## Academic program description form

```
University Name... The University of Basrah
Faculty / Institute ...... Faculty of administration and economics
Scientific Department Statistics department
Academic or Professional Program Name ... Statistics program
Final Certificate Name :Bachelor of Science in statistics
Academic system ... Annual and quarterly
Description Preparation Date: 21/03/2024
File completion Date : 21/03/2024
```

Signature:
Head of Department Name :
Date:

Signature:
Scientific Associate Name:
Date:

The file is checked of quality assurance and university performance
Director of the quality assurance and university performance department:
Date :
Signature:

## 1. Program vision

The ambition of the department is to maintain the distinguished scientific reputation derived from having graduates who have the knowledge, skill, and ability to analyze and make decisions in the Informatics community.

## 2. Program mission

The statistics department should be a leading center in education and scientific research, and be a contributor to providing society with highly qualified scientific cadres in the acquisition of knowledge.

## 3. Program objectives

1-Preparing and qualifying graduates specialized in statistical work to enable them to contribute to the development program in the government and private sector.
2-enabling students to use the scientific method in determining the size and quality of the study sample and collecting and presenting special data in the study.
3-the ability to build indicators, analyze results and test statistical assumptions in various studies.
4-the ability to use computers, Information Technology and ready-made statistical programs.
5-developing the ability of students to develop and design scientific experiments and analyze their results.
6 -preparing and qualifying students to continue studying in graduate studies by developing their intellectual, scientific and research skills.

## 4. Program accreditation

Programs and curricula approved by the sectoral authority and with a permissible change of 20\%
5. Other external influences

Statistics deals with all ministries and institutions, public, private and mixed
6. Program structure

| Program structure | Number of courses | Credit hours | Percentage | reviews |
| :--- | :---: | :---: | :---: | :---: |
| Institution <br> requirements | 90 | 90 |  | basic decision |
| College requirements |  |  |  |  |
| Department <br> requirements |  |  |  |  |
| Summer training |  |  |  |  |
| Other |  |  |  |  |
| © This can include notes whether the course is basic or optional |  |  |  |  |


| 7. Program description |  |  |  |  |
| ---: | ---: | ---: | ---: | ---: |
| Year/ level | Course <br> code | Course name | Credit hours |  |
|  |  |  | Theoretical | Practical |
| 2024-2023 <br> The second | STB205 | Principles of <br> probability | units 3 |  |

## 8. Expected learning outcomes of the program

## Knowledge

| Learning outcomes 1 Cognitive goals | Statement of learning outcomes 1 <br> gaining the ability to deal with <br> forecasting problems |
| :--- | :--- |
| Skills | Learning output 2 Understanding the <br> concept of probability |
| Statement of learning outcomes 2 <br> result processing skills |  |
| Learning outcomes 3 Understanding <br> probability theory | Statement of learning outcomes 3 <br> skills in short-and long-term <br> planning |
| Ethics | Searning outcomes 4 the ability to <br> make the right decisions |
| Statement of learning outcomes 4 <br> The ability to conduct statistical <br> analysis |  |
| data to build a statistical plan | Statement of learning outcomes 5 <br> recognition and understanding of <br> the preview method |

## 9. Teaching and learning strategies

Discussion and dialogue

## 10. Evaluation methods

Exams, research, projects, exercise solutions and a case study within the possibilities

| 11. Faculty |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Faculty members |  |  |  |  |  |  |
| Academic rank | Specialization |  | Special requirements/skills if applicable) |  | Number of teaching staff |  |
|  | General | Special |  |  | Staff | Lecturer |
| Assistant professor | Statistics | Applied Statistics | Mathematics | Computer |  |  |


| Professional development |
| :--- |
| Mentoring new faculty members |
| Briefly describes the process used to mentor new ,visiting ,full-time ,and <br> part time faculty at the institution and department level. |
| Professional development of faculty members |
| Briefly describe the academic and professional development plan and <br> arrangements for faculty such as teaching and learning strategies , <br> assessment of learning outcomes , professional development...etc |

## 12. Acceptance criterion

(setting regulations related to enrollment in the college or institute, whether central admission or others)
13.The most important sources of information about the program Various sources as well as the approved methodological book

