

Ministry education High And search Scientific device Supervision And the calendar Scientific circle a guarantee the quality And accreditation Academic to divide Accreditation

# Program description guide

# **Academic and course**

# The introduction:

The educational program is considered a coordinated and organized package of academic courses that includes procedures and experiences organized in the form of academic vocabulary, the main purpose of which is to build and refine the skills of graduates, making them qualified to meet the requirements of the labor market. It is reviewed and evaluated annually through internal or external audit procedures and programs such as the external examiner program.

The description of the academic program provides a brief summary of the main features of the program and its courses, indicating the skills that students are working to acquire based on the objectives of the academic program. The importance of this description is evident because it represents the cornerstone of obtaining program accreditation, and the teaching staff participates in writing it under the supervision of the scientific committees in the scientific departments.

This guide, in its second edition, includes a description of the academic program after updating the vocabulary and paragraphs of the previous guide in light of the latest developments in the educational system in Iraq, which included a description of the academic program in its traditional form (annual, quarterly), in addition to adopting the description of the academic program circulated according to the book of the Department of Studies, T.M.3/2906 on 5/3/2023 regarding programs that adopt the Bologna Process as a basis for their work.

In this area, we can only emphasize the importance of writing descriptions of academic programs and courses to ensure the smooth conduct of the educational process.

**Concepts and terminology:** 

Description of the academic program: The academic program description provides a brief summary of its vision, mission, and objectives, including an accurate description of the targeted learning outcomes according to specific learning strategies.

<u>Course description</u>: It provides a necessary summary of the most important characteristics of the course and the learning outcomes that the student is expected to achieve, demonstrating whether he has made the most of the learning opportunities available. It is derived from the program description.

**Program vision:** An ambitious picture for the future of the academic program to be an advanced, inspiring, motivating, realistic and applicable programme.

**Program message:** It briefly explains the objectives and activities necessary to achieve them, and also identifies the program's development paths and directions.

**Program Goals:** They are statements that describe what the academic program intends to achieve within a specific period of time and are measurable and observable.

<u>Curriculum structure</u>: All courses/study subjects included in the academic program according to the approved learning system (semester, annual, Bologna track), whether it is a requirement (ministry, university, college, or scientific department), along with the number of study units.

**Learning Outcomes:** A compatible set of knowledge, skills, and values that the student has acquired after the successful completion of the academic program. The

learning outcomes for each course must be determined in a way that achieves the program objectives.

Teaching and learning strategies: They are the strategies used by a faculty member to develop student teaching and learning, and they are plans that are followed to reach learning goals. That is, it describes all curricular and extracurricular activities to achieve the learning outcomes of the programme.

#### Academic program description form

University name: Diyala University College/Institute: College of Administration and Economics Scientific Department: Department of Statistics Name of the academic or professional program: Bachelor of Statistics Name of final degree: Bachelor of Science in Statistics Academic system: the first and second semester of the academic year2023 -2024 Description preparation date:10/24/2023 File filling date:1/4/2024

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the signature: Name of department head:a.M.Dr. Sami Abdullah Abdul the date:1/4/2024

Name of scientific assistant:a.M.Dr. Alia Hussein Khalaf the date:1/4/2024

Check the file before:

Division of Quality Assurance and University Performance

Name of the director of the Quality Assurance and University Performance Division: M. Younis Kazem Hamid

the date:10/4/2024 the signature:

1

Authentication of the Dean Mother. Dr. Nizar Maan Abdel Karim

#### See the program

The department works to harmonize education and training to raise the efficiency of its members scientifically and skillfully, and takes into account the nature of reality and future aspirations to ensure high quality and academic accreditation to contribute to improving teaching and learning at the various stages of education.

#### Program message.

The department pledges to work with a scientific methodology and institutional work within clear plans to achieve lofty goals in the academic and training fields, in accordance with the requirements of quality assurance and academic accreditation, so that its outputs in the subject of statistics are more competitive and ambitious through the provision of knowledge, knowledge and skills.

#### Program Goals

The department works to provide facilities to ensure continuous improvement of the quality of educational performance at the various stages of education to provide distinguished education within a comprehensive framework for achieving academic quality that combines internal and external education.

#### Program accreditation

At the stage of obtaining program accreditation.

#### Other external influences

There are no external influences.

Is there a sponsor for the program? Standards of the Association of Arab Universities.

.Program structure												
comments *	percentage	Study unit	Number of	Program structure								
			courses									
	14.01%	16	8	Enterprise								
				requirements								
	8,8%	9	5	College requirements								
	77.19%	118	44	Department								
				requirements								
The student				summer training								
trains (30) A												
day in one of												
the official												
state												
departments												
				Other								

\* Notes may include whether the course is core or elective.

7. Program	. Program description										
Credit h	nours	Name of the course	Course or	Year/level							
		or course	course code								
practical	theoretical										
	4	Principles of		First year							
	3	Statistics1									
2	1	Calculus									
	2	Computer									
	2	Arabic									
	4	Democracy and									
	3	human rights									
	2	Principles of									
	2	Statistics2									
	2	Integration									
	2	Accounting principles									
		Principles of									
		administration									

[		Dringinters	
		Principles of	
		Economics	
		English	
	3	Inspection methods	The second phase
	3	Principles of	
	3	probability	
	3	Sequences and series	
	2	Matrices	
	2	Economic statistics1	
2	1	Quality control1	
	2	MATLAB1	
	2	English	
2	1	Baath Party crimes	
	3	Calculators	
	3	Probability	
	3	distributions	
	3	Statistical surveys	
	2	linear algebra	
	2	differential equations	
2	1	Economic statistics2	
	2	Quality control2	
		MATLAB2	
		Arabic	
	3	Mathematical	Third Year
	3	statistics1	
1	2	Regression analysis1	
1	2	Linear programming	
	2	Numerical analysis1	
	2	Demographic	
2	1	statistics1	
	3	Biostatistics1	
	3	Spss1	
	3		
1	3 2	Mathematical	
1	2 2 2	Mathematical statistics2	
1 1 1	2 2 2 2	Mathematical statistics2 Regression analysis2	

		II	
2	1	Numerical analysis2	
		Demographic	
		statistics2	
		Biostatistics2	
		Spss 2	
	3	inference1	the fourth year
	3	Design and analysis	
	3	of experiments1	
1	2	Economic	
2	1	measurement1	
	3	Time series analysis1	
	2	Statistical	
	3	applications and	
	3	analyses1	
	3	Multivariate analysis1	
1	2	Research	
2	1	methodology	
	2	inference2	
	1	Design and analysis	
		of experiments2	
		Economic	
		measurement2	
		Time series analysis2	
		Statistical	
		applications and	
		analyses2	
		Multivariate analysis2	
		Graduation research	
		project	

8. Expected learning outcomes of the programme								
Knowledge								
Statement of learning outcomes1 Learning Outcomes1								
<ul> <li>Using and applying statistical concepts in case</li> </ul>	<ul> <li>Familiarity with the principles and</li> </ul>							
studies concepts of statistics								

Skills	
Statement of learning outcomes2	Learning Outcomes2
<ul> <li>Collect and analyze data on statistical topics.</li> </ul>	<ul> <li>The ability to understand statistical</li> </ul>
	methods and how to apply them.
Statement of learning outcomes3	Learning Outcomes3
<ul> <li>Choosing statistical methods to address realistic</li> </ul>	<ul> <li>Making comparisons and statistical</li> </ul>
problems.	differences for various topics.
Value	
Statement of learning outcomes4	Learning Outcomes4
<ul> <li>The ability to understand and distinguish between</li> </ul>	<ul> <li>Preparing concepts for various topics</li> </ul>
statistical analyses	
Statement of learning outcomes5	Learning Outcomes5
<ul> <li>The ability to examine and evaluate realistic and</li> </ul>	<ul> <li>The ability to understand and analyze</li> </ul>
presented topics	the problems of the topics presented and
	choose the best method to explain them.

#### .Teaching and learning strategies

- 1- Explaining the scientific material to students in a detailed and clear manner.
- 2- Students' participation in solving mathematical and statistical problems.
- 3- Discussion and dialogue about curriculum vocabulary.
- 4- Using statistical programs to address many topics.
- 5- Brainstorming method.

#### 0. Evaluation methods

- 1– Objective questions: They include the following:
- Multiple choice questions
- True and false questions
- Interview questions
- 2- Self-evaluation and peer evaluation
- 3- Daily tests and assignments
- 4- Various tests:

- Formative achievement tests accompanying teaching plans.
- Final achievement tests include:
- 1- Monthly final exams at the end of each academic month.
- 2- Monthly final exams at the end of each semester.
- 3- Final final exams at the end of the academic year.

1. education institution												
Faculty members												
Preparing the teaching staff		Special requirements/skills (if any)		Specialization		Scientific rank						
lecturer	angel			private	general							
nothing	nothing					Mr.						
1	10				general	Assistant Professor						
	2			general		Teacher						
	5				general	assistant teacher						

#### **Professional development**

#### Orienting new faculty members

Briefly describes the process used to orient new, visiting, full-time, and part-time faculty at the institution and department levels.

- This is done through holding periodic meetings and conferences.

Professional development for faculty members

Briefly describe the academic and professional development plan and arrangements for faculty members such as teaching and learning strategies, assessment of learning outcomes, professional development, etc.

 Preparing the annual plan for training courses, workshops, and scientific seminars for faculty members.

#### Acceptance standard

(Developing regulations related to admission to the college or institute, whether central admission or others mentioned)

The acceptance rate for graduates of preparatory school in its scientific and

literary streams is determined

The most important sources of information about the program

Remember briefly.

- Corresponding departments in prestigious universities and colleges.

1.	1. Program development plan														
- Shifting to the Bologna route															
Program skills chart															
					Ou	tputs	s Lea	rning	g req	uired	l fron	n the	prog	ram	
the year / the level	Code The deci- sion	name The deci- sion	Essen- tial or op- tional?	Knowledge			Skil	lls			Val	ue			
				a1	a2	a3	a4	<b>B1</b>	<b>B2</b>	<b>B3</b>	<b>B4</b>	<b>C1</b>	C2	<b>C3</b>	C4
The first		princi- ples Statis- tics1	Basic	~	~	~	~	~	~	~	~	~	~	~	~

	princi- ples Statis- tics2	Basic	~	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
the second	princi- ples Possi- bili- ties1	Basic	~	✓	✓	~	✓	✓	✓	✓	✓	✓	✓	~
	princi- ples Possi- bili- ties2	Basic	~	~	~	~	~	~	~	>	~	>	~	~
Third	Count- ing Ath- lete1	Basic	~	✓	✓	✓	~	~	~	~	~	~	~	~
	Count- ing Ath- lete2	Basic	<	~	✓	<	<	~	~	~	<	~	<	~
Fourth	infer- ence1	Basic	~	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	infer- ence2	Basic	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

•Please situation Signal in Squares the interview For outputs Learning Individuality from the program Submissive For evaluation

# The first stage The first course

1	Course Name	
Princ	inles of statistics1	
2	Course Code	
L. Stat1		
3	Semester/year	
J. First	semester/fourth_stage/2023_2024	
THSt	Data this description was prepared	
4.	2024	
5/15/	Available attendance forms	
J.	Available attendance forms	
6	Number of study hours (total)/number of units (total)	
0.	AE /AE	
7	45/45	- 1)
1.	Name of the course administrator (if more than one name is mention	ied)
	Name: Lecturer. Hisnam Pharaon Abdel Latif	
	Email:msnam@uodiyala.edu.iq	
8	Course objectives	
- Coi	urse objectives	Objectives of
	Introducing the student to the most important foundations and	the study
•	nrinciples of statistics	subject
•	Explain the concept of statistics	sacjeet
	Highlighting the importance of statistics in application	
	This course aims to study statistical methods	
•	This course aims to study statistical methods The student can tabulate, collect, and describe data	
	The student can tabulate, confect, and describe data	
9.		
Cour	se outcomes and teaching, learning and evaluation methods	The strategy
1-	Cognitive objectives: - Make the student able to	
2-	-To know the most important principles and basic concepts in	
	statistics	
3-	-To determine statistical methods	
4-	To become familiar with the concept of statistical methods	
5-	To explain his opinion on the concepts of statistics	
6-	To apply survey concepts with realistic examples and case studies	
C	ourse-specific skills objectives	
1-	-Interactive skills: Possessing the ability to communicate with the	
	subject professor and colleagues	

F F	
2Diagnostic skills: the ability to diagnose problems and ways to	
solve them	
3- Scientific reports.	
Teaching and learning methods	
1- Managing the lecture in an applied manner linked to the reality of	
daily life to attract the student to the topic of the lesson without straying	
from the core of the topic so that the material is flexible and capable of	
being understood and analysed.	
2-Discussion and dialogue	
3- Enrichment questions	
4-Direct interrogation	
Evaluation methods	
1-Clarification questions	
2- True and false questions	
3-Duties	
4- self evaluation	
5- Tests (daily, monthly, quarterly, final).).	
Emotional and value goals	
1- Simple thinking: (analyzing the problem statistically and	
mathematically and finding solutions to it based on the expected	
results)	
2- Critical thinking: (the ability to criticize and distinguish the	
topics presented and choose between them)	
3-Creative thinking: (the ability to produce new ideas and methods for	
solving).	
Teaching and learning methods	
1-Brainstorming method	
2-Use decision making to test the best alternative	
3-Presentation.	
Evaluation methods	
-Various tests (daily, monthly, quarterly, final)	
2- Oral exams	
3- Duties	
General and qualifying transferable skills (other skills related to	
employability and personal development).	
1-Skills of collecting and analyzing information about economic	
measurement concepts and how to use them in the fields of statistics	
2- Training and personal development skills on how to apply estimation	
concepts in different fields.	
3- Developing the student's ability to deal with the Internet.	
10. Course structure	
15	

Evaluation	Learning	Name of the	Required	hours	the week
method	method	unit or topic	learning	nouis	the week
method	memou		outcomes		
Discussion, o	My presence	The emergence	Basic	3	the first
and written	ing presence	and	concepts/definiti		
examination		development of	ons		
••••••••••		statistics			
Discussion, o	My presence	Collect, classify	Data collection	3	the second
and written	51	and tabulate			
examination		data			
Discussion, o	My presence	Sample method	Inspection	3	the third
and written					
examination					
Discussion, o	My presence	Do the	The	3	the fourth
and written		questionnaire	questionnaire		
examination					
Discussion, o	My presence	Classification	Data	3	Fifth
and written		and tabulation	classification		
examination		of data			
Discussion, o	My presence	Types of	Frequency	3	VI
and written		frequency	distributions		
examination		distributions			
		and curves			
Discussion, o	My presence	Types of	Random	3	Seventh
and written		random	variables		
examination		variables and			
		types of error			
Discussion, o	My presence	Mathematical	Public codes +	3	VIII
and written		symbols and	monthly testing		
examination	24	terms/exam			
Discussion, o	My presence	Measures of	Measurements/ch	3	Ninth
and written		central	aracteristics		
examination		tendency/arithm			
Diagramia	Margan	etic mean	Magazza	2	
Discussion, o	My presence	Arithmetic/weig	Neasurements	5	The tenth
and written		ntea means	and		
Diagradient	Mumman	Home and a former of the	Magazine	2	alayart
Discussion, o	wy presence	narmonic/quadr	wieasurements	3	eleventh
and written		auc/geometric	allu		
examination			characteristics		

Discussion, o My presence	Loom/advantag	Other central	3	twelveth
and written	es and	measurements		
examination	disadvantages			
Discussion, o My presence	The	Central	3	Thirteenth
and written	medium/advant	measurements/ot		
examination	ages and	hers		
	disadvantages			
Discussion, o My presence	Spring and	Segmental scales	3	fourteenth
and written	whiskers/exerci			
examination	ses			
Discussion, o My presence			3	Fifteenth
and written	First semester example			
examination				
11.0 1.1	·	•	•	•

11.Course evaluation

Degree distribution from100 according to the tasks assigned to the student, such as daily preparation, daily, oral, monthly, written exams, reports, etc.

1- 60 marks final written exam.

.40 degrees for the pursuit, divided into:

- 1) 5 degrees of attendance.
- 2) 5-10 marks assignments with.
- 3) 15 marks for written exam.
- 4) 5 marks for oral exam.

12.Learning and teaching resources	
Book of Principles of Statistics Dr.	Required textbooks (methodology, if any)
Taha Hussein Al-Zubaidi2013	
	Main references (sources)
	Recommended supporting books and
	references (scientific journals, reports)
	Electronic references, Internet sites

1. Course name:

Principles of Economics

2. Course code

Stat1102\Eco

3. Semester/year

Second semester / first stage /2023-2024

4. The date this description was prepared

9/17/2023

5. Available forms of attendance/

Daily attendance according to the scheduled schedule

6. Number of study hours (total) Number of units (total)

(30) 2 hours of study per week

7. Name of the course administrator (if more than one name is mentioned)

Name: Assis.Po.D. Alia Hussein Khalaf

Email:aliaeco@uodiyala.edu.iq

8. Course objectives

Objectives of the study subject

1-

- 2- Understand the theoretical framework of economic principles
- 3- Introducing students to the basics of economics
- 4- Developing the student's abilities in scientific analysis of economic issues by providing him with basic analysis tools, including (descriptive analysis, graphical analysis, and mathematical analysis).
- 5- Enabling the student to know the historical beginnings of the emergence of economics.
- 6- Initial insight into the essence of classical and modern theories of economics.
- 7- Developing the student's abilities to detect and solve economic problems
- 8- Preparing the student intellectually to deal with other branches of economics in the later stages.

 9. Teaching and learning strategies

 1- Method of giving and lecturing.

 2- Discussion method.

 10. Course structure

Evaluatio n method	Learni ng metho d	Name of the unit or topic	Required learning outcomes	hours	the week
lecture	Oral exams	General concepts	Definitions and concepts	3	1
Discussio n and dialogue	Self- evalua tion and peer evalua tion	The nature of economics - the economic problem - economic activities	Understand ing characterist ics	3	2
Discussio n and dialogue	Self- evalua tion and peer evalua tion	Demand - law of demand - demand schedule - demand curve	Understand ing characterist ics	3	3
Discussio n and dialogue	Self- evalua tion and peer evalua tion	Factors determining demand - types of demand	Understand ing characterist ics	3	4
a lecture	Oral exams	Elasticity of demand - types of elasticity - factors affecting elasticity	Definitions and concepts	3	5
Discussio n and dialogue	Self- evalua tion and peer evalua tion	Consumer behavior theory	View and analyze	3	6

Discussio n and dialogue	Self- evalua tion and peer evalua tion	Supply, influencing factors, and modern theory of consumer behavior	View and analyze	3	7	
		First month exam/first semester	-	3	8	
a lecture	Oral exams	Production Theory - Law of Diminishing Returns	View and analyze	3	9	
a lecture	Oral exams	Factors of production	View and analyze	3	10	
a lecture	Oral exams	Costs – concept and types	View and analyze		11	
a lecture	Oral exams	Revenue – concept and types	View and analyze	3	12	
a lecture	Oral exams	Markets and setting prices	View and analyze	3	13	
a lecture	Oral exams	National income - concept and calculation methods	View and analyze	3	14	
-	-	Second month exam	-	3	15	
11. Course	evaluatio	n				
Degree dist preparation	ribution 1 , daily, oi	from100 according to the ral, monthly, written exa	e tasks assign ms, reports, e	ed to the stu- etc.	dent, such as daily	
12. Learnin	g and tea	ching resources				
Principles of Economics book - Dr. Karim Mahdi Al-Hasnawi			Required textbooks (methodology, if any)			
Book of principles of economics. Dr			Main references (sources)			
Economics	book. Dr	Paul Samelson	Recommended supporting books and			
Network of	Iraqi Ec	onomists	Electronic references, Internet sites			

1 Course Nome	
1. Course Name	
2 Course Code	
2. Course Code	
3. Semester/year	
First semester/first stage/2023 - 2024	
4. Date this description was prepared	
5. Available attendance forms	
My presence	
6. Number of study hours (total)/number of units (total)	
45/45	
7. Name of the course administrator (if more than one name is ment	tioned)
Name: Assist.Lecturer Amal Hadi Rashid Email:amal@uodiyala	.edu.iq
8. Course objectives	
- Course objectives	Objectives
• Introducing the student to the most important foundations and	the article
principles of mathematics	Scholarship
• Explain the concept of groups and function diagrams	
• Highlighting the importance of the field and the corresponding fi	eld
in knowing the form of the function	
• This course aims to study derivatives and objectives	
The student can apply the laws of the derivative to find re	egions
increase and decreaseAnd draw functions	
9.	
Course outcomes and teaching, learning and evaluation methods	The strategy
1- Cognitive objectives: - Make the student able to	
2To know the most important principles and basic concepts in	
mathematics	
3To define the types of functions and relationships to functions	
4- To become familiar with the concept of the derivative and the law	VS
of derivatives	
5- To explain his opinion on mathematics concepts	
6- To apply mathematics concepts with realistic examples and case	
studies	
Course-specific skills objectives	
1Interactive skills: Possessing the ability to communicate with the	3
subject professor and colleagues	
2Diagnostic skills: the ability to diagnose functions and their real	-
world applications	
	I

3- Scientific r	eports.				
Teaching and lear					
1- Managing the	lecture ir	an applied manner l	inked to the reality of da	ily	
life to attract the s	student to	o the topic of the less	on without straying from	1	
the core of the top	pic so that	at the material is flexi	ble and amenable to		
understanding and	d analysi	.S.			
2-Discussion and	dialogue	2			
3- Enrichment qu	estions				
4-Direct interroga	ation				
Evaluation metho	ods				
1-Clarification	n questio	ns			
2- True and fa	lse quest	ions			
3-Duties					
4- self evaluat	tion				
5- Tests (daily	y, month	ly, quarterly, final).).			
Emotional and va	lue goal	S			
1- Simple the	hinking:	(analyzing the proble	m statistically and		
mathematic	ally and	finding solutions to it	based on the expected		
results)					
2- Critical th	ninking:	(the ability to criticiz	e and distinguish the top	ics	
presented ar	nd choose	e between them)			
3-Creative thinki	ng: (the	ability to produce new	<i>w</i> ideas and methods for		
solving).		• •			
Teaching and lear	rning me	thods			
1-Brainstorming	method				
2-Use decision m	aking to	test the best alternativ	ve		
3-Presentation.	U				
Evaluation metho	ods				
-Various tests (da	ily, mon	thly, quarterly, final)			
2- Oral exams	<b>J</b> /	5 1 5 7			
3- Duties					
General and quali	ifving tra	unsferable skills (othe	r skills related to		
employability and	1 persona	al development).			
1-Skills of collect	ting and	analyzing information	n about mathematics		
concepts and how	to use t	hem in the fields of st	tatistics		
2- Training and p	ersonal o	levelopment skills on	how to apply mathemat	ics	
concepts in differ	ent field	S.			
3- Developing the	e student	's ability to deal with	the Internet.		
	- 5.44011				
		10. Course s	structure		
Evaluation	Learn	Name of the unit	Required learning	hours	the week
method	method ing or topic outcomes				
	metho	1			
	d				
		22			

Discussion or	Мл		Students should be	2	the first
and written	IVIY		Able to understand sor	3	uie mst
examination	presen		concepts		
CXammation			The fundamentals are li		
		Basic Concepts	the function and the		
		(Function, Domair	starting point of the		
		Code, Range)	function		
			The extent of th		
			function, givin		
			examples		
Discussion, ora	My		The ability to distingui	3	the second
and written	presen	Types of function	type		
examination	-		Function		
Discussion, ora	My			3	the third
and written	presen	The Derivative	Definition of derivativ		
examination					
Discussion, ora	My		Basic rules of derivation	3	the fourth
and written	presen	Basic Rules	Dasie rules of derivation		
examination					
Discussion, ora	My		Derivation mechanism	3	Fifth
and written	presen	Chain Rule	chain rule		
examination					
Discussion, ora	My	Implicit	Derivation mechanism	3	VI
and written	presen	Differentiation	implicit derivation		
examination			1		C 1
Discussion, ora	My	Derivative of		3	Seventh
and written	presen	Logarithmic	Ability to differentiat		
examination		Functions	trigonometric functior		
		Exponential	Inverse trigonometry a		
		Exponential	hyperbolic functions		
		i uncuons			
Discussion ora	Mv	Derivative of		3	VIII
and written	presen	Trigonometric		0	
examination	I	Functions	Derivation of higher		
		Derivative of	degrees		
		Inverse	And find the maximum		
		Trigonometric	and minimum values		
		Functions	and inflection points		
		EXAM			
Discussion, ora	My	Derivative of	Partial derivative and	3	Ninth
and written	presen	Hyperbolic	total derivative		
examination		Functions			

					1
Discussion, ora and written examination	My presen	Derivative of Hig Order	Students must be Able to communicate properly Effective, be it from During writing statistic reports Or provide solutions t assignments	3	The tenth
Discussion, ora and written examination	My presen	Chapter Two: Maximum and Minimum Point	Understanding and knowledge	3	eleventh
Discussion, ora and written examination	My presen	Maximization an Minimization	Understanding and knowledge	3	twelveth
Discussion, ora and written examination	My presen	Chapter Three: Partial Derivativ	Understanding and knowledge	3	Thirteenth
Discussion, ora and written examination	My presen	Total Derivative Partial Derivative Applications	e Understanding and knowledge	3	fourteenth
Discussion, ora and written examination	My presen	First semester exa	ar	3	Fifteenth
		11.Course	evaluation		I
Degree distribution from100 according to the tasks assigned to the student, such as daily preparation, daily, oral, monthly, written exams, reports, etc. 1- 60 marks final written exam. 40 degrees for the pursuit, divided into: 5 degrees of attendance 5-10 daily assignments 15 monthly exams 10 Oral exam					
12.Learning and	teaching	g resources			
Calculus book for students of colleges of administration and economics				, if any)	
H.Anton: Calc Geometry, 5th, Jo York, 1995.	H.Anton: Calculus with Analytic Main references (sources) Geometry, 5th, John Wiely & Sons, New Vork 1995				
, ->>>>	Recommended supporting books an references (scientific journals, reports)				ooks and orts)
				net site	0

Course description form	
1. Course Name	
the computer	
2. Course Code	
Stat1104\Com.	
3. Semester/year	
First semester/first stage/2023 - 2024	
4. Date this description was prepared	
12/6/2024	
5. Available attendance forms	
My attendance - mandatory	
6. Number of study hours (total)/number of units (total)	
45/30	1)
7. Name of the course administrator (if more than one name is mentio	ned)
Name: A. P. Firas Ali Muhammad Email:Firas@uodiyala.edu.iq	
9 Course objectives	
Course objectives	Objectives of
- Untroducing the student to the most important concents and basics	study subject
• Introducing the student to the most important concepts and basics of computer use	study subject
• Explaining the most important systems used in computers	
• What are the most important applications that can be used to	
analyze and solve problems?.	
• This course aims to make it possible to use computers in various other scientific fields.	
9.	1
Course outcomes and teaching, learning and evaluation methods	The strategy
Cognitive objectives: To make the student able to	
1- To know the most important basic principles and concepts in	
computers	
2-To determine the main functions of the programs that serve it in	
statistical analyses	
3- The possibility of using various application programs	
Course-specific skills objectives	
-Skills objectives for the course.	
1 - Admity Skills Possessing the admity to communicate with the subject professor	
2 - Diagnostic skills: - The ability to diagnose statistical theories	
2 - Diagnostic oknists - The ability to understand and analyze concepts	
5 mary lear skins. The autility to understand and anaryze concepts,	1

programs and the relationships between them

Tasshing and learning matheda	
1 - Lecture in PowerPoint presentation style	
2- Discussion and dialogue	
3- Direct questions	
4-Direct interrogation	
Evaluation methods	
1-Clarification questions	
2- True and false questions	
3-Duties	
4-Self-evaluation	
5- rests (daily, monthly, quarterly, final).).	
Emotional and value goals	
1-Simple conscious thinking: (analyzing and understanding	
applied problems and treating them)	
2- Critical thinking: (the ability to criticize and distinguish the	
topics presented and choose between them)	
3-Creative thinking: (the ability to produce new ideas and ways of	
solving problems).	
Teaching and learning methods	
1- Various applied tests	
2- Oral exams	
3- Duties	
4- Presentation with some applied examples	
Evaluation methods	
1- Various tests (daily, monthly, quarterly, final)	
2- Oral exams	
3- Duties	
General and qualifying transferable skills (other skills related to	
employability and personal development).	
1- Scientific and practical tests	
2- Iraining and personal development skills on how to use computer	
applications.	
and interact with the Internet	
10. Course structure	<u> </u>

Evaluation method	Learning method	Name of the unit or topic	Required learning outcomes	hours	the week
Self- evaluation and peer evaluation Peer and Self- Assessment	Lecture, discussion and dialogue	Phases of the computer life cycle and its generations	Definitions and basic concepts	3	the first
Oral exams OrallyTests	Lecture, discussion and dialogue	Operating system, its functions, objectives and classifications	Basic and applied concepts	3	the second
Self- evaluation and peer evaluation Peer and Self- Assessment	Lecture, discussion and dialogue	Electronic computer - data, information, features and areas of use	Definitions and basic theoretical concepts	3	the third
Daily tests OrallyTests	Power point Presentatio n	Windows operating system7 Installation requirements and features Computer components, types and classifications	Theoretical concepts and practical applications	3	the fourth
Daily tests OrallyTests	Power point Presentatio n	Desktop components (Start menu - taskbar - notification area	Practical basic applications	3	Fifth
Theoretical and practical test		First month test		3	VI
HomeworksH omework assignments	Lecture, discussion and dialogue	Physical computer components (input and output devices and system unit)	Definitions and theoretical and applied concepts	3	Seventh
HomeworksH omework assignments	Power point	Setting systems, icons, and performing	Practical applications	3	VIII

	Presentatio n	operations on windows, folders, and files			
Oral exams OrallyTests	Lecture, discussion and dialogue	Personal computer and computer platform	Definitions and basic concepts	3	Ninth
Self- evaluation and peer evaluation Peer and Self- Assessment	Lecture, discussion and dialogue	Factors to consider when purchasing a computer and the main features of a personal computer	Basic theoretical concepts	3	The tenth
Oral exams OrallyTests	Lecture, discussion and dialogue	Ethics of the electronic world and forms of abuse in the digital world. Computer safety and privacy	Definitions and basic concepts	3	eleventh
HomeworksH omework assignments	Power point Presentatio n	- Control panel, help instructions, and some statuses and settings on the computer	Practical concepts and applications	3	twelveth
Self- evaluation and peer evaluation Peer and Self- Assessment	Lecture, discussion and dialogue	Malware and ways to protect against computer hacking and harm to human health	Definitions and basic theoretical concepts	3	Thirteenth
Oral exams OrallyTests	Power point Presentatio n	Create, store and transfer files	Basic practical applications	3	fourteenth
Theoretical and practical test		Second monthly test		3	Fifteenth
11.Course eva Degree distribut preparation, dai 1- 60 marks	luation ion from100 a ly, oral, montl final written o	according to the tasks nly, written exams, re exam.	s assigned to the stu eports, etc.	ident,	such as daily

.40 degrees for the pursuit, divided into:
1) 5 degrees of attendance.
2) 5-10 marks assignments with.
3) 15 marks for written exam.

- 5 marks for oral exam. 4)

12 Learning and teaching resources					
Computer basics and office applications Prof. Dr. Ziyad Mahmoud Abboud, Prof. Dr. Ghassan Hamid Abdel Hamid Prof. Dr. Amir Hussein Murad M. Bilal Kamal Ahmed	Required textbooks (methodology, if any)				
<ol> <li>Computer principles and programming in the BASIC language, written by Dr. Marwan Mustafa Na'a (1997)</li> </ol>	Main references (sources)				
<ol> <li>Introduction to Computer Science, written by Dr. Ziad Al-Qadi and M. Abdul Rahim Al-Bashiti (1998)</li> </ol>					
3. Introduction to computers, assembly and preparation. Jawdat Abu Taha (2002)					
4. Introduction to Computer Science, written by Dr. Muhammad Nabhan Suwailem (2001)					
	Recommended supporting books and				
	reterences (scientific journals, reports)				
	Electronic references, Internet sites				

1. Course Name

Democracy and human rights

2. Course Code

Stat1105\Fred.

3. Semester/year

First semester / first stage /2023-2024

4. Date this description was prepared

12/3/2024

- 5. Available attendance forms
  - My presence
- 6. Number of study hours (total)/number of units (total)

hour30/2 hours per week

7. Name of the course administrator (if more than one name is mentioned)

Name: Lec. Dr. Omar Jabbar Ahmed Email:omarjabar@uodiyala.edu.iq

8. Course objectives

Familiarizing students with the most important international humanObjectivesofrights agreements, the Universal Declaration of Human Rights, the twostudy subjectstudy subjectinternational covenants, freedom and its types, democracy, andadministrative corruption.study subject

9. Teaching and learning strategies

Enhancing the basic concepts of human rights among students and knowing the basic principles established by the Universal Declaration of Human Rights and the two international covenants, the extent of the development of human rights between the ages, freedom and the principles of its establishment and types, democracy and elections and their impact on administrative corruption.

Course structure.

Evaluation method	Learning method	Name of the unit or topicRequired learning outcomes		hours	the week
Oral exams	Lectures	The concept of human rights and its historical rootsAcquire knowledge		2 hours	the first
Oral exams	Lectures	Human rights in the Middle and Modern AgesAcquire knowledge		2	the second
Oral exams	Lectures	Contents of human rights and the UniversalAcquire knowledgeDeclaration		2	the third
Oral and written tests	Lectures	The twointernationalAcquirecovenants onknowledgehuman rights		2	the fourth
Oral and written tests	Lectures	Regional charters and national legislationAcquire knowledge		2	Fifth
Oral and written tests	Lectures	Forms and generations of human rightsAcquire knowledge		2	VI
		the first exam		2	Seventh
Oral and written tests	Lectures	Freedom and basic guarantees for its success Acquire knowledge		2	VIII
Oral and written tests	Lectures	Types of freedom	Acquire knowledge	2	Ninth
Oral and written tests	Lectures	The concept of democracy	Acquire knowledge	2	The tenth
Oral and written tests	Lectures	Types of democracyAcquire knowledge		2	eleventh

Oral and written tests	Lectures	Elections and their legal adaptation	Acquire knowledge	2	twelveth
Oral and written tests	Lectures	Evaluation of the democratic system Acquire knowledge		2	Thirteenth
Oral and written tests	Lectures	The concept of administrative corruption	Acquire knowledge	2	fourteenth
Oral and written tests	Lectures	Types of administrative corruption	Acquire knowledge	2	Fifteenth
		Second exam		2	sixteen

### 1. Course evaluation

1- Final exam score out of 60.

2- Pursuit grade out of 40 / Distribution of the grade out of 40 according to the tasks assigned to the student, such as daily preparation, daily, oral, monthly, and written exams, reports, etc.

2. Learning and teaching resources	
nothing	Required textbooks (methodology, any)
<ul><li>1- Human Rights Book - Dr. Hamid Hanoun Khaled</li><li>2-The Universal Declaration of Human Rights and the transmissional Covenants on Human Rights</li></ul>	Main references (sources)
3- The phenomenon of administrative corruption and role of oversight bodies in combating it - Dr. Omar Jabl Ahmed	
Iraqi academic journals	Recommended supporting books and references (scientific journals, reports)

1- The United Nations Organization.	Electronic references, Internet sites
2- Regional charters and state constitutions on websites.	

1. Name of the co	urse						
Arabic							
2. Course code							
Stat1106\Arab.							
3. Semester/year							
First semester/firs	t stage/2023-202	24					
4. The date this de	escription was pr	epared					
9/1/2023							
5. Available attend	lance forms						
Daily attendance a	according to the	scheduled schedule					
6. Number of stud	ly hours (total) N	Sumber of units (total)					
(30) hours of stud	y, two hours per	week					
7. Name of the co	urse administrate	or (if more than one name	is mentione	ed)			
Name: Assis.Lec.	Marwa Mahdi S	aleh					
Amymryamhader	nana@uodiyala.	<u>edu.iq</u> :					
8. Course objectiv	ves						
Objectives of the	study subject						
Controlling studer	nts' spelling and	the end of words					
Raising the level	of linguistic prot	ficiency among students i	n general				
Refine the words used among students							
9. Teaching and learning strategies							
How to give a lecture The strategy							
Method of discussion and dialogue							
10. Course structure							
Discussion, oral a	My presence	Parts and complements	View and	2	the first		
written examinati		speech	analyze				
Diamatica carala	Maanaa		V <sup>2</sup> 1	2	41		
Discussion, oral a	My presence	Effects and their types	view and	Z	the second		
written examinati			analyze				
Discussion, oral a	My presence		View and	2	the third		
written examinati	51	Pre-Islamic literature	analyze				
witteen examinati		anaryze					
Discussion, oral a	My presence	G	View and	2	the fourth		
written examinati							
Discussion, oral a	My presence	Dondanta	View and	2	Fifth		
written examinati		analyze					
			-				

Discussion, oral a	My presence	The r	umerical miracle	View and	2	VI	
written examinati			Surat Al-Kahf	analyze			
Discussion, oral a	My presence	Status	s and discrimination	View and	2	Seventh	
written examinati		~		analyze			
Discussion, oral a	My presence	The i	mpact of the Qur's	View and	2	VIII	
written examinati	5 1	on lar	guage and literatu	analvze			
			6 6	2			
Discussion, oral a	My presence	Т	he impact of the	View and	2	Ninth	
written examinati		Pre	ophet's hadith on	analyze			
		lang	uage and literatur				
Discussion oral a	My presence	Poet	ry movement in th	View and	2	The tenth	
written examinati	ng presence	1000	Abbasid era	analyze	_		
witten examinati			Tiobusia era	unuryze			
Discussion, oral a	My presence	Poet	ry movement in th	View and	2	eleventh	
written examinati			Abbasid era	analyze			
Diamatica caral c	Manuala	Mania	S	V <sup>2</sup> 1	2	4	
Discussion, oral a	My presence	Manifestations of renew		view and	Z	twelvetn	
written examinati		1n 1	the Abbasid poem	analyze			
Discussion, oral a	My presence	Manit	festations of renew	View and	2	Thirteenth	
written examinati		in t	he Abbasid poem	analyze			
<u> </u>							
Discussion, oral a	My presence	Manif	estations of renew		2	fourteenth	
written examinati		int	he Abbasid poem				
Discussion, oral a	My presence					Fifteenth	
written examinati	21	Fir	st semester exam				
11. Course evaluation							
Degree distribution from100 according to the tasks assigned to the student, such as daily							
preparation, daily, oral, monthly, written exams, reports, etc.							
12. Learning and leacning resources       Alfive Ibn Malik       Required textbooks (methodology if any)							
Alfivva Ibn Malik Main references (sources)				ullyj			
Arabic literature books			Recommended supporting books and references				
			(scientific journals, reports)				
Scientific journal	ls for humanities	5	Electronic referen	nces, Interne	et sites		
## The first stage The second course

1. name The decision

Principles of statistics2

#### 2. Code The decision

#### Stat1201\Stat

3. the chapter / the year

Second semester/first stage/2023 - 2024

#### 4. date Preparation this the description

3/13/2024

- 5. Available attendance forms
  - My presence
- 6. Number of study hours (total)/number of units (total) 45/45
- 7. Name of the course administrator (if more than one name is mentioned) Name: M. Hisham pharaoh slave The gentle one Email :hisham@uodiyala.edu.ie

Objectives o

the study

subject

8. Course objectives

- Course objectives

- Introducing the student to the most important foundations and principles of statistics
- Explain the concept of statistics
- Highlighting the importance of statistics in application
- This course aims to study statistical methods The student can tabulate, collect, and describe data

Cour	se outcomes and teaching, learning and evaluation methods	The strategy
1-	Cognitive objectives: - Make the student able to	
2-	-To know the most important principles and basic concepts in statistics	
3-	-To determine statistical methods	
4-	To become familiar with the concept of statistical methods	
5-	To explain his opinion on the concepts of statistics	
6-	To apply survey concepts with realistic examples and case studies	
Co	ourse-specific skills objectives	
1-	-Interactive skills: Possessing the ability to communicate with the	
	subject professor and colleagues	

2Diagnostic skills: the ability to diagnose problems and ways to solve
them
3- Scientific reports.
Teaching and learning methods
1- Managing the lecture in an applied manner linked to the reality of daily
life to attract the student to the topic of the lesson without straying from the
core of the topic so that the material is flexible and capable of being
understood and analysed.
2-Discussion and dialogue
3- Enrichment questions
4-Direct interrogation
Evaluation methods
1-Questions Explanations
2-Questions The error And the right thing
3-Duties
4- Evaluation Self
5- the exams (Daily, monthly, quarterly, final).
Emotional and value goals
1-Thinking Simple:(Analysis the problem In a way statistical
Athlete And find Solutions she has on Basis Results expected)
2-Thinking Critic: (ability on Cash And discrimination Threads
Asked And the choice Between them )
3-Thinking Creative: (ability on production ideas And knock New in the
solution).
Teaching and learning methods
1-Brainstorming method
2-Use decision making to test the best alternative
3-Presentation.
Evaluation methods
-Tests Miscellaneous(Daily (monthly, quarterly, final)
2-Tests Oral
3- Duties
General and qualifying transferable skills (other skills related to
employability and personal development).
1-Skills of collecting and analyzing information about economic
measurement concepts and how to use them in the fields of statistics
2- Training and personal development skills on how to apply estimation
concepts in different fields.
3- Developing the student's ability to deal with the Internet.
10. Course structure

Evaluation method	Learning	Name of the unit or	Required learning	ho	the
	method	tonic	outcomes		wook
	method	topic	outcomes	s	WEEK
Discussion And the test	My presence	Moments, torsion	Understanding the	3	the first
Oral And the editorial		and splay	subject of moments	_	
Discussion And the test	My presence	Measures of	Understanding	3	the
Oral And the editorial		absolute and relative torsion	skewness measures		second
Discussion And the test	My presence	<b>Exercises on torsion</b>	The ability to solve	3	the thir
Oral And the editorial	74	and flattening	exercises		
Discussion And the test Oral And the editorial	My presence	Linear correlation	The concept of correlation/indepe	3	the four
or al And the cultor lai			ndent variables		
			and dependent		
			variables		
Discussion And the test	My presence	Simple linear	Understanding the	3	Fifth
Oral And the editorial		correlation	relationsnip between variables		
Discussion And the test	My presence	Partial correlation	Understanding	3	VI
Oral And the editorial	<b>y p</b>	coefficient	partial correlation	5	V I
Discussion And the test	My presence	Multiple correlation	Understanding	3	Seventł
Oral And the editorial		coefficient	multiple		
Discussion And the test	Mumacanaa	Salva	correlation	2	17111
Discussion And the test Oral And the editorial	my presence	Solve evercises/evams	Solve evercises/evams	3	VIII
Discussion And the test	My presence	Correlation	Understanding	3	Ninth
Oral And the editorial	<b>, F</b>	coefficient of ranks	rank correlation	5	ITTICI
		and traits			
Discussion And the test	My presence	The concept of	The concept of	3	The ten
Oral And the editorial		simple linear	regression		
Discussion And the test	My presence	Multiple	Understanding	3	atheisti
Oral And the editorial	ing presence	regression/two	multiple regression	5	ten
		variables			ten
Discussion And the test	My presence	Comparison	An applied	3	the
Oral And the editorial		between simple and	explanation and		second
		regression	regression		ten
Discussion And the test	My presence	The concept of	Understanding	3	the thir
Oral And the editorial		probability/general	probability theory		ten
<b>NI</b> 1 1 1 1		rules	<b>T</b> T <b>1</b> ( <b>1</b>		
Discussion And the test	My presence	Introduction to	Understanding probability	3	the four
or al Allu the eultorial		distributions	distributions		ten
Discussion And the test	My presence			3	Fifth tei
Oral And the editorial		Second semester exa		5	
11. Course evaluation	on				

distribution Class from 100 on according to mission Assigned With it requester like Preparation Daily And exams Daily And oral And monthly And editorial And reports ....etc

1- 60 degrees Exam ultimate Editorial.

