nahid Sharif Omar

Muthanna Ahmed  Muhammed  .Head of the Scientific Committee          :
                                                              Prof .Dr , Tayyab

Prof Dr , omar Diaa AL-Malla .Head of the Animal Production Department

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