Course Description Form

1. Course Name:

Statistical

2. Course Code:

STAT109

3. Semester / Year:

2023/2024 First semester (Autumn)

4. Description Preparation Date:

1/2/2024

5. Available Attendance Forms:

Attended

6. Number of Credit Hours (Total) / Number of Units (Total)

2 Theoretical + 3 Practical / 3.5 Unit

7. Course administrator's name (mention all, if more than one name)

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8. Course Objectives

- Knows the science of statistics and its types, and also differentiates between descriptive statistics and inferential or inferential statistics
- Explains what descriptive variables are and recognizes the difference between a sample and a population
- · Organize and draw a frequency distribution table and identify its parts
- · Organizes a table of relative frequency distribution and ascending and descending grouping
- He finds the arithmetic mean and learns about the properties of the arithmetic mean
- · Works on how to find the range, mean deviation, variance, and standard deviation
- Distinguish the difference between permutations, combinations and a random experiment
- Expresses the components of discrete probability distributions
- · Identify the statistical hypothesis, the null hypothesis, and the alternative hypothesis compare the types of error
- · Learn about the T-test and the Z-test and the difference between them
- · Learn how to perform the chi-square test steps
- · Learn about correlation, regression, correlation coefficient, regression, and the properties of each

9. Teaching and Learning Strategies

Theoretical:

- Interactive lecture
- Brainstorming
- Dialogue and discussion
- Assigning tasks and reporting

Practical

- Assigning group work to reveal leadership-skills

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- Assigning tasks and a report for each lecture

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 The student is assigned to prepare reports based on his own diligence and prepared for discussion with the students

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	2 Theoretical + 3 Practical	a1: Knows the science of statistics and its types, and also distinguishes between descriptive statistics and inferential statistics a7: Differentiate between descriptive and inferential statistics, as the most important statisticians in the twentieth century remember	Theoretical: Statistics, its definition and types Practical: Solve mathematical exercises on the topic	Theoretical: auditory methods Style of writing on the blackboard Direct dialogue style Practical: Assigning tasks and reporting	Short exams, assignment of duties, discussions
2	2 Theoretical + 3 Practical	a2: Explains what descriptive variables are and recognizes the difference between a sample and population a8: Compares quantitative variables and descriptive variables It also distinguishes between the population and the sample, giving examples of each	Theoretical: The nature and types of statistical data Practical: Solve mathematical exercises on the topic	Theoretical: auditory methods Style of writing on the blackboard Direct dialogue style Practical: Assigning tasks and reporting	Short exams, assignment of duties, discussions
3	2 Theoretical + 3 Practical	c1: Organize and draw a frequency distribution table and identify its parts b2: Organizes a frequency distribution table and identifies its components. He also experiments with finding the ascending and descending group frequencies	Theoretical: tabular presentation and graphical representation Practical: Solve mathematical exercises on the topic	Theoretical: auditory methods Style of writing on the blackboard Direct dialogue style Practical: Assigning tasks and reporting	Short exams, assignment of duties, discussions
4	2 Theoretical + 3 Practical	c2: Organizes table the relative frequency distribution and ascending and descending grouping	Theoretical: Types of frequency distribution tables and how	Theoretical: audifory methods Style of writing on the	Short exams, assignment of duties, discussions