.40 degrees especially By striving Divided to me:

- 1) 5 degrees Presence.
- 2) 5-10 degrees Duties with.
- 3) 15 degrees Exam Editorial.
- 4) 5 degrees Exam verbal.

12. Learning and teaching resources			
Book of Principles of Statistics Dr. Dhafer Required textbooks (methodology, if any)			
Hussein Rashid			
	Main references (sources)		
	Recommended supporting books and		
	references (scientific journals, reports)		
	Electronic references, Internet sites		

1. name The decision

integration

2. Code The decision

#### Stat1202\Integ.

3. the chapter / the year

Second semester/first stage/2023 - 2024

4. date Preparation this the description

2/12/2024

- 5. Available attendance forms
  - My presence
- 6. Number of study hours (total)/number of units (total)

45/45

7. Name of the course administrator (if more than one name is mentioned) Name: A.P.D. Sami Abdullah slave Email :samiaabed@uodiyala.edu.iq

**Objectives of** 

Scholarship

article

8. Course objectives

- Course objectives

- The goal is to give the integration material that the student will need in studying the theory
- Statistical probability, mathematical statistics and inference because they all need to
- Advanced mathematics subject in integration.
- A- Cognitive objectives
- Scientific and mathematical knowledge that helps the student study statistics from an applied perspective and other computer programs
- B- The skills objectives of the course
- Completing the program that the student studied in the preparatory stage by training him in a mathematical subject related to integration and its applications, which deepens the student's understanding when moving to the advanced statistical stages.
- C- Emotional and value-based goals
- 1 That the student appreciates the role of integration in life
- 2 For the student to appreciate the role of Arab scientists in mathematics

• 3 The student must solve the homework exercises	
• 4 The student should be keen to attend the integration course	
lecture	
• 5 The student should try to think about solving a mathematical	
problem	
6 Education requester on Development And Commitment from all Wa	ys
Scientific And the operation	
9.	
Course outcomes and teaching, learning and evaluation methods	The strategy
Cognitive objectives: - Make the student able to	
To know the most important principles and basic concepts in	
integration and integration methods. To explain his opinion on the	
concepts of integration and to apply the concepts of integration with	
realistic examples and case studies.	
Course-specific skills objectives	
1Interactive skills: Possessing the ability to communicate with	
the subject professor and colleagues	
2Diagnostic skills: the ability to take advantage of many	
integration methods to find the integration of complex	
1 Scientific reports	
5- Scientific reports.	
1 Managing the leature in an applied manner linked to the reality of	
daily life to attract the student to the tonic of the lesson without	
straying from the core of the topic so that the material is flexible and	
canable of being understood and analysed	
2-Discussion and dialogue	
3- Enrichment questions	
4-Direct interrogation	
Evaluation methods	
1-Ouestions Explanations	
2-Ouestions The error And the right thing	
3-Duties	
4- Evaluation Self	
5- the exams (Daily, monthly, quarterly, final).	
Emotional and value goals	
1-Thinking Simple:(Analysis the problem In a way statistical	
Athlete And find Solutions she has on Basis Results	
expected)	
2-Thinking Critic: (ability on Cash And discrimination	
Threads Asked And the choice Between them )	

3-Thinking Creative: (ability on production ideas And knock New	
in the solution).	
Teaching and learning methods	
1-Brainstorming method	
2-Use decision making to test the best alternative	
3-Presentation.	
Evaluation methods	
-Tests Miscellaneous(Daily (monthly, quarterly, final)	
2-Tests Oral	
3- Duties	
General and qualifying transferable skills (other skills related to	
employability and personal development).	
1-Skills of collecting and analyzing information about the concepts of	
integration and how to use them in the fields of statistics	
2- Training and personal development skills on how to apply	
integration methods in different fields.	
3- Developing the student's ability to deal with the Internet.	

#### 10. Course structure Evaluation Name of the unit or the week Learning **Required learning** hours method method topic outcomes Electronic 3 the first lectures Interactive, Ability on to Share, Chapter One: understand printed lectures Discussion, **Explanation of** integration not Infinite Integr the exam lectures via Specified YouTub channel Electronic 3 the secon basic rules, lectures Long Polynomial clarification Share, Interactive, Division, Discussion, lectures explain Adding and Printed, explain the exam laws Basic subtracting a For lectures via certain constan YouTube chan Interactive 3 the third **Ability on Solution** electronic Integration lectures, printe Integrals involving Share, **Functions** lectures, Discussion, Logarithmic and Logarithmic **Explanation of** the exam **Exponential Function** lectures via functio And YouTub **Exponential** channel Share, Interactive Integrals involving 3 the fourth **Ability on Solution** Discussion, electronic Trigonometric and

the exam	lectures, printe lectures, Explanation of lectures via YouTub channel	Inverse Trigonometr Functions	Integration Functions Trigonometry And function Trigonometry Reverse		
Share, Discussion, the exam	Interactive electronic lectures, printe lectures, Explanation of lectures via YouTub channel	Chapter Two: Methods of Integration (Integration Parts)	clarification Methods integration: road integrati Retail	3	Fifth
Share, Discussion, the exam	Interactive electronic lectures, printe lectures, Explanation of lectures via YouTub channel	Trigonometric Substitutions	clarification And understand road Reparations Trigonometry	3	VI
Share, Discussion, the exam	Interactive electronic lectures, printe lectures, Explanation of lectures via YouTub channel	Partial Fractions	to understa Functions Relativit And meth Fractions Partial	3	Seventh
	My presence	Final EXAM	Monthly exam		VIII
Discussion An the test Oral And the editorial	My presence	Derivative of Hyperbolic Functions	The ability to Partial derivation And the to derivative	3	Ninth
Discussion An the test Oral And the editorial	My presence	Derivative of High Order	The ability to communicate prope Effective, report writing Statistics presentation Solutions a assignments	3	The tenth
Discussion An the test Oral And the editorial	My presence	Chapter Two: Maximum and Minimum Points	Understanding a knowledge	3	atheistic ten

Discussion An My presence the test Oral And the editorial	Maximization an Minimization	Understanding knowledge	3	the secon ten
Discussion An My presence the test Oral And the editorial	Chapter Three: Partial Derivative	Understanding s knowledge	3	the third ten
Discussion An My presence the test Oral And the editorial	Total Derivative Partial Derivative Applications	Understanding knowledge	3	the fourth ten
Discussion An My presence the test Oral And the editorial	First semester exa		3	Fifth ten

11. Course evaluation

distribution Class from 100 on according to mission Assigned With it requester like Preparation Daily And exams Daily And oral And monthly And editorial And reports ....etc

1- 60 degrees Exam ultimate Editorial.

.40 degrees especially By striving Divided to me:

- 1) 5 degrees Presence.
- 2) 5-10 degrees Duties .
- 3) 15 degrees Exam Editorial.
- 4) 5 degrees Exam verbal.

12.	Learning and	teaching	resources
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Calculus book for students of	Required textbooks (methodology, if any)		
colleges of administration and			
economics			
H.Anton: Calculus with Analytic Geometry, 5th, John Wiely & Sons, New York, 1995.	Main references (sources)		
	Recommended supporting books and references		
	(scientific journals, reports)		
	Electronic references, Internet sites		

1. name The decision

Principles of administration

2. Code The decision

Stat1203\Admin.

3. the chapter / the year

Second semester/first stage/2023 - 2024

4. date Preparation this the description

12/6/2024

5. Available attendance forms

My presence - Is mandatory

- 6. Number of study hours (total)/number of units (total) 30/30
- 7. Name of the course administrator (if more than one name is mentioned) Name: A.P. Firas on Mohammed Email :Firas@uodiyala.edu.iq

#### 8. Course objectives

- Course objectives	Objectives	;
• Introducing the student to the most important foundations and	the	sti
principles of management science.	subject	
• Introducing the student to the main administrative functions and		
the organization's main and secondary functions.		
• Explaining the development of administrative sciences and their historical sequence.		
• Explaining the importance of management science and its role in organizations.		
• Providing the student with various topics about management that		
form a knowledge base about management and its applications in organizations.		
9.		
Course outcomes and teaching, learning and evaluation methods	The strate	gу
Cognitive objectives: To make the student able to		
1-To know the most important basic administrative principles and		
concepts.		
2- To determine the main functions of the administration, and the		
main and secondary functions of the organization.		
<ul> <li>J- 10 explain auministrative concepts.</li> <li>A. To apply administrative concepts with realistic examples and case.</li> </ul>		
studies.		

5- To analyze the validity of administrative theories with practical reality. 6- To express his opinion on administrative concepts. **Course-specific skills objectives** -Skills objectives for the course. 1 - Ability skills: - Possessing the ability to communicate with the subject professor 2 - Diagnostic skills: - The ability to diagnose scientific administrative theories 3 - Analytical skills: - The ability to understand and analyze administrative concepts and functions. **Teaching and learning methods** 1-The lecture 2- Discussion And dialogue **3-** Questions Direct **4-Interrogation Direct** 5- Use Examples Applied **Evaluation methods** 1-Questions And clarifications 2-Questions The error And the right thing **3-Duties 4-Evaluation Self** 5-Tests (Daily, monthly, quarterly, final). **Emotional and value goals** 1- Thinking Simple : ( Ability on to examine And evaluation Threads Asked ). 2- Thinking critic : (Ability on Cash And discrimination Threads Asked And the choice Between them ). 3- Thinking Creative : (Ability on production ideas Administrative New). **Teaching and learning methods** Tests Applied miscellaneous 1-2- Tests Oral 3- Presentation with some practical examples **Evaluation methods** 1-Tests miscellaneous (daily ,Monthly ,quarterly ,ultimate) 2-Tests Oral 3- Duties

General and qualifying transferable skills (other skills related to employability and personal development).

1- skills plural And analysis the information on Concepts Administrative And how Use it in administration Organizations .

2- Skills Training And development Personal on How application Concepts Administrative in Domains different .

3- Skills Preparation Concepts Administrative Occasion To use in Domains different .

#### 10. Course structure

Evaluation	Learning	Name of the unit	Required learning	hours	the week
method	method	or topic	outcomes		
	Lecture, discussion, dialogue, interrogation and enrichment	The nature of management, its development and its importance	Definitions and administrative concepts	2	the first
	discussion, dialogue, interrogation and enrichment	Components of the environment surrounding the organization	Clarifying key concepts and understanding the factors affecting the changing environment	2	the second
	Lecture, discussion, dialogue, interrogation and enrichment	Building and visioning the organization's mission and goals	Definitions, administrative concepts and reality	2	the third
Self- assessment, peer assessment,	Lecture, discussion, dialogue, interrogation and enrichment	Objectives and strategic planning	Clarifying important concepts and application steps	2	the fourth
oral exams, monthly and daily assignments and tests	Lecture, discussion, dialogue, interrogation and enrichment	Operational plans, planning obstacles and their treatment	Key concepts and realistic theoretical steps	2	Fifth
	Lecture, discussion, dialogue, interrogation and enrichment	Quantitative methods in planning and decision making	Practical exercises	2	VI
		First month exam	Monthly test	2	Seventh
	Lecture, discussion, dialogue, interrogation	Job design and organizational structure	Clarifying key concepts and foundations	2	VIII

	and enrichment		Administrative and real examples		
	Lecture, discussion, dialogue, interrogation and enrichment	Validity and authority	Main concepts and administrative foundations	2	Ninth
	Lecture, discussion, dialogue, interrogation and enrichment	Organizational relationships within the organization	Key concepts in organizing relationships and interaction within administrative levels	2	The tenth
	Lecture, discussion, dialogue, interrogation and enrichment	Leadership and its theories	Definitions and main concepts	2	atheistic to
	Lecture, discussion, dialogue, interrogation and enrichment	Motivation and job satisfaction	Realistic administrative concepts and foundations	2	the second ten
	Lecture, discussion, dialogue, interrogation and enrichment	Connection	Theoretical steps	2	the third t
	Lecture, discussion, dialogue, interrogation and enrichment	The nature and types of oversight and the strategic horizons of oversight	Practical exercises	2	the fourth ten
		Second month exan	Monthly test	2	Fifth ten
11 Course	evaluation	Second monul exam	Monuny test	2	r nun ten

distribution Class from 100 on according to mission Assigned With it requester like Preparation Daily And exams Daily And oral And monthly And editorial And reports ....etc

- 1- 60 degrees Exam ultimate Editorial.
- 2- 40 degrees especially By striving Divided to me:
- 1) 5 degrees Presence.
- 2) 5-10 degrees Duties with.
- 3) 15 degrees Exam Editorial.
- 4) 5 degrees Exam verbal.

12. Learning and teaching resources				
Principles of management with an	Required textbooks (methodology, if any)			
emphasis on business management				

Dr. Khalil Muhammad Hassan Al-	
Shamaa	
i2007	
Management principles book / Dr.	Main references (sources)
Bashir Al-Alaq	
And the principles of modern	Recommended supporting books and references
management / Dr. Hussein Hareem	(scientific journals, reports)
	Electronic references, Internet sites

1. name The decision

Accounting principles

2. Code The decision

#### Stat1204\Accoun.

3. the chapter / the year

Second semester/first stage/2023 - 2024

4. date Preparation this the description

2/12/2024

5. Available attendance forms

My presence

6. Number of study hours (total)/number of units (total)

2 hours Weekly /30 hours Total

7. Name of the course administrator (if more than one name is mentioned) Name: A.M Loai Qais slave God Email :ad.luayabdullh@uodiyala.edu.iq

Objectives of

study subject

8. Course objectives

- Course objectives

- Introducing the student to the most important foundations and principles of accounting
- Clarifying the concept and basics of accounting principles
- Highlighting the importance of the field and the corresponding field in the subject
- This course aims to prepare the student to be an assistant to accountants in preparing accounts

9		
Cou	rse outcomes and teaching, learning and evaluation methods	The strategy
1-	Cognitive objectives: - Make the student able to	
2-	-To know the most important principles and basic concepts of	
	accounting	
3-	-To determine and define the types of accounts required	
4-	To know the correct principles for preparing accounts	
5-	To express his opinion regarding the preparation of accounts	
6-	To apply what he has studied by practicing the preparation of	
	accounts	

Course-specific skills objectives	
1Interactive skills: Possessing the ability to communicate with the	
subject professor and colleagues	
2Diagnostic skills: the ability to assist in preparing accounts	
3- Scientific reports.	
Teaching and learning methods	
1- Managing the lecture in an applied manner linked to the reality of	
daily life to attract the student to the topic of the lesson without straying	
from the core of the topic so that the material is flexible and capable of	
being understood and analysed.	
2-Discussion and dialogue	
3- Enrichment questions	
4-Direct interrogation	
Evaluation methods	
1-Questions Explanations	
2-Questions The error And the right thing	
3-Duties	
4- Evaluation Self	
5- the exams (Daily, monthly, quarterly, final).	
1 Thinking Simple: (Analysis Droblem and finding Solutions	
1- Infinking Simple: (Analysis Problem and Infunitg Solutions	
2 Thinking Critice (ability on Cash And discrimination Throads	
Asked And the choice Between them )	
3 Thinking Croative: (ability on production ideas And knock New in	
the solution)	
Teaching and learning methods	
1-Brainstorming method	
2-Use decision making to test the best alternative	
3-Presentation.	
Evaluation methods	
-Tests Miscellaneous(Daily (monthly, quarterly, final)	
2-Tests Oral	
3- Duties	
General and qualifying transferable skills (other skills related to	
employability and personal development).	
1-Skills of collecting and analyzing information about scientific	
accounting principles and how to use them in the fields of statistics	
2- Training and personal development skills on how to apply the	
concepts of accounting principles in various fields.	
3- Developing the student's ability to deal with the Internet.	
10. Course structure	

Evaluation method	Learning	Name of the unit or	Required	hour	the		
	method topic		learning	s	week		
			outcomes				
Discussion, oral and	My presence	Introduction	Underst	3	the first		
written examination		financial accounting	d and				
			clarify				
Discussion, oral and	My presence	Introduction to	Understand	3	the		
written examination		financial accounting	and clarify		second		
Discussion, oral and	My presence	Foundations of	Understand	3	the thir		
written examination		financial operations	and clarify				
		analysis					
Discussion, oral and	My presence	Foundations of	Understand	3	the four		
written examination		financial operations	and clarify				
D' ' 1 1	M	analysis	TT 1 / 1	0	<b>D</b> : 61		
Discussion, oral and	My presence	Capital and financi	Understand	3	Fifth		
Written examination	M	operations	and clarify	2	1.71		
Discussion, oral and	My presence	Capital and financin	Understand	3	VI		
Written examination	Maxaaaaaaaaa	Marahan diag	and clarify	า	Carrowski		
Discussion, oral and	My presence	Merchandise	Understand	3	Seventr		
written examination		operations (duy)	and clarify				
Discussion oral and	My prosonee	Marchandisa	Understand	2	VIII		
written examination	wry presence	operations (buying	and clarify	3	V 111		
witten examination		and selling)					
Discussion oral and	My presence	and sennig)	Understand	3	Ninth		
written examination	wry presence	Commercial papers	and clarify	5	INITICII		
Discussion, oral and	My presence		Understand	3	The ten		
written examination	ing presence	Commercial papers	and clarify	0	The ten		
Discussion, oral and	My presence	a. 1	Understand	3	atheisti		
written examination	J I	fixed assets	and clarify	-	ten		
Discussion, oral and	My presence		Understand	3	the		
written examination	5 1	fixed assets	and clarify		second		
			-		ten		
Discussion, oral and	My presence	Final accounts a	Understand	3	the thir		
written examination	• 1	financial statements	and clarify		ten		
Discussion, oral and	My presence	Final accounts and	Understand	3	the four		
written examination		financial statements	and clarify		ten		
	My presence	final exam		3	Fifth ter		
11. Course evaluation							
distribution Class from 100 on according to mission Assigned With it requester like Preparation							
Daily And exams Daily And oral And monthly And editorial And reportsetc							
1- 60 degrees Exam ultimate Editorial.							

.40 degrees especially By striving Divided to me:

- 1) 2)
- 5 degrees Presence. 5-10 degrees Duties with. 15 degrees Exam Editorial. 5 degrees Exam verbal. 3)
- 4)

12. Learning and teaching resources	
	Required textbooks (methodology, if any)
Book of principles of financial accounting	Main references (sources)
group Reports External	Recommended supporting books and
	references (scientific journals, reports)
Sites Internet Different	Electronic references, Internet sites

1.Course Name :
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Principles of Economics

2.Course Code

 $Stat 1205 \ Econ.$ 

3.the chapter/the year

Second Semester/The first stage/2023-2024

4. The date this description was prepared

9/17/2023

5. Available attendance forms/

Daily attendance according to the scheduled schedule

6.Number of study hours(Total)number of units(Total)

(30)One academic hour2Hours per week

7.Name of the course administrator(If more than one name is mentioned)

the name: A.P.Dr. Alia Hussein Khalaf

Email:aliaeco@uodiyala.edu.iq

8. Course objectives

Objectives of the study subject

1-

- 2- Understand the theoretical framework of economic principles
- 3- Introducing students to the basics of economics
- 4- Developing the student's abilities in scientific analysis of economic issues by providing him with basic analytical tools, including:(Descriptive analysis, graphical analysis, and mathematical analysis).
- 5- Enabling the student to know the historical beginnings of the emergence of economics.
- 6- An initial overview of the essence of classical and modern theories of economics.
- 7- Developing the student's abilities to detect and solve economic problems
- 8- Preparing the student intellectually to deal with other branches of economics in the later stages.

9.Teaching and learning strategies

**1-** Method of giving and lecturing.

**2-** Discussion method.

The strategy

10.Course structure					
Evaluatio	Learning	Name of the unit	Required	hours	the week
n method	method	or topic	learning		
1 /	0.1	<u> </u>	outcomes	2	1
lecture	Oral	General concepts	Definitions	3	1
	exams		and		
Diamaria	C - 1f	The metane of	concepts	2	2
Discussio	Self-	I he nature of	Understand	3	2
n and	evaluation	economics - the	1ng		
dialogue	and peer	economic problem	characterist		
	evaluation	activities	105		
Discussio	Self-	Demand - law of	Understand	3	3
n and	evaluation	demand - demand	ing		
dialogue	and peer	schedule - demand	characterist		
	evaluation	curve	ics		
Discussio	Self-	Factors	Understand	3	4
n and	evaluation	determining	ing		
dialogue	and peer	demand - types of	characterist		
	evaluation	demand	ics		
a lecture	Oral	Elasticity of	Definitions	3	5
	exams	demand - types of	and		
		elasticity - factors	concepts		
		affecting elasticity			
Discussio	Self-	Consumer	View and	3	6
n and	evaluation	behavior theory	analyze		
dialogue	and peer				
	evaluation				
Discussio	Self-	Supply,	View and	3	7
n and	evaluation	influencing	analyze		
dialogue	and peer	factors, and			
	evaluation	modern theory of			
		consumer			
		behavior			
		First month	-	3	8
		exam/For the first			
1 /		semester	<b>x</b> 7' 1	2	
a lecture	Oral	Production Theory	View and	3	9
	exams	- Law of	analyze		

	1	1				
		Diminishing				
		Returns				
a lecture	Oral	Factors of	View and	3	10	
	exams	production	analyze			
a lecture	Oral	Costs – concept	View and		11	
	exams	and types	analyze			
a lecture	Oral	Revenue –	View and	3	12	
	exams	concept and types	analyze			
a lecture	Oral	Markets and	View and	3	13	
	exams	setting prices	analyze			
a lecture	Oral	National income -	View and	3	14	
	exams	concept and	analyze			
		calculation				
		methods				
-	-	Second month	-	3	15	
		exam				
11.Course evaluation						
Degree dist	ribution from	n100According to the	e tasks assign	ed to the stu	dent, such as daily	
preparation	, daily, oral,	monthly and written	exams, and r	eportsetc		
12.Learning	g and teachir	ng resources				
Principles of	of Economics	s book - Dr.Karim	Required prescribed books(Methodology,			
Mahdi Al-H	Iasnawi		if any)			
Principles of economics book.Dr.Abdel		Main references(Sources)				
Moneim Al-Sayed Ali						
Economics book.Dr.Paul Samelson		Recommended supporting books and				
			references(Scientific journals,Reports)			
Network of	Network of Iraqi Economists			Electronic references, Internet sites		

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English

2. Course code

Stat1206\Eng.

3. Semester/year

Second semester/first stage2023-2024

4. The date this description was prepared

12/3/2024

5. Available attendance forms:

My presence

6. Number of study hours (total) Number of units (total)

30/30

7. Name of the course administrator (if more than one name is mentioned)

Name: L. Omar Najm Abdullah email:

omareconomics@uodiyala.edu.iq

8. Course objectives

Objectives of the study subject

1. Speaking using grammatically correct language. The same applies to writing skill.

2. Enabling students to learn the English language and speak in different situations.

3. Developing the language and emphasizing the skill of speaking and listening.

9. Teaching and learning strategies

Method of giving and lecturing.

Discussion method.

10. Course structure Evaluation Name of the unit or Learning Required the week hours method method topic learning outcomes Homework, activities Presentation Verb be, pronouns, Use of the The first 2 and exercises -- discussion main linguistic greeting week attendance and and dialogue structures in - examples active participation oral communicatio during the lecture from students' n. Use real lives appropriate vocabulary in any type of conversation about the

The strategy

			topics covered		
			in the unit.		
			Know how to		
			improve		
			nuprove		
			pronunciation		
			correctly		
Homework, activities	-	Your word, Question,	Use of the	2	second week
and exercises -	Presentation	countries, Reading and	main linguistic		
attendance and	- Discussion	speaking, Numbers	structures in		
active participation	and dialogue		oral		
during the lecture	- Examples		communicatio		
	from		n. Use		
	students'		appropriate		
	realities		vocabularv in		
			any type of		
			conversation		
			about the		
			topics covered		
			topics covered		
			In the unit.		
			Know how to		
			improve		
			pronunciation		
			correctly		
Homework, activities	Presentation	Negatives, Questions,	Use of the	2	the third
and exercises -	- discussion	Short answers, Jobs,	main linguistic	_	week
attendance and	and dialogue	Reading and	structures in		hook
active participation	- examples	listening/Social	oral		
during the lecture	from	Expressions	communicatio		
	students'		n lise		
	real lives		n. Ose		
	real lives		appropriate		
			vocabulary in		
			any type of		
			conversation		
			about the		
			topics covered		
			in the unit.		
			Know how to		
			improve		
			pronunciation		
			correctly		
Homowork activition		Eamily and friends	Lice of the	2	fourthread
Homework, activities	-	Family and menus,	Use of the	2	Tourth week
and exercises -	Presentation	possess an adjectives,	main linguistic		
attendance and	- Discussion	has, have, adjective +	structures in		
active participation	and dialogue	noun, the family, Reading	oral		
during the lecture	- Examples	and writing, The alphabet	communicatio		
	from		n. Use		
	students'		appropriate		
	realities		vocabularv in		
			any type of		
			conversation		
			about the		
			topics covered		
			in the unit.		

Homework, activities	-	The way I live, present	Know how to improve pronunciation correctly Use of the	2	The fifth
and exercises - attendance and active participation during the lecture	Presentation - Discussion and dialogue - Examples from students' realities	simple, a and an, adjective + noun, Sport, food, Drink, language and nationalities, Listening, how much	main linguistic structures in oral communicatio n. Use appropriate vocabulary in any type of conversation about the topics covered in the unit. Know how to improve pronunciation correctly		week
Homework, activities and exercises - attendance and active participation during the lecture	- Presentation - Discussion and dialogue - Examples from students' realities	Every day/present simple/Question and negative/the time/Speaking/days of the week/prepositions of time	Use of the main linguistic structures in oral communicatio n. Use appropriate vocabulary in any type of conversation about the topics covered in the unit. Know how to improve pronunciation correctly	2	the sixth week
Homework, activities and exercises - attendance and active participation during the lecture	- Presentation - Discussion and dialogue - Examples from students' realities	My favourites/Question words/ pronouns/ this and that/ place/ Reading and writing/Can I	Use of the main linguistic structures in oral communicatio n. Use appropriate vocabulary in any type of conversation about the topics covered in the unit. Know how to improve	2	Seventh week

			pronunciation correctly		
Homework, activities and exercises - attendance and active participation during the lecture	- Presentation - Discussion and dialogue - Examples from students' realities	Where I live/There is /are/ prepositions/ Rooms and furniture / Reading and vocabulary/Directions	Use of the main linguistic structures in oral communicatio n. Use appropriate vocabulary in any type of conversation about the topics covered in the unit. Know how to improve pronunciation correctly	2	The eighth week
Homework, activities and exercises - attendance and active participation during the lecture	- Presentation - Discussion and dialogue - Examples from students' realities	Time past/ was /were born, Past Simple- regular and irregular,	Use of the main linguistic structures in oral communicatio n. Use appropriate vocabulary in any type of conversation about the topics covered in the unit. Know how to improve pronunciation correctly	2	Week nine
Homework, activities and exercises - attendance and active participation during the lecture	- Presentation - Discussion and dialogue - Examples from students' realities	We had a great time /, Past Simple- regular and irregular, ago, weekend activates, time expressions, play or go, making conversation,	Use of the main linguistic structures in oral communicatio n. Use appropriate vocabulary in any type of conversation about the topics covered in the unit. Know how to improve pronunciation correctly	2	The tenth week

Homework,	-	I can do that, can/cant,	Use of the	2	Week eleven
activities and	Presentation	Adverb, Requests of	main linguistic		
exercises -	- Discussion	offers, verbs, Opposite	structures in		
attendance and	and dialogue	verbs, Everyday	oral		
active participation	- Examples	problems.	communicatio		
during the lecture	from		n. Use		
	students'		appropriate		
	realities		vocabulary in		
			any type of		
			conversation		
			about the		
			topics covered		
			in the unit.		
			Know how to		
			improve		
			pronunciation		
			correctly		
Homework,	-	Please and thank you, I'd	Use of the	2	The twelfth
activities and	Presentation	like, some any, like and	main linguistic	2	week
exercises -	- Discussion	would like, Shopping,	structures in		WEEK
attendance and	and dialogue	food, in a restraint.	oral		
active participation	- Examples	Listening. Reading and	communicatio		
during the lecture	from	listening, Replay.	n. Use		
	students'		appropriate		
	realities		vocabulary in		
			any type of		
			conversation		
			about the		
			topics covered		
			in the unit.		
			Know how to		
			improve		
			pronunciation		
			correctly		
Homework, activities	-	Here and now, present	Use of the	2	The
and exercises -	Presentation	continues colors	main linguistic	2	thirteenth
attendance and	- Discussion	clothes what this matter	structures in		wool
active participation	and dialogue	clothes, what this matter	oral		WUCK
during the lecture	- Examples		communicatio		
	from		n. Use		
	students'		appropriate		
	realities		vocabulary in		
			any type of		
			conversation		
			about the		
			topics covered		
			in the unit		
			Know how to		
			improve		
			nronunciation		
			correctly		
			conectly		

Homework, activities	-	It's time to go, present	Use of the	2	The
and exercises -	Presentation	simple and present	main linguistic		fourteenth
attendance and	- Discussion	continues, Opposite	structures in		week
active participation	and dialogue	verbs, Reading and	oral		
during the lecture	- Examples	listening, Replay.	communicatio		
	from		n. Use		
	students		appropriate		
	realities		vocabulary in		
			conversation		
			about the		
			topics covered		
			in the unit.		
			Know how to		
			improve		
			pronunciation		
			correctly		
Homework, activities	-	Future plans, Revision,	Use of the	2	The fifteenth
and exercises -	Presentation	Transport, Reading and	main linguistic		week
attendance and	- Discussion	Speaking, a mini	structures in		
active participation	and dialogue	autobiography, Social	oral		
during the lecture	- Examples	expressions, revision.	communicatio		
	from		n. Use		
	realities		appropriate		
	realities		any type of		
			conversation		
			about the		
			topics covered		
			in the unit.		
			Know how to		
			improve		
			pronunciation		
			correctly		
11. Course evalua	tion				
Annual pursuit de	gree (40%) d	listributed between da	aily and month	ly exams,	preparation,
daily participation	, and report	s			
Final exam score (	(60%)	•			
12 Learning and t	eaching reso	nurces			
New head way nu	is heatinner I	ohn and Liz Soars	Required to	vthooks (	methodology
(Ovford)	is beginner j		Required textbooks (methodology,		
new nead way ph	us beginner		iviain refere	nces (sou	rces)
			ĸecommen	aea suppo	orting books
			and referen	ces (scien	itific journals,
			reports)		
			Electronic re	eferences	, Internet
			sites		

# The second stage The first course

1. name The decision

Principles of probability

#### 2. Code The decision

Stat2101\Prob.

3. the chapter / the year

First semester/second stage/2023 - 2024

4. date Preparation this the description

9/3/2024

5. Available attendance forms

My presence

6. Number of study hours (total)/number of units (total)

45/45

#### 7. Name of the course administrator (if more than one name is mentioned) Name: A.M.D age fair AbdulWahab Email : omersta@uodiyala.edu.iq

8. Course objectives	
- Course objectives	Objectives of the st
1- Introducing the student to the principles of probability	subject
2- Providing the student with topics different from the principles of probabi	
3 – Explain the importance of the principles of probability.	
9.	
1. Required program outcomes and teaching, learning and	The strategy
evaluation methods	
a- Cognitive goals	
a1- That the student knows the most important principles and basic	
concepts of probability principles.	
a2- The student should explain statistical concepts in the principles of	
probability	
a3- That the student applies the concepts of probability principles in	
theoretical and practical reality.	
a4- To be creative in using modern and contemporary concepts in the	
principles of probability.	
a5- To express an opinion or issue a judgment regarding statistical	
concepts in the principles of probability.	

B - The program's skill objectives
B1 - Communication and communication skills: - Possessing a high
level of skills in information technology, working with others (love of
teamwork)
B2 – Analytical skills: Skills for identifying the relationship
between mathematical and statistical concepts in the principles of
probability.
Teaching and learning methods
1- Lecture method
2- Method of discussion and dialogue
3- Direct questions
A. Direct interrogation
Evaluation methods
Evaluation methods
1 Objective questions Objective Test items are divided into:
The set of the second set is a set of the se
a- Irue and false questions Irue/False Items
B - Multiple choice questionsMultiple Choice Items
C - Interview questions Matching Items
2- HomeworksHomework assignments
3- Self-evaluation and peer evaluationPeer and Self-Assessment
4- The tests are divided into:-
a- Formative achievement tests accompanying teaching plans
B - Various final achievement tests:
1- Monthly final exams at the end of each academic month
2- Final semester exams at the end of the semester
C- Emotional and value goals.
C1- Consolidating the principle of cooperation
C2-Working as one team
Teaching and learning methods
1- Use the brainstorming methodBrainstorming
2. Using various mind mans
2- Use the problem solving method
4. Using the presentation method
+- Using the presentation method
Evaluation methods
Evaluation methods
5- Objective questions/Objective Test items are divided into:-
B- True and false questions True/False Items
B - Multiple choice questionsMultiple Choice Items
C - Interview questionsMatching Items
6- HomeworksHomework assignments
7- Self-evaluation and peer evaluationPeer and Self-Assessment
21

8- The tests are divided into:-	
B- Formative achievement tests accompanying teaching plans	
B - Various final achievement tests:	
3- Monthly final exams at the end of each academic month	
4- Semester final exams at the end of each semester	
3- Final final exams at the end of the academic year	
D - General and qualifying transferable skills (other skills related to	
employability and personal development).	
Dr1- Communication and communication skills: - Possessing a high	
level of skills in information technology, working with others (love of	
teamwork)	
Dr2- Analytical skills: Skills in identifying the relationship between	
mathematical and statistical concepts in probability distributions.	
Teaching and learning methods	
1- Use the brainstorming methodBrainstorming.	
2- Using various mind maps.	
3- Use the problem-solving method.	
4- Using the presentation method	
Evaluation methods	
1- Use testsVarious achievement examinations (daily, monthly,	
end of semester)	
2- Using the oral examination methodOrallyTests	
3- Use the Homework Assignments method	

20					
Evaluation	Learning	Name of the unit or	Required learning	hours	the week
method	method	topic	outcomes		
Discussion And the test Oral An the editorial	My presence	Basics of group and subgroup	Introducing the student to the basics of grou And how to configure it	3	the first
Discussion And the test Oral An the editorial	My presence	Operations on the set a relations on the sets	How to perform operations Sports on groups as w as the relationships th bind groups	3	the second
Discussion And the test Oral An the editorial	My presence	Combinations	Explain the principle combinations in Dragging items from groups	3	the third
Discussion And the test Oral And the editorial	My presence	Permutations	Explain the principle permutation in	3	the fourth

10. Course structure

			withdrawing element from groups		
Discussion And the test Oral A the editorial	My presence	Solve general exercise	Involving students in solving T Marin	3	Fifth
Discussion And the test Oral An the editorial	My presence	General principles on probability	Introducing the stude to the basics of probability and how t calculate it	3	VI
Discussion And the test Oral An the editorial	My presence	Randomized trials	Explain what experiments are Randomization and h to conduct it	3	Seventh
Discussion And the test Oral An the editorial	My presence	Solve general exercise	Involving students in solution exercises	3	VIII
	My presence	First monthly test for t semester the first		3	Ninth
Discussion And the test Oral An the editorial	My presence	Events and sample spa	Teaching the student how to create events in collections	3	The tenth
Discussion And the test Oral A the editorial	My presence	Randomized experiments and probability	Understanding and knowledge	3	atheistic ten
Discussion And the test Oral An the editorial	My presence	The first law of probability	Understanding and knowledge	3	the second te
Discussion And the test Oral An the editorial	My presence	Probabilistic events ar independence	Introducing the stude to the event And his account mechanism	3	the third ten
Discussion And the test Oral An the editorial	My presence	Conditional probabilit and law Biz	Introducing the stude to an account The conditional probability of the variable	3	the fourth ter
	My presence	A second monthly test for the second semeste		3	Fifth ten

#### 11. Course evaluation

distribution Class from 100 on according to mission Assigned With it requester like Preparation Daily And exams Daily And oral And monthly And editorial And reports ....etc

1- 60 degrees Exam ultimate Editorial.

.40 degrees especially By striving Divided to me:

- 1) 10 degrees Presence.
- 2) 5 degrees Duties with.
- 3) 15 degrees Exam Editorial.
- 4) 10 degrees Exam verbal.

12. Learning and teaching resources	i de la construcción de la constru
Book of possibilities	Required textbooks (methodology, if any)
Composition	
Assistant Professor Aleem Ismail Al-	
Gharabi	
Dr. Zafer Hussein Rashid	
Teacher Ali Abdul Hussein Al-	
Wakeel	
H. Pishro-Nik, "Introduction to	Main references (sources)
probability, statistics, and random	
processes", 2014	
	Recommended supporting books and references
	(scientific journals, reports)
	Electronic references, Internet sites

1. name The decision

#### Sampling methods

2. Code The decision

Stat2102\Samp.