## 14.Program development plan

| Program skills outline |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Required program learning outcomes |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Year / level | Course code | Course name | Basic or optional | Knowledge |  |  |  | skills |  |  |  | Ethics |  |  |  |
| Second course 1 |  |  |  | A1 | A2 | A3 | A4 | B1 | B2 | B3 | B4 | C1 | C2 | C3 | C4 |
|  | STB205 | Principles of probability | Basic | I |  |  |  |  |  | 1 |  |  |  | 1 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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* Please tick the boxes corresponding to the individual program learning outcomes under evaluation


## Course description form

## 1. Course name



| Course objectives |  |  | A1-based on the full completion of the study, the student will be able to understand the basics of probabilistic calculations and the use of probabilistic models for some random experiments <br> A2-the use of statistical theory in practice |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 9. Teaching and learning strategies |  |  |  |  |  |
| Strategy |  |  |  |  |  |
| 10. Course structure |  |  |  |  |  |
| Week | hours | Required learning outcomes | Unit or subject name | Learning method | Evaluation method |
| week 1 | 3 | Preliminary review of group theory | Introduction to Mathematical of Statistics, Hogg |  | Discussion and solving exercises |
| week 2 | 3 | Calculating the total number of methods used | Introduction to Mathematical of Statistics, Hogg |  | Discussion and solving exercises |
| week 3 | 3 | Permutations | Introduction to Mathematical of Statistics , Hogg |  | Discussion and solving exercises |
| week 4 | 3 | Combinations | Introduction to Mathematical of Statistics, Hogg |  | Discussion and solving exercises |
|  |  |  |  | Assignment 1 |  |
| week 5 | 3 | Concept of possibilities | Introduction to Probability Theory 1999 Authors Professor Dhafer Hussein Rashid, d. Ali AI-Wakeel, Dr. Salim Ghorabi Ghorabi |  | Discussion and solving exercises |
| week 6 | 3 | Probability function | Introduction to Probability Theory 1999 Authors Professor Dhafer Hussein Rashid, d. Ali AI-Wakeel, Dr. Salim Ghorabi |  | Discussion and solving exercises |


| week 7 | 3 | Police probability | Introduction to Probability Theory 1999 Authors Professor Dhafer Hussein Rashid, d. Ali Al-Wakeel, Dr. Salim Ghorabi |  | Discussion and solving exercises |
| :---: | :---: | :---: | :---: | :---: | :---: |
| week 8 | 3 | Bayes Law | Introduction to Probability Theory 1999 Authors Professor Dhafer Hussein Rashid, d. Ali Al-Wakeel, Dr. Salim Ghorabi | Assignment 2 | Discussion and solving exercises |
| week 9 | 3 | A complement to the concept of bayes theory | Introduction to Probability Theory 1999 Authors Professor Dhafer Hussein Rashid, d. Ali Al-Wakeel, Dr. Salim Ghorabi |  | Discussion and solving exercises |
| week 10 | 3 | Random variable | Introduction to Probability Theory 1999 Authors Professor Dhafer Hussein Rashid, d. Ali Al-Wakeel, Dr. Salim Ghorabi |  | Discussion and solving exercises |
| week 11 | 3 | Types of random variable | Introduction to Probability Theory 1999 Authors Professor Dhafer Hussein Rashid, d. Ali Al-Wakeel, Dr. Salim Ghorabi |  | Discussion and solving exercises |
| week 12 | 3 | Discrete random variable | Introduction to Mathematical of Statistics ,Hogg | Assignment 3 | Discussion and solving exercises |
| week 13 | 3 | continuous random variable | Introduction to Mathematical of Statistics ,Hogg |  | Discussion and solving exercises |
| week 14 | 3 |  | review |  | Discussion and solving exercises |
| Mid Exam |  |  |  |  |  |

## 11. Course evaluation

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

| 12. Learning and teaching resources |  |
| :--- | :--- |
| Required textbooks (curricular books, if any) | Introduction to probability theory 1999 authors <br> Professor Zafer Hussein Rashid, Dr. The agent, Dr. <br> Salim al-gharabi |
| Main references (sources) | Introduction to mathematical of statistics <br> (hogg) |
| Recommended books and references (scientific journals, reports | The Schaum series in probability |
| Electronic references, website | YouTube muna ghafil |