		b3: Calculates the	to draw them	blackboard	
		arithmetic mean,	,	Direct dialogue	
		geometric mean, and		style	
		harmonic mean. It also	Practical: Solve	Practical:	
		determines the squared	mathematical	Assigning tasks	
		mean, median, and	exercises on the	and reporting	1.
		mode.	topic		1
5	2 Theoretical	b1: Finds the arithmetic	Theoretical:	Theoretical:	Short exams,
,	+ 3 Practical	mean - and learns about	Measures of	auditory	assignment
		the properties of the	concentration or	methods	of duties,
		arithmetic mean	mediation	Style of writing	discussions
	in entre of			on the	1 -
		c6: The range law, mean		blackboard	
		deviation, variance of the	Practical: Solve	Direct dialogue	
		mean deviation, and	mathematical	style	
		standard deviation are	exercises on the	Practical:	
		applied to the classified	topic	Assigning tasks	
		and unclassified data		and reporting	
6	2 Theoretical	c3: Works out how to	Theoretical:	Theoretical:	Short exams,
Ü	+ 3 Practical	find the range, mean	measures of	auditory	assignment
		deviation, variance, and	dispersion or	methods	of duties,
		standard deviation	difference	Style of writing	discussions
				on the	
		c7: Explains probability	Practical: Solve	blackboard	
		theory for random	mathematical	Direct dialogue	
		experiment, sample	exercises on the	style	
		space, and mutually	topic	Practical:	
		exclusive events with	**	Assigning tasks	
	or and a second	solving examples		and reporting	and the second second
7	2 Theoretical	c4: Distinguish the	Theoretical:	Theoretical:	Short exams,
	+ 3 Practical	difference between	Principles of	auditory	assignment
		permutations,	probability	methods	of duties,
		combinations and a	theory	Style of writing	discussions
	. 3	random experiment	7	on the	
			Practical: Solve	blackboard	-
		b4: Explains the variables	mathematical	Direct dialogue	
		of the binomial	exercises on the	style	
		distribution law	topic	Practical:	
		*	i a	Assigning tasks	
			The state of the s	and reporting	and the same of the same of the
8	2 Theoretical	c5: Expresses the	Theoretical:	Theoretical:	Short exams,
	+ 3 Practical	components of discrete	Piecewise	auditory	assignment
		probability distributions	probability	methods	of duties,
			distributions	Style of writing	discussions
		c8: Explains the null		on the	D 71 1
		hypothesis and the	Practical: Solve	blackboard	
		alternative hypothesis	mathematical	Direct dialogue	
		and compares them	exercises on the	style المدحل	JA
			topic	المعة المدعيل المعالمة المعالمعالمة المعالمة المعالمة المعالمة المعالمة المعالمة المعالمة الم	
			-7.0	Practical:	و کلیه
				Assigning tasks	i
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9	2 Theoretical	a3: Recognizes the	Theoretical:	Theoretical:	Short exams,
	+ 3 Practical	statistical hypothesis, the	Hypothesis	auditory	assignment
		null hypothesis, and the	testing	methods	of duties,
		alternative hypothesis -		Style of writing	discussions
		compares the types of	Practical: Solve	on the	
		error	mathematical	blackboard	
			exercises on the	Direct dialogue	
		b5: Shows the T test "T-	topic	style Practical:	1
		test" and shows the Z		Assigning tasks	
		test "Z-test"	1	and reporting	
	9 =11	a4: Learn about the T-	Theoretical:	Theoretical:	Short exams,
10	2 Theoretical + 3 Practical	test and the Z-test and	Hypothesis	auditory	assignment
	+ 3 Practical	the difference between	testing	methods	of duties,
		them	testing	Style of writing	discussions
		them	Practical: Solve	on the	
			mathematical	blackboard	
		b6: Enumerate the types	exercises on the	Direct dialogue	
		of applications of chi-	topic	style	
		square		Practical:	
				Assigning tasks	
		la de la constitución de la cons		and reporting	-2.
11	2 Theoretical	a5: Learn how to	Theoretical: Chi-	Theoretical:	Short exams,
	+ 3 Practical	perform the chi-square	square	auditory	assignment
	1.0	testing steps	distribution	methods	of duties,
			Donatical Calus	Style of writing	discussions
		b7: Explains the simple	Practical: Solve mathematical	on the blackboard	
		connection, and	exercises on the	Direct dialogue	
		reinforces it with	topic	style	
		examples	topic	Practical:	
				Assigning tasks	
				and reporting	
12	2 Theoretical	a6: Learn about	Theoretical:	Theoretical:	Short exams,
	+ 3 Practical	correlation, regression,	simple	auditory	assignment
		correlation coefficient,	correlation and	methods	of duties,
		regression, and the	regression	Style of writing	discussions
	1	properties of each		on the	
		b8: Explains the nature		blackboard	
		of the distribution of F. It	Practical: Solve	Direct dialogue	
	2.2	also explains the	mathematical	style	
	1 1	relationship between the distributions of Z, T, and	exercises on the	Practical: Assigning tasks	
	1 x 2 x 2	F and the distinction	topic	and reporting	
	The state of the s	between each of them		and reporting	
13	2 Theoretical	d1: Training on how to	Theoretical +	Theoretical:	Short exams,
T. T.	+ 3 Practical	apply statistics in	practical: report	auditory	assignment
		designing agricultural	and discussion	methods-	of duties,
		experiments		Style of writing	disdussions
	1	100 March 2001 Va 20 1020		on the	ا كليا
		d2: Organize a report on		blackboard	1
		the statistics topics		Direct dialogue	
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		studied and learn how to apply statistics in agricultural sciences		style Practical: Assigning tasks and reporting	
14	2 Theoretical + 3 Practical	e1: Visit to the Statistics Department with the aim of learning about the most important statistical processes and how to implement E3: The student assumes some problems in agricultural fields and laboratories and how to develop statistical solutions	Theoretical + practical: A field visit to the Department of Statistics - University of Mosul	Theoretical: auditory methods Style of writing on the blackboard Direct dialogue style Practical: Assigning tasks and reporting	Short exams, assignment of duties, discussions
15	2 Theoretical + 3 Practical	e2: Visit to the Mathematics Department with the aim of learning about the most important statistical operations and how to implement them e3: The student assumes some problems in agricultural fields and laboratories and how to develop statistical solutions	Theoretical + practical: A field visit to the Department of Mathematics - University of Mosul	Theoretical: auditory methods Style of writing on the blackboard Direct dialogue style Practical: Assigning tasks and reporting	Short exams, assignment of duties, discussions

11 Course Evaluation

	Evaluation methods	Evaluation date (week)	Degree	Percentage weight %
1	Report 1	Fourth week	2.5	2.5
2	Report 2	Fifth week	2.5	2.5
3	Short test (1) Quiz	Sixth week	2	2
4	Short test (2) Quiz	Fourteenth week	2	2
5	Short test (3) Quiz	Fifteenth week	1	1
6	Semester test (1)	Sixth week	7.5	7.5
7	Semester test (2)	Eleventh week	7.5	7.5
8	Final theoretical test	Final semester test	40	40
9	Practical field project	The fifteenth week	5	5
10	Field evaluation	Third and fifth week	2	2
11	Practical short test (1) Quiz	First week	1	1
12	Short practical test (2) Quiz	Fourth week	0.5	0.5
13	Short practical test (3) Quiz	Fourteenth week	1	1
14	Live drawings and homework	Weeks 6, 8, 9, 10, 11, 12 and 13	5.5	5.5
15	Final practical test	Final semester test	العارات (20	20 9
	Total	100	Degree	Percentage weight/%

12. Learning and Teaching Resources				
Required textbooks (curricular books, if any)	Introduction to statistics Principles of statistics Statistics book and methods of statistics			
Main references (sources)				
Recommended books and references (scientific journals, reports)				
Electronic References, Websites				

Practical lecturer

Khalil Ibrahim Khalil

Head of department of plant protection

Dr. Firas Kadhim Aljuboori

Theoretical lecturer

Dr. Zaid Mohammed Alhabbar

Head of the Scientific Committee

Dr. Juhina Idress Mohammad Ali