3. the chapter / the year

First semester/second stage/2023 - 2024

#### 4. date Preparation this the description

9/12/2023

- 5. Available attendance forms
- My presence
- 6. Number of study hours (total)/number of units (total)
- 45/45
- 7. Name of the course administrator (if more than one name is mentioned) Name: M.M. Arshaed Hameed Hassan Email :arshadhameed@uodiyala.edu.iq
- 8. Course objectives - Course objectives Objectives of It aims to identify the sampling methods and methods through which data are study subject collected so that the data can be analyzed and interpreted in a logical and acceptable manner so that the conclusions about the study are correct. The methods used to determine the size of the sample drawn from the phenomenon under study are also introduced. How to estimate the mean, total, and variance of the population for all sampling methods 9. **Course outcomes and teaching, learning and evaluation methods** The strategy Make the student able to: What is meant by a sample, its characteristics, and the basic 1steps for designing a sample 2-Sampling methods
  - 3- Estimating the sample size
  - 4- Proportion estimates for all sampling methods

#### **Course-specific skills objectives**

- 1- Enabling the conduct and design of samples and all sampling methods
- 2- Enables estimation of sample sizes

3- Enabling ratio estimates	
Teaching and learning methods	
1- lecture	
2- Discussion and dialogue	
3- Enrichment questions	
4- Direct interrogation	
Evaluation methods	
1-Ouestions Explanations	
2-Ouestions The error And the right thing	
3-Duties	
4- Evaluation Self	
5- the exams (Daily, monthly, quarterly, final).	
Emotional and value goals	
1- Ability on to examine And evaluation Threads Asked .	
2- Ability on Cash And discrimination Threads Asked And the	
choice Between them .	
3- Ability on production ideas New	
Teaching and learning methods	
1-Brainstorming method	
2-Use decision making to test the best alternative	
3-Presentation.	
Evaluation methods	
-Tests Miscellaneous(Daily (monthly, quarterly, final)	
2-Tests Oral	
3- Duties	
General and qualifying transferable skills (other skills related to	
employability and personal development).	
1- Skills to distinguish between types of inspection	
2- Training skills on conducting sample selection	
3-Skills in determining sample size based on the type of sampling	
.Course structure	

<b>Evaluation</b> method	Learning method	Name of the unit	Required learning	hour	the week
Discussion, ora and written examination	My presence	How to choose a simple random sample	Understand and analyze	3	the first
Discussion, ora and written examination	My presence	Estimate the variance of the mean and the population sum	Understand and analyze	3	the second
Discussion, ora	My presence	Confidence limits	Understand and	3	the third
-----------------	--------------	--------------------	----------------	---	------------
and written		for the	analyze		
examination		population mean			
		and variance			
Discussion, ora	My presence	Estimate the ratio	Understand and	3	the fourth
and written	• •		analyze		
examination					
Discussion, ora	My presence	Choosing a	Understand and	3	Fifth
and written		sample size to	analyze		
examination		estimate the			
		population mean			
		and variance			
Discussion, ora	My presence	What is stratified	Understand and	3	VI
and written	J	sampling?	analvze		
examination			j = -		
Discussion. ora	My presence	Estimate the	Understand and	3	Seventh
and written		mean and	analyze		
examination		population sum			
••••••••••		for stratification			
	My presence	First month exam		3	VIII
Discussion or	My presence	How to choose a	Understand and	3	Ninth
and written	ing presence	regular sample to	analyze	5	
examination		estimate the	undry 20		
examination		mean and the			
		total of the			
		nonulation			
Discussion or	My presence	Estimating the	Understand and	3	The tenth
and written	my presence	variance of the	analyze	5	The tenth
examination		mean and total of	anaryze		
examination		the population			
		estimating the			
		sample size			
Discussion or	My presence	Estimate the	Understand and	3	eleventh
and written	my presence	ratioR for simple	analyze	5	cieventin
examination		random sample			
Discussion or	My presence	Estimating the	Understand and	3	twelveth
and written	wry presence	mean and total	analyze	5	twerveni
and written		using proportions	anaryze		
Craimilation		in a stratified			
		sample			
Discussion	My presence	One_stage cluster	Understand and	3	Thirteenth
and write	wry presence	random compling	analyza		
anu writ		random sampning	allalyze		
examination					

Discussion, c	My presence	Estimating the	e Understa	and and	3	fourteenth
and writ		arithmetic me	an analyze			
examination		and the sum				
		Estimating the	e			
		variance of the	e			
		arithmetic me	an			
	My presence	Second month	1		3	Fifteenth
		exam				
1. Course ev	valuation					
Degree distribution	ution from100	) according to t	he tasks assign	ned to the stu	ident, su	ch as daily
preparation, da	aily, oral, mon	thly, written ex	ams, reports, e	etc.		
1- 60 mark	s final written	exam.				
.40 degrees for	the pursuit, di	ivided into:				
1) 5 degree	es of attendance	ce.				
2) 5 marks	assignments v	with.				
3) 15 marks for the first written exam						
4) 15 marks for the second written example.		n				
2. Learning a	and teaching I	resources				
2. Learning a	and teaching i no There is	resources	Required textbo	oks (methodol	ogy, if any	/)
<ol> <li>Learning a</li> <li>1- Abu pa</li> </ol>	and teaching i no There is ternal aunt , si	resources	Required textbo Main references	oks (methodolo s (sources)	ogy, if any	/)
<ol> <li>Learning a</li> <li>1- Abu pa</li> <li>Mohamm</li> </ol>	and teaching in no There is ternal aunt, slued, Al-Hussei	resources lave merciful ini ,slave	Required textbo Main references	oks (methodolo s (sources)	ogy, if any	/)
<ol> <li>Learning a</li> <li>1- Abu pa Mohamm Righteous</li> </ol>	and teaching no There is ternal aunt, sl ed, Al-Hussei sness Satisfied	resources lave merciful ini ,slave l, Indian,	Required textbo Main references	oks (methodolo s (sources)	ogy, if any	/)
<ol> <li>Learning a</li> <li>1- Abu pa Mohamm Righteous Mahmoud Ma</li> </ol>	and teaching in teaching in the teaching is no There is ternal aunt, sined, Al-Husseis sness Satisfied ohammed Ibra	lave merciful ini ,slave l, Indian, ahim (1995),	Required textbo Main references	oks (methodolo s (sources)	ogy, if any	/)
<ol> <li>Learning a</li> <li>Abu pa</li> <li>Mohamm</li> <li>Righteous</li> <li>Mahmoud Ma</li> <li>Dar Mars For</li> </ol>	and teaching no There is ternal aunt, sl ed, Al-Hussei sness Satisfied ohammed Ibra r publication.	resources lave merciful ini ,slave l, Indian, ahim (1995), Riyadh, The	Required textbo Main references	oks (methodolos (sources)	ogy, if any	/)
<ol> <li>Learning a</li> <li>Abu pa Mohamm Righteous Mahmoud Ma Dar Mars For kingdom</li> </ol>	and teaching no There is ternal aunt, sl ed, Al-Hussei sness Satisfied ohammed Ibra r publication.	lave merciful ini ,slave l, Indian, ahim (1995), Riyadh, The i Arabia	Required textbo	oks (methodolo s (sources)	ogy, if any	/)
<ol> <li>Learning a</li> <li>Abu pa Mohamm Righteous</li> <li>Mahmoud Ma</li> <li>Dar Mars For kingdom</li> <li>Thomp</li> </ol>	and teaching no There is ternal aunt, sl ed, Al-Hussei sness Satisfied ohammed Ibra r publication. Arabic Saudi son, S, K (200	resources lave merciful ini ,slave l, Indian, ahim (1995), Riyadh, The i Arabia 02) sampling,	Required textbo Main references	oks (methodolo s (sources)	ogy, if any	/)
<ol> <li>Learning a</li> <li>Abu pa Mohamm Righteous Mahmoud Ma Dar Mars For kingdom</li> <li>Thomps 2nd V</li> </ol>	and teaching no There is ternal aunt, sl ed, Al-Hussei sness Satisfied ohammed Ibra r publication. Arabic Saudi son, S, K (200 Wiley, New Y	lave merciful ini ,slave l, Indian, ahim (1995), Riyadh, The i Arabia 02) sampling, fork.	Required textbo Main references	oks (methodolo s (sources)	ogy, if any	/)
<ol> <li>Learning a</li> <li>Abu pa Mohamm Righteous</li> <li>Mahmoud Ma</li> <li>Dar Mars Forkingdom</li> <li>Thompson</li> <li>Thompson</li> <li>3-Benedettor</li> </ol>	and teaching no There is ternal aunt, sl ed, Al-Hussei sness Satisfied ohammed Ibra r publication. Arabic Saudi son, S, K (200 Wiley, New Y o,jjandFerreira	resources lave merciful ini ,slave l, Indian, ahim (1995), Riyadh, The i Arabia 02) sampling, fork. a.pJ(2001).	Required textbo Main references	oks (methodolos (sources)	ogy, if any	/)
<ol> <li>Learning a</li> <li>Abu pa Mohamm Righteous Mahmoud Ma Dar Mars For kingdom</li> <li>Thomps 2- Thomps 2nd V</li> <li>3-Benedetter Modern sam</li> </ol>	and teaching no There is ternal aunt, sl ed, Al-Hussei sness Satisfied ohammed Ibra r publication. Arabic Saudi son, S, K (200 Wiley, New Y o,jjandFerreira pling theory,	resources lave merciful ini ,slave l, Indian, ahim (1995), Riyadh, The i Arabia 02) sampling, fork. a.pJ(2001). Birkhauser	Required textbo Main references	oks (methodolo s (sources)	ogy, if any	/)
<ol> <li>Learning a</li> <li>Abu pa Mohamm Righteous Mahmoud Ma Dar Mars For kingdom</li> <li>Thomps 2- Thomps 2nd V 3-Benedette Modern sam 4- Samp</li> </ol>	and teaching no There is ternal aunt, sl ed, Al-Hussei sness Satisfied ohammed Ibra r publication. Arabic Saudi son, S, K (200 Wiley, New Y o,jjandFerreira pling theory, oath, S. (2000)	resources lave merciful ini ,slave l, Indian, ahim (1995), Riyadh, The i Arabia 02) sampling, fork. a.pJ(2001). Birkhauser o. Sampling	Required textbo Main references	oks (methodolo s (sources)	ogy, if any	/)
<ol> <li>Learning a</li> <li>Abu pa Mohamm Righteous Mahmoud Ma Dar Mars For kingdom</li> <li>Thomps 2- Thomps 2nd V</li> <li>3-Benedetted Modern sam</li> <li>4- Samp theory an</li> </ol>	and teaching no There is ternal aunt, sl ed, Al-Hussei sness Satisfied ohammed Ibra r publication. Arabic Saudi son, S, K (200 Wiley, New Y o,jjandFerreira pling theory, path, S. (2000) ad methods, cl	resources lave merciful ini ,slave l, Indian, ahim (1995), Riyadh, The i Arabia 02) sampling, fork. a.pJ(2001). Birkhauser b. Sampling Rc press	Required textbo Main references	oks (methodolo s (sources)	ogy, if any	/)
<ol> <li>Learning a</li> <li>Abu pa Mohamm Righteous Mahmoud Ma Dar Mars For kingdom</li> <li>Thomps</li> <li>Thomps</li> <li>Thomps</li> <li>A-Benedetto Modern sam</li> <li>Samp theory ar</li> </ol>	and teaching no There is ternal aunt, sl ed, Al-Hussei sness Satisfied ohammed Ibra r publication. Arabic Saudi son, S, K (200 Wiley, New Y o,jjandFerreira pling theory, path, S. (2000)	resources lave merciful ini ,slave l, Indian, ahim (1995), Riyadh, The i Arabia 02) sampling, fork. a.pJ(2001). Birkhauser b. Sampling Rc press	Required textbo Main references	oks (methodolo s (sources) supporting b	ogy, if any	/) references
<ol> <li>Learning a</li> <li>Abu pa Mohamm Righteous Mahmoud Ma Dar Mars For kingdom</li> <li>Thomps</li> <li>Thomps</li> <li>3-Benedetto Modern sam</li> <li>4- Samp theory ar</li> </ol>	and teaching no There is ternal aunt, sl ed, Al-Hussei sness Satisfied ohammed Ibra r publication. Arabic Saudi son, S, K (200 Wiley, New Y o,jjandFerreira opling theory, oath, S. (2000) d methods, cl nothing	resources lave merciful ini ,slave l, Indian, ahim (1995), Riyadh, The i Arabia 02) sampling, fork. a.pJ(2001). Birkhauser b. Sampling Rc press	Required textbo Main references Recommended (scientific journal	oks (methodolo s (sources) supporting bo	ogy, if any	/) references
<ol> <li>Learning a</li> <li>Abu pa Mohamm Righteous Mahmoud Ma Dar Mars For kingdom</li> <li>Thomps</li> <li>Thomps</li> <li>3-Benedettor</li> <li>Modern sam</li> <li>4- Samp theory ar</li> </ol>	and teaching no There is ternal aunt, sl ed, Al-Hussei sness Satisfied ohammed Ibra r publication. Arabic Saudi son, S, K (200 Wiley, New Y o,jjandFerreira pling theory, path, S. (2000) d methods, cl nothing	resources lave merciful ini ,slave l, Indian, ahim (1995), Riyadh, The i Arabia 02) sampling, fork. a.pJ(2001). Birkhauser b. Sampling Rc press	Required textbo Main references Recommended (scientific journal	supporting brais, reports)	ogy, if any	/) references



1.Course Name

Matrices

2.Course Code

Stat 2103\mat.

3.the chapter/the year

First semester/The second phase2023-2024

4. The date this description was prepared

2/12/2024

5. Available attendance forms

My presence

6.Number of study hours(Total)number of units(Total)

45\45

7.Name of the course administrator(If more than one name is mentioned) the name:A.P. Wahab Salem Muhammad

Email:wahabsalim72@gmail.com

8. Course objectives

Objectives of the study subject

- Educational benefit, by learning about the concept of matrices and their related concepts.
- Methods of mathematical statistics from calculus
- Identify the importance and types of statistical applications of mathematical methods

Studying mathematical methods that minimize costs and maximize profits.

#### 9. Teaching and learning strategies

$1\mathchar`-$ The student is introduced to the scientific concept of	The strategy
matrices and the methods of mathematical statistics, such as	
matrices, differentiation and integration, and the main	
functions that operate with this concept and the impact of this	
on its success and provides statistics in light of its	
contemporary challenges and variables to achieve efficiency	
and effectiveness.	

2- Expanding the student's scientific understanding when
linking various cognitive information and then applying it in his
advanced research studies
B- Subject-specific skills
1- Applications of calculus to statistical reality
2- Identify the approaches that statistical policy can follow in
achieving development.
3-The effectiveness of mathematics and matrices in directing
investments and achieving growth in economic sectors
4- Identify modern methods in mathematics and matrices in
order to employ them for policy experiments and ways to
develop them.

				10.Cou	se structure
Evaluat	Learning	Name of the unit or	Required	hours	the week
ion	method	topic	learning		
method			outcomes		
Homew	Giving	Basic concepts and	Understanding	3	1
ork+Da	focused	use of mathematics	diagonal		
ilv	lectures	in economic	matrices: The		
exam	with	analysis	upper		
CAum	prostical	unurybib	triangular		
	practical		matrix,Lower		
	examples		triangular		
			matrix,Matrix(		
			Fixed-Zero-		
			Unit-Deaf-The		
			coiled one-		
			Yellowed)		
Homew	Giving	Matrices and	Explanation of	3	2
ork	focused	determinants,	matrix		
	lectures	matrix algebra and	transposition,S		
	with	its types	ymmetric		
	practical	J 1	matrices		
	evamples				
	UNAIIIPICS				1

Homew ork+Da ily exam	Mathemat ical examples	Matrix switcher Algebraic operations on the matrix(Addition, subtraction and multiplication)	Understanding symmetry convolutional matrices	3	3
Homew ork	Mathemat ical examples	Quantitative matrix multiplication methods Conjugate matrix Inverse matrix	Explanation of matrix accompanimen t	3	4
Homew ork	Mathemat ical examples	Determinants, their types, and ways to find them Properties of determinants kaos method Kraemer's method	Explanation of matrix transposition	3	5
Homew ork	Mathemat ical examples	Use the matrix In solving mathematical models An economic model for determining equilibrium prices Linear quadratic cubic constant exponential function	Definition of hierarchical arrays	3	6
Homew ork	Mathemat ical examples	Exponents and functions	Understanding convolutional hierarchical arrays	3	7
Homewor k+Daily exam	Mathematica l examples	Quantitative matrix multiplication methods	Understanding permutations, determinants	3	8
Homewor k	Mathematica l examples	Conjugate matrix	Explain the first	3	9

			determiner and the conjugate		
Homewor k	Mathematica l examples	Inverse matrix	Explain determinants and algebraic complements	3	10
Homewor k	Mathematica l examples	Determinants, their types, and ways to find them	Explaining methods for calculating determinants(S tock method,The first and accompanying neutral method,A way to blaspheme)	3	11
Homewor k	Mathematica l examples	Properties of determinants	Understanding the binary conjugate of a square matrix,Inverse matrix	3	12
Homewor k+Daily exam	Mathematica l examples	kaos method	Explain the methods of calculating the matrix inverse(Dual accompanimen t,Retail)	3	13
Homewor k	Mathematica l examples	Kraemer's method	Definition of matrix,Equal matrices,Algeb raic operations on matrices(Plural ,And subtraction,Mu ltiplication by a constant,beatin g)	3	14
Exam	-		End of semester exam	3	15

	11.Course evaluation	
Degree distribution from100According to the tasks assigned to the student, such		
as daily, daily, oral and monthly preparation, written exams, reports, etc.		
1)60Score for the final written examination,		
40(2Degree related to the pursuit, divide	d into:	
a)5Attendance grades.		
T)15A score for the written exam at the	rate of two exams in two months.	
Dr)5Grades for the oral exam		
	12.Learning and teaching resources	
1- Mathematics for Economists / Dr.	Required prescribed	
Adnan Shamkhi	books(Methodology, if any)	
2- Mathematical Economics / Dr.		
Hussein Bakhit		
3- Mathematics for Administrators / Dr.		
Dhafer Rasheed		
4-Electronic information network		
	Main references(Sources)	
All sources are good	Recommended supporting books and	
	references(Scientific journals,Reports)	
Video lectures on YouTube	Electronic references, Internet sites	
	Electronic references, internet sites	

1. name the decision
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#### Sequences

2. Code The decision

Stat2104\seq.

3. the chapter / the year

First semester/second stage2023-2024

#### 4. date Preparation this the description

4/7/2024

5. Available attendance forms

My presence

6. Number of study hours (total)/number of units (total)

45/45

7. Name of the course administrator (if more than one name is mentioned) Name: A.P.D Abd Al-satar Diab Email:purecomp.abdulsatar.theab@uodiyala.edu.iq

8. Course objectives

- Course objectives	Objectives	of
1- Enable the student to recognize arithmetic and geometric sequences, how to so	study subje	ct
them, and the difference between them.		
2- Enabling the student to recognize arithmetic and geometric series, how to so		
them, and the difference between them.		

9.	
Course outcomes and teaching, learning and evaluation methods	The strategy
<b>Objectives Cognitive :</b> make requester Able on	
1- That Known More important Principles And concepts the basic in	
Sequences And sequences.	
2- That He determines Species Sequences And how solve it.	
3- That He specifies Species Sequences And how solve it.	
4- That Show banner With concepts Sequences And sequences.	
5- That applied Concepts Sequences And sequences With examples	
Realistic And cases Study.	
Skills objectives for the course	
Interactive skills: Possessing the ability to communicate with the subject	
professor and colleagues.	
Diagnostic skills: the ability to diagnose sequences and series and their	
real-world applications.	

3- Scientific reports.
Teaching and learning methods
1- Managing the lecture in an applied manner linked to the reality of
daily life to attract the student to the topic of the lesson without
straying from the core of the topic so that the material is flexible and
understandable.
And analysis.
2- Discussion and dialogue.
3- Enrichment questions.
4- Direct interrogation.
Evaluation methods
1-Questions Explanations.
2- Questions The error And the right thing.
3- Duties.
4- Evaluation Self.
5- the exams (daily, monthly, final).
Emotional and value goals
1- Thinking Simple: (Analysis the problem In a way statistical
Athlete And it comes Solutions she has on Basis Results
expected).
2- Thinking Critic: (Ability on Cash And discrimination Threads
Asked And the choice between them)
3- Thinking Creative: (ability on production ideas And methods New in
the solution).
Teaching and learning methods
1- Brainstorming method.
2- Using decision making to choose the best alternative.
3-Presentation.
Evaluation methods
1- Tests miscellaneous (daily, Monthly, quarterly, ultimate)
2- Tests Oral.
2- Duties.
General and qualifying transferable skills (other skills related to
employability and personal development).
1- Skills in collecting and analyzing information about the concepts of
sequences and series and how to use them in the fields of statistics.
2 - Training and personal development skills on how to apply the concepts
of sequences and series in different fields.
3- Development Capabilities requester on Dealing with The Internet.
.Course structure

Evaluation method	Learning	Name of the unit	Required learning	hours	the week
	method	or topic	outcomes		
Discussions Practical application Daily assignment	Lectures	Limits	Understand the goals	3	the first
Discussions Practical application Daily assignment	Lectures	Limits	Clarifying the goals and characteristics of the goals	3	the second
Discussions Practical application Daily assignment	Lectures	Limits	Understanding the purpose of the discrete or split function The concept of continuity	3	the third
Discussions Practical application Daily assignment	Lectures	Derivative	Explanation of the derivative	3	the fourth
Discussions Practical application Daily assignment	Lectures	RuleLhopitals	Explanation of L'Hopital's rule	3	Fifth
			Monthly exam	3	VI
Discussions Practical application Daily assignment	Lectures	Rolles Theorem	Illustration of Rolle's theorem	3	Seventh
Discussions Practical application Daily assignment	Lectures	The Sequence	Explanation of the sequence	3	VIII
Discussions Practical application Daily assignment	Lectures	The Sequence	Arithmetic sequence and geometric sequence	3	Ninth
Discussions Practical application Daily assignment	Lectures	Series	Sequences	3	The tenth
Discussions Practical application Daily assignment	Lectures	Series	Arithmetic series and geometric series	3	atheistic ten
Discussions Practical application Daily assignment	Lectures	Series	Convergence tests for series/integration tests	3	the second ten
Discussions Practical application Daily assignment	Lectures	Series	Convergence tests for series	3	the third ten
Discussions Practical application Daily assignment	Lectures	powerSeries	Power series	3	the fourth ten
			The exam is monthly	3	Fifth ten
		fina	al exam		VI ten
1. Course evalu	ation				

distribution Class from 100 on according to mission Assigned With it requester like Preparation Daily And exams Daily And oral And monthly And editorial And reports ....etc

1- 60 degrees Exam ultimate Editorial.

.40 degrees especially By striving Divided to me:

- 1) 5 degrees Presence.
- 2) 5-10 degrees Duties with.
- 3) 15 degrees Exam Editorial.
- 4) 5 degrees Exam verbal.

#### 2. Learning and teaching resources

Book of Sequences and Series, Dr. Tariq bin Amer Al Saadoun2016	Required textbooks (methodology, if any)
	Main references (sources)
	Recommended supporting books and references
	(scientific journals, reports)
	Electronic references, Internet sites

#### 10. plan development The decision Academic

The department relies on a plan to change or update academic vocabulary or subjects every four years

1. name The decision

#### Quality control1

2. Code The decision

Stat2105\Qual.

3. the chapter / the year

First semester/second stage/2023 - 2024

### 4. date Preparation this the description

2/12/2024

- 5. Available attendance forms
  - My presence
- 6. Number of study hours (total)/number of units (total)

30/30

7. Name of the course administrator (if more than one name is mentioned) Name: A.P. Aqeel Hameed Email :aqeelsta@uodiyala.edu.iq

8. Course objectives

- Cou	irse objectives	Objectives of
•	Introducing paint to the theoretical foundations of the subject as	study subject
	well as its use in practice.	
•	It aims to build a qualitative control model that matches reality,	
	based on practical reality	
•	Characteristics that must be present in order to obtain the best	
	quality control model that simulates the practical reality of the	
	studies	
•	Thoughtful.	
•	Building quality control skills and how to obtain an analysis of the	
	phenomenon studied through	
•	Know the factor affecting it.	
9.		
Cour	se outcomes and teaching, learning and evaluation methods	The strategy
Make	the student able to:	
1-	Understand the basics of quality control	
2-	Understand statistical quality control	
3-	Understand the basics of using the quality control model	
4-	Understand the uses of quality control	
5-	Understand the stages of the quality control process	

- 6- Understand the disadvantages of using quality control panels
- 7- Understanding quality control maps
- 8- Understanding the arithmetic mean panel
- 9- Understanding the range plate **Course-specific skills objectives**
- 1- Interactive skills: Possessing the ability to communicate with the subject professor and colleagues.
- 2- Diagnostic skills: the ability to deal with a statistical problem.
- 3- Analytical skills: The ability to analyze and distinguish between different types of analytical commands in the program.

### Teaching and learning methods

1- Presenting the basic theories, meaning that the beginning of learning will be by presenting the basic theories and concepts of qualitative control

2- Analysis of paintings, which is represented by the stage of constructing a painting, through building a painting of the studied phenomenon.

3- Using economic studies, practical applications and experiments in various fields, such as

4- Agricultural sciences and medical sciences, for the purpose of explaining how to use the control panel in practical life.

5-Provide individual guidance to students to understand theories and practical exercises, and guide them in solving problems and understanding the results.

6-Organizing group discussions on appropriate board-building processes, which contributes to the exchange of ideas and mutual learning among students.

7- Previous studies can be used as examples to analyze and understand the results and statistical analyzes used in

For the arithmetic mean panel

8-Provide continuous evaluation of students' performance and provide feedback to guide them and improve their understanding and analysis skills Control panels

# **Evaluation methods**

- **1-Questions Explanations**
- 2-Questions The error And the right thing
- 3-Duties
- 4- Evaluation Self
- 5- the exams (Daily, monthly, quarterly, final).

# Emotional and value goals

- 1- Ability on to examine And evaluation Threads Asked .
- 2- Ability on Cash And discrimination Threads Asked And the choice Between them .
- 3- Ability on production ideas New

### **Teaching and learning methods**

1-Brainstorming method

2-Use decision making to test the best alternative	
3-Presentation.	
Evaluation methods	
-Tests Miscellaneous(Daily (monthly, quarterly, final)	
2-Tests Oral	
3- Duties	
General and qualifying transferable skills (other skills related to	
employability and personal development).	
1-Skills of collecting and analyzing information about the concepts of	
designing and analyzing experiments and how to use them in agricultural	
fields	
2- Training and personal development skills on how to apply experience	
design concepts in different fields.	
2 $\mathbf{D}_{\text{res}} = 1 + \frac{1}{2} + $	

3- Developing the student's ability to construct a correct experiment

Evaluation	Learning	Name of the unit	Required learning	hours	the week
method	method	or topic	outcomes		
<b>Discussion</b> Ar	My presence	Basic concepts		2	the first
the test Oral		/emergence And	Understand and clarify		
And the		develop the control	enderstand and charny		
editorial		Quality			
Discussion An	My presence	Concept painting	Understand and	2	the second
the test Oral		the	clarify		
And the		control/Species	-		
editorial		Plates the control			
		Quality			
Discussion An	My presence	Methods	Understand and	2	the third
the test Oral		Statistics/Roads	clarify		
And the		Statistics Used in	-		
editorial		the control			
Discussion An	My presence	_	Understand and	2	the fourth
the test Oral		Importance the	clarify		
And the		control			
editorial				-	
Discussion An	My presence	the control	Understand and	2	Fifth
the test Oral		<b>Ouality And its</b>	clarify		
And the		types			
editorial		<b>51</b>	<b>TT 1</b> 1 1	2	
Discussion An	My presence		Understand and	2	VI
the test Oral		Species Variables	clarify		
And the		Used			
editorial			<b>TT 1</b> 1 1	2	
Discussion An	My presence		Understand and	2	Seventh
the test Ural		variables amount	clarify		
And the					
editorial					

10. Course structure

Discussion Ar My presence	)	Understand and	2	VIII
the test Oral	<b>Roads Statistics</b>	clarify		
And the	Quantity	·j		
editorial				
Discussion Ar My presence	nainting the	Understand and	2	Ninth
the test Oral	painting the	clarify		
And the	Arithmotic	·j		
editorial	Althinetic			
Discussion Ar My presence	)	Understand and	2	The tenth
the test Oral	nainting Torm	clarify		
And the		5		
editorial				
Discussion Ar My presence	nainting Torm By	Understand and	2	atheistic t
the test Oral	crodit on doviation	clarify		
And the	Standard	5		
editorial	Stanuaru			
Discussion An My presence	)	Understand and	2	the second
the test Oral	Advantages	clarify		ten
And the	painting Term	5		
editorial				
Discussion Ar My presence	nainting	Understand and	2	the third t
the test Oral	deviation	clarify		
And the	Standard	5		
editorial	Stanuaru			
Discussion An My presence	nainting	Understand and	2	the fourth
the test Oral	deviation Rv	clarify		ten
And the	credit on Term	5		-
editorial				
My presence	Exam monthly		2	Fifth ten

11. Course evaluation

distribution Class from 100 on according to mission Assigned With it requester like Preparation Daily And exams Daily And oral And monthly And editorial And reports ....etc

1- 60 degrees Exam ultimate Editorial.

.40 degrees especially By striving Divided to me:

- 1) 5 degrees Presence.
- 2) 5 degrees Duties with.
- 3) 15 degrees Exam Editorial first
- 4) 15 degrees Exam Editorial second

### 12. Learning and teaching resources

the control Statistics on Quality	Required textbooks (methodology, if any)
Mr. Dr impartial Al-Mashhadani	
	Main references (sources)
	Recommended supporting books and references
	(scientific journals, reports)
no There is	Electronic references, Internet sites

1. name The decision

#### MATLAB 1

2. Code The decision

Stat2106\Mat.

3. the chapter / the year

First semester/second stage/2023 - 2024

4. date Preparation this the description

1/3/2024

5. Available attendance forms

My presence

6. Number of study hours (total)/number of units (total)

45/30

### 7. Name of the course administrator (if more than one name is mentioned) Name: A.L. Amel Hadi Rashid Email :laith88@uodiyala.edu.iq

8.	8. Course objectives				
- Cou	irse objectives	Objectives of			
•	Introducing the student to the most important foundations, principles and uses of application <b>MATLAB</b> In programming	study subject			
•	• Explaining the concept of groups and function diagrams in programming languages <b>MATLAB</b>				
•	Highlight the importanceMATLAB Knowing the form of a function in programming				
•	This course aims to study programming in a language <b>MATLAB</b> The student can write a program in the language <b>MATLAB</b> to find solutions to statistical and mathematical equations				
<b>9</b> .					
Cour	se outcomes and teaching, learning and evaluation methods	The strategy			
1-	Cognitive objectives: - Make the student able to				
2-	-To know the most important principles and basic concepts				
	inMATLAB				
3-	-To determine the types of functions and relationships to functions inMATLAB				
4-	To become familiar with Microsoft Office applications				
5-	To know how to use each application				

6-	Each application should be applied in any field used in the academic			
	stages			
C	urse-specific skills objectives			
1.	The ability to understand mathematical and engineering problems			
	and convert them into programmable equations.			
2.	The ability to build an integrated program that works logically and			
	smoothly.			
3.	The ability to detect linguistic and programming errors in a script,			
	correct them, and make the text more streamlined.			
Teac	ing and learning methods			
1.	Managing the lecture in an applied manner linked to the reality of			
	daily life to attract the student to the topic of the lesson without			
	straying from the core of the topic so that the material is flexible and			
	amenable to understanding and analysis.			
2.	Discussion and dialogue			
3.	Enrichment questions			
4.	Direct interrogation			
Emo	ional and value goals			
1-Th	inking Simple: (Analysis the problem In a way statistical Athlete			
And f	ind Solutions she has on Basis Results Expected using			
Appli	cations on the computer)			
2-Th	nking Critic: (ability on Cash And discrimination Threads Asked			
And t	And the choice Between them )			
3-Th	inking Creative: (ability on production ideas And knock New in			
the s	lution).			
Teac	ing and learning methods			
1-Bra	instorming method			
2-Use	decision making to test the best alternative			
3-Pre	sentation.			
Evalı	ation methods			
1.	Preparation Duties Safiva And home			
2. Preparation Reports on Experiments the operation				
3	2. Action Exams Daily And the quarterly			
4	Action Exams Final			
Gene	ral and qualifying transferable skills (other skills related to			
emnl	vability and personal development).			
1-Ski	ls of collecting and analyzing information about computer concepts			
and h	and how to use them in the fields of statistics			
2 - Tr	2- Training and personal development skills on how to apply computer			
2 III	concepts in various fields			
3- De	3- Developing the student's ability to deal with the Internet			
5-00	veroping the student's admity to deal with the internet.			
10 0				
10. (				

					[]
Evaluation	Learning	Name of the unit or	Required learning	hour	the
method	method	topic	outcomes	s	week
Daily exam and practical report	Two hours of theoretical lectures and two hours of laboratory	Identifying hard and soft components and classifying programming languages	Introduction to computer parts	3	the first
Daily exam and practical report	Two hours of theoretical lectures and two hours of laboratory	Identify the components of the interface and the role of each part	Get to know the interfaceQBasic	3	the second
Daily exam and practical report	Two hours of theoretical lectures and two hours of laboratory	Study the entry orders and conditions for using each order	Knowledge of limited data entry methods	3	the thir
Daily exam and practical report	Two hours of theoretical lectures and two hours of laboratory	Study the entry orders and conditions for using each order	Knowledge of numerous data entry methods	3	the four
Daily exam and practical report	Two hours of theoretical lectures and two hours of laboratory	Learn how to format results and control decimal places	Know the format for printing results	3	Fifth
Daily exam and practical report	Two hours of theoretical lectures and two hours of laboratory	The study of how a part of a program is repeatedly executed a specified number of times.	Knowledge of iterative loops	3	VI
Daily exam and practical report	Two hours of theoretical lectures and two hours of laboratory	Study of the execution of a programming task coupled with the fulfillment of a specific condition	Knowledge of simple conditional statements	3	Seventi
Daily exam and practical report	Two hours of theoretical lectures and two hours of laboratory	Study of the execution of a programming task coupled with the fulfillment of a set of conditions	Explain compound conditional statements	3	VIII
Daily exam and practical report	Two hours of theoretical lectures and two hours of laboratory	Placing conditional statements inside loops to perform more complex programming tasks	Knowledge of combining conditional statements with loops	3	Ninth

Daily exam and practical report	Two hours of theoretical lectures and two hours of laboratory	Learn how to call functions built into the language, such as trigonometric, logarithmic, and approximation functions	Understanding ready- made office functions	3	The ten
Daily exam and practical report	Two hours of theoretical lectures and two hours of laboratory	Study how to program one-dimensional arrays	Explaining one- dimensional matrices	3	atheisti ten
Daily exam and practical report	Two hours of theoretical lectures and two hours of laboratory	Study how to program two-dimensional arrays	Explanation of two- dimensional arrays	3	the second ten
Daily exam and practical report	Two hours of theoretical lectures and two hours of laboratory	Drawing simple geometric shapes and mathematical functions	Simplified graphic statement byQBasic	3	the thir ten
Daily exam and practical report	Two hours of theoretical lectures and two hours of laboratory	Learn to program text variables such as names and characters	Knowledge of dealing with text data	3	the four ten
		End of course exam		3	Fifth te

11. Course evaluation

distribution Class from 100 on according to mission Assigned With it requester like Preparation Daily And exams Daily And oral And monthly And editorial And the process And laboratories And reports ....etc

1- 60 degrees Divided Exam ultimate Editorial 50 degrees And an exam ultimate practical 10 degrees.

.40 degrees especially By striving Divided to me:

- 1) 5 degrees Presence.
- 2) 10 degrees Duties with practical Laboratories.
- 3) 15 degrees Exam Editorial.
- 4) 10 degrees Exam practical.
- 12. Learning and teaching resources

bookMATLABFor students of colleges	Required textbooks (methodology, if any)
of administration and economics	
Lectures prepared by the teacher "MATLAB for Engineers", Holly Moore, Pearson Publishing, 2009.	Main references (sources)

Recommended supporting books and references
(scientific journals, reports)
Electronic references, Internet sites

1. name The decision

#### Economic statistics1

2. Code The decision

Stat2107\Eco.

3. the chapter / the year

First semester/second stage/2023 - 2024

#### 4. date Preparation this the description

2/12/2024

- 5. Available attendance forms
  - My presence
- 6. Number of study hours (total)/number of units (total)

45/45

7. Name of the course administrator (if more than one name is mentioned) Name: M. Hisham pharaoh Abd Allateef Jasim Email :hisham@uodiyala.edu.iq

Objectives of study subject

8. Course objectives

- (	Course	obj	jectives
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- Introducing the student to the most important foundations and principles of economic statistics
- Explain the concept of economic statistics
- Highlighting the importance of economic statistics in application
- This course aims to study methods of economic statistics The student can tabulate, collect, and describe data

9.		
Cour	se outcomes and teaching, learning and evaluation methods	The strategy
1-	Cognitive objectives: - Make the student able to	
2-	-To know the most important principles and basic concepts in	
	economic statistics	
3-	-To determine the methods of economic statistics	
4-	To become familiar with the concept of economic statistics methods	
5-	To explain his opinion on the concepts of economic statistics	
6-	To apply survey concepts with realistic examples and case studies	
C	ourse specific skills objectives	

#### Course-specific skills objectives

1Interactive skills: Possessing the ability to communicate with the					
subject professor and colleagues					
2Diagnostic skills: the ability to diagnose problems and ways to					
solve them					
3- Scientific reports.					
Teaching and learning methods					
1- Managing the lecture in an applied manner linked to the reality of daily					
life to attract the student to the topic of the lesson without straying from					
the core of the topic so that the material is flexible and capable of being					
understood and analysed.					
2-Discussion and dialogue					
3- Enrichment questions					
4-Direct interrogation					
Evaluation methods					
1-Questions Explanations					
2-Questions The error And the right thing					
3-Duties					
4- Evaluation Self					
5- the exams (Daily, monthly, quarterly, final).					
Emotional and value goals					
1-Thinking Simple: (Analysis the problem In a way statistical					
Athlete And find Solutions she has on Basis Results expected)					
2-Thinking Critic: (ability on Cash And discrimination Threads					
Asked And the choice Between them )					
3-Thinking Creative: (ability on production ideas And knock New in					
the solution).					
Teaching and learning methods					
1-Brainstorming method					
2-Use decision making to test the best alternative					
3-Presentation.					
Evaluation methods					
-Tests Miscellaneous(Daily (monthly, quarterly, final)					
2-Tests Oral					
3- Duties					
General and qualifying transferable skills (other skills related to					
employability and personal development).					
1-Skills of collecting and analyzing information about economic					
measurement concepts and how to use them in the fields of statistics					
2- Training and personal development skills on how to apply estimation					
concepts in different fields.					
3- Developing the student's ability to deal with the Internet.					
10. Course structure					
15					

Evaluation method	Learning	Name of the unit or	Required learning	hours	the week
	method	topic	outcomes		
Discussion And the test Oral And the editorial	My presence	Definition and objectives of economic statistics and labor field statistics	Definitions and concepts	3	the first
Discussion And the test Oral And the editorial	My presence	Output statistics, prices and index numbers	Understand output and price statistics	3	the second
Discussion And the test Oral And the editorial	My presence		Absorption	3	the third
Discussion And the test Oral And the editorial	My presence	Output statistics, prices and index numbers	Output and price statistics	3	the fourth
Discussion And the test Oral And the editorial	My presence	Output statistics, prices and index numbers	Absorption	3	Fifth
Discussion And the test Oral And the editorial	My presence	Labor force statistics, working time and labor productivity	Labor force and working time statistics	3	VI
Discussion And the test Oral And the editorial	My presence	Definition and objectives of the agricultural census	Definitions and concepts	3	Seventh
Discussion And the test Oral And the editorial	My presence	Agricultural censuses and agricultural land statistics	Understanding the foundations of agricultural statistics	3	VIII
Discussion And the test Oral And the editorial	My presence	Appropriate statistics for exploited lands and statistical measures of change in yield per dunum	View and analyze	3	Ninth
Discussion And the test Oral And the editorial	My presence	Applications of agricultural output statistics and statistics	Applications and exercises	3	The tenth
Discussion And the test Oral And the editorial	My presence	Applications of agricultural output statistics and statistics	Other agricultural	3	atheistic t
	My presence	Test of the first month of the first semester	-	3	the second ten

Discussion And the	My presence	Agricultural	sector	View and analyze	3	the third t
test Oral And the		indices and st	tatistics			
Discussion And the	My presence	Agricultural	sector	agricultural	3	the fourth
test Oral And the		indices and st	tatistics	-		ten
editorial						<b>THE</b>
	My presence	First semeste	r exam		3	Fifth ten
11. Course eval	uation					
distribution Class fro	om 100 on acco	rding to missic	on Assign	ed With it requester	like Prepa	aration Daily
And exams Daily And	d oral And mon	thly And edito	orial And	reportsetc		
1- 60 degrees Exam ultimate Editorial.						
.40 degrees especially	y By striving Di	ivided to me:				
1) 5 degrees Pre	esence.					
$\begin{array}{c} 2 \\ 3 \\ \end{array}  \begin{array}{c} 3 \\ 15 \\ \end{array}  \begin{array}{c} 15 \\ 4 \\ 15 \\ 4 \\ 5 \\ 7 \\ 7 \\ 7 \\ 7 \\ 7 \\ 7 \\ 7 \\ 7 \\ 7$	van Editorial					
4) 5 degrees Exa	m verbal.					
12. Learning an	d teaching re	sources				
Book of Econom	ic Statistics,	Dr.Amin	Require	d textbooks (methodol	logy, if an	у)
Yassin Fawaz201	9.					
			Main ref	erences (sources)		
			Recomn	nended supporting b	ooks and	d references
			(scientifi	c journals, reports)	)	
			Electron	ic references, Internet	sites	

1.	name	The	decision
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#### the computer

2. Code The decision

Stat2108\Com.

3. the chapter / the year

First semester/second stage/2023 - 2024

4. date Preparation this the description

1/3/2024

5. Available attendance forms

My presence

6. Number of study hours (total)/number of units (total)

45/45

### 7. Name of the course administrator (if more than one name is mentioned) Name: A.L. Amel Hadi Rashid Email :laith88@uodiyala.edu.iq

8.	Course objectives	
- Coi	irse objectives	Objectives of
1-	Initialization requester To view on the world Computational To	study subject
	keep up Development Scientific in this the field	
2-	Stitches Moral The good one in Dealing with the world Email And	
	with the same the time How Preservation on Privacy	
3-	looking at requester on More important Programs Applied	
	And the circulation in Our time the present.	
4-	Complete knowledge How the job And implementation on	
	Programs Applied.	
9.		
Cour	se outcomes and teaching, learning and evaluation methods	The strategy
1-	Cognitive objectives: - Make the student able to	
2-	-To know the most important principles and basic concepts in	
2	computers	
3-	- To determine the types of functions and relationships to functions	
Λ	To become familiar with Microsoft Office applications	
4- 5	To become rammar with wherosoft Office applications	
J-	To know now to use each application	
0-	Each application should be applied in any field used in the academic	
C	stages	
U	Durse-specific skills objectives	

1. The abil	ity to understar	nd mathematical and er	ngineering problems			
and con-	vert them to a r	nathematical formula i	n Excel.			
2. The abil	ity to build an	integrated program tha	t works logically and			
smoothl	у.					
3. The abil	ity to detect lin	guistic and programmi	ng errors in a script,			
correct t	hem, and make	e the text more streamli	ined.			
Teaching and	learning meth	nods				
1. Managir	ng the lecture i	in an applied manner	linked to the reality of			
daily lif	e to attract the	e student to the topic	of the lesson without			
straying	from the core	of the topic so that the	material is flexible and			
amenabl	le to understand	ding and analysis.				
2. Discussi	ion and dialogu	ie				
3. Enrichm	nent questions					
4. Direct ir	nterrogation					
Emotional and	d value goals					
1-Thinking Si	imple:(Analysi	is the problem In a wa	ay statistical Athlete			
And find Solut	tions she has c	on Basis Results Expe	cted using			
Applications of	on the comput	er)				
2-Thinking Cr	ritic: (ability or	n Cash And discrimina	ation Threads Asked			
And the choic	e Between the	em )				
3-Thinking C	reative: (abilit	y on production ideas	s And knock New in			
the solution).						
Teaching and	Teaching and learning methods					
1-Brainstorming method						
2-Use decision	2-Use decision making to test the best alternative					
3-Presentation.						
Evaluation m	Evaluation methods					
1. Preparat	tion Duties Saf	fiya And home				
2. Preparat	tion Reports o	n Experiments the op	eration			
3.Action Exams Daily And the quarterly						
4.Action Exams Final						
General and qualifying transferable skills (other skills related to						
employability and personal development).						
1-Skills of coll	1-Skills of collecting and analyzing information about computer concepts					
and how to use them in the fields of statistics						
2- Training and	2- Training and personal development skills on how to apply computer					
concepts in various fields.						
3- Developing the student's ability to deal with the Internet.						
10. Course st	ructure			I		
Evaluation	Learning	Name of the unit or	Required learning	hour	the	
method	method	topic	outcomes	s	week	

Daily exam and practical report	Two hours of theoretical lectures and two hours of	Basics of system implementationexcel	See the interfaceexcel	3	the first
Daily exam and practical report	Two hours of theoretical lectures and two hours of laboratory	Basics of system implementationexcel	Introducing the student to tabfile	3	the second
Daily exam and practical report	Two hours of theoretical lectures and two hours of laboratory	Basics of system implementationexcel	Introducing the student to the home page tab	3	the thir
Daily exam and practical report	Two hours of theoretical lectures and two hours of laboratory	Basics of system implementationexcel	Introducing the student to the Planning tab	3	the four
Daily exam and practical report	Two hours of theoretical lectures and two hours of laboratory	You want mathematical formulas	Define the student with the functionsum Defines the student with the if conditional	3	Fifth
Daily exam and practical report	Two hours of theoretical lectures and two hours of laboratory	Create mathematical formulas	Define the student with the functioncount and countA	3	VI
Daily exam and practical report	Two hours of theoretical lectures and two hours of laboratory	Create mathematical formulas	The student defines a functionAverage Student definition of the min- max function	3	Seventł
Daily exam and practical report	Two hours of theoretical lectures and two hours of laboratory	Lecture given and presented atData Show+Computer Lab	Introduction to Computer Networks + Network classifications, benefits and risks	3	VIII
Daily exam and practical report	Two hours of theoretical lectures and two hours of laboratory	Lecture given and presented atData Show+Computer Lab	The Internet (its concept + history of its inception + features + requirements)	3	Ninth
Daily exam and practical report	Two hours of theoretical lectures and	Lecture given and presented atData Show+Computer Lab	Internet communication technologies	3	The ten

	two hours of				
	laboratory				
Daily exam	Two hours of			3	atheisti
and practical	theoretical	Lecture given and	Explanation of the topic		ten
report	lectures and	presented atData	+ Internet sites + Internet		
	two hours of	Show+Computer Lab	browsers)		
	laboratory		,		
Daily exam	Two hours of		Introduction to the	3	the
and practical	theoretical	Lecture given and	operating		second
report	lectures and	presented atData	systemWindows10		ten
I	two hours of	Show+Computer Lab	(Operation steps + desktop		
	laboratory		components + 1cons)		
Daily exam	Two hours of			3	the thir
and practical	theoretical	Lecture given and	Continued lecture (previous		ten
report	lectures and	presented atData	+ taskbar + start menuStart		
•	two hours of	Show+Computer Lab			
	laboratory				
Daily exam	Two hours of			3	the four
and practical	theoretical	Lecture given and	Types of operating systems		ten
report	lectures and	presented atData	in computers		
-	two hours of	Show+Computer Lab	I and a		
	laboratory				
		End of course exam		3	Fifth te

11. Course evaluation

distribution Class from 100 on according to mission Assigned With it requester like Preparation Daily And exams Daily And oral And monthly And editorial And the process And laboratories And reports ....etc

- 1- 60 degrees Divided Exam ultimate Editorial 50 degrees And an exam ultimate practical 10 degrees.
- .40 degrees especially By striving Divided to me:
  - 1) 5 degrees Presence.
  - 2) 10 degrees Duties with practical Laboratories.
  - 3) 15 degrees Exam Editorial.
  - 4) **10 degrees Exam practical.**
  - 12. Learning and teaching resources

Methodical book of the Ministry of Higher	Required textbooks (methodology, if any)			
Education Part3 and Part 4 (Phase Two)				
Methodical book of the Ministry of Higher	Main references (sources)			
Education Part3 and Part 4 (Phase Two)				
Offs2010 d. Ziad Muhammad Abboud, 2013	Recommended supporting books and			
	references (scientific journals, reports)			
Windows operating system7, Microsoft, the	Electronic references, Internet sites			
American company, the company's official				
website is www.microsoft.com				

# model a description The decision

1. Course	Name						
Baath crimes in Iraq							
2. Course Code							
Uni2109\Com.							
3. Semes	ter/year						
First semester	/ second stage /2	2023- 2024					
4. Date th	nis description was	s prepared					
12/6/2024							
5. Availat	ble attendance for	ms					
My pre	sence						
6. Numbe	er of study hours (	total)/number of units (t	otal)				
hour30	/30						
7. Name	of the course adm	ninistrator (if more than	one name is mention	ned)			
Name: A.P. Di	. Omar Jabbar Al	nmed Email:omarjabar@	@uodiyala.edu.iq				
8. Course	objectives						
	Teaching and understanding students about the massacres of and crimes committed by the Baath regime and the previous regime, as well as the blatant human rights violations and crimes of mass graves and secret prisons.						
9. Teachi	ng and learning s	trategies					
				Th	e strategy		
Reinforcing human rights o	Reinforcing the basic concepts, taking into account the basic principles of human rights that criminalize crimes committed by dictatorial regimes, crimes of genocide, and flagrant violations of human rights.						
Course structu	Ire						
road Evaluation	road aluationroad Learning topicname Unit or the topicOutputs Learning requiredhoursthe week						
Tests Oral	Tests OralLecturesConcept the crime And its sectionsacquisition knowledge2the first						
Tests OralLecturesSpecies Crimes Internationalacquisition knowledge2t t set							
Tests Oral	Lectures	decisions The court Criminal Supreme	acquisition knowledge	2	the third		

1

	1	1	1		
Tests Oral And editorial	Lectures	Crimes Mental	acquisition knowledge	2	the fourth
Tests Oral And editorial	Lectures	Mechanics Crimes Mental	acquisition knowledge	2	Fifth
Tests Oral And editorial	Lectures	antiquities Crimes Mental	acquisition knowledge	2	VI
		the exam the first		2	Sevent h
Tests Oral And editorial	Lectures	Crimes Social	acquisition knowledge	2	VIII
Tests Oral And editorial	Lectures	position the system from Debt	acquisition knowledge	2	Ninth
Tests Oral And editorial	Lectures	Violations Laws Iraqi	acquisition knowledge	2	The tenth
Tests Oral And editorial	Lectures	photo Violations And crimes Authority	acquisition knowledge	2	atheisti c ten
Tests Oral And editorial	Lectures	Places Prisons And detention	acquisition knowledge	2	the second ten
Tests Oral And editorial	Lectures	Crimes Environmental Like pollution The warlike And radiological	acquisition knowledge	2	the third ten
Tests Oral And editorial	Lectures	crimes drying Marshes And shoveling Orchards And the music And palm trees	acquisition knowledge	2	the fourth ten
Tests Oral And editorial	Lectures	crimes Cemeteries Collective And classification Timeline she has	acquisition knowledge	2	Fifth ten
		the exam the second		2	VI ten

#### Course evaluation

1- Final exam score out of 60.

