Academic program description form

University Name: University of Basra
Faculty / Institute : College of Administration and Economics
Scientific Department: Statistics Department
Academic or Professional Program Name : Bachelor of Statistics
Final Certificate Name : Bachelor of Science in Statistics
Academic system: courses
Description Preparation Date:
File completion Date : 2/26/2024

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:

Approval of the Dean

1. Program vision

The College of Administration and Economics seeks to be one of the leading higher education institutions at the University of Basra in the field of modern education and scientific research through its various scientific and research activities, as it prepares graduate students to work in government departments and benefit from specialization in the practical and applied field, as well as benefit from specialization in special fields.

2. Program mission

Working to prepare and graduate leading scientific and leadership competencies in the field of statistical sciences and to develop the balance of knowledge in the field of scientific research in the field of statistical sciences to serve the local, regional and international community, as well as training and refining the minds of students scientifically and cognitively, and emphasizing social and cultural values and responding to the requirements of the local market.

3. Program objectives

- Preparing and qualifying graduates specialized in statistical work to enable them to contribute to development programs in the government and private sectors.
- Enabling students to use the scientific method in determining the size and quality of the study sample and collecting and presenting data for the study.
- The ability to build indicators, download results, and test statistical hypotheses in various studies.
- The ability to use computers, information technology, and ready-made statistical programs
- Developing students' ability to devise and design scientific experiments and

present their results.
- Employing modern teaching methods, techniques and educational means in teaching statistical sciences.
- Preparing and qualifying students to pursue postgraduate studies by developing their intellectual, scientific and research skills.

4. Program accreditation

There is none

5. Other external influences

There is none

6. Program structure

Program structure	Number of courses	Credit hours	Percentage	reviews
Institution requirements	**45**	**3**		
College requirements	**Yes**			
Department requirements	**Yes**			
Summer training	**No**			
Other	**No**			

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

7. Program description

Year/ level	Course code	Course name	Credit hours

			Theoretical	Practical
		Regression analysis1	3	

8. Expected learning outcomes of the program	
Knowledge	
- The ability to analyze data according to building a regression model suitable for the sample - The ability to find and analyze statistical indicators. - The ability to measure the degree of relationship between variables.	
Skills	
- Enables selection of the appropriate sample. - Enables discrimination and classification of information. - Enables choosing the appropriate model for the sample. - Enables the ability to analyze regression models.	
Ethics	
- Developing students' abilities to share ideas - Defining the problem and the nature of the variables. - Choose the appropriate method. - Perform the correct steps for the solution. - Giving and analyzing results.	

9. Teaching and learning strategies

- Explaining the scientific material to students in detail. - Participation of students in the classroom in the topic - Requesting reports on the relevant course topics and discussing them.
10. Evaluation methods
Quarterly and daily exams, class contributions, reports on course topics

11. Faculty						
Faculty members						
Academic rank	**Specialization**		**Special requirements/skills if applicable)**		**Number of teaching staff**	
	General	**Special**			**Staff**	**Lecturer**
professor	Statistics	Applied Statistics			**Yes**	

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
State briefly the sources information about the program

14.Program development plan

Program skills outline																
Required program learning outcomes																
Year / level	Course code	Course name	Basic or optional	Knowledge				skills				Ethics				
		Regression analysis1	Basic	A1	A2	A3	A4	B1	B2	B3	B4	C1	C2	C3	C4	

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

Course description form

1. Course name
Regression analysis1
2. Course code
3. Semester / year :
2024-2023
4. Description preparation date :
2024\2\26
5. Available attendance form :
My class (lectures)
6. Number of credit hours (total) / number of units (total)
45
7. Course administrator`s name (mention all, if more than one name)

Name : Prof. Sahera Husseien Zain **Email : sahera.zain@uobasrah.edu.iq**

8. Course objectives

Regression analysis material, whether it is a methodological book or experimental research, is important and necessary to present scientific and mathematical formulas in their algebraic form, as an appropriate tool for scientific analysis. The concept of simple linear regression analysis enables students to analyze the relationship between a dependent variable and one explanatory variable, then test the model parameters in terms of their significance, to allow the relationship to be used in calculating and controlling future predictions of the dependent variable.

9. Teaching and learning strategies

Enabling students to analyze data that contains two variables, one dependent and the other independent, with a linear relationship by describing a simple linear regression model, inferring all the statistical indicators of the model, and using ready-made statistical programs such as spss, mintab, and others to extract and interpret the results.

10. Course structure

Week	hours	Required learning outcomes	Unit or subject name	Learning method	Evaluation method

1	**3**	The concept of simple linear regression analysis, the nature of the relationship between the two variables and its uses, with examples	Simple linear regression model	Lecture (theoretical and practical)	Examination, participation in the lecture, and submission of reports on the topic
2	3	Building a simple linear regression model and the assumptions of this model, geometric representation of the simple linear regression equation	Construct a simple regression model	=	=
3	3	Estimating parameters using the ordinary least squares method with an applied example	Estimation method for simple regression model	=	=
4	3	Fitting regression equation using matrices and vectors with an applied example	Estimation method for simple regression model	=	=
5	3	Properties of estimators using the ordinary least squares method	Properties of capabilities	=	=
6	3	Estimating the population error variance and estimated variances of estimated parameters with an applied example	Variations of parameters and stochastic term	=	=

7	3	Calculate an estimate of the mean response, and estimate the new predictive value	Create forecasts	=	=
8	3	First month exam	The first exam for the pursuit level	=	=
9	3	Testing hypotheses for model parameters with an applied example	Inference about model parameters	=	=
10	3	Limits of trust with a comprehensive applied example	Simple link	=	=
11	3	The simple correlation coefficient, its properties, testing it with an applied example	Testing the significance of the model	=	=
12	3	Goodness-of-fit test with an applied example	Testing the significance of the model	=	=
13	3	Analysis of variance table with a comprehensive	application example	=	=
14	3	Conformity deficiency testing	Application example	=	=
15	3	Second month exam	The second exam for the pursuit degree	=	=

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)	Regression Analysis book written by Prof. Dr.. Zahra Hassan Abbas and others Internet sources related to the article
Main references (sources)	
Recommended books and references (scientific journals, reports	
Electronic references, website	