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 for quality assurance and university performance
Director of the quality assurance and university performance department:
Date:

Signature:

Approval of the Dean

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 requirements	90	90		basic decision
College requirements				
Department requirements				
Summer training				
Other				

❖ This can include notes whether the course is basic or optional

7. Program description				
Year/ level	Course code	Course name	Credit hours	
			Theoretical	Practical
2024-2023 The second	STB205	Probability distributions	units 3	

8. Expected learning outcomes of the program
Knowledge

Learning outcomes 1 Cognitive goals	**Statement of learning outcomes 1 gaining the ability to deal with forecasting problems**
Skills	
Learning output 2 Understanding the concept of probability	**Statement of learning outcomes 2 result processing skills**
Learning outcomes 3 Understanding and knowledge of the basics of probability theory	**Statement of learning outcomes 3 skills in short-and long-term planning**
Ethics	
Learning outcomes 4 the ability to make the right decisions	**Statement of learning outcomes 4 The ability to conduct statistical analysis**
Learning outcomes 5 summarizing data to build a statistical plan	**Statement of learning outcomes 5 recognition and understanding of 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**	**On the angel**	

Professional development
Mentoring new faculty members
Briefly describes the process used to mentor new ,visiting ,full-time ,and part time faculty at the institution and department level.
Professional development of faculty members
Briefly describe the academic and professional development plan and arrangements for faculty such as teaching and learning strategies , 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 2				A1	A2	A3	A4	B1	B2	B3	B4	C1	C2	C3	C4	
	STB205	Probability distributions	Basic	/					/			/			/	

❖ **Please tick the boxes corresponding to the individual program learning outcomes under evaluation**

Course description form

1. Course name	
Probability distributions	
2. Course code	**STB205**
3. Semester / year :	**The second/second**
4. Description preparation date :	
2024/03/21	
5. Available attendance form :	
Theoretical lectures	
6. Number of credit hours (total) / number of units (total)	
45 hours / 3 units	
7. Course administrator`s name (mention all, if more than one name)	
Name :Muna Taher Ghafil	**Email :** muna.ghafil@uobasrah.edu.iq
8. Course objectives	

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 A2-the use of statistical theory in practice

9. Teaching and learning strategies

Strategy	Knowledge and understanding of the basics of probability theory and distributions

10. Course structure

Week	hours	Required learning outcomes	Unit or subject name	Learning method	Evaluation method
week 1	3	The concept of distributions	Introduction to Mathematical of Statistics ,Hogg		Discussion and solving exercises
week 2	3	Discrete random variables	Introduction to Mathematical of Statistics ,Hogg		Discussion and solving exercises
week 3	3	Application example	Introduction to Mathematical of Statistics ,Hogg		Discussion and solving exercises
week 4	3	Application example	Introduction to Mathematical of Statistics ,Hogg		Discussion and solving exercises
				Assignment 1	
week 5	3	Bernoulli & Binomial poisson& Hyper geometric	Introduction to Probability Theory 1999 Authors Professor Dhafer Hussein Rashid, d. Ali Al-Wakeel, Dr. Salim Ghorabi		Discussion and solving exercises
week 6	3	Application example	Introduction to Probability Theory 1999 Authors Professor Dhafer Hussein Rashid, d. Ali Al-Wakeel, Dr. Salim Ghorabi		Discussion and solving exercises
week 7	3	Expectation	Introduction to Probability Theory 1999 Authors Professor Dhafer Hussein Rashid, d. Ali Al-Wakeel, Dr. Salim Ghorabi		Discussion and solving exercises

week 8	3	moments	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	Application example	Introduction to Probability Theory 1999 Authors Professor Dhafer Hussein Rashid, d. Ali Al-Wakeel, Dr. Salim Ghorabi		Discussion and solving exercises
week 10	**3**	**Moment generating function**	Introduction to Probability Theory 1999 Authors Professor Dhafer Hussein Rashid, d. Ali Al-Wakeel, Dr. Salim Ghorabi		Discussion and solving exercises
week 11	3	Law of large numbers central limit theorem	Introduction to Probability Theory 1999 Authors Professor Dhafer Hussein Rashid, d. Ali Al-Wakeel, Dr. Salim Ghorabi		Discussion and solving exercises
week 12	3	Application example	Introduction to Mathematical of Statistics ,Hogg	Assignment 3	Discussion and solving exercises
week 13	3	Random walk and gambling	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 Professor Zafer Hussein Rashid, Dr. The agent, Dr. Salim al-gharabi**
Main references (sources)	**Introduction to mathematical of statistics (hogg)**

Recommended books and references (scientific journals, reports	**The Schaum series in probability**
Electronic references, website	**YouTube muna ghafil**