2- Pursuit grade out of 40 / Distribution of the grade out of 40 according to the tasks assigned to the student, such as daily preparation, daily, oral, monthly, and written exams, reports, etc.

11.	Learning and teaching resources	
	Platform for Baath crimes in Iraq	Required textbooks (methodology, if any)
	Ministry of Higher Education and Scientific Research	
	2023	
	The Iragi Penal Code and the Supre	Main references (sources)
	Criminal Court	
	Iraqi academic journals	Recommended supporting books and references (scientific journals, reports)
	The official website of the Iraqi legal legislation base, the official website of the Supreme Judicial Council	Electronic references, Internet sites

1. Course name:

English

2. Course code

Univ.2110\Eng.

3. Semester/year

First semester/second stage2023- 2024

4. The date this description was prepared

12/3/2024

5. Available attendance forms:

My presence

6. Number of study hours (total) Number of units (total)

30\30

7. Name of the course administrator (if more than one name is mentioned)

Name: L. Omar Najm Abdullah email:

8. Course objectives

Objectives of the study subject

1. Speaking using grammatically correct language. The same applies to writing skill.

omareconomics@uodiyala.edu.iq

2. Enabling students to learn the English language and speak in different situations.

3. Developing the language and emphasizing the skill of speaking and listening.

9. Teaching and learning strategies	
Introducing the student to the basics of the English language	The strategy
Introducing the student to the rules of the English language and	
the basics of conversation.	

#### 10. Course structure

Evaluation	Learning	Name of the unit or	Required	hours	the week
method	method	topic	learning		
			outcomes		
-Oral tests -	Discussion		Use of the		
Homework	and dialogue		main linguistic		
assignments,	- self-	Unit1	structures in	2	The first
activities and	learning -	Getting to know you	oral	2	week
exercises -	cooperative		communicatio		
Attendance and	learning -		n. Use		

	1		T		Γ
active participation	individual		appropriate		
during the lecture	and group		vocabulary in		
	training		any type of		
			conversation		
			about the		
			topics covered		
			in the unit.		
			Know how to		
			improve		
			pronunciation		
			correctly		
			Use of the		
			main linguistic		
			structures in		
			oral		
	Discussion		communicatio		
_	and		n. Use		
Oral exams,	dialogue.		appropriate		
homework, activities	self-learning.	Unit2	vocabulary in		
and exercises -	cooperative	The way we live	any type of	2	second week
attendance and	learning	The way we nee	conversation	-	Second Week
active participation	individual		about the		
during the lecture	and group		topics covered		
	training		in the unit		
	training		Know how to		
			improve		
			nronunciation		
			pronunciation		
			Use of the		
			main linguistic		
			structures in		
			oral		
	Discussion		communicatio		
Oral tests,	and		n. Use		
homework. activities	dialogue,		appropriate		
and exercises.	self-learning,	Unit3	vocabulary in	_	the third
attendance and	cooperative	It all went wrong	any type of	2	week
active participation	learning,	it with the the triang	conversation		
during the lecture	individual		about the		
	and group		topics covered		
	training		in the unit.		
			Know how to		
			improve		
			pronunciation		
			correctly		
Oral tests,	Discussion		Use of the		
homework, activities	and	Unit4	main linguistic	h	fourth
and exercises,	dialogue,	Let's go shopping	structures in	2	Tourth week
					1

active participation	cooperative		communicatio		
during the lecture	learning.		n. Use		
	individual		appropriate		
	and group		vocabulary in		
	training		any type of		
			conversation		
			about the		
			topics covered		
			in the unit.		
			Know how to		
			improve		
			pronunciation		
			correctly		
Oral tests,	Discussion		Use of the		
homework, activities	and		main linguistic		
and exercises,	dialogue,		structures in		
attendance and	self-learning,		oral		
active participation	cooperative		communicatio		
during the lecture	learning,		n. Use		
	individual		appropriate		
	and group	Unit5	vocabulary in		The fifth
	training	What do you want to	any type of	2	week
		do?	conversation		WCCK
			about the		
			topics covered		
			in the unit.		
			Know how to		
			improve		
			pronunciation		
<b>a</b> 1			correctly		
Oral tests,	Discussion		Use of the		
nomework, activities	and		main linguistic		
and exercises,	dialogue,		structures in		
attendance and	self-learning,		oral		
active participation	cooperative		communicatio		
during the lecture	learning,		n. Use		
	individual		appropriate		
	and group	Unit6	vocabulary in	-	the sixth
	training	Tell me what's it like	any type of	2	week
			conversation		
			about the		
			topics covered		
			in the unit.		
			Know how to		
			improve		
			pronunciation		
			correctly		

Oral tests, homework, activities and exercises, attendance and active participation during the lecture	Discussion and dialogue, self-learning, cooperative learning, individual and group training	Unit7 Fame	Use of the main linguistic structures in oral communicatio n. Use appropriate vocabulary in any type of conversation about the topics covered in the unit. Know how to improve pronunciation correctly	2	Seventh week
Oral tests, homework, activities and exercises, attendance and active participation during the lecture	Discussion and dialogue, self-learning, cooperative learning, individual and group training	Unit8 Do s and don'ts	Use of the main linguistic structures in oral communicatio n. Use appropriate vocabulary in any type of conversation about the topics covered in the unit. Know how to improve pronunciation correctly	2	The eighth week
Oral tests, homework, activities and exercises, attendance and active participation during the lecture	Discussion and dialogue, self-learning, cooperative learning, individual and group training	Unit9 Going places	Use of the main linguistic structures in oral communicatio n. Use appropriate vocabulary in any type of conversation about the topics covered in the unit. Know how to improve	2	Week nine
			pronunciation correctly		
---	---	---	--	---	---------------------
Oral tests, homework, activities and exercises, attendance and active participation during the lecture	Discussion and dialogue, self-learning, cooperative learning, individual and group training	Unit10 Scared to death	Use of the main linguistic structures in oral communicatio n. Use appropriate vocabulary in any type of conversation about the topics covered in the unit. Know how to improve pronunciation correctly	2	The tenth week
Oral tests, homework, activities and exercises, attendance and active participation during the lecture	Discussion and dialogue, self-learning, cooperative learning, individual and group training	Unit11 Things that changed the word	Use of the main linguistic structures in oral communicatio n. Use appropriate vocabulary in any type of conversation about the topics covered in the unit. Know how to improve pronunciation correctly	2	Week eleven
Oral tests, homework, activities and exercises, attendance and active participation during the lecture	Discussion and dialogue, self-learning, cooperative learning, individual and group training	Unit12 Dreams and reality	Use of the main linguistic structures in oral communicatio n. Use appropriate vocabulary in any type of conversation about the topics covered in the unit.	2	The twelfth week

Oral tests, homework, activities and exercises, attendance and active participation during the lecture	Discussion and dialogue - self- learning, cooperative learning, individual and group training	Unit14 Family ties	communicatio n. Use appropriate vocabulary in any type of conversation about the topics covered in the unit. Know how to improve pronunciation	2	The fourteenth week
			Use of the main linguistic structures in oral		
Oral tests, homework, activities and exercises, attendance and active participation during the lecture	Discussion and dialogue, self-learning, cooperative learning, individual and group training	Unit13 Earning a living	improve pronunciation correctly Use of the main linguistic structures in oral communicatio n. Use appropriate vocabulary in any type of conversation about the topics covered in the unit. Know how to improve pronunciation correctly	2	The thirteenth week

New head way plusPre-intermediateJohn and Liz	Required textbooks
Soars (Oxford)	(methodology, if any)
New head way plusPre-intermediate	Main references (sources)
	Recommended supporting books
	and references (scientific journals,
	reports)
	Electronic references, Internet
	sites

# the second stage the second course

1. name The decision

Probability distributions

2. Code The decision

Stat2211\Pro. Dis.

3. the chapter / the year

Second semester/second stage/2023 - 2024

#### 4. date Preparation this the description

1/20/2024

5. Available attendance forms

My presence

6. Number of study hours (total)/number of units (total)

45\45

#### 7. Name of the course administrator (if more than one name is mentioned) Name: A.P.Omer adel AbdulWahab Email:omersta@uodiyala.edu.iq

8. Course objectives	
- Course objectives	Objectives of the
1- Introducing the student to probability distributions	study subject
2- Providing the student with topics different from probability distributions	
3- Explaining the importance of probability distributions.	

9.

1. Required program outcomes and teaching, learning and evaluation	The strategy
methods	
a- Cognitive goals	
a1- That the student knows the most important principles and basic	
concepts of probability distributions.	
a2- The student should explain the statistical concepts in probability	
distributions	
a3- The student applies the concepts of probability distributions in	
theoretical and practical reality.	
a4- To be creative in using modern and contemporary concepts in	
probability distributions	

a5- To express an opinion or issue a judgment based on statistical concepts in probability distributions.

B - The program's skill objectives

B1 - Communication and communication skills: - Possessing a high level					
of skills in information technology, working with others (love of					
teamwork)					
B2 – Analytical skills: Skills in identifying the relationship between					
mathematical and statistical concepts in probability distributions					
Teaching and learning methods					
reaching and rearning methods					
1 Lesture method					
1- Lecture method					
2- Method of discussion and dialogue					
3- Direct questions					
4- Direct interrogation					
Evaluation methods					
1- Objective questionsObjective Test items are divided into:-					
True and false questions True/False Items					
a- The and faise questions The/Taise items					
B - Multiple choice questions Multiple Choice items					
C - Interview questions Matching Items					
2- HomeworksHomework assignments					
3- Self-evaluation and peer evaluationPeer and Self-Assessment					
4- The tests are divided into:-					
a- Formative achievement tests accompanying teaching plans					
B - Various final achievement tests:					
1- Monthly final exams at the end of each academic month					
2- Final semester exams at the end of the semester					
C-Emotional and value goals.					
C1- Consolidating the principle of cooperation					
C2-Working as one team					
C2-Working as one team					
Teaching and learning methods					
1 Use the brainstorming methodBrainstorming					
1- Use the branstorning method branstorning.					
2- Using various mind maps.					
3- Use the problem-solving method.					
4- Using the presentation method					
Eveluation matheda					
Evaluation methods					
5- Objective questionsObjective Test items are divided into:-					
B- True and false questions True/False Items					
B - Multiple choice questionsMultiple Choice Items					
C - Interview questionsMatching Items					
6- HomeworksHomework assignments					
7- Self-evaluation and peer evaluationPeer and Self-Assessment					
8- The tests are divided into:-					
B- Formative achievement tests accompanying teaching plans					
2					

B - Various final achievement tests:	
3- Monthly final exams at the end of each academic month	
4- Semester final exams at the end of each semester	
3- Final final exams at the end of the academic year	
D - General and qualifying transferable skills (other skills related to	
employability and personal development).	
Dr1- Communication and communication skills: - Possessing a high level	
of skills in information technology, working with others (love of	
teamwork)	
Dr2- Analytical skills: Skills in identifying the relationship between	
mathematical and statistical concepts in probability distributions.	
Teaching and learning methods	
4- Use the brainstorming methodBrainstorming.	
5- Using various mind maps.	
6- Use the problem-solving method.	
4- Using the presentation method	
Evaluation methods	
1- Use tests Various achievement examinations (daily, monthly, end	
of semester)	
2- Using the oral examination methodOrallyTests	
3- Use the Homework Assignments method	
10 Course structure	

Evaluation	Learning	Name of the unit or	Required learning	hours	the week
method	method	topic	outcomes		
Discussion An the test Oral And the editorial	My presence	Probability basics	Students should be able to understand some basic concept in probability	3	the first
Discussion An the test Oral And the editorial	My presence	Random variables	Identify random variables	3	the second
Discussion An the test Oral And the editorial	My presence	Discrete random variables	Definition of discre random variables a how to write their functions	3	the third
Discussion An the test Oral	My presence	Properties of discrete probabilistic function	Identify the properties of discre	3	the fourth

And the			probabilistic		
editorial			functions		
Discussion An the test Oral And the editorial	My presence	Solve general exercise	Involving students solving exercises	3	Fifth
Discussion An the test Oral And the	My presence	Discrete aggregate function	Introducing studen to the aggregate function and metho	3	VI
editorial			for calculating it		
Discussion An the test Oral And the editorial	My presence	Solve general exercise	Involving students solving exercises	3	Seventh
Discussion An the test Oral And the editorial	My presence	First monthly test for the second semester		3	VIII
Discussion An the test Oral And the editorial	My presence	Continuous random variables	Identify continuous random variables	3	Ninth
Discussion An the test Oral And the editorial	My presence	Properties of continue probabilistic function and aggregated probi functions	Definition of continuous random variables and how to write their functions	3	The tenth
Discussion An the test Oral And the editorial	My presence	Bernoulli distribution Discrete uniform distribution Binomial distribution Poissan distribution	Understanding and knowledge	3	atheistic ten
Discussion An the test Oral And the editorial	My presence	Solve general exercise	Involving students solving exercises	3	the second ter
Discussion An the test Oral And the editorial	My presence	Normal distribution Exponential distribut Regular distribution	Understanding and knowledge	3	the third ten
Discussion An the test Oral And the editorial	My presence	Solve general exercise	Involving students solving exercises	3	the fourth ten
	My presence	A second monthly test for the second semest		3	Fifth ten
11 0					

Daily And exams Daily And oral And monthly And editorial And reports ....etc

<ol> <li>60 degrees Exam ultimate Editorial.</li> <li>40 degrees especially By striving Divided to</li> <li>10 degrees Presence.</li> <li>5 degrees Duties with.</li> <li>15 degrees Exam Editorial.</li> <li>40 degrees Exam verbal.</li> </ol>	o me:
12. Learning and teaching resources	
Book of possibilities	Required textbooks (methodology, if any)
Composition	
Assistant Professor Aleem Ismail	
Al-Gharabi	
Dr. Zafer Hussein Rashid	
Teacher Ali Abdul Hussein Al-	
Wakeel	
H. Pishro-Nik, "Introduction to probability, statistics, and random processes", 2014	Main references (sources)
	Recommended supporting books and references
	(scientific journals, reports)
	Electronic references, Internet sites

1. name The decision

#### Statistical surveys

2. Code The decision

Stat2212\Surv.

3. the chapter / the year

Second semester/second stage/2023 - 2024

4. date Preparation this the description

1/15/2024

- 5. Available attendance forms
- My presence
- 6. Number of study hours (total)/number of units (total)

45\45

7. Name of the course administrator (if more than one name is mentioned) Name: L. Hisham pharaoh Abd Allateef Email :hisham@uodiyala.edu.iq

8. Course objectives

- Co	urse objectives	Objectives of
•	Introducing the student to the most important foundations and	study subject
	principles of surveys	
•	Explaining the concept of statistical surveys	

- Highlighting the importance of surveys in application
- This course aims to study survey methods The student can tabulate, collect, and describe data

9.		
Cour	se outcomes and teaching, learning and evaluation methods	The strategy
1-	Cognitive objectives: - Make the student able to	
2-	-To know the most important principles and basic concepts in	
	surveys	
3-	-To determine survey methods	
4-	To become familiar with the concept of survey methods	
5-	To explain his opinion on survey concepts	
6-	To apply survey concepts with realistic examples and case	
	studies	
Co	ourse-specific skills objectives	
1-	-Interactive skills: Possessing the ability to communicate with	
	the subject professor and colleagues	

2Diagnostic skills: the ability to diagnose problems and ways to
solve them
3- Scientific reports.
Teaching and learning methods
1- Managing the lecture in an applied manner linked to the reality of
daily life to attract the student to the topic of the lesson without straying
from the core of the topic so that the material is flexible and amenable
to understanding and analysis.
2-Discussion and dialogue
3- Enrichment questions
4-Direct interrogation
Evaluation methods
1-Questions Explanations
2-Questions The error And the right thing
3-Duties
4- Evaluation Self
5- the exams (Daily, monthly, quarterly, final).
Emotional and value goals
1-Thinking Simple: (Analysis the problem In a way statistical
Athlete And find Solutions she has on Basis Results expected)
2-Thinking Critic: (ability on Cash And discrimination
Threads Asked And the choice Between them )
3-Thinking Creative: (ability on production ideas And knock New
in the solution).
Teaching and learning methods
1-Brainstorming method
2-Use decision making to test the best alternative
3-Presentation.
Evaluation methods
-Tests Miscellaneous(Daily (monthly, quarterly, final)
2-Tests Oral
3- Duties
General and qualifying transferable skills (other skills related to
employability and personal development).
1-Skills of collecting and analyzing information about economic
measurement concepts and how to use them in the fields of statistics
2- Training and personal development skills on how to apply
estimation concepts in different fields.
3- Developing the student's ability to deal with the Internet.
10. Course structure

Evaluation	Learning	Name of the unit or	Required learning	hours	the week
method	method	topic	outcomes		
Discussion A the test Oral A the editorial	My presence	review	Basic concepts	3	the first
Discussion A the test Oral A the editorial	My presence	review	Basic concepts	3	the second
Discussion A the test Oral A the editorial	My presence	Introduction, definitions and terms, basic steps for sample design	introduction	3	the third
Discussion A the test Oral A the editorial	My presence	Introduction, definitions and terms, basic steps for sample design	introduction	3	the fourth
Discussion A the test Oral A the editorial	My presence	Simple random sampling: introduction, selecting a simple random sample, symbols and terminology, some mathematical aspects, examples, exercises.	Ways and means	3	Fifth
Discussion A the test Oral A the editorial	My presence	Simple random sampling: introduction, selecting a simple random sample, symbols and terminology, some mathematical aspects, examples, exercises.	Ways and means	3	VI
Discussion A the test Oral A the editorial	My presence	Confidence limits, proportion estimationR, examples, exercises	practical application	3	Seventh
Discussion A the test Oral A the editorial	My presence	Confidence limits, proportion estimationR, examples, exercises	practical application	3	VIII
Discussion A the test Oral A the editorial	My presence	Bias in estimating the ratioR, confidence limits, examples, exercises	Ways and methods	3	Ninth
Discussion A the test Oral A the editorial	My presence	Bias in estimating the ratioR, confidence limits, examples, exercises	Ways and methods	3	The tenth
Discussion A the test Oral A the editorial	My presence	Preview of ratios: introduction, variation of abilities,	practical application	3	atheistic ten

		some mathematical aspects			
Discussion A the test Oral A the editorial	My presence	Preview of ratios: introduction, variation of abilities, some mathematical aspects	practical application	3	the second te
Discussion A the test Oral A the editorial	My presence	Confidence limits, examples, exercises	Practical exercises	3	the third ten
Discussion A the test Oral A the editorial	My presence	Confidence limits, examples, exercises	Practical exercises	3	the fourth ter
	My presence	Second semester exan		3	Fifth ten

#### 11. Course evaluation

distribution Class from 100 on according to mission Assigned With it requester like Preparation Daily And exams Daily And oral And monthly And editorial And reports ....etc

1- 60 degrees Exam ultimate Editorial.

.40 degrees especially By striving Divided to me:

- 1) 5 degrees Presence.
- 2) 5-10 degrees Duties with.
- 3) 15 degrees Exam Editorial.
- 4) 5 degrees Exam verbal

12. Learning and teaching resources

Statistical	Surveys	Book	Required textbooks (methodology, if any)
Dr.Abdul Ma	jeed Hamza		
			Main references (sources)
			Recommended supporting books and references (scientific
			journals, reports)

1. name The decision :

#### Linear algebra

2. Code The decision

Stat.2213\Linear algebra

3. the chapter / the year :

Second semester/second stage/2023 - 2024

4. date Preparation this the description:

12/6/2024

5. Available attendance formats: Halls

My presence

6. Number of study hours (total)/number of units (total):

45\45

7. Name of the course administrator (if more than one name is mentioned)

the name :A.L. Amel Hadi Rashid Email :amal@uodiyala.edu.iq

8. Course objectives

The linear algebra course aims to gain knowledge and awareness of mathematical methods, learn about the use of matrices, and perform all elementary operations and types of matrices and vectors in solving various statistical models. Objectives of subject subject

9. Teaching and learning strategies

A- Knowledge And understanding

1- Capacity on Use the theory Statistics

2- Supply requester on editing matters realism In a form matrice And vectors.

The strategy

B -Skills Private With the topic

1 - skills employment And use Tools Statistics

# 2-The mother requester With some Applications Algebra linear in Topi Statistic advanced

### ).Course structure

Evaluation method	Learning method	Name of the unit or topic	Required learning outcomes	hours	the week
Exams Monthly And daily And posts	My presence	Element ary operatio ns and the inverse of element ary operatio ns	Knowledge and understandin g	3	1
Exams Monthly And daily And posts	My presence	Equival ent matrices	Learn mathematica lly the meaning of equivalence and how to use it	3	2
Exams Monthly And daily And posts	My presence	Suppres sive formula and natural formula	Use these formulas to find the rank of a matrix	3	3
Exams Monthly And daily And posts	My presence	Prime matrices	Learn about some types of matrices and how to benefit from	3	4

			them in other topics		
Exams Monthly And daily And posts	My presence	Linear equatio ns	Simplifying mathematica I operations and how to formulate them mathematica Ily in the form of a matrix	3	5
Exams Monthly And daily And posts	My presence	Method s for solving linear equatio ns	Simplifying mathematica I operations and how to formulate them mathematica Ily in the form of a matrix	3	6
Exams Monthly And daily And posts	My presence	Vectors	Understandi ng mathematica I concepts related to the subject	3	7
Exams Monthly And daily And posts	My presence	Support ed vectors	Understandi ng mathematica I concepts related to the subject	3	8
Exams Monthly And daily And posts	My presence	Linear composi tions	Simplifying mathematica I operations and how to formulate them in the	3	9

			form of a matrix		
Exams Monthly And daily And posts	My presence	Solve question s	How to deal with realistic issues	3	10
Exams Monthly And daily And posts	My presence	Latent roots	Simplifying mathematica I operations and how to formulate them in the form of a matrix	3	11
Exams Monthly And daily And posts	My presence	Linear models	Simplifying mathematica I operations and how to formulate them in the form of a matrix	3	12
Exams Monthly And daily And posts	My presence	Solve question s	How to deal with realistic issues	3	13
Exams Monthly And daily And posts	My presence	Distribu tions Conditio nal Applicati on of matrices in advance d	application Matrices in Topics Statistic advanced	3	14

		statistic al topics				
Exams Monthly And daily And posts	My presence	Second semeste r exam	Application of matrices in advanced statistical topics	3	15	
11. Course evaluation						
Daily And exa distribution ( Daily And exa 1- 60 deg 1.40 degrees es 1) 5 degr 2) 5-10 d 3) 15 deg 5 degrees Exa	<ul> <li>distribution Class from 100 on according to mission Assigned With it requester like Preparation Daily And exams Daily And oral And monthly And editorial And reportsetc distribution Class from 100 on according to mission Assigned With it requester like Preparation Daily And exams Daily And oral And monthly And editorial And reportsetc</li> <li>1- 60 degrees Exam ultimate Editorial.</li> <li>1.40 degrees especially By striving Divided to me:</li> <li>1) 5 degrees Presence.</li> <li>2) 5-10 degrees Duties.</li> <li>3) 15 degrees Exam Editorial.</li> <li>5 degrees Exam verbal</li> </ul>					
12. Learnin	g and teaching res	ources				
Introductio Matrices fo administrat	Introduction to linear algebra Required textbooks (methodology, if any) Matrices for students of administration and economics					
Schau	um Briefs Series		Main references (so	urces)		
Recommended s (scientific journal			Recommended supp (scientific journals, re	porting books ar	nd references	
			Electronic references	s, Internet sites		

1. name The decision	
differential equations	
2. Code The decision	
Stat.2214\Differ.equation	
3. the chapter / the year	
First semester/second stage2023-2024	
4. date Preparation this the description	
4/7/2024	
5. Available attendance forms	
My presence	
6. Number of study hours (total)/number of units (total)	
45\45	
7. Name of the course administrator (if more than one name is	mentioned)
Name: A.P.D Alla abd Alsatar Diab Email:purecomp.abdulsatar.theab@uodiy	yala.edu.iq
8. Course objectives	
- Course objectives	Objectives of the
1-Enabling the student to recognize differential equations, their types, and how	study subject
to solve them.	
2-Enable the student to distinguish between the types of differential equations	
the first order and the first order.	
3- Enable students to solve homogeneous linear differential equations of ord	
n with fixed coefficients.	
9. The strategy	
Course outcomes and teaching, learning and evaluation methods	
<b>Objectives Cognitive :</b> make requester Able on	
1- That Known More important Principles And concepts the	
basic in Equations Differential.	
2- That He determines Species Equations Differential And	
how solve it.	
3- That Show banner With concepts Equations Differential	
4- That applied Concepts Equations Differential With	
examples Realistic And cases Study.	
Skills objectives for the course	
1- Interactive skills: Possessing the ability to communicate with the	
subject professor and colleagues.	

2-	Diagnostic skills: the ability to diagnose differential equations	
	and their real-world applications.	
3-	Scientific reports.	
	Teaching and learning methods	
1-	Managing the lecture in an applied manner linked to the reality	
	of daily life to attract the student to the topic of the lesson	
	without straying from the core of the topic so that the material is	
	flexible and understandable.	
And a	nalysis.	
2- Dis	cussion and dialogue.	
3- Enr	ichment questions.	
4- Dir	ect interrogation.	
Evalu	ation methods	
1-(	Questions Explanations.	
2-	Questions The error And the right thing.	
3-	Duties.	
4-	Evaluation Self.	
5-	the exams (daily, monthly, final).	
Emoti	ional and value goals	
1	- Thinking Simple: (Analysis the problem In a way	
	statistical Athlete And it comes Solutions she has on	
	Basis Results expected).	
2	2- Thinking Critic: (Ability on Cash And discrimination	
	Threads Asked And the choice between them)	
3- Th	inking Creative: (ability on production ideas And methods	
New i	n the solution).	
Teach	ing and learning methods	
1-	Brainstorming method.	
2- Usi	ng decision making to choose the best alternative.	
3-Pres	entation.	
Evalu	ation methods	
1-Tes	sts miscellaneous (daily, Monthly, quarterly, ultimate)	
Z- Tes	sts Ural.	
2-	Duties.	
Gener	al and qualifying transferable skills (other skills related to	
	by ability and personal development).	
1- SKI	is in concerning and analyzing information about the concepts of	
$2 T_r$	and norsenal development skills on how to apply the	
2 - 110	and personal development skins on now to apply the	
2 Dor	valonment Canabilities requester on Dealing with The	
Interr	act	
muert		

.Course structu	.Course structure							
Evaluation	Learning	Name of the unit	Required learning	hours	the week			
method	method	or topic	outcomes					
Discussions Practical application Daily assignment	Lectures	The concept of differential equations and their types	Understand and clarify	3	the first			
Discussions Practical application Daily assignment	Lectures	Order and degree differential equation	Understand and clarify	3	the second			
Discussions Practical application Daily assignment	Lectures	Solve the differential equation	Understand and clarify	3	the third			
Discussions Practical application Daily assignment	Lectures	The general solution and the specific solution of the differential equation	Understand and clarify	3	the fourth			
Discussions Practical application Daily assignment	Lectures	Find the differential equation from the general solution	Understand and clarify	3	Fifth			
		First monthly exam	Understand and clarify	3	VI			
Discussions Practical application Daily assignment	Lectures	How to separate variables	Understand and clarify	3	Seventh			
Discussions Practical application Daily assignment	Lectures	Homogeneous and heterogeneous differential equations	Understand and clarify	3	VIII			
Discussions Practical application Daily assignment	Lectures	Complete and incomplete differential equations	Understand and clarify	3	Ninth			
Discussions Practical application	Lectures	Linear and nonlinear	Understand and clarify	3	The tenth			

	1	1		1		
Daily		differential				
assignment		equations				
Discussions	Lectures	Higher order	Understand and	3	atheistic	
Practical	200000000	linear differential	clarify	0	ten	
application		initial uniterential				
Daily		equations				
assignment						
Discussions	Lectures	The general	Understand and	3	the	
Practical		solution of the	clarify		second	
application		second order linear	-		ten	
Daily		homogeneous				
assignment		differential				
		equation				
Discussions	Lectures	The general	Understand and	3	the third	
Practical		solution of the non-	clarify		ten	
application		homogeneous linear				
Daily		differential				
assignment		equation of the				
		second				
		order/normal effect				
		method				
Discussions	Lectures	General solution of	Understand and	3	the	
Practical		the second-order	clarify		fourth	
application		inhomogeneous			ten	
Daily		linear differential				
assignment		equation/indefinite				
		coefficients method		0	<b>B</b> (6)	
		The exam is		3	Fifth ten	
		montnly				
		final exam			VI ten	
1 0	· ··					
I. Course ev	valuation					
distribution Clas	ss from 100 on	according to mission	Assigned With it reque	ster like		
Preparation Daily And exams Daily And oral And monthly And editorial And reportsetc						

1- 60 degrees Exam ultimate Editorial.

.40 degrees especially By striving Divided to me:

- 1) 5 degrees Presence.
- 2) 5-10 degrees Duties with.
- 3) 15 degrees Exam Editorial.
- 4) 5 degrees Exam verbal.

#### 2. Learning and teaching resources

	Required textbooks (methodology, if any)
Differential equations, Damietta University, Faculty of Science, Department of Mathematics.	Main references (sources)
Asia Hammoud"Equations Differential"	Recommended supporting books and references (scientific journals, reports)

Lectures Internet	Electronic references, Internet sites
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# 10. plan development The decision Academic

The department relies on a plan to change or update academic vocabulary or subjects every four years

1. name The decision

#### Quality control2

#### 2. Code The decision

Stat3205

3. the chapter / the year

Second semester/second stage/2023 - 2024

#### 4. date Preparation this the description

2/12/2024

- 5. Available attendance forms
- My presence
- 6. Number of study hours (total)/number of units (total)

30/30

7. Name of the course administrator (if more than one name is mentioned) Name: A.P Aqeel Hameed Email :aqeelsta@uodiyala.edu.iq

Objectives of the st

8. Course objectives

- Course objectives

- Introducing paint to the theoretical foundations of the subject as well as its use in practice.
- It aims to build a qualitative control model that matches reality, based on practical reality
- Characteristics that must be present in order to obtain the best quality control model that simulates the practical reality of the studies

• Thoughtful.

- Building quality control skills and how to obtain an analysis of the phenomenon studied through
- Know the factor affecting it.

# 9. Course outcomes and teaching, learning and evaluation methods The strategy Make the student able to: Image: Course outcome is a strategy

- 1- Understand the basics of quality control
- 2- Understand statistical quality control

- 3- Understand the basics of using the quality control model
- 4- Understand the uses of quality control
- 5- Understand the stages of the quality control process
- 6- Understand the disadvantages of using quality control panels
- 7- Understanding quality control maps
- 8- Understanding the arithmetic mean panel
- 9- Understanding the range plate Course-specific skills objectives
- 1- Interactive skills: Possessing the ability to communicate with the subject professor and colleagues.
- 2- Diagnostic skills: the ability to deal with a statistical problem.
- 3- Analytical skills: The ability to analyze and distinguish between different types of analytical commands in the program.

#### **Teaching and learning methods**

 Presenting the basic theories, meaning that the beginning of learning will be by presenting the basic theories and concepts of qualitative control
 Analysis of paintings, which is represented by the stage of constructing a

painting, through building a painting of the studied phenomenon.

3- Using economic studies, practical applications and experiments in various fields, such as

4- Agricultural sciences and medical sciences, for the purpose of explaining how to use the control panel in practical life.

5-Provide individual guidance to students to understand theories and practical exercises, and guide them in solving problems and understanding the results.

6-Organizing group discussions on appropriate board-building processes, which contributes to the exchange of ideas and mutual learning among students.

7- Previous studies can be used as examples to analyze and understand the results and statistical analyzes used in

For the arithmetic mean panel

8-Provide continuous evaluation of students' performance and provide

feedback to guide them and improve their understanding and analysis skills Control panels

#### **Evaluation methods**

**1-Questions Explanations** 

2-Questions The error And the right thing

**3-Duties** 

- 4- Evaluation Self
- 5- the exams (Daily, monthly, quarterly, final).

#### **Emotional and value goals**

1- Ability on to examine And evaluation Threads Asked .

2- Abili	2- Ability on Cash And discrimination Threads Asked And the					
choice Between them .						
3- Ability on production ideas New						
Teaching and learning methods						
1-Brainstorm	ing method					
2-Use decisio	n making to t	est the best alternati	ve			
3-Presentation	n.					
<b>Evaluation</b> n	nethods					
-Tests Misce	llaneous(Dail	ly (monthly, quarte	erly, final)			
2-Tests Oral						
3- Duties						
General and	qualifying tr	ansferable skills (o	ther skills related to			
employabilit	y and person	al development).				
1-Skills of co	llecting and a	nalyzing information	n about the concepts of	f		
designing and	l analyzing ex	periments and how	to use them in agricult	ural		
fields	, ,	1	C			
2- Training an	nd personal de	evelopment skills on	how to apply experient	nce		
design concer	ots in differen	t fields.				
3- Developing	g the student's	s ability to construct	a correct experiment			
10. Course s	structure	5	10. Course structure			
Evaluation	Learning	Name of the unit	Required learning	hours	the week	
Evaluation method	Learning method	Name of the unit or topic	Required learning outcomes	hours	the week	
Evaluation method Discussion An the test Oral	Learning method My presenc	Name of the unit or topic	Required learning outcomes Understand and	hours 3	the week the first	
Evaluation method Discussion An the test Oral And the	Learning method My presenc	Name of the unit or topic Concept Variables Quality	Required learning outcomes Understand and clarify	hours 3	the week the first	
Evaluation method Discussion An the test Oral And the editorial	Learning method My presenc	Name of the unit or topic Concept Variables Quality	Required learning outcomes Understand and clarify	hours 3	the week the first	
Evaluation method Discussion An the test Oral And the editorial Discussion An	Learning method My presenc My presenc	Name of the unit or topic Concept Variables Quality	Required learning outcomes Understand and clarify	hours 3 3	the week the first the second	
Evaluation method Discussion An the test Oral And the editorial Discussion An the test Oral	Learning method My presenc My presenc	Name of the unit or topic Concept Variables Quality Species Variables	Required learning         outcomes         Understand and         clarify	hours 3 3	the week the first the second	
Evaluation method Discussion An the test Oral And the editorial Discussion An the test Oral And the aditorial	Learning method My presenc My presenc	Name of the unitor topicConcept Variables QualitySpecies Variables Qualitative	Required learning         outcomes       Image: Comparison of the second sec	hours 3 3	the week the first the second	
Evaluation method Discussion An the test Oral And the editorial Discussion An the test Oral And the editorial Discussion An	Learning method My presenc My presenc	Name of the unit or topicConcept Variables QualitySpecies Variables Qualitative	Required learning         outcomes         Understand and         clarify         Understand and         clarify	hours 3 3	the week the first the second	
Evaluation method Discussion An the test Oral And the editorial Discussion An the test Oral And the editorial Discussion An the test Oral	Learning method My presenc My presenc	Name of the unit or topic Concept Variables Quality Species Variables Qualitative	Required learning         outcomes       Image: Second stand	hours           3           3           3	the week the first the second the third	
Evaluation method Discussion An the test Oral And the editorial Discussion An the test Oral And the editorial Discussion An the test Oral And the	Learning method My presenc My presenc	Name of the unit         or topic         Concept Variables         Quality         Species Variables         Qualitative         Importance Variable         Quality	Required learning         outcomes	hours           3           3           3           3	the week the first the second the third	
Evaluation method Discussion Art the test Oral And the editorial Discussion Art the test Oral And the editorial Discussion Art the test Oral And the editorial	Learning method My presenc My presenc	Name of the unit or topicConcept Variables QualitySpecies Variables QualitativeImportance Variable Quality	Required learning outcomes         Outcomes         Understand and clarify         Understand and clarify         Understand and clarify	hours           3           3           3	the week the first the second the third	
Evaluation method Discussion An the test Oral And the editorial Discussion An the test Oral And the editorial Discussion An the test Oral And the editorial Discussion An	Learning method My presenc My presenc My presenc	Name of the unitor topicConcept Variables QualitySpecies Variables QualitativeImportance Variable Quality	Required learning outcomes         Understand and clarify         Understand and clarify         Understand and clarify	hours 3 3 3 3 3	the week the first the second the third the third	
Evaluation method Discussion Art the test Oral And the editorial Discussion Art the test Oral And the editorial Discussion Art the test Oral And the editorial Discussion Art the test Oral And the	Learning method My presenc My presenc My presenc	Name of the unit         or topic         Concept Variables         Quality         Species Variables         Qualitative         Importance Variable         Quality         road broke down nor	Required learning outcomes         Outcomes         Understand and clarify	hours         3         3         3         3         3         3	the week the first the second the third the fourth	
Evaluation method Discussion An the test Oral And the editorial Discussion An the test Oral And the editorial Discussion An the test Oral And the editorial Discussion An the test Oral And the	Learning method My presenc My presenc My presenc	Name of the unit         or topic         Concept Variables         Quality         Species Variables         Qualitative         Importance Variable         Quality         road broke down non Conformity	Required learning outcomes         Outcomes         Understand and clarify         Understand and clarify         Understand and clarify         Understand and clarify	hours           3           3           3           3           3	the week the first the second the third the fourth	
Evaluation method Discussion An the test Oral And the editorial Discussion An the test Oral And the editorial Discussion An the test Oral And the editorial Discussion An the test Oral And the editorial	Learning method My presenc My presenc My presenc	Name of the unit         or topic         Concept Variables         Quality         Species Variables         Qualitative         Importance Variable         Quality         road broke down non         Conformity	Required learning outcomes         Understand and clarify	hours         3         3         3         3         3	the week the first the second the third the fourth	
Evaluation method Discussion An the test Oral And the editorial Discussion An the test Oral And the editorial Discussion An the test Oral And the editorial Discussion An the test Oral And the editorial Discussion An the test Oral And the	Learning method My presenc My presenc My presenc My presenc	Name of the unit         or topic         Concept Variables         Quality         Species Variables         Qualitative         Importance Variable         Quality         road broke down non         Conformity         road middle broke	Required learning outcomes         Understand and clarify	hours         3         3         3         3         3         3         3         3         3         3         3         3         3	the week the first the second the third the fourth Fifth	
Evaluation method Discussion An the test Oral And the editorial Discussion An the test Oral And the editorial Discussion An the test Oral And the editorial Discussion An the test Oral And the editorial Discussion An the test Oral And the editorial	Learning method My presenc My presenc My presenc My presenc	Name of the unit or topicConcept Variables QualitySpecies Variables QualitativeImportance Variable Qualityroad broke down non Conformityroad middle broke down non	Required learning         outcomes	hours         3         3         3         3         3         3         3         3	the week the first the second the third the fourth Fifth	
Evaluation method Discussion An the test Oral And the editorial Discussion An the test Oral And the editorial	Learning method My presenc My presenc My presenc My presenc	Name of the unit or topicConcept Variables QualitySpecies Variables QualitativeImportance Variable Qualityroad broke down non Conformityroad middle broke down non Conformity	Required learning outcomes         Understand and clarify	hours         3         3         3         3         3         3         3	the week the first the second the third the fourth Fifth	
Evaluation method Discussion An the test Oral And the editorial Discussion An	Learning method My presenc My presenc My presenc My presenc	Name of the unit         or topic         Concept Variables         Quality         Species Variables         Qualitative         Importance Variable         Quality         road broke down non         Conformity         road middle broke         down non         Conformity         road number	Required learning outcomes         Understand and clarify	hours         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3	the week the first the second the third the fourth Fifth	

				1	11
And the					
editorial					
<b>Discussion</b> An	My presenc			3	Seventh
the test Oral		painting middle	Understand and		
And the		number Violations	clarify		
editorial			-		
<b>Discussion</b> An	My presenc			3	VIII
the test Oral	51	painting the middle	Understand and		
And the		<b>Arithmetic Mobile</b>	clarify		
editorial					
<b>Discussion</b> An	My presenc	<b>.</b> .		3	Ninth
the test Oral	51	Importance	Understand and		
And the		Mobilo	clarify		
editorial		Mobile	·		
<b>Discussion</b> An	My presenc	Company to a fact in a		3	The tenth
the test Oral	51	the middle	Understand and		
And the		Engineering Mobile	clarify		
editorial		Engineering Mobile	·		
<b>Discussion</b> An	My presenc	<b>Relationship betwee</b>		3	atheistic ten
the test Oral	51	Board Engineering	Understand and		
And the		And the average	clarify		
editorial		Mobile	·		
<b>Discussion</b> An	My presenc	weintige The meet		3	the second t
the test Oral	51	painting The mask	Understand and		
And the		Allu Kliock Calculate it	clarify		
editorial		Calculate It	·		
<b>Discussion</b> An	My presenc			3	the third ten
the test Oral	51	Importance Use it	Understand and		
And the		importance use it	clarify		
editorial			-		
<b>Discussion</b> An	My presenc	Importance And		3	the fourth te
the test Oral	51	knock Calculate it	Understand and		
And the		painting Multi	clarify		
editorial		Variables	-		
<b>Discussion</b> An	My presenc			3	Fifth ten
the test Oral	~ .	Evan monthly			
And the		Exam monully			
editorial					

11. Course evaluation

distribution Class from 100 on according to mission Assigned With it requester like Preparation Daily And exams Daily And oral And monthly And editorial And reports ....etc

1- 60 degrees Exam ultimate Editorial.

.40 degrees especially By striving Divided to me:

- 1) 5 degrees Presence.
- 2) 5 degrees Duties with.
- 3) 15 degrees Exam Editorial first
- 4) 15 degrees Exam Editorial second

12. Learning and teaching resources	
the control Statistics on Quality Mr. Dr impartial Al-Mashhadani	Required textbooks (methodology, if any)
	Main references (sources)
	Recommended supporting books and references
	(scientific journals, reports)
no There is	Electronic references, Internet sites

Course description form	
1. name The decision	
MATLAB 2	
2. Code The decision	
3. the chapter / the year	
Second semester/second stage/2023 - 2024	
4. date Preparation this the description	
1/3/2024	
5. Available attendance forms	
My presence	
6. Number of study hours (total)/number of units (total)	
45/3	
7. Name of the course administrator (if more than one name is ment	ioned)
Name: A.L Amal Hadi Rashid Email :laith88@uodiyala.edu.iq	
8. Course objectives	
- Course objectives	Objectives of
• Introducing the student to the most important foundations, principles	study subject
and uses of applicationMATLABIn programming	
• Explaining the concept of groups and function diagrams in	
programming languagesMATLAB	
• Highlight the importanceMATLABKnowing the form of a	
function in programming	
• This course aims to study programming in a language <b>MATLAB</b> The	
student can write a program in the language <b>MATLAB to find solutions</b>	
to statistical and mathematical equations	
9.	
Course outcomes and teaching, learning and evaluation methods	The strategy
1- Cognitive objectives: - Make the student able to	
2To know the most important principles and basic concepts inMATLAB	
3To determine the types of functions and relationships to functions	
INMATLAB	
4- 10 become familiar with Microsoft Office applications	
5- 10 Know now to use each application 6 Each application should be applied in any field used in the condemic	
o- Each application should be applied in any field used in the academic stages	
Course-specific skills objectives	
Course specific shins objectives	1

1. The abili	ty to understand	d mathematical and engineeri	ng problems and		
convert t	hem into progra	ammable equations.			
2. The abili smoothly	ty to build an ir ′.	ntegrated program that works	logically and		
3. The abili	ty to detect ling	guistic and programming error	rs in a script,		
correct th	nem, and make	the text more streamlined.			
Teaching and	learning metho	ods			
1- Managing th	e lecture in an	applied manner linked to the	reality of daily life		
to attract the stu	ident to the top	ic of the lesson without strayi	ng from the core of		
the topic so the	at the material	is flexible and amenable to	understanding and		
analysis.	d dialogue				
2-Discussion and					
4-Direct interro	question				
Emotional and	value goals				
1-Thinki	ng Simple:(Ana	alysis the problem In a way	statistical Athlete		
And find	Solutions she h	nas on Basis Results Expecte	ed using		
Application	ons on the com	nputer)	0		
2-Thinkir	ng Critic: (abili	ty on Cash And discriminati	on Threads Asked		
And the c	hoice Between	them )			
3-Thinking Cr	eative: (ability	on production ideas And k	nock New in the		
solution).					
<b>Teaching and</b>	learning metho	ods			
1-Brainstorming method					
2-Use decision making to test the best alternative					
3-Presentation.					
Evaluation me	thods				
1. Preparation Duties Safiya And the house					
2. Preparati	2. Preparation Reports on Experiments the operation				
A Action Ex	anis Daily Anu ame Final	the quarterly			
General and a	ualifving trans	sferable skills (other skills r	elated to		
employability	and personal d	levelopment).			
1-Skills of colle	ecting and analy	vzing information about com	outer concepts and		
how to use then	n in the fields o	of statistics	1		
2- Training and	personal devel	opment skills on how to appl	y computer		
concepts in vari	concepts in various fields.				
3- Developing the student's ability to deal with the Internet.					
10. Course str	ucture				
Evaluation	Learning	Name of the unit or topic	Required learning	ILS	the
method	method		outcomes	hou	week
		26			

Exam daily And	Lectures			3	the first
an exam	theory Two	Identify on ingredients	Identify on Interface		
quarterly And	hours And	Interface And a role all part	MATLAB		
report practical	Taboratory				
Even deily And				2	4 la a
Exam daily And	theory Two	How identification Matricos		3	the
all exam	hours And	Nono And duality The	identification		second
report practical	laboratory	dimension	Matrices Simple		
Exam daily And	Lectures			3	the thir
an exam	theory Two			5	
quarterly And	hours And	How Modulation Matrices And	control With		
report practical	laboratory	extract data Of which	matrices		
	Two hours				
Exam daily And	Lectures	Identify on How call up		3	the four
an exam	theory Two	Functions Included in the	Eurotions Dockton		
quarterly And	hours And	language like Functions	Ready made		
report practical	laboratory	Trigonometry And logarithmic	Ready made		
	Two hours	And functions Rounding			
Exam daily And	Lectures			3	Fifth
an exam	theory Two	How Print Matrices And	printing Default And		
quarterly And	hours And	control With mattresses	the coordinator		
report practical	laboratory	Decimal In which			
	Two hours			_	
Exam daily And	Lectures	study How repetition to		3	VI
an exam	theory I wo	implement part from the	Episodes		
roport practical	laboratory	program A number Specific	Repetitiveness		
		from times			
Exam daily And	Lectures			2	Sovontk
an exam	theory Two	How Control ferries		5	Sevenu
quarterly And	hours And	Conditional With elements	ferries Conditional		
report practical	laboratory	Matrix			
	Two hours				
Exam daily And	Lectures			3	VIII
an exam	theory Two	How Programming Functions	Drogramming		
quarterly And	hours And	Sports from Type Sequences	Soquences		
report practical	laboratory	sports from type sequences	Sequences		
	Two hours				
Exam daily And	Lectures			3	Ninth
an exam	theory Two	fee Functions Sports And			
quarterly And	hours And	control In format region The	fee Functions Sports		
report practical	laboratory	drawing			
	Two hours			~	
Exam daily And	Lectures	fee Functions Sports Multiple	acting Functions	3	The ten
an exam	theory Iwo	Variables And fees Animated	Sports Complex		
	nours And		-		

quarterly And	laboratory				
report practical	Two hours				
Exam daily And	Lectures			3	atheisti
an exam	theory Two	Use Algebra linear in Solution	Solution Equations		ten
quarterly And	hours And	Fountions The utensils Sin	The utensils Sin		
report practical	laboratory				
	Two hours				
Exam daily And	Lectures			3	the
an exam	theory Two	How Solution And	integration		second
quarterly And	hours And	programming Integrals Sports	Numerical		ten
report practical	laboratory	Complex numerically	Wanterlear		
	Two hours				
Exam daily And	Lectures			3	the thir
an exam	theory Two	How design Interface user	design Interfaces		ten
quarterly And	hours And	Moot Simplified	Simplified		
report practical	laboratory		Simplified		
	Two hours				
Exam daily And	Lectures			3	the four
an exam	theory Two	import data from Programs	import And export		ten
quarterly And	hours And	Other And export Results to	data		
report practical	laboratory	her			
	Two hours				
Exam daily And	Lectures			3	Fifth te
an exam	theory Two	simplification Equations	Manipulation labri		
quarterly And	hours And	fatalism And fractal using	With equations		
report practical	laboratory	MATLAB			
	Two hours				

#### 11. Course evaluation

distribution Class from 100 on according to mission Assigned With it requester like Preparation Daily And exams Daily And oral And monthly And editorial And the process And laboratories And reports ....etc

- 60 degrees Divided Exam ultimate Editorial 50 degrees And an exam ultimate practical 10 degrees.
- .40 degrees especially By striving Divided to me:
  - 1) 5 degrees Presence.
  - 2) 10 degrees Duties with practical Laboratories.
  - 3) 15 degrees Exam Editorial.
  - 4) 10 degrees Exam practical.
  - 12. Learning and teaching resources

bookMATLABFor students of colleges of	Required textbooks (methodology, if any)
administration and economics	
Lectures prepared by the teacher "MATLAB for Engineers", Holly Moore, Pearson Publishing, 2009.	Main references (sources)

Recommended supporting books and references
(scientific journals, reports…)
Electronic references, Internet sites

1. name The decision

Economic statistics2

2. Code The decision

#### Sata2204

3. the chapter / the year

Second semester/second stage/2023 - 2024

4. date Preparation this the description

1/2/2024

5. Available attendance forms

My presence

6. Number of study hours (total)/number of units (total)

45/45

#### 7. Name of the course administrator (if more than one name is mentioned) Name: A.P Wahhab Salem Mohammed Email wahabsalim72@gmail.com

**Objectives of** 

study subject

8.	Course objectives
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#### - Course objectives

- Introducing the student to the most important foundations and principles of economic statistics
- Explain the concept of economic statistics
- Highlighting the importance of economic statistics in application
- This course aims to study methods of economic statistics The student can tabulate, collect, and describe data

9.		
Cour	rse outcomes and teaching, learning and evaluation methods	The strategy
1-	Cognitive objectives: - Make the student able to	
2-	-To know the most important principles and basic concepts in	
	economic statistics	
3-	-To determine the methods of economic statistics	
4-	To become familiar with the concept of economic statistics	
	methods	

5-	To explain his opinion on the concepts of economic statistics
6-	To apply survey concepts with realistic examples and case
	studies
C	ourse-specific skills objectives
1-	-Interactive skills: Possessing the ability to communicate with
	the subject professor and colleagues
2-	-Diagnostic skills: the ability to diagnose problems and ways to
	solve them
3-	Scientific reports.
Teac	hing and learning methods
1- M	unaging the lecture in an applied manner linked to the reality of
daily	life to attract the student to the topic of the lesson without
stray	ng from the core of the topic so that the material is flexible and
amer	able to understanding and analysis.
2-Di	cussion and dialogue
3- Er	richment questions
4-Di	ect interrogation
Eval	nation methods
1-	Questions Explanations
2.	Questions The error And the right thing
3-	Duties
4-	Evaluation Self
5-	the exams (Daily, monthly, quarterly, final).
Emo	ional and value goals
	1-Thinking Simple:(Analysis the problem In a way statistical
	Athlete And find Solutions she has on Basis Results
	expected)
	2-Thinking Critic: (ability on Cash And discrimination
	Threads Asked And the choice Between them )
3-Tł	inking Creative: (ability on production ideas And knock New
in th	e solution).
Teac	ning and learning methods
1-Br	instorming method
2-Us	e decision making to test the best alternative
3-Pre	sentation.
Eval	nation methods
-Tes	s Miscellaneous(Daily (monthly, quarterly, final)
2-Te	sts Oral
3- Di	ties

General and employabilit 1-Skills of co measurement 2- Training an estimation co 3- Developing	qualifying tr y and person llecting and a concepts and nd personal de ncepts in diffe g the student's	<b>cansferable skills (of</b> <b>al development).</b> nalyzing information how to use them in the evelopment skills on erent fields. s ability to deal with	ther skills related t about economic the fields of statistic how to apply the Internet.	o s				
10. Course structure								
Evaluation	Learning	Name of the unit or	Required learning	hours	the week			
method	method	topic	outcomes					
Discussion An the test Oral And the editorial	My presence	Definition and objectives of economic statistics and labor field statistics	Definitions and concepts	3	the first			
Discussion An the test Oral And the editorial	My presence	Output statistics, prices and index numbers	Understand output and price statistics	3	the second			
Discussion An the test Oral And the editorial	My presence		Absorption	3	the third			
Discussion An the test Oral And the editorial	My presence	Output statistics, prices and index numbers	Output and price statistics	3	the fourth			
Discussion An the test Oral And the editorial	My presence		Absorption	3	Fifth			
Discussion An the test Oral And the editorial	My presence	Labor force statistics, working time and labor productivity	Labor force and working time statistics	3	VI			
Discussion An the test Oral And the editorial	My presence	Definition and objectives of the agricultural census	Definitions and concepts	3	Seventh			
Discussion An the test Oral And the editorial	My presence	Agricultural censuses and agricultural land statistics	Understanding the foundations of agricultural statistics	3	VIII			
<b>Discussion</b> An	My presence	Appropriate	View and analyze	3	Ninth			
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the test Oral		statistics for	·					
And the		exploited lands and						
editorial		statistical measures						
		of change in yield						
		per dunum						
<b>Discussion</b> Ar	My presence	Applications of	Applications and	3	The tenth			
the test Oral		agricultural output	exercises					
And the		statistics and						
editorial		statistics						
<b>Discussion</b> Ar	My presence		Other agricultural	3	atheistic t			
the test Oral								
And the								
editorial								
<b>Discussion</b> Ar	My presence	Test of the first	-	3	the second			
the test Oral		month of the second			ten			
And the		semester			ten			
editorial								
<b>Discussion</b> Ar	My presence	Agricultural sector	View and analyze	3	the third t			
the test Oral		indices and statistics						
And the								
editorial								
<b>Discussion</b> Ar	My presence		agricultural	3	the fourth			
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And the					ten			
editorial								
<b>Discussion</b> Ar	My presence			3	Fifth ten			
the test Oral		Second competer aver						
And the		Second semester exam						
editorial								
editorial 11. Course	evaluation							

distribution Class from 100 on according to mission Assigned With it requester like Preparation Daily And exams Daily And oral And monthly And editorial And reports ....etc

1- 60 degrees Exam ultimate Editorial.

.40 degrees especially By striving Divided to me:

- 1) 5 degrees Presence.
- 2) 5-10 degrees Duties with.
- 3) 15 degrees Exam Editorial.
- 4) 5 degrees Exam verbal.

#### 12. Learning and teaching resources

**Book of Principles of Statistics** 

Required textbooks (methodology, if any)

## Dr.Dhafer Hussein Rashid

Main references (sources)
Recommended supporting books and references
(scientific journals, reports)

# third stage The first course

1.	name The decision	
Math	ematical statistics1	
2.	Code The decision	
Math	.Stat./Stat.3101.	
3.	the chapter / the year	
First	semester/third stage/2023 - 2024	
4.	date Preparation this the description	
2/12/	/2024	
5.	Available attendance forms	
Му р	resence	
6.	Number of study hours (total)/number of units (total)	
45/4	5	
7.	Name of the course administrator (if more than one name i	s mentioned)
Nam	e: A. P. Dr Ayad Habeeb Shimal Email: <u>ayadstatistic@uodiyala</u>	<u>.edu.iq</u>
8.	Course objectives	
- Co	urse objectives	Objectives of
_	Introducing the student to the most important principles of mathemati	study subject
statis	tics and its importance.	
_	What do statistical distributions mean?	
_	What are the steps of statistical analysis based on mathemati	
statis	tics?	
_	What are the methods of displaying data?	
_	Developing the method of conclusion.	
9.		
Cour	se outcomes and teaching, learning and evaluation methods	The strategy
0	bjectives Cognitive	
	1- That Known requester The information Statistics.	
	2- That Known requester Most important basics science	
	Statistics The athlete.	

3- That Known requester Most important Distributions Statistics.

4- That Known requester style an offer And analysis data	
What are the Most important Distributions Statistics that	
suits.	
5- That Known requester style Analysis And the conclusion.	
Objectives and skills of the course	
1- Interactive skills/student interaction with the environment.	
2- Personal skills/the ability to diagnose statistical information	
and its distributions from reality.	
3- Analytical skills / the ability to analyze digital information	
realistically.	
Teaching and learning methods	
1- Managing the lecture in an applied manner linked to the reality of	
daily life to attract the student to the topic of the lesson without	
straying from the core of the topic so that the material is flexible and	
amenable to understanding and analysis.	
2-Discussion and dialogue	
3- Enrichment questions	
4-Direct interrogation	
Evaluation methods	
1-Questions Explanations	
2-Questions The error And the right thing	
3-Duties	
4- Evaluation Self	
5- the exams (daily, monthly, Quarterly, Final).	
Emotional and value goals	
1-Thinking Simple: (Analysis the problem In a way statistical	
Athlete And find Solutions she has on Basis Results expected)	
2-Thinking Critic: (ability on Cash And discrimination	
Threads Asked And the choice between them)	
3-Thinking Creative: (ability on production ideas And knock New	
in the solution).	
Teaching and learning methods	
1-Brainstorming method	
2-Use decision making to test the best alternative	
3- Presentation.	
Evaluation methods	
-Tests miscellaneous (daily, Monthly, quarterly, ultimate)	
2-Tests Oral	

3- Duties General and employabilit 1-Skills of co concepts and 2- Training an mathematics 3- Developin	<b>qualifying tr</b> <b>y and person</b> description of the second how to use the second description of the student?	<b>cansferable skills (of</b> al development). nalyzing information em in the fields of st evelopment skills on ifferent fields. s ability to deal with	t <b>her skills related t</b> about mathematics atistics how to apply the Internet.	<b>30</b>	
.Course struct	ture				_
Evaluation	Learning	Name of the unit or	Required learning	hours	the week
method	method	topic	outcomes		
Evaluation Self /the exams /oral/enrich ment	lecture And the discussion	definition of probability	Understand and explain	3	1
Evaluation Self /the exams /oral/enrich ment	lecture And the discussion	Bernoulli, binomial, trinomial	Understand and explain	3	2
Evaluation Self /the exams /oral/enrich ment	lecture And the discussion	Geometric	Understand and explain	3	3
Evaluation Self /the exams /oral/enrich ment	lecture And the discussion	Gamma, exponential	Understand and explain	3	4
Evaluation Self /the exams /Oral	lecture And the discussion	Normal distribution	Understand and explain	3	5
Evaluation Self /the exams /Oral	lecture And the discussion	Pareto distribution	Understand and explain	3	6
Evaluation Self /the exams /Oral	lecture And the discussion	Weibull distribution	Understand and explain	3	7
Evaluation Self /the exams /Oral	lecture And discussion/ex am	Join prob. distribution	Understand and explain	3	8

				-	
Evaluation Self /the	lecture And the	Conditional prob.	Understand and explain	3	9
exams /Oral	discussion				
Evaluation	lecture And	Some related	Understand and	3	10
Self /the	the		explain		
exams /Oral	discussion				
Evaluation	lecture And	Marginal pdf order	Understand and	3	11
Self /the	the	statistics	explain		
exams /Oral	discussion				
Evaluation	lecture And	Join pdf order statistics	Understand and	3	12
Self /the	the		explain		
exams /Oral	discussion				
Evaluation	lecture And	Sample average	Understand and	3	13
Self /the	the		explain		
exams /Oral	discussion				
Evaluation	lecture And	Sample range	Understand and	3	14
Self /the	the	And mgf	explain		
exams /Oral	discussion				
Evaluation	clarificatio	Exam	Exam	3	15
Self /the	n questions				
exams /Oral					

#### 1. Course evaluation

distribution Class from 100 on according to mission Assigned With it requester like Preparation Daily And exams Daily And oral And monthly And editorial And reports ....etc

1- 60 degrees Exam ultimate Editorial.

.40 degrees especially By striving Divided to me:

- 1) 5 degrees Presence.
- 2) 5-10 degrees Duties with.
- 3) 15 degrees Exam Editorial.
- 4) 5 degrees Exam verbal.

#### 2. Learning and teaching resources

Introduction to mathematical statistics	Required textbooks (methodology, if any)
/dr. iden hassan, dr. hamza Ismael	
Introduction to mathematical statistics	Main references (sources)
/dr. iden hassan, dr. hamza Ismael	
Mathematical statistics /Rob	Recommended supporting books and references
Hogg	(scientific journals, reports)
the library Default Iraqi /And Resear	Electronic references, Internet sites
Internet External .	

|--|

Use Books methodology Modern.
 Application Practical For tests.
 Use Programs the computer Statistics Modern.
 Benefit from Research New And apply it.

1. name The decision

Linear regression analysis1

2. Code The decision

#### Stat.3101\reg.1

3. the chapter / the year

First semester/third stage/2023 - 2024

4. date Preparation this the description

3/6/2024

5. Available attendance forms

My presence

6. Number of study hours (total)/number of units (total)

45/45

7. Name of the course administrator (if more than one name is mentioned) Name: A.P. Aqeel Hameed Email :aqeelsta@uodiyala.edu.iq

**Objectives** of

Scholarship

article

8. Course objectives

- Course objectives

- Introducing paint to the theoretical foundations of the subject as well as its use in practice.
- It aims to build a regression model that matches reality, based on practical reality
- And characteristics that must be present in order to obtain the best linear regression model that simulates the practical reality of the studies
- Thoughtful.
- Building regression analysis skills and how to obtain an analysis of the studied phenomenon through
- Know the factor affecting it.

9. ourse outcome

Course outcomes and teaching, learning and evaluation methodsThe strategyMake the student able to:1Image: the basics of linear respective evaluation

1- Understand the basics of linear regression analysis

<ul> <li>2 Understanding the simple linear regression model</li> <li>3 Understand the basics of using a regression model</li> <li>4 Understand the assumptions of the regression model</li> <li>5 Understanding the stages of building a regression model</li> <li>6 Understand the processes of estimating model parameters</li> <li>8 Understand the ordinary least squares method</li> <li>9 Understanding methods for testing model parameters</li> <li>8 Understand the ordinary least squares method</li> <li>9 Understanding methods for testing model parameters</li> <li>6 Interactive skills: Objectives</li> <li>6 Interactive skills: Objectives</li> <li>7 Diagnostic skills: Objectives</li> <li>7 Diagnostic skills: The ability to analyze and distinguish between different types of analytical commands in the program. Teaching and learning methods</li> <li>1 Presenting the basic theories, meaning that the beginning of learning will be by presenting the basic theories, meaning that the beginning of learning will be by presenting the basic theories and concepts of regression</li> <li>2. Regression analysis, which is represented by the simple model, by building a model of the studied phenomenon.</li> <li>3. Using economic studies, practical applications and experiments in various fields, such as</li> <li>4. Agricultural sciences and medical sciences, for the purpose of explaining how to use the regression model in practical life.</li> <li>5. Provide individual guidance to students to understand theories and practical exercises, and guide them in solving problems and understanding the regression model which contributes to the exchange of ideas and mutual learning mong students.</li> <li>7. Previous studies can be used as examples to analyze and understand the results and statistical analyzes used in the simple linear regression model</li> <li>8. Provide continuous evaluation of students' performance and provide feedback to guide them and improve their understanding and analysis skills Simple linear regression</li> <li>8. Provide conti</li></ul>		
<ul> <li>3. Understand the basics of using a regression model</li> <li>4. Understanding the stages of building a regression model</li> <li>6. Understanding the stages of building a regression model</li> <li>6. Understand the processes of estimating model parameters</li> <li>8. Understand the processes of estimating model parameters</li> <li>8. Understanding methods for testing model parameters</li> <li>Course-specific skills objectives</li> <li>6. Interactive skills: Possessing the ability to communicate with the subject professor and colleagues.</li> <li>7. Diagnostic skills: the ability to deal with a statistical problem.</li> <li>8. Analytical skills: The ability to analyze and distinguish between different types of analytical commands in the program. Teaching and learning methods</li> <li>1. Presenting the basic theories, meaning that the beginning of learning will be by presenting the basic theories and concepts of regression</li> <li>2. Regression analysis, which is represented by the simple model, by building a model of the studied phenomenon.</li> <li>3. Using economic studies, practical applications and experiments in various fields, such as</li> <li>4. Agricultural sciences and medical sciences, for the purpose of explaining how to use the regression model in practical life.</li> <li>5. Provide individual guidance to students to understand theories and practical exercises, and guide them in solving problems and understanding the regults.</li> <li>6. Organizing group discussions about the processes of building the regression model.</li> <li>8. Provide continuous evaluation of students' performance and provide feedback to guide them and improve their understanding and analysis skills Simple linear regression</li> <li>8. Provide continuous evaluation of students' performance and provide feedback to guide them and improve their understanding and analysis skills Simple linear regression</li> <li>9. Evaluation Self</li> <li>10. the exams (Daily, monthly, quarterly, final).</li> <li>Emotional and value goals</li></ul>	2- Understanding the simple linear regression model	
<ul> <li>4. Understand the assumptions of the regression model</li> <li>5. Understanding the stages of building a regression model</li> <li>6. Understanding the assumptions about the random error term</li> <li>7. Understand the processes of estimating model parameters</li> <li>8. Understand the ordinary least squares method</li> <li>9. Understanding methods for testing model parameters <ul> <li>Course-specific skills objectives</li> <li>6. Interactive skills: Possessing the ability to communicate with the subject professor and colleagues.</li> <li>7. Diagnostic skills: The ability to deal with a statistical problem.</li> <li>8. Analytical skills: The ability to analyze and distinguish between different types of analytical commands in the program.</li> <li>Teaching and learning methods</li> </ul> 1. Presenting the basic theories and concepts of regression 2. Regression analysis, which is represented by the simple model, by building a model of the studied phenomenon. 3. Using economic studies, practical applications and experiments in various fields, such as 4. Agricultural sciences and medical sciences, for the purpose of explaining how to use the regression model in practical life. 5. Provide individual guidance to students to understand theories and practical exercises, and guide them in solving problems and understanding the results. 6. Organizing group discussions about the processes of building the results and statistical analyzes used in the simple linear regression model 8. Provide continuous evaluation of students' performance and provide feedback to guide them and improve their understanding and analysis skills Simple linear regression 8. Provide continuous explanations 9. Evaluation Self 1. Ouestions Self them and improve their understanding and analysis skills Simple linear regression 8. Provide scale sexamples to analyze and understand the results and statistical analyzes used in the simple linear regression model 8. Prov</li></ul>	3- Understand the basics of using a regression model	
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10- the exams (Daily, monthly, quarterly, final). Emotional and value goals	9- Evaluation Self	
Emotional and value goals	10- the exams (Daily, monthly, quarterly, final).	
	Emotional and value goals	

1- Abili	ty on to exam	nine And evaluatio	n Threads Asked .				
2- Ability on Cash And discrimination Threads Asked And the							
choi	ce Between t	hem .					
3- Abili	ty on produc	tion ideas New					
Teaching and	d learning m	ethods					
1-Brainstorm	ing method						
2-Use decisio	n making to t	est the best alternati	ve				
3-Presentation.							
Evaluation n	nethods						
-Tests Misce	llaneous(Dai	lv (monthly, quarte	erly, final)				
2-Tests Oral	(	-, (, , -, -, -, -, -, -, -, -, -, -, -					
3- Duties							
e Duties							
General and	analifying tr	ansferable skills (o	other skills related to				
employabilit	v and person	al development).					
1-Skills of co	llecting and a	nalyzing information	n about the concepts of	f			
designing and	l analyzing ex	periments and how	to use them in agricult	ural			
fields		perments and now	to use them in agricult	urur			
2- Training at	nd personal de	evelopment skills or	how to apply experies				
design concer	ts in differen	2- Iraining and personal development skills on how to apply experience					
design concepts in different fields.							
3_ Developin	the student'	t fields. s ability to construct	t a correct experiment				
3- Developing	g the student's	t fields. s ability to construct	t a correct experiment				
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Discussion And the test Oral Ai the editorial	My presence	Tests Moral For landmarks Ability	Practical applications	3	Seventh
Discussion And the test Oral Ai the editorial	My presence	border trust For landmarks Ability	Definition and basi concepts	3	VIII
Discussion And the test Oral An the editorial	My presence	appreciation contrast Errors	Solving exercises	3	Ninth
Discussion And the test Oral Ar the editorial	My presence	Appreciation In a while	Practical applications	3	The tenth
Discussion And My presence Forecasting In the test Oral An the editorial Wile Anticepts and basi Concepts Anticepts					
Discussion And the test Oral Ar the editorial	My presence	Schedule analysis variance	Absorb and understand	3	the second ten
Discussion And My presence the test Oral Ai the editorial Models Nonlinearity Solving exercises 3 the third					the third t
Discussion And the test Oral An the editorial	My presence	Methods appreciation Models For sin Simple	Definition and basi concepts	3	the fourth ten
Exam	My presence	Second semest exam	e	3	Fifth ten
11. Course	e evaluation				
<ul> <li>distribution Class from 100 on according to mission Assigned With it requester like Preparation Daily And exams Daily And oral And monthly And editorial And reportsetc</li> <li>2- 60 degrees Exam ultimate Editorial.</li> <li>2.40 degrees especially By striving Divided to me:</li> <li>5) 5 degrees Presence.</li> <li>6) 5 degrees Duties with.</li> <li>7) 15 degrees Exam Editorial first</li> <li>8) 15 degrees Exam Editorial second</li> </ul>					
12. Learnir	ng and teachi	ng resources			
ana Mr. Dr Su	llysis Regress Ibmissive the	sion Rec e narrator	uired textbooks (methodolo	ogy, if any	/)
		Mai	n references (sources)		

	Recommended supporting books and references
	(scientific journals, reports)
no There is	Electronic references, Internet sites

- 1. name The decision
- Linear programming
  - 2. Code The decision

#### Stat.3103\Lin.Pro.

3. the chapter / the year

First semester/third stage/2023 - 2024

4. date Preparation this the description

2/13/2024

- 5. Available attendance forms
- My presence
- 6. Number of study hours (total)/number of units (total)

37.5/37.5

- 7. Name of the course administrator (if more than one name is mentioned) Name: M. Kareem Qassem Mohammed Email :ka1973reem@gmail.com
- 8. Course objectives

- Course objectives		Objectives o
• Introducing the student to the most important foundations and		article
principles of linear programming		Scholarship
• Explaining the concept of programming mathematical problems		
• Highlighting the importance of mathematical concepts		
and solution methods		
• This course aims to develop the ability to build models and write		
computer programs.		
9.		
Course outcomes and teaching, learning and evaluation methods	Tł	ne strategy
10- Cognitive objectives: - Make the student able to		
11To know the most important principles and basic	1	
concepts in mathematical programming	1	
12To define the types of functions and relationships to	1	
functions	I	

13- To become familiar with programming tools and optimal	
decision making	
14- To express his opinion on the concepts of mathematics	
and programming	
15- To apply mathematics concepts with realistic examples	
and case studies	
Course-specific skills objectives	
11Interactive skills: Possessing the ability to communicate	
with the subject professor and colleagues	
12Diagnostic skills: the ability to build programs and their	
real-world applications	
13- Scientific reports.	
Leaching and learning methods	
1- Ivianaging the lecture in an applied manner linked to the reality of	
daily life to attract the student to the topic of the lesson without	
straying from the core of the topic so that the material is flexible and	
amenable to understanding and analysis.	
2-Discussion and dialogue	
3- Enrichment questions	
4-Direct interrogation	
Evaluation methods	
1-Questions Explanations	
2-Questions The error And the right thing	
3-Duties	
14- Evaluation Self	
15- the exams (daily, monthly ,Quarterly ,final).	
Emotional and value goals	
1-Thinking Simple: (Analysis the problem In a way Logic	
Athlete And find Solutions she has on Basis Results	
expected)	
2-Thinking Critic: (ability on Cash And discrimination	
Threads Asked And the choice Between them )	
3-Thinking Creative: (ability on production ideas And knock New	
in the solution).	
Teaching and learning methods	
1-Brainstorming method	
2-Use decision making to test the best alternative	
3- Presentation.	
Evaluation methods	

-Tests Miscellaneous(Daily , Monthly ,quarterly ,ultimate )	
2-Tests Oral	
3- Duties	
General and qualifying transferable skills (other skills related to	
employability and personal development).	
1-Skills of collecting and analyzing information about mathematics	
concepts and how to use them in the fields of statistics and	
computers.	
2- Training and personal development skills on how to apply	
programming mathematics concepts in various fields.	
3- Developing the student's ability to deal with the Internet.	

10. Course structure						
Evaluation	Learning	Name of the unit or	Required learning	hours	the week	
method	method	topic	outcomes			
Discussion	My presenc			3	the first	
And the test			Students should be			
Oral And the			Able to understand some concepts			
editorial		Introduction to OR	Basic programming, mathematics operations			
And the			research, programming, an			
application			computers, giving examples			
Practical						
Discussion	My presenc			3	the second	
And the test		Introduction to linear	Loom about the li			
Oral And the			mathematical model, li			
editorial		programming	programming, and operat research			
And the						
application						
Practical		Mathad of calaina linear		0		
Discussion	My presenc	programming		3	the third	
And the test						
Oral And the			Methods for solving li			
editorial			programs			
And the						
application						
Practical		Graphical mathed	Duraning wethod as a weth	0		
Discussion	My presenc	Graphical method	for solving a linear program	3	the fourth	
And the test						

Oral And the					
editorial					
And the					
application					
Practical					
Discussion	My presence	Simplex method		3	Fifth
And the test				U	
Oral And the					
editorial			The optimal solution metho using simplex		
And the					
application					
Practical					
Discussion	My presence	First ovom		3	VI
And the test	ing present	I'II SI UXAIII		5	V I
Oral And the					
aditorial			First test and evaluation		
And the			Thist test and evaluation		
application					
Dractical					
Disquesion	Munnaana	Dual model		2	Corronth
And the test	My presence	Dual model		3	Seventin
And the test					
oral And the			Duality and the correspond		
editorial			model		
And the					
application					
Practical				0	
Discussion	My presenc			3	VIII
And the test					
Editorial		Primal and Dual model	The relationship between		
And the			prototype and the binary		
application					
Practical					
Discussion	My presenc			3	Ninth
And the test					
Oral And the					
editorial		Dual simplex	The corresponding simplex its usefulness in the solution		
And the					
application					
					1

Discussion	My presenc	Sensitivity Analysis		3	The tenth
And the test	5 1				
Oral And the			The concent of consiti		
editorial			analysis and the changes		
And the			occur		
application					
Practical					
Discussion	My presenc	Second exam		3	atheistic to
And the test					
Oral And the					
editorial			Second test and evaluation		
And the					
application					
Practical					
Discussion	My presenc	Transportation		3	the second
And the test		models			ten
Oral And the					
editorial			The concept of transporta models and solution method		
And the					
application					
Practical					
Discussion	My presenc	Assignment problems		3	the third t
And the test					
Oral And the			The concept of the alloca		
editorial			problem and methods		
And the			solution		
application					
Practical					
Discussion	My presenc	Network analysis		3	the fourth
And the test					ten
Oral And the			Business Check Analysis		
editorial			benefits of this method		
And the			analysis for projects		
application					
Practical					
Discussion	My presenc	Game theory.	The construction of the	3	Fifth ten
And the test			the theory of profit and loss		
Editorial					

And the						
application						
Practical						
11. Course evaluation						
<ul> <li>distribution Class from 100 on according to mission Assigned With it requester like Preparation Daily And exams Daily And oral And monthly And editorial And reportsetc</li> <li>3- 60 degrees Exam ultimate Editorial.</li> <li>40 degrees especially By striving Divided to me:</li> <li>9) 5 degrees Presence.</li> <li>10) 5-10 degrees Duties with.</li> <li>11) 15 degrees Exam Editorial.</li> <li>12) 5 degrees Exam verbal.</li> </ul>						
Introduction to operations	Required textbooks (methodology, if any)					
research						
Gupta. Er. Prem Kumar, 2019 "Proplems in operations Research Principles and Solutions" Tribunals and Forums of New Delhi. India, ISBN: 978-81-219-0968-6.	Main references (sources)					
	Recommended supporting books and references					
	(scientific journals, reports)					
Internet	Electronic references, Internet sites					

1. name The decision

Data management using SPSS 1

2. Code The decision

#### Stat.3104\spss1

3. the chapter / the year

First semester/third stage/2023 - 2024

4. date Preparation this the description

9/12/2023

5. Available attendance forms

My presence

6. Number of study hours (total)/number of units (total)

30/30

## 7. Name of the course administrator (if more than one name is mentioned) Name: A.L. Arshad Hameed Hassan Email :arshadhameed@uodiyala.edu.iq

**Objectives of** 

study subject

## 8. Course objectives

- Course objectives

- Introducing paint to the theoretical foundations of the subject as well as its use in practice.
- It aims to build a design model that matches reality based on experience
- Characteristics that must be present in order to obtain the best design that simulates the practical reality of the phenomena
- Thoughtful.
- Building statistical analysis skills and how to obtain an analysis of the studied phenomenon through
- Know the factor affecting it.

9.	
Course outcomes and teaching, learning and evaluation methods	The strategy
Make the student able to:	

16- Introducing the student to the most important windows in
the programSPSS
17- Introducing the student to the importance of the
programSPSS
18- Statement of the most important characteristics of the
windowData view
19- Introducing the student to how to design a statistical questionnaire
20- Providing the student with applications about arranging
data, converting variables, merging data, and dividing data
21- Providing the student with applications for questionnaire
analysis
22- To know the windows programSPSS.
23- To enable the student to explore data
24- To guide the student to distinguish between the types of
variables in the program.
25- The student knows how to deal with data and how to test it
according to a normal distribution.
26- The student will know how to explain the results of hypothesis
testing for quantitative and descriptive data.
27- The student must do homework on the homogeneity tests
Course-specific skills objectives
16- Interactive skills: Possessing the ability to communicate
with the subject professor and colleagues.
17- Diagnostic skills: the ability to deal with a statistical
problem.
18- Analytical skills: The ability to analyze and distinguish
between different types of analytical commands in the program
Teaching and learning methods
1-lecture.
2-Discussion and dialogue.
3-Enrichment questions.
19- Direct interrogation.
Evaluation methods
1- Questions The error And the right thing .
2- Questions the choice from Multi .
3- Questions Explanations .
4- Duties .
5- Evaluation Self.
6- the exams (Monthly , The quarterly , Final ).
Emotional and value goals

Discussion An the test Oral And the	My presence	Data types, types of program windowsSPSS	Understand and analyze	3	the first
method	method	or topic	outcomes		
Evaluation	Learning	Name of the unit	Required learning	hours	the week
Course struct	ure				
3- Questio	onnaire prepa	ration skills.			
2- Trainin	ig skills to co	nduct various statis	tical tests.		
1- Skills t	o distinguish	between types of v	ariables.		
employabilit	y and person	nal development).			
General and	qualifying t	ransferable skills (	other skills related to		
2- Tests Of al					
- Tests MISCe	naneous(Dal	ny (monthiy, quart	eriy, finalj		
Evaluation n	nethods	ly (monthly guart	contractional)		
3-Presentation	n.				
2-Use decisio	on making to	test the best alternat	tive		
1-Brainstorm	ing method				
Teachir	ng and learn	ing methods			
6- Abili	ity on produ	ction ideas New			
choi	ce Between t	them.			
5- Abili	ity on Cash A	nd discrimination	Threads Asked And the	he	
4- ADIII	ity on to exai	mine And evaluation	on Threads Asked .		

And the		windowsSPSS	e		
editorial					
<b>Discussion</b> Ar	My presence	The most	Understand and	3	the second
the test Oral		important	analyze	_	
And the		characteristics of a	unuryze		
editorial		windowData view,			
		data entry			
<b>Discussion</b> Ar	My presence	Names and	Understand and	3	the third
the test Oral		attributes of	analyze		
And the		variables in a	j		
editorial		sheetVariable view,			
		creating partial			
		sums of variables,			
		designing a			
		statistical			
		questionnaire			
<b>Discussion</b> Ar	My presence	Arranging data,	Understand and	3	the fourth
the test Oral		transforming	analyze		
And the		variables, merging	·····j		
editorial		data, dividing data			

Discussion Ar the test Oral And the editorial	My presence	Collecting data, selecting a part of the data, weighting the data, adding a date to the data	Understand and analyze	3	Fifth
Discussion Ar the test Oral And the editorial	My presence	Data transformation, data counting, data encoding	Understand and analyze	3	VI
Discussion An the test Oral And the editorial	My presence	Variables tab, auto-coding	Understand and analyze	3	Seventh
Discussion Ar the test Oral And the editorial	My presence	Rank cases and thei types, estimating missing values	Understand and analyze	3	VIII
Discussion An the test Oral And the editorial	My presence	Data exploration,diagra mstem and leaf, boxplot	Understand and analyze	3	Ninth
Discussion Ar the test Oral And the editorial	My presence	Histogram, chartNormal QQ Plot	Understand and analyze	3	The tenth
Discussion Ar the test Oral And the editorial	My presence	a planDetrended Normal QQ Plot, configure confidence intervals	Understand and analyze	3	atheistic to
Discussion Ar the test Oral And the editorial	My presence	Trimmed arithmetic mean, quartiles and percentiles	Understand and analyze	3	the second ten
Discussion Ar the test Oral And the editorial	My presence	Normal distribution test of skewness coefficient ratio, homogeneity of variance test	Understand and analyze	3	the third t
Discussion Ar the test Oral And the editorial	My presence	Test for homogeneity of variance using a plotspread vs. Levene test, dealing with missing values	Understand and analyze	3	the fourth ten

		1	
My presence First semester e	xam	3	Fifth ten
1. Course evaluation			
distribution Class from 100 on according to n	nission Assigned With it reque	ster like	Preparation
Daily And exams Daily And oral And monthly	And editorial And reportset	с	
4- 60 degrees Exam ultimate Editorial.			
.40 degrees especially By striving Divided to m	ie:		
13) 5 degrees Presence.			
14) 5 degrees Duties with.			
15) 15 degrees Exam Editorial first			
10) 15 degrees Exam Euronai second			
2. Learning and teaching resources			
	Required textbooks (methodolo	ogy, if any	/)
analysis the program Statistician SPSS	Main references (sources)		
Written by			
Dr Ehab slave peace			
Your guide to the program Statistician			
SPSS			
Composition			
Saad Zaghloul			
	Recommended supporting bo	ooks and	references
	(scientific journals, reports)		
no There is	Electronic references, Internet	sites	

1. name The decision

**Biostatistics**1

2. Code The decision

Stat3105\Bio.1

3. the chapter / the year

First semester/third stage/2023 - 2024

4. date Preparation this the description

12/3/2024

- 5. Available attendance forms
- My presence
- 6. Number of study hours (total)/number of units (total)

30/30

- 7. Name of the course administrator (if more than one name is mentioned)
  - Name: A.P.D. Anam Abdulrahman Noman Email :inaamsta@uodiyala.edu.i

#### 8. Course objectives

Course objectives

- Application on data the Actual / Assigned Students By reading the topic pre- from several sources Scientific Self Relevance By decision And the lecture
   after teaching Subject Manage researcher from help Researchers
- 2- after teaching Subject Manage researcher from help Researchers in various Applications Scientific different
- 3- Mastery from analysis Data And extract Results that Reach out they take resolution Intact
- 4- Students prepare brief reports on some course topics and discuss them in the lecture
- 1- Practical exercises on how to measure the levels of the topic according to the available data and how to interpret the results

2- How to use statistical software such asSPSS, MINTAB, SAS Graduating requester mm With this Subject Applied the mission in all Domains Research

9.

The strategy

**Objectives of** 

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ek

	meth				
	od				
Discussion, oral	My	Metrics and	Understand and	2	the first
and written	presen	data in the	analyze		
examination		biosphere	anaryze		
Discussion, oral	My	Rates and	Understand and	2	the second
and written	presen	metrics	analyze		
examination					
Discussion, oral	My	Event,		2	the third
and written	presen	probability and	Understand and		
examination		conditional	analyze		
<b>D</b> : : 1		probability		-	
Discussion, oral	Му	Some important		2	the fourth
and written	presen	discrete	TT. 1		
examination		distributions in	Understand and		
		the biological	anaryze		
		neid (binomiai			
Discussion oral	Mu	Some important		2	Eifth
and written	nroson	some important		2	1,1111
and written	presen	distributions in			
And practical		the biological	Understand and		
application		field	analyze		
upphounion		(exponential.	unuryze		
		normal. and			
		chi-square,FT,)			
Discussion, oral	My	1 / //		2	VI
and written	presen		Understand and		
examination	1		analyze		
Discussion, oral	My	Vital		2	Seventh
and written	presen	applications of	Understand and		
examination		probability	analyze		
		distributions.			
Discussion, oral	My	Types of	Understand and	2	VIII
and written	presen	hypotheses and	analuze		
examination		standard error.	anaryze		
Discussion, oral	My	HidingAverage	Understand and	2	Ninth
and written	presen	s and one-	analyze		
examination		sample tests	anary 20		

Discussion, oral and written examination	My presen	Two-sample tests and one- standard analysis of variance	Understand and analyze	2	The tenth
Discussion, oral and written examination	My presen	Second exam	Understand and analyze	2	atheistic te
Discussion, oral and written examination	My presen	Two-criteria analysis of variance	Understand and analyze	2	the second ten
Discussion, oral and written examination	My presen	Multiple comparisons	Understand and analyze	2	the third te
Discussion, oral and written examination	My presen	Contrast tests	Understand and analyze	2	the fourth ten
	My presen	First semester exam		2	Fifth ten

#### 1. Course evaluation

distribution Class from 100 on according to mission Assigned With it requester like Preparation Daily And exams Daily And oral And monthly And editorial And reports ....etc

5- 50 degrees Exam ultimate Editorial with 10 degrees Exam practical ultimate. .40 degrees especially By striving Divided to me:

17) 5 degrees Presence.

18) 5-10 degrees Duties with Exam practical.

19) 15 degrees Exam Editorial.

20) 5 degrees Exam verbal.

2. Learning and teaching resources	
There are no books or methodological resources	Required textbooks (methodologif any)
Computer applications using softwareSPSS	Main references (sources)
Kamal Alwan Al-Mashhadani, Dr. Imad Hazem	
Aboudi	

Dr. Suhail Najm Abdullah	
Department of Statistics, College of	
Administration and Economics, University of	
Baghdad /2012 Biostatistics using softwarespss Assistant Professor Dr. Jassim Mohammed Khalaf Al-Tamimi Professor Dr. Wissam Malik Daoud	
Biostatistics A foundation for analysis in the health sciences	Recommended supporting books and references (scientific journals, reports)
	Electronic references, Internet sites

1. Name of the course

Demographic statistics1

2. Course code

Stat.3106\Demo.1

3. Semester/year

First semester / third stage /2023-2024

4. The date this description was prepared

2/12/2024

5. Available attendance forms

My presence

6. Number of study hours (total) Number of units (total)

45/45

7. Name of the course administrator (if more than one name is mentioned)

Name: L.D. Abbas Kazem Jawad

Email:abasskjaud@uodiyala.edu.iq

8. Course objectives

Objectives of the study subject

- Educational benefit, by learning about the concept of demographic statistics and the concepts associated with it.
- Demographic census methods
- Identify the importance and types of statistical applications in the demographic field

#### 9. Teaching and learning strategies

1- Familiarize the student with the basic concepts of demographic	The
statistics	strategy

2- Expanding the student's scientific awareness when linking various					
cognitive i	nformation a	nd then applying it in	his advanced	research	
studies					
B- Subjec	ct-specific sk	ills			
1- Applica	ations of dem	nographic statistics to	the statistical r	reality	
2- Identify	y modern me	thods in demographic	c statistics in or	der to use	
them for policy experiments and ways to develop them.					
10. Course structure					
Evaluati	Learning	Name of the unit	Required	hours	the week
on	method	or topic	learning		
method			outcomes		
Homework	Giving	Some basic concepts of	Understand	3	1
+ daily	focused	demographic analysis	and clarify		
exam	nectures with				

			and clarify		
exam	lectures with				
	practical				
	examples				
Homework	Giving	The nature of	Understand	3	2
	focused	demographic	and clarify		
	lectures with	information	2		
	practical				
	examples				
Homework	Mathematic	Methods with data	Understand	3	3
+ daily	al examples		and clarify		
exam			•		
Homework	Mathematic	Data and information	Understand	3	4
	al examples	available from United	and clarify		
		Nations offices	•		
Homework	Mathematic	Population growth	Understand	3	5
	al examples	rates	and clarify		
Homework	Mathematic	Fertility rates	Understand	3	6
	al examples		and clarify		
Homework	Mathematic	Cross-sectional	Understand	3	7
	al examples	mortality rates	and clarify		
Homework	Mathematic	The life span	Understand	3	8
	al examples		and clarify		
Homework Homework	Mathematic al examples Mathematic al examples	Cross-sectional mortality rates The life span	Understand and clarify Understand and clarify	3	7 8

Homework	Mathematic	the first exam	Understand	3	9
	al examples		and clarify		
Homework	Mathematic	Life tables	Understand	3	10
	al examples		and clarify		
Homework	Mathematic	Fertility measures	Understand	3	11
	al examples		and clarify		
Homework	Mathematic	Type ratio	Understand	3	12
	al examples		and clarify		
Homework	Mathematic	Other concepts about	Understand	3	13
	al examples	population	and clarify		
Homework	Mathematic	Life tables	Understand	3	14
	al examples		and clarify		
		End of semester exam		3	15

#### 11. Course evaluation

Degree distribution from 100 according to the tasks assigned to the student, such as daily, oral, and monthly preparation, written exams, reports, etc.

1) 60 marks for the final written exam,

40(2) degrees related to striving, divided into:

a)5 degrees of attendance.

T)15 marks for the written exam, an average of two exams in two months.

Dr)5 marks for the oral exam

12. Learning and teaching resources

0	
Population censusDr Abdul Hussein Zaini	Required textbooks (methodology, if
	any)
	Main references (sources)
	Recommended supporting books and
	references (scientific journals,
	reports)
(Ministry of Planning - Central Bureau of Statistics -	Electronic references, Internet sites
Annual Report)	

]	<b>l</b> .	name	The	dec	isio	n
	_			-		

analysis numerical 1

2. Code The decision

Stat.3107\Num.1

3. the chapter / the year

the chapter Academic the first /stage Third /2023/2024

4. date Preparation this the description 9/1/2034

12/3/2024

5. Available attendance forms

My presence

- 6. Number of study hours (total)/number of units (total) 45/45
- 7. Name of the course administrator (if more than one name is mentioned)

Name: A.P.Dr.. Sami Abdullah Abdul Email :samiaabed@uodiyala.edu.iq

#### 8. Course objectives

•	Introducing the student to how to arrive at mathemati	Obje
•	concepts with approximate numerical solutions	ves
	The student learned how to deal with large numbers and h	the
	to perform iterative operations on them	study

For high accuracy subje
 Introducing the student to how to apply numerical algorith with extreme accuracy

9. Teaching and learning strategies

Course outcomes and teaching, learning and evaluation methodsThe28-Cognitive objectives: - Make the student able tostrate29--To know the most important principles and basic concepts inymathematicsStratestrate

- 30- -To define the types of functions and relationships to functions
- 31- To become familiar with the concept of the derivative and the laws of derivatives

32- To explain his opinion on mathematics concepts

33- To apply mathematics concepts with realistic examples and case studies

## **Course-specific skills objectives**

- 20- -Interactive skills: Possessing the ability to communicate with the subject professor and colleagues
- 21- -Diagnostic skills: the ability to diagnose functions and their real-world applications
- 22- Scientific reports.

## Teaching and learning methods

1- Managing the lecture in an applied manner linked to the reality of daily life to attract the student to the topic of the lesson without straying from the core of the topic so that the material is flexible and amenable to understanding and analysis.

2-Discussion and dialogue

3- Enrichment questions

4-Direct interrogation

## **Evaluation methods**

**1-Questions Explanations** 

2-Questions The error And the right thing

**3-Duties** 

23- Evaluation Self

24- the exams (Daily, monthly, quarterly, final).

## Emotional and value goals

1-Thinking Simple:(Analysis the problem In a way statistical Athlete And find Solutions she has on Basis Results expected)

2-Thinking Critic: (ability on Cash And discrimination Threads

Asked And the choice Between them )

3-Thinking Creative: (ability on production ideas And knock New in the solution).

## **Teaching and learning methods**

1-Brainstorming method

2-Use decision making to test the best alternative

3-Presentation.

## Evaluation methods

-Tests Miscellaneous(Daily (monthly, quarterly, final)

2-Tests Oral

3- Duties

General and qualifying transferable skills (other skills related to employability and personal development).

1-Skills of collecting and analyzing information about mathematics concepts and how to use them in the fields of statistics

concepts in diff 3- Developing	terent fields. the student's a	bility to deal with the	he Internet.		
10. Course str	ucture	<u> </u>			
Evaluation	Learning	Name of the unit	Required learning	hours	the
method	method	or topic	outcomes		week
the exam	Diction	Order of completion of operations The error - Absolute error -Relative error -The rounde error	Precision By dealin with Processes Arithmetic	3	1
the exam	Diction	Sources of error -Method error -Initial error -The crusader error -The truncated error -Significant figures	Identify to Species The error And its sources	3	2
the exam	Diction	Roots of equations -Methods for finding approximate roots -Drawing method	to understand the solution Numerica	3	3
the exam	Diction	Analysis method (deletion)	to understand the solution Numerica	3	4
the exam	Dictio	road the point The fixed one	to understand the solution Numerica	3	5
the exam	Diction	Newton-Raphson method for finding roots	to understand the solution Numerica	3	6

	Diction	Fake location method	to understand the solution Numerica	3	7
the exam	Dictio	Special iterative methods	building Methods Iterative	3	8
the exam	Dictio	Power series	Benefit from Sequences Powers	3	9
the exam	Dictio	Partial power series Approximation by power series	Benefit from Sequences Powers	3	10
the exam	Diction	Differences -Definition of the difference equation - the first difference and the second difference	knowledge Concep Differences And its applicatior	3	11
the exam	Dictio	Front differences	knowledge Concer Differences And its applicatior	3	12
the exam	Dictio	Background differences	knowledge Concer Differences And its applicatior	3	13
the exam	Dictio	Central differences	knowledge Concer Differences And its applicatior	3	14
the exam	Diction	The relationship between the differences	knowledge Concer Differences And its applicatior	3	15

distribution Class from 100 on according to mission Assigned With it requester like Preparation Daily And exams Daily And oral And monthly And editorial And reports ....etc

6- 60 degrees Exam ultimate Editorial.

.40 degrees especially By striving Divided to me:

- 21) 5 degrees Presence.
- 22) 5-10 degrees Duties with.
- 23) 15 degrees Exam Editorial.
- 24) 5 degrees Exam verbal.

#### 12. Learning and teaching resources
book Analysis Numerical Written	Required textbooks (methodology, if any)
Dr Farls Ahmed , Dr. Turne	, , , , , , , , , , , , , , , , , , ,
Mahmoud, Dr. space florid	
introduction in Analysis Numerica	Main references (sources)
written by Dr Ahmed	
Al-Alusi, Adel Al-Bayati	
Numerical analysis	Recommended supporting books and
Richard L. Burden,	references (scientific journals, reports)
J. Douglas Faires	
	Electronic references, Internet sites

## Third stage the second course

13. name The decision	
Mathematical statistics2	
14. Code The decision	
Math. Stat./Stat3201.	
15. the chapter / the year	
Second semester/third stage/2023 - 2024	
16. date Preparation this the description	
2/12/2024	
17. Available attendance forms	
My presence	
18. Number of study hours (total)/number of units (total)	
45/45	
19. Name of the course administrator (if more than one name is me	entioned)
Name: A. P. Dr Ayad Habeeb Email: ayadstatistic@uodiyala.edu.iq	
20. Course objectives	
- Course objectives	Objectives
-Introducing the student to the most important vocabulary of ordinal mathemati	the st
statistics and its importance.	subject
-What do composite statistical distributions mean?	
–What are the steps of statistical analysis based on mathematical statistics a	
estimation of distribution parameters?	
estimation of distribution parameters? <ul> <li>Developing work on integrating mathematical statistics distributions</li> </ul>	
estimation of distribution parameters? – Developing work on integrating mathematical statistics distributions – Knowledge of conditional mathematical statistics	
estimation of distribution parameters? – Developing work on integrating mathematical statistics distributions – Knowledge of conditional mathematical statistics	
estimation of distribution parameters? <ul> <li>Developing work on integrating mathematical statistics distributions</li> <li>Knowledge of conditional mathematical statistics</li> </ul> 21.	
<ul> <li>estimation of distribution parameters?</li> <li>– Developing work on integrating mathematical statistics distributions</li> <li>– Knowledge of conditional mathematical statistics</li> <li>21.</li> <li>Course outcomes and teaching, learning and evaluation methods</li> </ul>	The strategy
<ul> <li>estimation of distribution parameters?</li> <li>Developing work on integrating mathematical statistics distributions</li> <li>Knowledge of conditional mathematical statistics</li> <li>21.</li> <li>Course outcomes and teaching, learning and evaluation methods Objectives Cognitive</li> </ul>	The strategy
<ul> <li>estimation of distribution parameters?</li> <li>Developing work on integrating mathematical statistics distributions</li> <li>Knowledge of conditional mathematical statistics</li> </ul> 21. Course outcomes and teaching, learning and evaluation methods Objectives Cognitive <ul> <li>1- That Known requester The information Statistics Sports.</li> </ul>	The strategy
<ul> <li>estimation of distribution parameters?</li> <li>Developing work on integrating mathematical statistics distributions</li> <li>Knowledge of conditional mathematical statistics</li> <li>21.</li> <li>Course outcomes and teaching, learning and evaluation methods         <ul> <li>Objectives Cognitive                  <ul> <li>That Known requester The information Statistics Sports.</li> <li>That Known requester Most important basics science Statistics</li> </ul> </li> </ul> </li> </ul>	The strategy
<ul> <li>estimation of distribution parameters?</li> <li>Developing work on integrating mathematical statistics distributions</li> <li>Knowledge of conditional mathematical statistics</li> </ul> 21. 21. Course outcomes and teaching, learning and evaluation methods Objectives Cognitive <ul> <li>1- That Known requester The information Statistics Sports.</li> <li>2- That Known requester Most important basics science Statistics</li> </ul>	The strategy

4- That Known requester style an offer And analysis data What are the Most important Distributions Statistics that suits environment the job.

5- That Known requester style Analysis And the conclusion. **Objectives and skills of the course** 

- 25- Interactive skills/student interaction with the environment.
- 26- Personal skills/the ability to diagnose statistical information and its distributions from reality.
- 27- Analytical skills / the ability to analyze digital information realistically.

#### Teaching and learning methods

1- Managing the lecture in an applied manner linked to the reality of daily life to attract the student to the topic of the lesson without straying from the core of the topic so that the material is flexible and amenable to understanding and analysis.

2-Discussion and dialogue

3- Enrichment questions

4-Direct interrogation

#### **Evaluation methods**

**1-Questions Explanations** 

2-Questions The error And the right thing

**3-Duties** 

28- Evaluation Self

29- the exams (daily, monthly, Quarterly, Final).

#### Emotional and value goals

1-Thinking Simple: (Analysis the problem In a way statistical Athlete And find Solutions she has on Basis Results expected)

2-Thinking Critic: (ability on Cash And discrimination Threads Asked And the choice between them)

3-Thinking Creative: (ability on production ideas And knock New in the solution).

#### **Teaching and learning methods**

1-Brainstorming method

2-Use decision making to test the best alternative

3- Presentation.

#### **Evaluation methods**

- -Tests miscellaneous (daily, Monthly, quarterly, ultimate)
- 2-Tests Oral
- 3- Duties

#### General and qualifying transferable skills (other skills related to employability and personal development).

1-Skills of collecting and analyzing information about mathematics concepts and how to use them in the fields of statistics

2- Training and personal development skills on how to apply mathematics concepts in different fields.

3- Developing the student's ability to deal with the Internet.

.Course struct	ure				
Evaluation	Learning	Name of the unit or	Required learning	hours	the week
method	method	topic	outcomes		
Evaluation Self /the exams /Oral	lecture And the discussion	Distribution of order statistics	Understand and analyze	3	1
Evaluation Self /the exams /Oral	lecture And the discussion	Distribution of order statistics	Understand and analyze	3	2
Evaluation Self /the exams /Oral	lecture And the discussion	Sampling theory for finding distribution	Understand and analyze	3	3
Evaluation Self /the exams /Oral	lecture And the discussion	Transformation of variable of discrete	Understand and analyze	3	4
Evaluation Self /the exams /Oral	lecture And the discussion	Transformation of variable of continuous	Understand and analyze	3	5
Evaluation Self /the exams /Oral	lecture And the discussion	Extensions of change of variable technique	Understand and analyze	3	6
Evaluation Self /the exams /Oral	lecture And the discussion	T distribution	Understand and analyze	3	7
Evaluation Self /the exams /Oral	lecture And discussion/e xam	T distribution	Understand and analyze	3	8
Evaluation Self /the exams /Oral	lecture And the discussion/	F distribution	Understand and analyze	3	9
Evaluation Self /the exams /Oral	lecture And the discussion	F distribution	Understand and analyze	3	10
Evaluation Self /the exams /Oral	lecture And the discussion	Compound distribution like beta - binomial	Understand and analyze	3	11
Evaluation Self /the exams /Oral	lecture And the discussion	Compound distribution like beta - binomial	Understand and analyze	3	12

Evaluation Self /the exams /Oral	lecture And the discussion	Limiting mor generating fu	ment – inction	Understand and analyze	3	13
Evaluation Self /the exams /Oral	lecture And the discussion	Central limit (	theorem	Understand and analyze	3	14
Evaluation Self /the exams /Oral	clarification questions	Exam		Exam	3	15
3. Course e	valuation					
distribution Cla Daily And exam 7- 60 degre (.40 degrees espected 25) 5 degrees	<ul> <li>distribution Class from 100 on according to mission Assigned With it requester like Preparation</li> <li>Daily And exams Daily And oral And monthly And editorial And reportsetc</li> <li>7- 60 degrees Exam ultimate Editorial.</li> <li>.40 degrees especially By striving Divided to me:</li> </ul>					
<ul> <li>26) 5-10 deg</li> <li>27) 15 degree</li> <li>28) 5 degree</li> </ul>	<ul> <li>25) 5 degrees Presence.</li> <li>26) 5-10 degrees Duties with.</li> <li>27) 15 degrees Exam Editorial.</li> <li>28) 5 degrees Exam verbal.</li> </ul>					
4. Learning	and teaching	resources				
Introduction to	mathematica	al statistics	Required	d textbooks (method	ology, if any	/)
/dr. iden hass	an, dr. hamz	a Ismael				
Introduction to	mathematica	al statistics	Main ref	erences (sources)		
/dr. iden hass	an, dr. hamz	a Ismael				
Mathem	natical stati	stics /Rob	Recomm	nended supporting	books and	references
Hogg			(scientifi	c journals, reports	)	
the library D Internet Exte	efault Iraqi , rnal .	And Resear	Electron	ic references, Intern	et sites	

11.plan development The decision Academic

- Use Books methodology Modern.

- Application Practical For tests.

- Use Programs the computer Statistics Modern.

Benefit from Research New And apply it.

1. name The decision

Linear regression analysis2

#### 2. Code The decision

Stat.3202\Reg.2

3. the chapter / the year

First semester/third stage/2023 - 2024

4. date Preparation this the description

3/6/2024

- 5. Available attendance forms
- My presence
- 6. Number of study hours (total)/number of units (total)

45/45

7. Name of the course administrator (if more than one name is mentioned) Name: A.P. Aqeel Hameed rashed Email :aqeelsta@uodiyala.edu.iq

Objectives of the st

subject

8. Course objectives

- Course objectives

- Introducing paint to the theoretical foundations of the subject as well as its use in practice.
- It aims to build a regression model that matches reality, based on practical reality
- And characteristics that must be present in order to obtain the best linear regression model that simulates the practical reality of the studies
- Thoughtful.
- Building regression analysis skills and how to obtain an analysis of the studied phenomenon through
- Know the factor affecting it.

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7
-

Comme antennes and too shine learning and analysis in matheda	<b>T</b>
Vourse outcomes and teaching, learning and evaluation methods	The strategy
24 Understand the basics of linear regression analysis	
25 Understanding the multiple linear regression model	
26 Understand the basics of using a regression model	
30- Understand the assumptions of the regression model	
37- Understand the assumptions of the regression model	
38- Understanding the stages of building a regression model	
39- Understanding the assumptions about the random error term	
40- Understand the processes of estimating model parameters	
41- Understand the ordinary least squares method	
42- Understanding methods for testing model parameters	
Course-specific skills objectives	
30- Interactive skills: Possessing the ability to communicate with	
the subject professor and colleagues.	
31- Diagnostic skills: the ability to deal with a statistical problem.	
32- Analytical skills: The ability to analyze and distinguish	
between different types of analytical commands in the program.	
Teaching and learning methods	
1- Presenting the basic theories, meaning that the beginning of learning will	
be by presenting the basic theories and concepts of regression	
2- Regression analysis, which is represented by the simple model, by	
building a model of the studied phenomenon.	
3- Using economic studies, practical applications and experiments in	
various fields, such as	
4- Agricultural sciences and medical sciences, for the purpose of explaining	
how to use the regression model in practical life.	
5-Provide individual guidance to students to understand theories and	
practical exercises, and guide them in solving problems and understanding	
the results.	
6- Organizing group discussions about the processes of building the	
regression model, which contributes to the exchange of ideas and mutual	
learning among students.	
7- Previous studies can be used as examples to analyze and understand the	
results and statistical analyzes used in the multiple linear regression model	
8-Provide continuous evaluation of students' performance and provide	
feedback to guide them and improve their understanding and analysis skills	
Multiple linear regression	
Evaluation methods	
1-Questions Evaluations	
2 Questions The orror And the right thing	
2-Questions The error And the right thing	
3-Duties	

33-	Evaluation Se	elf			
34- 1					
<b>Emotional</b> and	nd value goal	S			
7- Abili	ity on to exan	nine And evaluation	n Threads Asked .		
8- Abili	ity on Cash A	nd discrimination	Threads Asked And th	ne	
choi	ce Between t	hem .			
9- Abili	ity on produc	tion ideas New			
Teaching an	d learning m	ethods			
1-Brainstorm	ing method				
2-Use decisio	on making to t	est the best alternation	ve		
3-Presentatio	n.				
Evaluation n	nethods				
- Tests Misce	llaneous(Dail	ly (monthly, quarte	erly, final)		
2-Tests Oral					
3- Duties	1.6.	· · · · · · · · · · · ·	<b>41 1411 14 7</b> 4		
General and	qualifying tr	ansferable skills (o	ther skills related to		
employabilit	y and person	al development).	11 .	C	
I-Skills of co	flecting and a	nalyzing information	n about the concepts o	I 1	
designing and	i analyzing ex	periments and now	to use them in agricult	ural	
fields					
2- Training and personal development skills on how to apply experience					
2- Training an	nd personal de	evelopment skills on t fields	how to apply experien	nce	
2- Training at design conception	nd personal de pts in differen	evelopment skills on t fields.	how to apply experient	nce	
2- Training at design concep 3- Developin	nd personal de pts in differen g the student's	evelopment skills on t fields. s ability to construct	how to apply experient a correct experiment	nce	
<ul><li>2- Training at design concept</li><li>3- Developing</li><li>10. Course s</li></ul>	nd personal de pts in differen g the student's structure	evelopment skills on t fields. s ability to construct	how to apply experient	nce	
<ul><li>2- Training at design concept</li><li>3- Developing</li><li>10. Course service</li><li>Evaluation</li></ul>	nd personal de pts in differen g the student's structure Learning	evelopment skills on t fields. s ability to construct Name of the unit	how to apply experient a correct experiment Required learning	hours	the week
<ul> <li>2- Training at design conception</li> <li>3- Developin</li> <li>10. Course set Evaluation</li> <li>method</li> </ul>	nd personal de ots in differen g the student's structure Learning method	evelopment skills on t fields. s ability to construct Name of the unit or topic	how to apply experient a correct experiment Required learning outcomes	hours	the week
<ul> <li>2- Training at design conception</li> <li>3- Developin</li> <li>10. Course structure</li> <li>Evaluation</li> <li>method</li> <li>Discussion Article</li> </ul>	nd personal de pts in differen g the student's structure Learning method My presenc	evelopment skills on t fields. s ability to construct Name of the unit or topic	how to apply experient a correct experiment Required learning outcomes	hours	the week the first
<ul> <li>2- Training at design conception</li> <li>3- Developin</li> <li>10. Course state</li> <li>Evaluation</li> <li>method</li> <li>Discussion Art the test Oral</li> </ul>	nd personal de ots in differen g the student's structure Learning method My presenc	evelopment skills on t fields. s ability to construct Name of the unit or topic Concept Forms Regression	how to apply experient a correct experiment Required learning outcomes Understand and	hours 3	the week the first
2- Training at design concep 3- Developin 10. Course s Evaluation method Discussion Ar the test Oral And the aditorial	nd personal de ots in differen g the student's structure Learning method My presence	evelopment skills on t fields. s ability to construct Name of the unit or topic Concept Forms Regression Multimeter	how to apply experient a correct experiment Required learning outcomes Understand and analyze	hours 3	the week the first
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2- Training at design conception 3- Developin 10. Course st Evaluation method Discussion Art the test Oral And the editorial Discussion Art the test Oral And the the test Oral And the	nd personal de pts in differen g the student's structure Learning method My presence	evelopment skills on t fields. s ability to construct Name of the unit or topic Concept Forms Regression Multimeter Concept Multiplicity linear	how to apply experient a correct experiment Required learning outcomes Understand and analyze Understand and analyze	hours 3 3	the week the first the second
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2- Training at design concep 3- Developin 10. Course s Evaluation method Discussion Ar the test Oral And the editorial Discussion Ar the test Oral And the editorial Discussion Ar the test Oral And the editorial Discussion Ar the test Oral And the editorial Discussion Ar the test Oral And the	nd personal de pts in differen g the student's structure Learning method My presence My presence My presence	evelopment skills on t fields. s ability to construct Name of the unit or topic Concept Forms Regression Multimeter Concept Multiplicity linear	how to apply experient a correct experiment Required learning outcomes Understand and analyze Understand and analyze Understand and analyze	hours         3         3         3         3         3         3         3	the week         the first         the second         the third         the fourth
2- Training at design concep 3- Developin 10. Course s Evaluation method Discussion Ar the test Oral And the editorial Discussion Ar the test Oral And the editorial Discussion Ar the test Oral And the editorial Discussion Ar the test Oral And the editorial Discussion Ar the test Oral And the editorial	nd personal de pts in differen g the student's structure Learning method My presence My presence My presence	evelopment skills on t fields. s ability to construct Name of the unit or topic Concept Forms Regression Multimeter Concept Multiplicity linear road Squares Minor Link linear	how to apply experient a correct experiment Required learning outcomes Understand and analyze Understand and analyze Understand and analyze	hours 3 3 3 3	the week         the first         the second         the third         the fourth

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And the		-			
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the test Oral	My presence			3	VI
And the		Factor Link Partial	analyze		
editorial					
Discussion An	My presence		Understand and	3	Seventh
the test Oral		<b>Factor Link</b>	analyze		
And the		Multimeter	·····j_··		
editorial					
Discussion An	My presenc		Understand and	3	VIII
the test Oral		Solution exercises	analyze		
And the		/Exam			
Discussion Ar	Muprocore		Understand and	2	Ninth
the test Oral	My presence	Factor Engagement		3	INITIUTI
And the		Ranks And the	anaryze		
editorial		qualities			
Discussion An	My presence		Understand and	3	The tenth
the test Oral		a test Moral	analyze		
And the		Landmarks	·····j_··		
editorial					
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the test Oral		border trust For	analyze		
And the		landmarks			
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And the		<b>Regression linear</b>	allalyze		
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And the		Landmarks As a	analyze		
editorial		whole			
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the test Oral	ing presente	appreciation	analyze		
And the		Landmarks	unury 20		
editorial		Nonlinearity			
	Muproconc	Second semester		2	Fifth ton
	my present	exam		5	
11 Course		V/AUIII			
	Evaluation				

distribution Class from 100 on according to mission Assigned With it requester like Preparation Daily And exams Daily And oral And monthly And editorial And reports ....etc

8- 60 degrees Exam ultimate Editorial.

.40 degrees especially By striving Divided to me:

- 29) 5 degrees Presence.
- 30) 5 degrees Duties with.
- 31) 15 degrees Exam Editorial first
- 32) 15 degrees Exam Editorial second

# 12. Learning and teaching resources analysis Regression Required textbooks (methodology, if any) Mr. Dr Submissive the narrator Main references (sources) Main references (sources) Recommended supporting books and references (scientific journals, reports....) no There is Electronic references, Internet sites

- 1. name The decision
- Operations research
  - 2. Code The decision

#### Stat3203\Oper.

3. the chapter / the year

First semester/third stage/2023 - 2024

4. date Preparation this the description

2/13/2024

- 5. Available attendance forms
  - My presence
- 6. Number of study hours (total)/number of units (total)

45/37.5

#### 7. Name of the course administrator (if more than one name is mentioned) Name: M. Kareem Qassem Mohammed Email :ka1973reem@gmail.com

8. Course	objectives
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- Course objectives	Objectives of
• Introducing the student to the most important foundations and	article
principles of operations research and quantitative decision making	Scholarship
• Explaining the concept of programming mathematical problems	
• Highlighting the importance of mathematical concepts	
and solution methods using quantitative mathematics	
• This course aims to develop the ability to build models and write	
computer programs.	
9.	
Course outcomes and teaching, learning and evaluation methods	The strategy
43- Cognitive objectives: - Make the student able to	
44To know the most important principles and basic concepts	
in quantitative programming and applied mathematics	
45To define the types of functions and relationships to	
functions	
46- To become familiar with programming tools and optimal	
decision making	

47- To express his opinion on the concepts of quantitative
mathematics and programming
48- To apply applied mathematics concepts with realistic
examples and case studies
Course-specific skills objectives
35Interactive skills: Possessing the ability to communicate
with the subject professor and colleagues
36Diagnostic skills: the ability to build programs and their
real-world applications
37- Scientific reports.
Teaching and learning methods
1- Managing the lecture in an applied manner linked to the reality of
daily life to attract the student to the topic of the lesson without straying
trom the core of the topic so that the material is flexible and amenable
to understanding and analysis.
2-Discussion and dialogue
3- Enrichment questions
4-Direct interrogation
Evaluation methods
I-Questions Explanations
2-Questions The error And the right thing
3-Duties
38- Evaluation Self
39- the exams (daily, monthly ,Quarterly ,final).
Emotional and value goals
1-Thinking Simple: (Analysis the problem In a way Logic
Athlete And find Solutions she has on Basis Results expected)
2-Thinking Critic: (ability on Cash And discrimination Threads
Asked And the choice Between them )
3-Thinking Creative: (ability on production ideas And knock New in
the solution).
Teaching and learning methods
1-Brainstorming method
2-Use decision making to test the best alternative
3-Presentation.
Evaluation methods
-Tests Miscellaneous(Daily, Monthly, quarterly, ultimate)
2-Tests Oral
3- Duties
General and qualifying transferable skills (other skills related to
employability and personal development).

<ol> <li>Skills of co concepts and</li> <li>Training an programming</li> <li>Developing</li> </ol>	llecting and a how to use th nd personal de mathematics g the student's	nalyzing information em in the fields of st evelopment skills on concepts in various s ability to deal with	about mathematics atistics and compute how to apply fields. the Internet.	ers.	
10. Course s	structure				
Evaluation method	Learning method	Name of the unit or topic	Required learning	hours	the week
Discussion An the test Oral And the editorial And the application Practical	My presence	Introduction to OR	Students should be Able to understand some concepts Basic programming, mathematics, operations research, programming, and computers, giving examples	3	the first
Discussion An the test Oral And the editorial And the application Practical	My presence	Introduction to linear programming	Learn about the lin mathematical mod linear programmi and operation research	3	the second
Discussion An the test Oral And the editorial And the application Practical	My presence	Method of solving linear programming	Methods for solv linear programs	3	the third
Discussion An the test Oral And the editorial And the application Practical	My presence	Transportation	Learn about transportation mode and their economic applications	3	the fourth
Discussion Ar the test Oral And the editorial	My presence	Assignment problem	How to solve optima allocation problems	3	Fifth

First test and evaluation Identify the concept the initial solution an the optimal solution transportation mode	3	VI
First test and evaluation Identify the concept the initial solution ar the optimal solution transportation mode	3	VI Seventh
First test and evaluation Identify the concept the initial solution ar the optimal solution transportation mode	3	VI
First test and evaluation Identify the concept the initial solution ar the optimal solution transportation mode	3	VI Seventh
First test and evaluation Identify the concept the initial solution ar the optimal solution transportation mode	3	Seventh
First test and evaluation Identify the concept the initial solution ar the optimal solution transportation mode	3	Seventh
First test and evaluation Identify the concept the initial solution ar the optimal solution transportation mode	3	Seventh
evaluation Identify the concept the initial solution ar the optimal solution transportation mode	3	Seventh
Identify the concept the initial solution ar the optimal solution transportation mode	3	Seventh
Identify the concept the initial solution ar the optimal solution transportation mode	3	Seventh
Identify the concept the initial solution ar the optimal solution transportation mode	3	Seventh
Identify the concept the initial solution ar the optimal solution transportation mode	5	Seventii
Identify the concept the initial solution ar the optimal solution transportation mode		
the initial solution ar the optimal solution transportation mode		
the optimal solution transportation mode		
transportation mode		
•		
How to test the ini	3	VIII
solution		
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using the reek jump		
using the rock jump		
methou		
	3	Ninth
Use the adjus		
distribution method		
testing		
8		
	3	The tenth
	5	The tenth
Practical axamples		
r ractical examples		
	3	atneistic te
Second test a		
evaluation		
- , uruuvivit		
Learn about	3	the second
network analy		ten
		1
Second test a evaluation Learn about network analy	3	the second
	How to test the ini solution transportation mod using the rock jump method Use the adjus distribution method testing Practical examples Second test a evaluation Learn about network analy	How to test the ini solution transportation mod using the rock jump method3Use the adjus distribution method testing3Practical examples3Second test a evaluation3Learn about network analy3

And the					
editorial					
And the					
application					
Practical					
<b>Discussion</b> An	My presence	PERT		3	the third te
the test Oral					
And the			Get to know Bu		
editorial			style		
And the			~		
application					
Practical				-	
Discussion An	My presence	Reduce(time/cost)		3	the fourth t
the test Oral					
And the			How to red		
editorial			completion times		
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application					
Practical		0 4		0	<b>D</b> '01 -
Discussion An	My presence	Game theory.		3	Fifth ten
the test			The concept		
Editorial And the			competition and		
And the			theory of profit and l		
application Proctical					
Flactical Editorial - Mr	Munnaganga	Final ayam		2	VIton
application	my presence		Level rating	3	viten
application					
11. Course	evaluation				

distribution Class from 100 on according to mission Assigned With it requester like Preparation Daily And exams Daily And oral And monthly And editorial And reports ....etc

9- 60 degrees Exam ultimate Editorial.

.40 degrees especially By striving Divided to me:

- 33) 5 degrees Presence.
- 34) 5-10 degrees Duties with.
- 35) 15 degrees Exam Editorial.
- 36) 5 degrees Exam verbal.

#### 12. Learning and teaching resources

Introduction to operations	Required textbooks (methodology, if any)
research	
Gupta. Er. Prem Kumar, 2019 "Proplems in operations Research Principles and Solutions"	Main references (sources)

Tribunals and Forums of New Delhi. India, ISBN: 978-81-219-0968-6.	
	Recommended supporting books and references
	(scientific journals, reports)
Internet	Electronic references, Internet sites

1. name The decision

Data management using SPSS 2

2. Code The decision

#### Stat.3204\Spss2

3. the chapter / the year

Second semester/third stage/2023 - 2024

4. date Preparation this the description

2/12/2024

- 5. Available attendance forms
  - My presence
- 6. Number of study hours (total)/number of units (total)

45/30

7. Name of the course administrator (if more than one name is mentioned) Name: A.L. Arshed Hameed Hassan Email :arshadhameed@uodiyala.edu.iq

**Objectives of** 

study subject

8. Course objectives

- Course objectives

- Introducing paint to the theoretical foundations of the subject as well as its use in practice.
- It aims to build a design model that matches reality based on experience
- Characteristics that must be present in order to obtain the best design that simulates the practical reality of the phenomena
- Thoughtful.
- Building statistical analysis skills and how to obtain an analysis of the studied phenomenon through
- Know the factor affecting it.

9.	
Course outcomes and teaching, learning and evaluation methods	The strategy
Make the student able to:	

49-	Introducing the student to the most important windows in the
progra	amSPSS
50-	Introducing the student to the importance of the
progr	amSPSS
51-	Statement of the most important characteristics of the
winde	bwData view
52-	Introducing the student to how to design a statistical
quest	lonnaire
53-	Providing the student with applications about arranging data,
conve	erting variables, merging data, and dividing data
54-	Providing the student with applications for questionnaire
analy	
55-	To know the windows programSPSS.
56-	To enable the student to explore data
57-	To guide the student to distinguish between the types of
variat	bles in the program.
58- The	student knows how to deal with data and how to test it
accor	ding to a normal distribution.
59- The	student will know how to explain the results of hypothesis
testing	g for quantitative and descriptive data.
60- The	student must do homework on the homogeneity tests
Cour	se-specific skills objectives
40-	Interactive skills: Possessing the ability to communicate with
the su	bject professor and colleagues.
41-	Diagnostic skills: the ability to deal with a statistical problem.
42-	Analytical skills: The ability to analyze and distinguish
betwe	een different types of analytical commands in the program
Teachin	ng and learning methods
I-lecture.	
2-Discussion	n and dialogue.
3-Enrichmen	nt questions.
43- Direc	t interrogation.
Evaluati	on methods
7- Quest	tions The error And the right thing .
8- Quest	tions the choice from Multi .
9- Quest	tions Explanations .
10-	Duties .
11-	Evaluation Self .
12-	the exams (Monthly , The quarterly , Final ).
Emotion	al and value goals
10-	Ability on to examine And evaluation Threads Asked .

11- Ability on Cash And discrimination Threads Asked And	
the choice Between them .	
12- Ability on production ideas New	
Teaching and learning methods	
1-Brainstorming method	
2-Use decision making to test the best alternative	
3-Presentation.	
Evaluation methods	
-Tests Miscellaneous(Daily (monthly, quarterly, final)	
2-Tests Oral	
3- Duties	
General and qualifying transferable skills (other skills related to	
employability and personal development).	
4- Skills to distinguish between types of variables.	
5- Training skills to conduct various statistical tests.	
5- Training skills to conduct various statistical tests.	

6- Questionnaire preparation skills.

10. Course structure

Evaluation	Learning	Name of the unit	Required learning	hours	the week
method	method	or topic	outcomes		
Discussion Ar the test Oral And the editorial	My presence	Frequency tables, descriptive statistics	Understand and clarify	3	the first
Discussion An the test Oral And the editorial	My presence	Intersection tables, pivot tables	Understand and clarify	3	the second
Discussion An the test Oral And the editorial	My presence	Charts, import and export data files	Understand and clarify	3	the third
Discussion An the test Oral And the editorial	My presence	Means analysis, linear effect test	Understand and clarify	3	the fourth
Discussion Ar the test Oral And the editorial	My presence	One sample t test, Independent sample t test	Understand and clarify	3	Fifth
Discussion Ar the test Oral And the editorial	My presence	Paired sample t test, One way anova	Understand and clarify	3	VI

Discussion Ar My presend	e Ch-square testv,	Understand and clarify	3	Seventh
the test Oral	kolmagorov-			
And the	smirnov test			
editorial				
Discussion Ar My presend	e Binomial test, Runs	Understand and clarify	3	VIII
the test Oral	test			
And the				
editorial				
Discussion Ar My presend	e Two independent	Understand and clarify	3	Ninth
the test Oral	samples testK			
And the				
editorial				
Discussion Ar My presend	e Testing of two	Understand and clarify	3	The tenth
the test Oral	linked samples of			
And the	linked samplesK			
editorial				
Discussion Ar My presend	e Correlation, partial	Understand and clarify	3	atheistic t
the test Oral	correlation			
And the				
editorial				
Discussion Ar My presend	e Simple linear	Understand and clarify	3	the second
the test Oral	regression,			ten
And the	multiple linear			com
editorial	regression			
Discussion Ar My presend	e Methods for	Understand and clarify	3	the third t
the test Oral	choosing the best			
And the	model,			
editorial	multicollinearity			
	problem			
Discussion Ar My presend	e Autocorrelation	Understand and clarify	3	the fourth
the test Oral	problem,			ten
And the	heteroscedasticity			
editorial	problem			
Discussion Ar My presend	e Second semester		3	Fifth ten
the test Oral	exam			
And the				
editorial				

11. Course evaluation

distribution Class from 100 on according to mission Assigned With it requester like Preparation Daily And exams Daily And oral And monthly And editorial And reports ....etc

10- 60 degrees Exam ultimate Editorial.

.40 degrees especially By striving Divided to me:

- 37) 5 degrees Presence.
- 38) 5 degrees Duties with.
- 39) 15 degrees Exam Editorial first
- 40) 15 degrees Exam Editorial second

12. Learning and teaching resources	
	Required textbooks (methodology, if any)
analysis the program Statistician SPSS Written by Dr Ehab slave peace Your guide to the program Statistician SPSS Composition Saad Zaghloul	Main references (sources)
	Recommended supporting books and references
	(scientific journals, reports)
no There is	Electronic references, Internet sites

1.	name	The	decision
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**Biostatistics**2

2. Code The decision

Stat.3205\Bio.2

3. the chapter / the year

Second semester / third stage /2023 - 2024

4. date Preparation this the description

2/12/2024

5. Available attendance forms

My presence

6. Number of study hours (total)/number of units (total)

30/30 two hours theoretical Opposite Two hours practical

7. Name of the course administrator (if more than one name is mentioned)

Name: A. P. D. Anam Abdulrahman Noman Email :inaamsta@uodiyala.edu

8	Course	obi	iectives
0.	000100		100011000

Cours	se objectives	Object	ives
5-	Application on data the Actual / Assigned Students By reading the topic pre- from several sources Scientific Self Relevance By decision And the lecture	the	sti
6-	after teaching Subject Manage researcher from help Researchers in various Applications Scientific different	subjec	t
7-	Mastery from analysis Data And extract Results that Reach out they take resolution Intact		
8-	Students prepare brief reports on some course topics and discuss them in the lecture		
3-	Practical exercises on how to measure the levels of the topic according to the available data and how to interpret the results		
4-	How to use statistical software such asSPSS_MINTAB_SAS		
Gradu	ating requester mm With this Subject Applied the mission in all Domains Research		
9.		1	
		The st	rateg
Knov	wledge And understanding		
	- Ability on analysis data using Programs Statistics		
	Supply Students With knowledge Applied Statistics in Different		
	fields life Like social And economic And others		
	- Supply Students With knowledge Applied Statistics in Different fields life Like social And economic And others		

Evaluation	Learni	Name of the unit	Required learning	hours	the				
10. Course struc	ture								
- the answer	- the answer minute And scientific For requirements the question								
- the focus on requirements the question.									
- Ininking And listening To ask.									
SK111S	I NINKINg And liste	ning To ask							
	Thinking								
Exams Period	icity And	l discussions in The	eme lecture						
Mathada Evaluation									
between the students.									
certain, Than constribte in exchange Ideas And learning Mut									
<ul> <li>And others To find out employment Statistics Differently Domains</li> <li>to organize discussions Collective around analysis series Tempo</li> </ul>									
- throw Lect phenomena	tures and a Like ec	give exercises on onomic And demo	going And applied I graphics	For differ					
Met	thods edu	cation And learnir	ıg						
- skills reac building or Scientific I	ch to dec n establis intact	h	and take resolution	Appropri					
- skills emp For data fro	loyment om durin	using it Analysis S g the side Natri on	tatistician the approp Data Real	riate					
Skills l	Skills Private With the topic								
in His life the operation In the future.									
- Accommodation requester For concept Analysis And benefit from that									
attention By studying Cases in the field Healthy And agricultural									
		ge requester in the		•					

method	ng metho d	or topic	outcomes		week
Discussion, oral an written examination	My present	Testing proportions and correlations	Understand and explain	2	the first

Discussion, oral a written examination	My presene	Exercises on proportion testing	Understand and explain	2	the seco
Discussion, oral ar written examination	My presene	Testing the signal for one or two samples	Understand and explain	2	the third
Discussion, oral ar written examination	My presene	Exercises on proportion testing	Understand and explain	2	the fourt
Discussion, oral a written examinatio And practical application	My present	Wilcoxon rank- sum test	Understand and explain	2	Fifth
Discussion, oral ar written examination	My present	Wilcoxon rank sum test	Understand and explain	2	VI
Discussion, oral ar written examination	My present	Chi-square test	Understand and explain	2	Seventh
	My presene	the first exam		2	VIII
Discussion, oral ar written examination	My present	Correlation tests	Understand and explain	2	Ninth
Discussion, oral a written examination	My preseno	Exercises on correlation testing	Understand and explain	2	The tent
Discussion, oral a written examinati	My presene	Regression tests	Understand and explain	2	atheistic ten
Discussion, oral a written examinati	My presene	Exercises about regression testing	Understand and explain	2	the seco ten
Discussion, oral a written examination	My preseno	Compatibility table test	Understand and explain	2	the third ten
	My presene	Second exam	Second exam	2	the fourt
Discussion, oral ar written examination	My preseno	Testing proportions and correlations	Vital applications	2	Fifth ten

11. Course evaluation

distribution Class from 100 on according to mission Assigned With it requester like
Preparation Daily And exams Daily And oral And monthly And editorial And reports ....etc
11- 50 degrees Exam ultimate Editorial with 10 degrees Exam practical ultimate.

.40 degrees especially By striving Divided to me:

41) 5 degrees Presence.

- 42) 5-10 degrees Duties with Exam practical.
- 43) 15 degrees Exam Editorial.
- 44) 5 degrees Exam verbal.

12. Learning and teaching resources	
There are no books or methodological resources	Required textbooks (methodology,
	any)
Computer applications using softwareSPSS	Main references (sources)
Kamal Alwan Al-Mashhadani, Dr. Imad Hazem	
Aboudi	
Dr. Suhail Najm Abdullah	
Department of Statistics, College of Administration	
and Economics, University of Baghdad $/2012$	
Biostatistics using softwarespss	
Assistant Professor Dr. Jassim Mohammed	
Khalaf Al-Tamimi	
Professor Dr. Wissam Malik Daoud	
Biostatistics A foundation for analysis in the	Recommended supporting books
health sciences	and references (scientific journals,
	reports)
	Electronic references, Internet sites

course description form	
1. name The decision	
Demographic statistics2	
2. Code The decision	
Stat.3206\Dem.2	
3. the chapter / the year	
Second semester / third stage /2023 - 2024	
4. date Preparation this the description	
2/12/2024	
5. Available attendance forms	
My presence	
6. Number of study hours (total)/number of units (total)	
30/30 two hours theoretical Opposite Two hours practical	
7. Name of the course administrator (if more than one name is mentioned)	
Name: A.P. Wahab Salem Mohammed Email :Wehab@uodiyala	a.edu.iq
8. Course objectives	
Course objectives	Objectives of
9- Application on data the Actual / Assigned Students By reading the topic pre- from several sources Scientific Self Relevance By decision And the lecture	study subject
10- after teaching Subject Manage researcher from help Researchers in various	
Applications Scientific different 11- Mastery from analysis Data And extract Results that Reach out they take resolution Intact	
12- Students prepare brief reports on some course topics and discuss them in the	
<ul> <li>Practical exercises on how to measure the levels of the topic according to the</li> </ul>	
available data and how to interpret the results	
Graduating requester mm With this Subject Applied the mission in all Domains Research	
9.	
	The strategy
Knowledge And understanding	

Ability on analysis data Demographic using Programs Statistics .
Supply Students With knowledge Applied Statistics in Different

fields life Like social And economic And others

<ul> <li>Ability to knowledge requester in the exams Statistics And attention By studying Cases in the field Healthy And agricultural And saving data For application And extract Results .</li> <li>Accommodation requester For concept Analysis And benefit from that in His life the operation In the future. Skills Private With the topic</li> <li>skills employment using it Analysis Statistician the appropriate For data.from during the side Natri on Data Real</li> <li>skills reach to decisions Futurism And take resolution Appropri building on establish Scientific Intact</li> </ul>								
Meth - throw Lecture economic And	ods educations and give demographi	on And learning exercises ongoing And ics	applied For different ph	enomena ]				
- And others To	find out em	ployment Statistics Diffe	erently Domains	bon constr				
in exchange Id	eas And lear	rning Mutual between th	he students.	nan consti				
Met Exams Periodic	thods Eval ity And di	uation scussions in Theme	lecture					
<ul> <li>skills Thinking</li> <li>Thinking And listening To ask.</li> <li>to understand the question.</li> <li>the focus on requirements the question.</li> <li>the answer minute And scientific For requirements the question</li> </ul>								
Evaluation	Learni	Name of the unit	Required learning	hours	the week			
method	ng	or topic	outcomes					
	metho							
	d							
Discussion, oral a written examinatio	My preseno	Concepts Basic /Definitions Immigration	Understand and explain	2	the first			
Discussion, oral a written examinati	My presene	Pedigree And rates Immigration	Understand and explain	2	the secon			
ImmigrationComparisonDiscussion, oral atMymarriage AndUnderstand and2thewritten examinationpressonediversescomparisonthe								

written examinati Discussion, oral a written examinati	presence My presence	Dear ming	explain		
Discussion, oral a written examinati	My presene				
written examination	presen			2	Fifth
	-	nower the job	Understand and		
And practical		power the job	explain		
application					
Discussion, oral a	My	Industry	Understand and	2	VI
written examinati	presene	industry	explain		
Discussion, oral a	My	Projection	Understand and	2	Seventh
written examinati	presene	Births	explain		
	My	method		2	VIII
	presene	Composition			
Discussion, oral a	My	Methods	Understand and	2	Ninth
written examinati	presene	Immigration	explain		
Discussion, oral a	My	Immigration	Understand and	2	The tenth
written examinati	presene	The imamba	explain		
Discussion, oral a	My	Immigration	Understand and	2	atheistic
written examination	presene	Reverse	explain		ten
Discussion, oral a	My	road I extend	Understand and	2	the secon
written examination	presene	marriage	explain		ten
Discussion, oral a	My	Datos Spraguo	Understand and	2	the third
written examination	presene	Nates Sprague	explain		ten
	My	Second exam	Second exam	2	the fourth
	presene				ten
Discussion, oral a	My	Testing	Vital applications	2	Fifth ten
written examination	presene	proportions and			
		correlations			

#### 11. Course evaluation

distribution Class from 100 on according to mission Assigned With it requester like
Preparation Daily And exams Daily And oral And monthly And editorial And reports ....etc
12- 50 degrees Exam ultimate Editorial with 10 degrees Exam practical ultimate.

.40 degrees especially By striving Divided to me:

- 45) 5 degrees Presence.
- 46) 5-10 degrees Duties with Exam practical.
- 47) 15 degrees Exam Editorial.
- 48) 5 degrees Exam verbal.

## 12. Learning and teaching resources Principles of statistics / Muhammad Hassan /<br/>Amir Hanna Hormuz Required textbooks (methodology,<br/>any) Demographic statistics books Main references (sources)

Demographic statistics/Ahmed Abdel Samie	Recommended supporting books
Taiba2008 / Local and international journals	and references (scientific journals,
specialized in the field of statistics and	reports)
quantitative management.	,
The Iraqi Virtual Library/and external Internet	Electronic references, Internet sites
research.	

1. name The decision

Numerical Analysis2

2. Code The decision

3. the chapter / the year

Second semester / third stage /2023-2024

4. date Preparation this the description

12/3/2024

5. Available attendance forms

My presence

6. Number of study hours (total)/number of units (total)

3/3

7. Name of the course administrator (if more than one name is mentioned)

Name: A.P. Dr.. Sami Abdullah Abdul Email :samiaabed@uodiyala.edu.iq

#### 8. Course objectives

•	Introducing the student to how to arrive at mathematical conce	Objectives	of			
	with approximate numerical solutions	study subje	ct			
•	The student learned how to deal with large numbers and how					
	perform iterative operations on them					
	For high accuracy					
•	<ul> <li>Introducing the student to how to apply numerical algorithms v</li> </ul>					
	extreme accuracy					
	9. Teaching and learning strategies					
		Т	ne			
Co	urse outcomes and teaching, learning and evaluation method	ls st	rateg			
	61- Cognitive objectives: - Make the student able to					

62- -To know the most important principles and basic concepts in mathematics

63To define the types of functions and relationships to	
functions	
64- To become familiar with the concept of the derivative and	the
laws of derivatives	
65- To explain his opinion on mathematics concepts	
66- To apply mathematics concepts with realistic examples an	d
case studies	
Course-specific skills objectives	
44Interactive skills: Possessing the ability to communicate v	with
the subject professor and colleagues	
45Diagnostic skills: the ability to diagnose functions and the	eir
real-world applications	
40- Scientific reports.	
1 Managing the leature is a surfight source that the strict of the	<u>_1</u> _
1- Managing the lecture in an applied manner linked to the reality of da	uly
life to attract the student to the topic of the lesson without straying from	n
the core of the topic so that the material is flexible and amenable to	
understanding and analysis.	
2-Discussion and dialogue	
5- Enrichment questions	
4-Direct interrogation	
Evaluation methods	
1-Questions Explanations	
2-Questions The error And the right thing	
3-Duties	
4/- Evaluation Self	
Fractional and value goals	
1 Thinking Simple (Analyzia the problem in a way statistical	
1- I minking simple: (Analysis the problem in a way statistical Athlata And find Solutions and has an Dasia Dasulta successed)	
Attilete Anu intu solutions sne nas on Basis Results expected)	-
2-I minking Unuc: (ability on Uash And discrimination Inread	S
Askeu Anu the choice between them J	n
3-1 minking Creative: (ability on production ideas And Knock New i	n
the solution j.	
1 Drainstorming method	
1-Brainstorming method	
2-Use decision making to test the best alternative	
S-Presentation.	
Evaluation methods	
- Lests Miscellaneous (Dally (monthly, quarterly, final)	
2-Tests Ural	

#### 3- Duties General and qualifying transferable skills (other skills related to employability and personal development).

1-Skills of collecting and analyzing information about mathematics concepts and how to use them in the fields of statistics

2- Training and personal development skills on how to apply mathematics concepts in different fields.

3- Developing the student's ability to deal with programs and the Internet.

10. Course structure

Evaluation	Learning	Name of the unit	Required learning	hours	the
method	method	or topic	outcomes		week
the ex	Dicti	Front expansion power series	Understan g variab Powe		
the ex	Dicti	Backscrew force series	Identify the typ Disassemb foro		
the ex	Dicti	Central differences	Understand t central differend		
the ex	Dicti	Completion formulas Newton's forward formula	Know the methc of completi		
the ex	Dicti	Newton's backwards formula	Know the metho of completi		
the ex	Dicti	- Split differences	Know the methc of completi		
the ex	Dicti	Newton's divisors	Know the metho of completi		
the ex	Dicti	Kaos forward	Know the metho of completi		

the ex	Dicti	Kaos back	Know the metho of completi			
the ex	Dicti		The bonefit			
the ex	Dict	Lacrange for				
		different periods	Powe			
			1000			
the ex	Dicti	Numerical	Understa			
		differentiation	differential calcu			
		and numerical	And numeri			
		Integration	integrati			
		- Derivation of				
		the numerical				
		formula				
		iormula				
the ex	Dicti	Numerical	Understa			
the ex	Dict	integration	differential calcul			
		- trapezoid	And numeri			
			integrati			
the ex	Dicti		Understa			
		Simpson	differential calcul			
			And numeri			
			integrati			
the ex	Dicti	Colve differential	Find the numeri			
		Solve differential	soluti			
		equations	For different			
			equatic			
the ex	Dicti	Gauss- <u>Jacobi</u>	Numerical soluti			
			of syster			
		– seidel	Equatio			
II. Course e	valuation					
distribution Class from 100 on according to mission Assigned With it requester like						
Preparation Daily And exams Daily And oral And monthly And editorial And reportsetc						
13- 60 degrees Exam ultimate Editorial.						
.40 degrees especially By striving Divided to me:						
49) 5 degrees Presence.						
50) 5-10 degrees Duties with.						
51) 15 degrees Exam Editorial.						
52) 5 degrees Exam verbal.						
12. Learning and teaching resources						
12. Learning	and teaching	resources				

book Analysis Numerical Written Required textbooks (methodology, if an Dr.. Farls Ahmed , Dr. Turn Mahmoud, Dr. space florid

introduction in Analysis Numeric	a Main references (sources)		
written by Dr Ahmed			
Al-Alusi, Adel Al-Bayati			
Numerical analysis	Recommended supporting books and		
Richard L. Burden,	references (scientific journals,		
J. Douglas Faires	reports)		
	Electronic references, Internet sites		

### The fourth stage The first course
	1.	name	The	decision
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Statistical inference1

#### 2. Code The decision

coll1204.

3. the chapter / the year

First semester/fourth stage/2023 - 2024

#### 4. date Preparation this the description

2/12/2024

5. Available attendance forms

My presence

6. Number of study hours (total)/number of units (total)

3/3

- 7. Name of the course administrator (if more than one name is mentioned) Name: A. P. Dr.. Ayad Habeeb Shimal Email: <u>ayadstatistic@uodiyala.edu.iq</u>
  - 8. Course objectives

#### - Course objectives

 Introducing the student to the most important principles of statistical inferer study subject and its importance.

Objectives

of

- What do statistical estimates mean?
- What are the steps of statistical analysis based on statistical estimates?
- What are the methods of statistical decision making?
- Developing the method of conclusion.

9.

Course outcomes and teaching, learning and evaluation methods	The strategy
Objectives Cognitive	
1- That Known requester The information on Estimates Statistics	

That Known requester The information on Estimates Statistics.
 That Known requester Most important basics science Inference

- Statistician.
- 3- That Known requester Most important a test Hypotheses Statistics.
- 4- That Known requester style an offer And analysis data What are the Most important Methods Estimates Statistics that suits the society Thoughtful.
- 5- That Known requester style Analysis And the conclusion.

#### Objectives and skills of the course

- 1- Interactive skills/student interaction with the environment.
- 2- Personal skills/the ability to diagnose statistical information and its distributions from reality.
- 3- Analytical skills / the ability to analyze digital information realistically.

#### **Teaching and learning methods**

1- Managing the lecture in an applied manner linked to the reality of daily life to attract the student to the topic of the lesson without straying from the core of the topic so that the material is flexible and amenable to

understanding and analysis.

- 2-Discussion and dialogue
- 3- Enrichment questions
- 4-Direct interrogation

#### **Evaluation methods**

**1-Questions Explanations** 

2-Questions The error And the right thing

**3-Duties** 

- 4- Evaluation Self
- 5- the exams (daily, monthly, Quarterly, Final).

#### **Emotional and value goals**

1-Thinking Simple: (Analysis the problem In a way statistical Athlete And find Solutions she has on Basis Results expected)

2-Thinking Critic: (ability on Cash And discrimination Threads Asked And the choice between them)

3-Thinking Creative: (ability on production ideas And knock New in the solution).

#### **Teaching and learning methods**

1-Brainstorming method

2-Use decision making to test the best alternative

3- Presentation.

#### **Evaluation methods**

-Tests miscellaneous (daily, Monthly, quarterly, ultimate)

2-Tests Oral

3- Duties

#### General and qualifying transferable skills (other skills related to employability and personal development).

1-Skills of collecting and analyzing information about mathematics concepts and how to use them in the fields of statistics

2- Training a concepts in d 3- Developin	nd personal d ifferent fields g the student'	evelopment skills on s ability to deal with	how to apply mather the Internet.	ematics	
.Course struct	ture				
Evaluation	Learning	Name of the unit or	Required learning	hours	the week
method	method	topic	outcomes		
Evaluation Self /the exams /oral/enrich ment	lecture And the discussion	Introduction	Introduction	3	1
Evaluation Self /the exams /oral/enrich ment	lecture And the discussion	,point estimation	,point estimation	3	2
Evaluation Self /the exams /oral/enrich ment	lecture And the discussion	Unbiasedness mean square error	Unbiasedness mean square error	3	3
Evaluation Self /the exams /oral/enrich ment	lecture And the discussion	consistency	consistency	3	4
Evaluation Self /the exams /Oral	lecture And the discussion	Sufficient estimation	Sufficient estimation	3	5
Evaluation Self /the exams /Oral	lecture And the discussion	Exponential family	Exponential family	3	6
Evaluation Self /the exams /Oral	lecture And the discussion	Rao-blackweet theorem	Rao-blackweet theorem	3	7
Evaluation Self /the exams /Oral	lecture And discussion/ex am	Minimum variance a bound estimation	Minimum variance a bound estimation	3	8
Evaluation Self /the exams /Oral	lecture And the discussion	Introduction to confidence interval	Introduction to confidence interval	3	9
Evaluation Self /the exams /Oral	lecture And the discussion	confidence interval for the mean	confidence interval for the mean	3	10

Evaluation Self /the exams /Oral	lecture And the discussion	confidence interval for the two means	confidence interval for the two means	3	11
Evaluation Self /the exams /Oral	lecture And the discussion	confidence interval for the variance	confidence interval for the variance	3	12
Evaluation Self /the exams /Oral	lecture And the discussion	confidence interval for the two variance	confidence interval for the two variance	3	13
Evaluation Self /the exams /Oral	lecture And the discussion	Application	Application	3	14
Evaluation Self /the exams /Oral	lecture And the discussion	Exam	Exam	3	15

1. Course evaluation

distribution Class from 100 on according to mission Assigned With it requester like Preparation Daily And exams Daily And oral And monthly And editorial And reports ....etc

- 1- 60 degrees Exam ultimate Editorial.
- 2-40 degrees especially By striving Divided to me:
- 1) 5 degrees Presence.
- 2) 5-10 degrees Duties with.
- 3) 15 degrees Exam Editorial.
- 4) 5 degrees Exam verbal.

#### 2. Learning and teaching resources

Statistical inference Prof. Dr. Abdel Majeed Hamza Al-Nasser. Prof. Dr. Dhafer Hussein Rashid	Required textbooks (methodology, if any)
Statistical inference Prof. Dr. Abdel	Main references (sources)
Majeed Hamza Al-Nasser Prof. Dr.	
Dhafer Hussein Rashid /dr. iden	
hassan, dr. hamza Ismael	
Mathematical statistics /Rob	Recommended supporting books and references (scientific
Hogg	journals, reports)
the library Default Iraqi /And Resear	Electronic references, Internet sites
Internet External .	

10.plan development The decision Academic

- Use Books methodology Modern.- Application Practical For tests.

- Use Programs the computer Statistics Modern.

Benefit from Research New And apply it.

13. name The dec	ision	
------------------	-------	--

Design and analysis of experiments<sub>1</sub>

#### 14. Code The decision

15. the chapter / the year

First semester/fourth stage/2023 - 2024

16. date Preparation this the description

9/12/2023

17. Available attendance forms

My presence

18. Number of study hours (total)/number of units (total)

45/45

### 19.Name of the course administrator (if more than one name is mentioned)Name: A.L Arshed Hameed Hassan Email :arshadhameed@uodiyala.edu.iq

Objectives of the sti

subject

#### 20. Course objectives

- Course objectives

- Introducing paint to the theoretical foundations of the subject as well as its use in practice.
- It aims to build a design model that matches reality based on experience
- Characteristics that must be present in order to obtain the best design that simulates the practical reality of the phenomena
- Thoughtful.
- Building statistical analysis skills and how to obtain an analysis of the studied phenomenon through
- Know the factor affecting it.

## 21. Course outcomes and teaching, learning and evaluation methods The strategy Make the student able to: The strategy

1-	Understand the basics of designing and analyzing experiments	
2-	Understanding completely randomized design	
3-	Understand the randomized complete block design	
4-	Understanding square design for Latin	
5-	Understanding the design of the Latin-Greek square	
6-	Understanding the design of the Youden box	
7-	Understanding global experiments	
8-	Understanding Splinter Pieces	
9-	Understanding analysis of covariance	
	Course-specific skills objectives	
6-	Interactive skills: Possessing the ability to communicate with the	
	subject professor and colleagues.	
7-	Diagnostic skills: the ability to deal with a statistical problem.	
8-	Analytical skills: The ability to analyze and distinguish between	
	different types of analytical commands in the program.	
	Teaching and learning methods	
1- Pre	resenting the basic theories, meaning that the beginning of learning will	
be by	y presenting the basic theories and concepts of design	
2- Ar	nalyzing experiments, which is represented by simple experiments, by	
const	tructing a design for the phenomenon.	
3-Use	se case studies and practical applications experiments in different fields,	
such	as	
4- Ag	gricultural sciences, medical sciences, physical and chemical sciences	
for th	he purpose of explaining how experimental design is used in practical	
life.		
5-Pro	ovide individual guidance to students to understand theories and	
practi	tical exercises, and guide them in solving problems and understanding	
the re	esults.	
6- Or	rganizing group discussions about building, designing, and analyzing a	
speci	ific experiment, which contributes to the exchange of ideas and mutual	
learn	ning among students.	
7- Pre	revious studies can be used as examples to analyze and understand the	
result	ts and statistical analyzes used in	
Desig	gn and analysis of simple experiments.	
8-Pro	ovide continuous evaluation of students' performance and provide	
feedb	back to guide them and improve their understanding and analysis skills	
Simp	ple experiments.	
Evalu	uation methods	
1-	-Questions Explanations	
2-	-Questions The error And the right thing	
3-	-Duties	

9-       Evaluation Self         10-       the exams (Daily, monthly, quarterly, final).         Emotional and value goals       1         1-       Ability on to examine And evaluation Threads Asked .         2-       Ability on cash And discrimination Threads Asked And the choice Between them .         3-       Ability on production ideas New         Teaching and learning method       -         2-Use decision making to test the best alternative       -         3-Presentation.       Evaluation methods         -Tests Miscellaneous(Daily (monthly, quarterly, final)       -         2-Tests Oral       -         3-Duties       -         General and qualifying transferable skills (other skills related to employability and personal development).       -         1-Skills of collecting and analyzing information about the concepts of designing and analyzing experiments and how to use them in agricultural fields       -         2- Training and personal development skills on how to apply experience design concepts in different fields.       -         3- Developing the student's ability to construct a correct experiment       -         Course structure       -       -         Evaluation       Learning       Name of the unit       Required learning outcomes         Discussion Ari       My presenct       Concepts and terminology a i	9- Evalua 10- the exa					
10-       the exams (Daily, monthly, quarterly, final).         Emotional and value goals       1 - Ability on to examine And evaluation Threads Asked .         2 - Ability on Cash And discrimination Threads Asked And the choice Between them .       3 - Ability on production ideas New         Teaching and learning methods	10- the exa	tion Self				
Emotional and value goals       1- Ability on to examine And evaluation Threads Asked .       2         1- Ability on Cash And discrimination Threads Asked And the choice Between them .       3         3- Ability on production ideas New	<b>Fmotional</b> or	ams (Daily, n	ionthly, quarterly	y, final).		
1- Ability on to examine And evaluation Threads Asked .         2- Ability on Cash And discrimination Threads Asked And the choice Between them .         3- Ability on production ideas New         Teaching and learning methods         1-Brainstorming method         2-Use decision making to test the best alternative         3-Presentation.         Evaluation methods         - Tests Miscellaneous(Daily (monthly, quarterly, final)         2-Tests Oral         3- Duties         General and qualifying transferable skills (other skills related to employability and personal development).         1-Skills of collecting and analyzing information about the concepts of designing and analyzing experiments and how to use them in agricultural fields         2- Training and personal development skills on how to apply experience design concepts in different fields.         3- Developing the student's ability to construct a correct experiment         Course structure         Evaluation         method       or topic         outcomes       3       the first         method       or topic       Concepts and terminolog       3         in experimental design       Experience       The Worker       Processing         Discussion Ar       My presencet       Concepts and terminol		nd value goal	ls			
2- Ability on Cash And discrimination Threads Asked And the choice Between them.       3- Ability on production ideas New         3- Ability on production ideas New       Teaching and learning methods         1-Brainstorming method       2-Use decision making to test the best alternative         3-Presentation.       Evaluation methods         -Tests Miscellaneous(Daily (monthly, quarterly, final)       2-Tests Oral         3- Duties       General and qualifying transferable skills (other skills related to employability and personal development).         1-Skills of collecting and analyzing information about the concepts of designing and analyzing experiments and how to use them in agricultural fields         2- Training and personal development skills on how to apply experience design concepts in different fields.         3- Developing the student's ability to construct a correct experiment         Course structure         Evaluation       Learning or topic         Discussion Ar My presence the test Oral And the editorial       Name of the unit Required learning on the worker Processing Experimental design Experimental piece or un randomness (randomization)       1	1- Abili	ty on to exar	nine And evaluat	ion Threads Asked .		
choice Between them. 3- Ability on production ideas New Teaching and learning methods 1-Brainstorming method 2-Use decision making to test the best alternative 3-Presentation. Evaluation methods -Tests Miscellaneous(Daily (monthly, quarterly, final) 2-Tests Miscellaneous(Daily (monthly, quarterly, final) 2-Tests Oral 3- Duties General and qualifying transferable skills (other skills related to employability and personal development). 1-Skills of collecting and analyzing information about the concepts of designing and analyzing experiments and how to use them in agricultural fields 2- Training and personal development skills on how to apply experience design concepts in different fields. 3- Developing the student's ability to construct a correct experiment Course structure Evaluation method or topic outcomes the first in experimental design Biscussion Ard My presence the test Oral And the editorial W presence The Worker Processing Experimental piece or uni randomness (randomization)	2- Abili	ty on Cash A	nd discrimination	n Threads Asked And th	e	
3- Ability on production ideas New Teaching and learning methods 1-Brainstorming methods 2-Use decision making to test the best alternative 3-Presentation. Evaluation methods -Tests Miscellaneous(Daily (monthly, quarterly, final) 2-Tests Oral 3- Duties General and qualifying transferable skills (other skills related to employability and personal development). 1-Skills of collecting and analyzing information about the concepts of designing and personal development skills on how to use them in agricultural fields 2- Training and personal development skills on how to apply experience design concepts in different fields. 3- Developing the student's ability to construct a correct experiment Course structure Evaluation method Muy presence Concepts and terminolog in experimental design Experimental design Experimental design Experimental piece or uni randomness (randomization)	choi	ce Between t	hem.			
Teaching and learning methods       I-Brainstorming method         1-Brainstorming method       I-Brainstorming method         2-Use decision making to test the best alternative       I-Brainstorming methods         3-Presentation.       Evaluation methods         Tests Miscellaneous(Daily (monthly, quarterly, final)       I-Brainstorming method         2-Tests Oral       3-Duties         General and qualifying transferable skills (other skills related to employability and personal development).       I-Skills of collecting and analyzing information about the concepts of designing and analyzing experiments and how to use them in agricultural fields         2-Training and personal development skills on how to apply experience design concepts in different fields.       I-Developing the student's ability to construct a correct experiment         Course structure       Evaluation       Learning       Name of the unit outcomes       nours       the week         Method       or topic       outcomes       3       the first         Discussion Ar the east Oral And the editorial       My presence       The Worker Processing Experimental design Experimental piece or un randomness (randomization)       3	3- Abili	ty on produc	ction ideas New			
1-Brainstorming method         2-Use decision making to test the best alternative         3-Presentation.         Evaluation methods         -Tests Miscellaneous(Daily (monthly, quarterly, final)         2-Tests Oral         3-Duties         General and qualifying transferable skills (other skills related to employability and personal development).         1-Skills of collecting and analyzing information about the concepts of designing and analyzing experiments and how to use them in agricultural fields         2-Training and personal development skills on how to apply experience design concepts in different fields.         3-Developing the student's ability to construct a correct experiment         Course structure         Evaluation method         method       Name of the unit or topic         Discussion Ar the editorial And the editorial       Concepts and terminology 3 in experimental design Experimental design Experimental design Experimental piece or un randomness (randomization)	Teaching an	d learning m	ethods			
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3-Presentation.         Evaluation methods         -Tests Miscellaneous(Daily (monthly, quarterly, final)         2-Tests Oral         3- Duties         General and qualifying transferable skills (other skills related to employability and personal development).         1-Skills of collecting and analyzing information about the concepts of designing and analyzing experiments and how to use them in agricultural fields         2- Training and personal development skills on how to apply experience design concepts in different fields.         3- Developing the student's ability to construct a correct experiment         Course structure         Evaluation       Learning method or topic outcomes         Discussion Ar the test Oral And the editorial And the editorial       My presence The Worker Processing Experimental design Experimental design Experimental piece or uni randomness	2-Use decisio	n making to t	est the best alternation	ative		
Evaluation methods       -Tests Miscellaneous(Daily (monthly, quarterly, final)         2-Tests Oral       3- Duties         General and qualifying transferable skills (other skills related to employability and personal development).	3-Presentation	n.				
-Tests Miscellaneous(Daily (monthly, quarterly, final) 2-Tests Oral 3- Duties General and qualifying transferable skills (other skills related to employability and personal development). 1-Skills of collecting and analyzing information about the concepts of designing and analyzing experiments and how to use them in agricultural fields 2- Training and personal development skills on how to apply experience design concepts in different fields. 3- Developing the student's ability to construct a correct experiment Course structure Evaluation Learning Name of the unit Required learning hours the week method method or topic outcomes Discussion Ar My presence the test Oral And the editorial Network of the unit randomizes (randomization) the first of the	Evaluation n	nethods				
2-Tests Oral 3- Duties General and qualifying transferable skills (other skills related to employability and personal development). 1-Skills of collecting and analyzing information about the concepts of designing and analyzing experiments and how to use them in agricultural fields 2- Training and personal development skills on how to apply experience design concepts in different fields. 3- Developing the student's ability to construct a correct experiment Course structure Evaluation Learning Name of the unit Required learning or topic outcomes Discussion Ar method or topic outcomes Discussion Ar the test Oral And the editorial Network of the unit randomness (randomization) of the first of the first of the work of the unit randomness (randomization) of the first of the first of the first of the work of the unit randomness (randomization) of the first of the first of the work of the unit randomness (randomization)	-Tests Misce	llaneous(Dai	ly (monthly, quar	rterly, final)		
3- Duties       General and qualifying transferable skills (other skills related to employability and personal development).         1-Skills of collecting and analyzing information about the concepts of designing and analyzing experiments and how to use them in agricultural fields         2- Training and personal development skills on how to apply experience design concepts in different fields.         3- Developing the student's ability to construct a correct experiment         Course structure         Evaluation Learning method or topic outcomes         Discussion Ar My presence the test Oral And the editorial         editorial             Name of the unit reprimental design Experimental design Experience	2-Tests Oral					
General and qualifying transferable skills (other skills related to employability and personal development).       I - Skills of collecting and analyzing information about the concepts of designing and analyzing experiments and how to use them in agricultural fields         2 - Training and personal development skills on how to apply experience design concepts in different fields.       I - Skills of collecting and personal development skills on how to apply experience         2 - Training and personal development skills on how to apply experience       I - Skills of collecting and personal development skills on how to apply experience         2 - Training and personal development skills to construct a correct experiment.       I - Skills of collecting and personal development skills on how to apply experience         3 - Developing the student's ability to construct a correct experiment.       I - Skills of collecting and personal development skills on how to apply experience         Course structure       I - Skills of concepts and terming outcomes       I - Skills of concepts and terminolog in experimental design         Discussion Ar the test Oral And the editorial       I - Skills of concepts and terminolog in experimental design       I - Skills of concepts and terminolog in experimental design       I - Skills of concepts or uni randomness (randomization)	3- Duties					
employability and personal development).       1-Skills of collecting and analyzing information about the concepts of designing and analyzing experiments and how to use them in agricultural fields       1-Skills of collecting and analyzing experiments and how to use them in agricultural fields         2- Training and personal development skills on how to apply experience design concepts in different fields.       - Name of the unit a correct experiment         3- Developing the student's ability to construct a correct experiment.       - Name of the unit a correct experiment         Course structure       - Vertical and the structure       - Vertical and terminology of the first in experimental design and the structure in experimental design and the structure in the s	General and	qualifying t	ansferable skills	(other skills related to		
1-Skills of collecting and analyzing information about the concepts of designing and analyzing experiments and how to use them in agricultural fields <ul> <li>2- Training and personal development skills on how to apply experience design concepts in different fields.</li> <li>3- Developing the student's ability to construct a correct experiment.</li> <li>Course structure</li> </ul> Evaluation method         Learning or topic         Name of the unit outcomes         hours         the week           Discussion Ar the test Oral And the editorial         My presence The Worker Processing Experimental piece or uni randomness (randomization)         3         the first           Image: Structure of the worker Processing Experimental piece or uni randomness (randomization)         1         1         1	employabilit	y and person	al development).		_	
designing and analyzing experiments and how to use them in agricultural fields       2- Training and personal development skills on how to apply experience design concepts in different fields.       3- Developing the student's ability to construct a correct experiment         3- Developing the student's ability to construct a correct experiment       Course structure         Evaluation method         Mathematical design concepts       Name of the unit or topic         Outcomes       nethod         Discussion Ar the test Oral And the editorial       My presence The Worker Processing Experimental design Experimental piece or uni randomness (randomization)	1-Skills of co	llecting and a	nalyzing informat	ion about the concepts of		
fields       2- Training and personal development skills on how to apply experience         design concepts in different fields.       3- Developing the student's ability to construct a correct experiment         3- Developing the student's ability to construct a correct experiment       Image: Consect of the student's ability to construct a correct experiment         Course structure       Evaluation       Learning       Name of the unit       Required learning       hours       the week         method       method       or topic       outcomes       in       Image: Concepts and terminology in experimental design       3       the first         Discussion Ar the editorial       My presence       Concepts and terminology in experimental design       3       the first         And the       Image: Concepts in the worker       Processing       Experimental piece or uni randomness       Image: Concepts in the worker       Image: Concepts in the worker         Processing       Experimental piece or uni randomness       Image: Concepts in the worker       Image: Concepts in the worker       Image: Concepts in the worker	designing and	l analyzing ex	periments and how	w to use them in agricult	ural	
2- Training and personal development skills on how to apply experience design concepts in different fields. 3- Developing the student's ability to construct a correct experiment Course structure Evaluation Learning Name of the unit method or topic outcomes hours the week method method or topic outcomes 3 the first the first the test Oral And the editorial And the editorial of the unit fraction of the Worker processing Experimental piece or unirandomness (randomization)	fields					
design concepts in different fields.       3- Developing the student's ability to construct a correct experiment         3- Developing the student's ability to construct a correct experiment         Course structure         Evaluation method       Learning or topic       hours       the week         Discussion Ar the test Oral And the editorial       My presence       Concepts and terminology in experimental design Experimental design Experimental piece or uni randomness (randomization)       3       the first	2- Training a	nd personal de	evelopment skills	on how to apply experier	nce	
3- Developing the student's ability to construct a correct experiment       Image: Construct a correct experiment         Course structure       Evaluation       Learning       Name of the unit       Required learning       hours       the week         method       method       or topic       outcomes	design conce	ots in differen	it fields.	· · · ·		
Course structureEvaluation methodLearning methodName of the unit or topicRequired learning outcomeshours the weekthe weekDiscussion Ar the test Oral And the editorialMy presence learningConcepts and terminology in experimental design Experience The Worker Processing Experimental piece or uni randomness (randomization)3the first	3- Developing	g the student'	s ability to constru	ict a correct experiment		
Evaluation methodLearningName of the unitRequired learning outcomeshoursthe weekmethodor topicoutcomesiiiDiscussion Ar the test Oral And the editorialMy presence i sequence the test Oral And the editorialMy presence i sequence the test Oral i sequence the test Oral the tes	.Course struct	ure				
methodor topicoutcomesImage: Concepts and terminology in experimental designSecond terminology	Evaluation	Learning	Name of the unit	Required learning	hours	the week
Discussion Ar the test OralMy presenceConcepts and terminology3the firstAnd the editorialExperimental designThe WorkerImage: Concepts and terminology3the firstProcessing Experimental piece or uni randomness (randomization)Image: Concepts and terminology3the first	method	method	or topic	outcomes		
the test Oral       in experimental design         And the       Experience         editorial       The Worker         Processing       Experimental piece or uni         randomness       (randomization)	Diagragian	My presence		Concepts and terminology	3	the first
And the       Experience         editorial       The Worker         Processing       Processing         Experimental piece or uni       randomness         (randomization)       (randomization)	Discussion Ar				-	
editorial The Worker Processing Experimental piece or uni randomness (randomization)	the test Oral			in experimental design		
Experimental piece or uni randomness (randomization)	the test Oral And the			in experimental design Experience		
randomness (randomization)	the test Oral And the editorial			in experimental design Experience The Worker Processing		
(randomization)	the test Oral And the editorial			in experimental design Experience The Worker Processing Experimental piece or uni		
	And the editorial			in experimental design Experience The Worker Processing Experimental piece or uni randomness		
Discussion ArMy presenceRepetition3the second	the test Oral And the editorial			in experimental design Experience The Worker Processing Experimental piece or uni randomness (randomization)		
the test Oral Experimental error	Discussion Ar the test Oral And the editorial Discussion Ar	My presence		in experimental design Experience The Worker Processing Experimental piece or uni randomness (randomization) Repetition	3	the second
And the the design Essentials for a good	Discussion Ar the test Oral And the editorial Discussion Ar the test Oral	My presence		in experimental design Experience The Worker Processing Experimental piece or uni randomness (randomization) Repetition Experimental error	3	the second
euitoriai Essenuais for a good	Discussion Ar the test Oral And the editorial Discussion Ar the test Oral And the	My presence		in experimental design Experience The Worker Processing Experimental piece or uni randomness (randomization) Repetition Experimental error the design Essentials for a good	3	the second
Analysis of variance	Discussion Ar the test Oral And the editorial Discussion Ar the test Oral And the editorial	My presence		in experimental design Experience The Worker Processing Experimental piece or uni randomness (randomization) Repetition Experimental error the design Essentials for a good experience	3	the second
Discussion Ar My presence Simple experimental 3 the third	Discussion Ar the test Oral And the editorial Discussion Ar the test Oral And the editorial	My presence		in experimental design Experience The Worker Processing Experimental piece or uni randomness (randomization) Repetition Experimental error the design Essentials for a good experience Analysis of variance	3	the second
the test Oral designs	Discussion Ar the test Oral And the editorial Discussion Ar the test Oral And the editorial Discussion Ar	My presence My presence		in experimental design Experience The Worker Processing Experimental piece or uni randomness (randomization) Repetition Experimental error the design Essentials for a good experience Analysis of variance Simple experimental	3	the second the third

And the	Completely rendemized	
aditorial	dosign	
editorial	Uesign Mathematical model	
	statistical analysis	
	statistical analysis	
	an experience (1)	
	Contrast compounds	
	an experience (2)	
	Smoothing of treatment	
	variances	
Discussion Ar My presence	<b>Bartlett's test</b> 3 the fou	rth
the test Oral	Cochrane test	
And the	application (1)	
editorial	application (2)	
	an experience (3)	
Discussion Ar My presence	an experience (4) 3 Fifth	
the test Oral	A completely randomized	
And the	design with more than on	
editorial	observation of the	
	experimental unit	
	One	
	an experience (5)	
Discussion Ar My presence	the exams 3 VI	
the test Oral	Tests that are	
And the	determined before	
editorial	experimentation	
cuitoriai	Perpendicular	
	correspondences	
	Evennle (1)	
	Example (1) Example (2)	
	Example (2) Example (3)	
	$\frac{\text{Example } (5)}{\text{on experience } (6)}$	
	Dialying trands	
	ricking trends	
Diama in A. Marana and	Tests that are proported 2	1
Discussion An My presence	Tests that are suggested 3 Seventl	h
the test Ural	after experimentation	
And the	Multiple comparison	
editorial	methods	
	Methods that rely on	
	calculating a single test	
	value	
	The least significant	
	difference method	
	application (3)	
	Healing method	
	application (4)	
	Tukey's method	
	application (5)	

		Methods that rely on calculating multiple test values		
		Duncan's multiple range method		
		application (6) The Neiman Coles Student Method		
		Donut method application (7)		
Discussion Ar the test Oral And the	My presence	Random complete sectors Design specifications	3	VIII
editorial		Represent results (responses) with		
		symbols Mathematical model Estimating model effects		
		statistical analysis an experience (8)		
Discussion An the test Oral And the	My presence	Missing values and methods for estimating them	3	Ninth
editorial		application (8) Standard errors The relative adequacy of a		
		randomized complete block design application(9)		
Discussion Ar the test Oral	My presence	Imperfect randomized block designs	3	The tenth
And the editorial		sector designs Balanced incomplete		
		randomized block design Mothematical model of		
		design statistical analysis		
Discussion Ar the test Oral And the	My presence	Building balanced incomplete sector designs	3	atheistic ten
editorial Discussion An	My presence	experience (9) an experience (10)	3	the second ten
And the editorial		Correcting processor averages		

	Testing the difference		
	between the means of two corrected		
	treatments		
Discussion An My presence	Latin square design	3	the third ten
the test Oral	Design specifications Mathematical model of		
editorial	design		
	statistical analysis		
Discussion Ar My presence	an experience (11)	3	the fourth ten
And the	application (10)		
editorial	Standard errors		
	an experience (12)		
	application (11)		
Discussion Ar My presence	First semester exam	3	Fifth ten
the test Oral			
And the editorial			
3 Course evaluation			
	·····		December 201
<ul> <li>And exams Daily And oral And monthly And e 2- 60 degrees Exam ultimate Editorial.</li> <li>1. 40 degrees especially By striving Divided 5) 5 degrees Presence.</li> <li>6) 5 degrees Duties with.</li> <li>7) 15 degrees Exam Editorial first</li> <li>8) 15 degrees Exam Editorial second</li> </ul>	editorial And reportsetc to me:		
4. Learning and teaching resources			
design Experiments And analysis	Required textbooks (methodolo	ogy, if ai	ny)
Results (Section The first) (partial the			
second)			
Professor Perfection Alwan behind Al			
Mashhadani			
Experimental Design and Analysis			
Liperinen Design and mary 313	Main references (sources)		
Howard J. Seltman	Main references (sources)		
Howard J. Seltman July 11, 2018	Main references (sources)		
Howard J. Seltman July 11, 2018 International Journal of Experimental	Main references (sources)           Recommended supporting bool	ks and re	eferences (scientific
Howard J. Seltman July 11, 2018 International Journal of Experimental Design and Process Optimization	Main references (sources) Recommended supporting book journals, reports)	ks and re	eferences (scientific

no There is	Electronic references, Internet sites	

1. name The decision

Economic measurement1

#### 2. Code The decision

3. the chapter / the year

First semester/fourth stage/2023 - 2024

4. date Preparation this the description

3/13/2024

- 5. Available attendance forms
  - My presence
- 6. Number of study hours (total)/number of units (total)

3/3

7. Name of the course administrator (if more than one name is mentioned) Name: L. Hisham pharaoh slave The gentle one Email :hisham@uodiyala.edu

8. Course objectives	
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- Course objectives	Objectives	5
• Introducing the student to the most important foundations and principles of economic measurement	the subject	st
<ul> <li>Explain the concept of estimation methods</li> <li>Highlighting the importance of regression model estimation problems</li> </ul>		
• This course aims to study standard problems for estimating regression models		
The student can estimate regression models and systems of simultaneo equations		
9.		
Course outcomes and teaching, learning and evaluation methods	The strate	∍gy
10- Cognitive objectives: - Make the student able to		
11To know the most important principles and basic concepts in economic measurement		

12- -To determine estimation methods

13- To become familiar with the concept of regression problems	
14- To explain his opinion on the concepts of estimation methods	
15- To apply the concepts of economic measurement with realistic	
examples and case studies	
Course-specific skills objectives	
11Interactive skills: Possessing the ability to communicate with the	
subject professor and colleagues	
12Diagnostic skills: the ability to diagnose problems and ways to	
solve them	
13- Scientific reports.	
Teaching and learning methods	
1- Managing the lecture in an applied manner linked to the reality of	
daily life to attract the student to the topic of the lesson without straying	
from the core of the topic so that the material is flexible and capable of	
being understood and analysed.	
2-Discussion and dialogue	
3- Enrichment questions	
4-Direct interrogation	
Evaluation methods	
1-Ouestions Explanations	
2-Ouestions The error And the right thing	
3-Duties	
14- Evaluation Self	
15- the exams (Daily, monthly, quarterly, final).	
Emotional and value goals	
1-Thinking Simple: (Analysis the problem In a way statistical	
Athlete And find Solutions she has on Basis Results expected)	
2-Thinking Critic: (ability on Cash And discrimination Threads	
Asked And the choice Between them )	
3-Thinking Creative: (ability on production ideas And knock New in	
the solution).	
Teaching and learning methods	
1-Brainstorming method	
2-Use decision making to test the best alternative	
3-Presentation.	
Evaluation methods	
-Tests Miscellaneous(Daily (monthly, quarterly, final)	
2-Tests Oral	
3- Duties	

General and qualifying transferable skills (other skills related to	
employability and personal development).	

1-Skills of collecting and analyzing information about economic measurement concepts and how to use them in the fields of statistics2- Training and personal development skills on how to apply estimation concepts in different fields.

3- Developing the student's ability to deal with the Internet.

#### 10. Course structure

Evaluation	Learning	Name of the unit or Required learning		hours	the week
method	method	tonic	outcomes		
	methou				
Discussion An	My presence	The nature of	Definitions And	3	the first
the test Oral		econometric	concepts		
And the		analysis			
editorial					
Discussion An	My presence	Standard analysis	establish Analysis	3	the second
the test Oral		functions	Standard		
And the					
editorial					
<b>Discussion</b> An	My presence	Linking internal	to understand	3	the third
the test Oral		and external	relations		
And the		variables			
editorial					
<b>Discussion</b> Ar	My presence	Statistical and	Concepts	3	the fourth
the test Oral		measurement	President		
And the		indicators			
editorial					
<b>Discussion</b> An	My presence	Statement that	steps theory	3	Fifth
the test Oral		methodols is the		-	
And the		best unbiased linear			
editorial		estimate			
<b>Discussion</b> An	My presence	Estimating the	Applications	3	VI
the test Oral		consumption	Realistic	U U	
And the		function			
editorial					
<b>Discussion</b> An	My presence	Simple linear	exercises	3	Seventh
the test Oral	51	regression analysis	practical	0	beventin
And the		5 .	I		
editorial					
Discussion Ar	My presence	First month exam	a test Monthly	3	VIII
the test Oral	-5 F-000100		<i>y</i>	5	V 111
And the					
editorial					

Discussion Ar My presence	Study of economic	exercises	3	Ninth
the test Oral	phenomena from	practical		
And the	the reality of the			
editorial	Iraqi economy			
Discussion Ar My presence	General linear	Concepts	3	The tenth
the test Oral	regression model	President		
And the				
editorial				
Discussion Ar My presence	Extracting	establish Analysis	3	atheistic t
the test Oral	statistical and	Standard		
And the	measurement			
editorial	indicators from			
	regression analysis			
Discussion An My presence	Statistical	Concepts	3	the second
the test Oral	hypothesis	President		ten
And the				
editorial				
Discussion A My presence	Correlation and its	to understand	3	the third t
the test Oral A	relationship to the	relations		
the editorial	coefficient of			
	determination			
Discussion A My presence	Statistical	Concepts	3	the fourth
the test Oral A	significance	President		ten
the editorial				
Discussion A My presence			3	Fifth ten
the test Oral A	First semester exan			
the editorial				
11 0				

11. Course evaluation

distribution Class from 100 on according to mission Assigned With it requester like Preparation Daily And exams Daily And oral And monthly And editorial And reports ....etc

- 3- 60 degrees Exam ultimate Editorial.
- 2. 40 degrees especially By striving Divided to me:
  - 9) 5 degrees Presence.
  - 10)5-10 degrees Duties with.
  - 11)15 degrees Exam Editorial.
  - 12)5 degrees Exam verbal.

# 12. Learning and teaching resources Economic measurement book Dr.My affairs Hadi Kazem Economic measurement book Dr. My affairs Hadi Kazem

Recommended supporting books and references
(scientific journals, reports)
Electronic references, Internet sites

1. name The decision

Time series analysis1

#### 2. Code The decision

#### 3. the chapter / the year

First semester/fourth stage/2023 - 2024

4. date Preparation this the description

12/6/2024

5. Available attendance forms

My presence

6. Number of study hours (total)/number of units (total)

3/2.5

#### 7. Name of the course administrator (if more than one name is mentioned) Name: A.L Amel Hadi Rashid Email :amal@uodiyala.edu.iq

#### 8. Course objectives

Course objectives: In most areas of life, including industrial and economic changes, well as demographic and medical changes, we need statistical methods and methods order to analyze and treat phenomena, as well as predict through them the future. Ti series analysis is considered one of the most important statistical methods that can integrated with various fields, especially the economic field, as it is used in Determine general trend of time series data as well as periodic and seasonal changes, in additior irregular and random changes that are related to the occurrence of unexpec developments such as the occurrence of natural or health disasters or wars disturbances... That is why this article aims to Identify the most important basic components of the time series

 Method for estimating the basic components of time series and fi models.

- **2-** Statistical analysis of time series using statistical programs.
- **3-** How to know the stability of time series.
- 4- Methods for comparing models.
- 5- Internal and external forecasting based on the base year.

The strategy

9.

methoa						
Evaluation						
.Course structu						
Methods Evaluation Exams Periodicity And discussions in Theme lecture skills Thinking - Thinking And listening To ask. - to understand the question. - the focus on requirements the question. - the answer minute And scientific For requirements the question						
certain, Than constribte in exchange Ideas And learning Mut between the students.						
Methods education And learning - throw Lectures and give exercises ongoing And applied different phenomena Like economic And demographics And oth To find out employment Statistics Differently Domains - to organize discussions Collective around analysis series Tempo						
Knowledge A - Ability - Supply Different - Ability predictio - Accommoda that in His life Skill - skills en appropr - skills Appropr Scientifi						

Discussion, or	My	The concept of		3	the first
and written	presenc	time series, the	Knowladga ar		
examination		concept of	understanding		
		forecasting and	understanding		
		its types			
Discussion, or	My	- Data		3	the second
and written	presenc	appearanc			
examination	-	e patterns			
		- Data types	Mental skills		
		for time			
		series			
Discussion, or	Mv	- The most		3	the third
and written	presenc	important		-	
examination	I	metrics			
		used in			
		quantitati			
		ve			
		forecastin	<b>TT 1 1 1</b>		
		g	Knowledge and		
		- General	understanding		
		concepts			
		of			
		forecastin			
		g using			
		time			
		series			
Discussion or	Mv	- Accuracy		3	the fourth
and written	presenc	of		5	
examination	presene	forecastin			
CAummuton		g methods			
		- Autovaria			
		nce			
		function	Mental skills		
		- Autocorre	Montal Skills		
		lation			
		function			
		- Properties			
		of the			
		autocorrel			
		autocorrer			

		ation function - Partial autocorrel ation function - Autocorre lation function of the sample - Partial autocorrel ation function of the sample			
Discussion, or and written examination And practical application	My presenc	- Case studies using statistical programs	Knowledge and understanding	3	Fifth
Discussion, or and written examination	My presenc	<ul> <li>Types of models in analysis methods</li> <li>Time series analysis methods</li> <li>Aggregate model</li> <li>With practical application</li> </ul>	Mental skills	3	VI
Discussion, or and written examination	My presenc	General direction vehicle and ways to find it	Knowledge and understanding	3	Seventh
Discussion, or and written examination	My presenc	Season vehicle and ways to find it	Mental skills	3	VIII

T				1	1 1
Discussion, or	My	- Periodic		3	Ninth
and written	presenc	and			
examination		occasional			
		changes			
		- Find two			
		componen			
		ts of the			
		time			
		series	Knowledge and		
		- Drawing	understanding		
		method			
		- Direction			
		vehicle			
		- Semi-			
		averages			
		method			
		With practical			
		application			
Discussion, or	My	- Case		3	The tenth
and written	presenc	studies			
examination		using	Montal abilla		
		statistical	Mental Skills		
		programs			
Discussion, or	My	- Least		3	atheistic ten
and written	presenc	squares			
examination		method			
		- Moving			
		media	Knowledge and		
		method	understanding		
		- Central			
		moving			
		circles			
		method			
Discussion, or	My	Excluding the		3	the second ten
and written	presenc	effect of the	Mental skills		
examination		general trend			
Discussion, or	My	- Seasonal	T7 1 1 1	3	the third ten
and written	presenc	changes	Knowledge and		
examination		- Methods	understanding		
		for			

		calculat g seasona index	in the 1		
Discussion, or and written examination	My presenc	<ul> <li>Average method</li> <li>Method ratio moving media</li> <li>Singula exponer al smoothi</li> <li>practica applicat n</li> </ul>	es of to r Mental skil nti ing l io	3 ls	the fourth ten
Discussion, or and written examination	My presenc	First semeste exam	er Knowledge a understandi	and <sup>3</sup>	Fifth ten
1. Course eva	aluation			ł	
<ul> <li>distribution Class from 100 on according to mission Assigned With it requester like Preparation Daily And exams Daily And oral And monthly And editorial And reportsetc</li> <li>4- 50 degrees Exam ultimate Editorial with 10 degrees Exam practical ultimate.</li> <li>3. 40 degrees especially By striving Divided to me: 13)5 degrees Presence.</li> <li>14)5-10 degrees Duties with Exam practical .</li> <li>15)15 degrees Exam Editorial.</li> <li>16)5 degrees Exam verbal.</li> </ul>					
2. Learning a	nd teaching	g resources			
chains Temporality 1 chains Temporality And the numb standard Written by Doctor slave 7 gentle one Hassan Showman And doctor Nazar The cashier					
William W. S. V Series Analysis	Vei(2006) s: Univaria	"Time te and	Main references (source	s)	

Multivariate Methods" Addison- Wesley Pub.	
James Douglas Hamilton(1994) "Time Series Analysis" Wiley.	Recommended supporting books and references (scientific journals, reports)
	Electronic references, Internet sites

1. name The decision

Statistical applications1

#### 2. Code The decision

3. the chapter / the year

First semester/fourth stage/2023 - 2024

4. date Preparation this the description

9/3/2023

5. Available attendance forms

My presence

6. Number of study hours (total)/number of units (total)

#### 3/2

- 7. Name of the course administrator (if more than one name is mentioned) Name: A.P.D Omer Adel AbdulWahab Email:omersta@uodiyala.edu.iq
  - 8. Course objectives

- Course objectives	Objectives
1– Introducing the student to statistical applications	the st
	subject
2– Providing the student with various topics related to statistic applications	
3– Explain the importance of statistical applications.	
9.	
1. A- Cognitive objectives	The strategy
a1- That the student knows the most important principles and basic	
concepts of statistical applications.	
a2- The student should explain statistical concepts in statistical	
applications	
a3- That the student applies the concepts of statistical applications in	
theoretical and practical reality.	
a4- To be creative in using modern and contemporary concepts in	
statistical applications.	

a5- To expres	s an opinion	or issue a judgment r	regarding statistica	.1	
concepts in st	atistical appli	cations.			
B - The skills	objectives of	the course.			
BI -	on and comm	unication skills. Do	assassing a high lar	val of	
skills in infor	mation technol	ology working with	others (love of tear	ver or nwork)	
B2 - Analytic	ral skills - Sk	ills in identifying the	relationshin betw	een	
mathematical	and statistica	l concepts in statistic	cal applications.	een	
Teaching and	d learning met	thods			
U	C				
1- Use the	brainstormir	ng methodBrainstorm	ning.		
2- Using	various mind	maps.			
3- Use the	problem-sol	ving method.			
4- Using the j	presentation n	nethod			
Evaluation m	nethods				
1- Objecti	ve questions	Objective Test items	are divided into:-		
a- True an	nd false quest	ionsTrue/False Items			
B - Multiple of	choice question	onsMultiple Choice If	tems		
C - Interview	questionsMa	tching Items			
2- Homew	vorkshomewo	ork assignments	and Salf Assassma	nt	
$J_{-}$ The test	aluation and j	linto:-		111	
a- Format	ive achievem	ent tests accompanyi	ng teaching plans		
B - Various f	inal achievem	ent tests:	ing teaching plans		
1- Month	ly final exame	s at the end of each a	cademic month		
2- Semest	er final exam	s at the end of each s	emester		
3- Final final	exams at the	end of the academic	year		
10. Course s	structure				
Evaluation	Learning	Name of the unit or	Required learning	hours	the week
method	method	topic	outcomes		
Discussion An	My presence	Definition of simulation	Introducing the	3	the first
the test Oral		definition of	student to simulation		
Anu the editorial		programmingMatlab	programMatlab		
Discussion An	My presence	Generating data using	Explain how to	3	the second
the test Oral		the inverse method,	generate data		

			-	
And the	generating data for			
editorial	continuous distributions			
Discussion An My presence			3	the third
the test Oral	<i>.</i>			
And the	practical application	practical application		
editorial				
Discussion An My presence			3	the fourth
the test Oral	Generating distributions	Explain how to	5	the fourth
And the	(exponential, uniform,	generate data		
editorial	gamma)	<b>a</b>		
Discussion An My proconce			2	E:fth
the test Oral	Generating data using		3	FIIUI
the test Oral	the inverse method for	Explain how to		
And the	discrete distributions	generate uata		
editorial			-	
Discussion An My presence	Generating distributions		3	VI
the test Oral	(Poisson, binomial.	Explain how to		
And the	geometric)	generate data		
editorial	_			
Discussion An My presence	)		3	Seventh
the test Oral	practical application	practical application		
And the	practical application	practical application		
editorial				
Discussion An My presence			3	VIII
the test Oral	First monthly test for		_	
And the	the second semester			
editorial				
Discussion An My presence			3	Ninth
the test Oral	Generating a normal	Explain how to	0	i viiiteii
And the	distribution using the	generate data		
editorial	Box-Miller method			
Discussion An My presence			2	Tho tonth
the test Oral	Generating the	Explain how to	5	The tenth
And the	according to the linear	generate data		
oditorial	regression model	8		
Discussion Ar My proconce	-		2	athoistict
the test Oral			3	ameisucu
And the	practical application	practical application		
Alla ule				
			2	
Discussion An My presence		Introducing the	3	the second
the test Ural	Case study application:	student to how to use		ten
And the	testing nypotheses	simulation in case		
editorial		Sindles		
Discussion An My presence	Case study application	Introducing the	3	the third t
the test Oral	analysis of variance for	student to how to use		
And the	a single criterion	simulation in case		
editorial	0	studies		

Discussion An the test Oral And the editorial	My presence	practical application	practical application	3	the fourth ten	
Discussion An the test Oral And the editorial	My presence	A second monthly test for the second semester		3	Fifth ten	
11. Course	e evaluation					
5- 60 degr 4. 40 degrees 17)10 degr 18)5 degre 19)15 degr 20)10 degr	ns Daily And or ees Exam ultim especially By s ees Presence. es Duties with. ees Exam Edito ees Exam verba	al And monthly And ed hate Editorial. triving Divided to me: prial. al.	litorial And reports .	etc		
12. Learnir	ng and teachir	ng resources				
		Require	d textbooks (methodo	ology, if any	/)	
		Main re	ferences (sources)			
	Recommended supporting books and references					
		(scientif	ic journals, reports	.)		
		Electror	ic references, Interne	et sites		

1. name The decision

Research methodology

#### 2. Code The decision

3. the chapter / the year

First semester/fourth stage/2023 - 2024

4. date Preparation this the description

1/16/2024

5. Available attendance forms

My presence

6. Number of study hours (total)/number of units (total)

2 hours Weekly /30 hours Total

7. Name of the course administrator (if more than one name is mentioned) Name: A.M Loai Qais Email :ad.luayabdullh@uodiyala.edu.iq

**Objectives of** 

study subject

8. Course objectives

- Course objectives

- Introducing the student to the most important foundations and principles of the research methodology subject
- Clarifying the concept and basics of writing scientific research
- Highlighting the importance of the field and the corresponding field in writing research
- This course aims to study how to write a student's graduation research and how to write scientific research

9.		
Cour	se outcomes and teaching, learning and evaluation methods	The strategy
16-	Cognitive objectives: - Make the student able to	
17-	-To know the most important principles and basic concepts of	
	scientific research	
18-	-To identify and define the types of research sources required	
19-	To know the correct foundations of scientific research	
20-	To express his opinion about writing scientific research	

21- To apply what he has studied by writing the required graduation research	
Course-specific skills objectives	
16- Interactive skills: Possessing the ability to communicate with the	
subject professor and colleagues	
17Diagnostic skills: the ability to write a graduation research paper	
18- Scientific reports.	
Teaching and learning methods	
1- Managing the lecture in an applied manner linked to the reality of	
daily life to attract the student to the topic of the lesson without straying	
from the core of the topic so that the material is flexible and capable of	
being understood and analysed.	
2-Discussion and dialogue	
3- Enrichment questions	
4-Direct interrogation	
Evaluation methods	
1-Questions Explanations	
2-Questions The error And the right thing	
3-Duties	
19- Evaluation Self	
20- the exams (Daily, monthly, quarterly, final).	
Emotional and value goals	
1-Thinking Simple:(Analysis Problem and finding Solutions sh	e
has on Basis Results expected)	
2-Thinking Critic: (ability on Cash And discrimination Threads	
Asked And the choice Between them )	
3-Thinking Creative: (ability on production ideas And knock New in	1
the solution).	
Teaching and learning methods	
1-Brainstorming method	
2-Use decision making to test the best alternative	
3-Presentation.	
Evaluation methods	
-Tests Miscellaneous(Daily (monthly, quarterly, final)	
2-Tests Oral	
3- Duties	
General and qualifying transferable skills (other skills related to	
employability and personal development).	
1-Skills of collecting and analyzing information about scientific research	1
methods and how to use them in the fields of statistics	

2- Training and personal development skills on how to apply the concepts of writing scientific research in various fields.

3- Developing the student's ability to deal with the Internet.

10. Course s	structure				
Evaluation	Learning	Name of the unit or	Required learning	hours	the week
method	method	topic	outcomes		
Discussion Ar the test Oral And the editorial	My presence	Introduction to scientific research	Understanding and knowledge of basic concepts	2	the first
Discussion An the test Oral And the editorial	Introduction scientific research	Introduction to scientific research	Understanding and knowledge of basic concepts	3	the second
Discussion An the test Oral And the editorial	My presence	Introduction to scientific research	Understanding and knowledge of basic concepts	3	the third
Discussion An the test Oral And the editorial	My presence	Introductions to the research and presentatio of its introductory pages	Understanding and knowledge of basic concepts	3	the fourth
Discussion An the test Oral And the editorial	My presence	Introductions to the research and presentatio of its introductory pages	Understanding and knowledge of basic concepts	3	Fifth
Discussion, oral and written examination	My presence	Introductions to the research and presentation of its introductory pages	Understanding and knowledge of basic concepts	3	VI
Discussion, oral and written examination	My presence	Methodological framework for the research	Understanding and knowledge of basic concepts	3	Seventh
Discussion, oral and written examination	My presence	Methodological framework for the research	Understanding and knowledge of basic concepts	3	VIII
Discussion, oral and written examination	My presence	Methodological framework for the research	Understanding and knowledge of basic concepts	3	Ninth
Discussion, oral and written examination	My presence	The theoretical, analytic and final framework for the research	Understanding and knowledge of basic concepts	3	The tenth

Discussion, oral	My presence	The theoretical, analytic	Understanding	3	atheistic t
and written		and final framework for	and knowledge		
examination		the research	of basic concepts		
Discussion, oral	My presence	The theoretical, analytic	Understanding	3	the second
and written		and final framework for	and knowledge		ten
examination		the research	of basic concepts		
Discussion, oral	My presence		Understanding	3	the third t
and written		l echnical aspects of writing scientific resear	and knowledge		
examination		writing bereitine rebeur	of basic concepts		
Discussion, oral	My presence	For the technical aspect	Understanding	3	the fourth
and written		of writing scientific	and knowledge		ten
examination		research	of basic concepts		
Discussion, oral	My presence	For the technical aspect	Understanding	3	Fifth ten
and written		of writing scientific	and knowledge		
Crammation		research	of basic concepts		

#### 11. Course evaluation

distribution Class from 100 on according to mission Assigned With it requester like Preparation Daily And exams Daily And oral And monthly And editorial And reports ....etc

- 6- 60 degrees Exam ultimate Editorial.
- 5. 40 degrees especially By striving Divided to me:
  - 21)5 degrees Presence.
  - 22)5-10 degrees Duties with.
  - 23)15 degrees Exam Editorial.
  - 24)5 degrees Exam verbal.

#### 12. Learning and teaching resources

	Required textbooks (methodology, if any)
Book (writing scientific research methodology)	Main references (sources)
Reports External	Recommended supporting books and references (scientific journals, reports)
Sites Internet Different	Electronic references, Internet sites

# Fourth stage course the second

1. 1	name	The c	lecisio	1
------	------	-------	---------	---

Statistical inference2

#### 2. Code The decision

coll1204.

3. the chapter / the year

First semester/fourth stage/2023 - 2024

#### 4. date Preparation this the description

12/3/2024

5. Available attendance forms

My presence

6. Number of study hours (total)/number of units (total)

3/3

7. Name of the course administrator (if more than one name is mentioned) Name: A. M. DrAyad Habeeb Shimal Email: <u>ayadstatistic@uodiyala.edu.iq</u>

8. Course objectives

- Course objectives		Objectives
- Introducing the student	to the most important principles of inference ab	the st
statistical hypothesis testing ar	d its importance.	subject
- What do statistical estim	ates mean?	
<ul> <li>What are the steps of sta</li> </ul>	atistical analysis based on statistical estimates?	
- What are the methods of	statistical decision making?	
- Developing the method of	of conclusion.	
9.		
Course outcomes and teach	ing, learning and evaluation methods	The strateg
Course outcomes and teach Objectives Cognitive	ing, learning and evaluation methods	The strateg
<b>Course outcomes and teach</b> <b>Objectives Cognitive</b> 1- That Known reques	ing, learning and evaluation methods ter The information on Estimates Statistics.	The strateg
Course outcomes and teach Objectives Cognitive 1- That Known reques 2- That Known reques	<b>ing, learning and evaluation methods</b> ter The information on Estimates Statistics. ter Most important basics science Inference	The strateg
Course outcomes and teach Objectives Cognitive 1- That Known reques 2- That Known request Statistician.	ing, learning and evaluation methods ter The information on Estimates Statistics. ter Most important basics science Inference	The strateg
Course outcomes and teach Objectives Cognitive 1- That Known reques 2- That Known reques Statistician. 3- That Known requ	ing, learning and evaluation methods ter The information on Estimates Statistics. ter Most important basics science Inference ester Most important a test Hypotheses	The strateg
Course outcomes and teach Objectives Cognitive 1- That Known reques 2- That Known reques Statistician. 3- That Known requ Statistics.	ing, learning and evaluation methods ter The information on Estimates Statistics. ter Most important basics science Inference ester Most important a test Hypotheses	The strateg
Course outcomes and teach Objectives Cognitive 1- That Known reques 2- That Known reques Statistician. 3- That Known requ Statistics. 4- That Known request	ing, learning and evaluation methods ter The information on Estimates Statistics. ter Most important basics science Inference ester Most important a test Hypotheses ter style an offer And analysis data What are	The strateg
Course outcomes and teach Objectives Cognitive 1- That Known reques 2- That Known reques Statistician. 3- That Known request Statistics. 4- That Known request the Most important M	ing, learning and evaluation methods ter The information on Estimates Statistics. ter Most important basics science Inference ester Most important a test Hypotheses ter style an offer And analysis data What are lethods Estimates Statistics that suits the	The strateg

5- That Known requester style Analysis And the conclusion. **Objectives and skills of the course** 

- 21- Interactive skills/student interaction with the environment.
- 22- Personal skills/the ability to diagnose statistical information and its distributions from reality.
- 23- Analytical skills / the ability to analyze digital information realistically.

#### **Teaching and learning methods**

1- Managing the lecture in an applied manner linked to the reality of daily life to attract the student to the topic of the lesson without straying from the core of the topic so that the material is flexible and amenable to understanding and analysis.

- 2-Discussion and dialogue
- 3- Enrichment questions

4-Direct interrogation

#### **Evaluation methods**

- 1-Questions Explanations
- 2-Questions The error And the right thing

3-Duties

- 24- Evaluation Self
- 25- the exams (daily, monthly, Quarterly, Final).

#### **Emotional and value goals**

1-Thinking Simple: (Analysis the problem In a way statistical Athlete And find Solutions she has on Basis Results expected)

2-Thinking Critic: (ability on Cash And discrimination Threads Asked And the choice between them)

3-Thinking Creative: (ability on production ideas And knock New in the solution).

#### **Teaching and learning methods**

1-Brainstorming method

2-Use decision making to test the best alternative

3- Presentation.

#### **Evaluation methods**

-Tests miscellaneous (daily, Monthly, quarterly, ultimate)

2-Tests Oral

3- Duties

### General and qualifying transferable skills (other skills related to employability and personal development).

1-Skills of collecting and analyzing information about mathematics concepts and how to use them in the fields of statistics

2- Training and personal development skills on how to apply mathematics concepts in different fields.

3- Developing the student's ability to deal with the Internet.

.Course structure					
Evaluation	Learning	Name of the unit or	Required learning	hours	the week
method	method	topic	outcomes		
Evaluation	lecture And	Bayes estimation	Bayes estimation	3	1
Self /the	the				
Evaluation	lecture And	Baves testing	Baves testing	3	2
Self /the	the	application	application	0	-
exams /Oral	discussion				
Evaluation	lecture And	Testing hypotheses	Testing hypotheses	3	3
Self /the	the	8 71	8 /1		U U
exams /Oral	discussion				
Evaluation	lecture And	Simple hypotheses	Simple hypotheses	3	4
Self /the	the				
exams /Oral	discussion				
Evaluation	lecture And	Composite hypotheses	Composite hypotheses	3	5
Self /the	the				
exams /Oral	discussion				
Evaluation	lecture And	Type of error	Type of error	3	6
Self /the	the				
exams /Oral	discussion				
Evaluation	lecture And	Power function	Power function	3	7
Self /the	the				
exams /Oral	discussion				
Evaluation	lecture And	Best critical regression	Best critical regression	3	8
Self /the	discussion/e				
exams /Oral	xam			0	0
Evaluation	lecture And	Generalized likelihood	Generalized likelihood	3	9
Self /the	the	1410	1410		
exams / Urai	discussion/	Comonolizzad kitalihaad	Comonolizzad Bloolik and	2	10
Evaluation	lecture And	Generalized likelihood ratio	Generalized likelihood	3	10
Sell / the	discussion	14110	1410		
Evaluation	locture And	Uniformly most	Uniformly most	2	11
Solf /tho	the	powerful test	powerful test	5	11
exams /Oral	discussion	<b>F</b> • · · · · · · · · · · · · · · · · · ·	<b>P</b> • · · · · · · · · · · · · · · · · · ·		
Evaluation	lecture And	Sequential test of	Sequential test of	3	12
Self /the	the	hypotheses	hypotheses	5	12
exams /Oral	discussion				
Evaluation	lecture And	application	application	3	13
Self /the	the				_
exams /Oral	discussion				
Evaluation	lecture And	application	application	3	14
Self /the	the				
exams /Oral	discussion				
Evaluation	lecture And	exam. exam	exam. exam	3	15
Self /the	the				
exams /Oral	discussion				
1. Course evaluation					
distribution Class from 100 on according to mission Assigned With it requester like Preparation Daily And exams Daily And oral And monthly And editorial And reports ....etc

7- 60 degrees Exam ultimate Editorial.

8- 40 degrees especially By striving Divided to me:

25)5 degrees Presence.

26)5-10 degrees Duties with.

27)15 degrees Exam Editorial.

28)5 degrees Exam verbal.

#### 2. Learning and teaching resources

Statistical inference Prof. Dr. Abdel Majeed Hamza Al-Nasser. Prof. Dr. Dhafer Hussein Rashid	Required textbooks (methodology, if any)
Statistical inference Prof. Dr. Abdel	Main references (sources)
Majeed Hamza Al-Nasser Prof. Dr.	
Dhafer Hussein Rashid /dr. iden	
hassan, dr. hamza Ismael	
Mathematical statistics /Rob	Recommended supporting books and references
Hogg	(scientific journals, reports)
the library Default Iraqi /And Resear	Electronic references, Internet sites
Internet External .	

11.plan development The decision Academic

- Use Books methodology Modern.

- Application Practical For tests.

- Use Programs the computer Statistics Modern.

Benefit from Research New And apply it.

- 1. name The decision
- Design and analysis of experiments  $_{2}$

## 2. Code The decision

3. the chapter / the year

The second semester/fourth stage/2023 - 2024

4. date Preparation this the description

1/15/2024

5. Available attendance forms

My presence

6. Number of study hours (total)/number of units (total)

3/3

## 7. Name of the course administrator (if more than one name is mentioned) Name: Arshed Hameed Hassan Email :arshadhameed@uodiyala.edu.iq

8. Course objectives

Co	urse objectives	Objectives of
•	Introducing paint to the theoretical foundations of the subject as	study subject
	well as its use in practice.	
•	It aims to build a design model that matches reality based on	

- It aims to build a design model that matches reality based on experience
- Characteristics that must be present in order to obtain the best design that simulates the practical reality of the phenomena

Thoughtful.

- Building statistical analysis skills and how to obtain an analysis of the studied phenomenon through
- Know the factor affecting it.

#### 9. **Course outcomes and teaching, learning and evaluation methods** The strategy Make the student able to: Understand the basics of designing and analyzing experiments 22-

Understanding completely randomized design 23-

24-Understand the randomized complete block design

- 25- Understanding square design for Latin
- 26- Understanding the design of the Latin-Greek square
- 27- Understanding the design of the Youden box
- 28- Understanding global experiments
- 29- Understanding Splinter Pieces
- 30- Understanding analysis of covariance

## **Course-specific skills objectives**

- 26- Interactive skills: Possessing the ability to communicate with the subject professor and colleagues.
- 27- Diagnostic skills: the ability to deal with a statistical problem.
- 28- Analytical skills: The ability to analyze and distinguish between different types of analytical commands in the program.

#### **Teaching and learning methods**

1- Presenting the basic theories, meaning that the beginning of learning will be by presenting the basic theories and concepts of design

2- Analyzing experiments, which is represented by simple experiments, by constructing a design for the phenomenon.

3-Use case studies and practical applications experiments in different fields, such as

4- Agricultural sciences, medical sciences, physical and chemical sciences for the purpose of explaining how experimental design is used in practical life.

5-Provide individual guidance to students to understand theories and practical exercises, and guide them in solving problems and understanding the results.

6- Organizing group discussions about building, designing, and analyzing a specific experiment, which contributes to the exchange of ideas and mutual learning among students.

7- Previous studies can be used as examples to analyze and understand the results and statistical analyzes used in

Design and analysis of simple experiments.

8-Provide continuous evaluation of students' performance and provide feedback to guide them and improve their understanding and analysis skills

Simple experiments.

## **Evaluation methods**

1-Questions Explanations

2-Questions The error And the right thing

3-Duties

29- Evaluation Self

30- the exams (Daily, monthly, quarterly, final).

## **Emotional and value goals**

4- Ability on to examine And evaluation Threads Asked .

5- Ability on Cash And discrimination Threads Asked And the									
choice Between them .									
6- Ability on production ideas New									
Teaching and	Teaching and learning methods								
1-Brainstorm	ing method								
2-Use decisio	n making to t	est the best alternati	ve						
3-Presentation	n.								
<b>Evaluation n</b>	nethods								
-Tests Misce	llaneous(Dai	ly (monthly, quarte	erly, final)						
2-Tests Oral									
3- Duties									
General and	qualifying tr	ansferable skills (o	other skills related to						
employabilit	y and person	al development).							
1-Skills of co	llecting and a	nalyzing informatio	n about the concepts of	f					
designing and	l analyzing ex	periments and how	to use them in						
agricultural fi	elds								
2- Training an	nd personal de	evelopment skills or	how to apply experien	nce					
design concep	ots in differen	t fields.							
3- Developing	g the student's	s ability to construct	a correct experiment						
10. Course structure									
Evaluation	Learning	Name of the unit	Required learning	hours	the week				
method	method	or topic	outcomes						
<b>Discussion An</b>	My presence		Greek Latin square	3	the first				
the test Oral			design						
And the			Mathematical model						

an experience(1) Missing values an experience(2)

Yuden square design

Mathematical model

statistical analysis an experience(2)

**Global experience** 

with a Latin square

3

3

3

3

the second

the third

the fourth

Fifth

the test Oral		Factorial experiment
And the		with a completely
editorial		randomized design
		an experience(3)
		an experience (4)
<b>Discussion</b> Ar	My presence	an experience (5)
the test Oral		Factorial experiment
And the		with randomized
editorial		complete block design
		statistical analysis
		an experience (6)
<b>Discussion</b> An	My presence	Factorial experiment

editorial

the test Oral

the test Oral

And the

editorial

Discussion Ar My presence

Discussion Ar My presence

		1	1
And the	design		
editorial	Mathematical model		
	an experience (7)		
Discussion Ar My presence	Inclusion	3	VI
the test Oral	How to implement the	U	
And the	idea of inclusion		
oditorial	Types of integration		
euitoriai	an experience (8)		
Disquesion Ar My procong	$\frac{1}{2} = \frac{1}{2} $	2	Corrorath
biscussion An My presence	an experience (9)	3	Seventh
the test Oral	Wiethods of		
And the	integrating global		
editorial	experiences in four		
	sectors		
	The first method		
	The second method		
Discussion Ar My presence	Partial replication of	3	VIII
the test Oral	factorial experiments	_	-
And the	Partial redundancy		
editorial	configuration		
Discussion Ar My prosoner	configuration	2	Ninth
the test Oral	Partial replication	3	INITIUTI
	with eight treatments		
And the	an experience (9)		
editorial			
Discussion Ar My presence	Splinter cutting	3	The tenth
the test Oral	experiments		
And the	Split-plot experiments		
editorial	with a completely		
	randomized design		
	an experience (10)		
Discussion Ar My presence	Split-block experiment	s 3	atheistic to
the test Oral	with a randomized	U	
And the	complete block design		
editorial	an experience (11)		
Discussion Ar My prosoner	Snlit nigoos	2	the cocone
the test Oral	Split pieces	З	the second
And the	L atin aguana dagian		ten
	Laun square design		
	an experience (12)		
Discussion Ar My presence	Analysis of covariance	3	the third t
the test Oral	Linear model in		
And the	analysis of covariance		
editorial	Analysis of covariance		
	with a completely		
	randomized design		
	an experience(13)		
Discussion Ar My presence	Analysis of covariance	3	the fourth
the test Oral	with a randomized	-	ton
And the	complete block design		
editorial	an experience (14)		
	Analysis of covariance		
	with a Latin square		
	with a Latin square		

				design				
				an experience (15)				
Discussion Ar	My presence				3	Fifth ten		
the test Oral				Second semester exam				
And the								
	Avaluation							
					1.1	<b>D</b>		
distribution Cl	ass from 100 of	n according to m	nissio	n Assigned With it reque	ster like	Preparation		
Daily And exam	ns Daily And or	al And monthly .	And e	altorial And reportset	С			
9- 00 degr		triving Divided t	to mo					
29)5 degrees	29)5 degrees Presence							
30)5 degre	30)5 degrees Duties with							
31)15 degre	ees Exam Edito	orial first						
32)15 degr	ees Exam Edito	orial second						
12. Learnir	ng and teachir	ng resources						
design Ex	periments An	d analysis	Requ	uired textbooks (methodolo	ogy, if an	у)		
Results (Sec	tion The first	) (partial the		Υ.		,		
	second)							
	Professor							
Perfect	ion Alwan be	hind Al-						
	Mashhadani	-						
Experimer	ntal Design ar	nd Analysis	Main	references (sources)				
Но	ward I Seltm	nan	- main					
	July 11 2018							
Internationa	Lournal of F	vnerimental	Poor	mmondod supporting b	ooke ond	d references		
Dosign and E	Process Optin	vization	Neut	supporting b				
Modorn	Evporimente	Docign	(scie	ntific journals, reports)				
no The	ereis		Elect	ronic references, Internet	sites			

1. name The decision

Econometrics2

#### 2. Code The decision

3. the chapter / the year

The second semester/fourth stage/2023 - 2024

4. date Preparation this the description

3/13/2024

5. Available attendance forms

My presence

6. Number of study hours (total)/number of units (total)

3/3

## 7. Name of the course administrator (if more than one name is mentioned) Name: M. Hisham pharaoh Abd Allateef Email :hisham@uodiyala.edu.iq

**Objectives of** 

study subject

8. Course objectives

- Course objectives

- Introducing the student to the most important foundations and principles of econometrics
- Explain the concept of statistics
- Highlighting the importance of statistics in application
- This course aims to study statistical methods The student can tabulate, collect, and describe data

#### 9.

Cour	<b>Course outcomes and teaching, learning and evaluation methods</b>				
31-	Cognitive objectives: - Make the student able to				
32-	-To know the most important principles and basic concepts in				
	econometrics				
33-	-To determine statistical methods				
34-	To become familiar with the concept of econometric methods				
35-	To explain his opinion on the concepts of econometrics				
36-	To apply survey concepts with realistic examples and case studies				
C	ourse-specific skills objectives				

31Interactive skills: Possessing the ability to communicate with the	
subject professor and colleagues	
32Diagnostic skills: the ability to diagnose problems and ways to	
solve them	
33- Scientific reports.	
Teaching and learning methods	
1- Managing the lecture in an applied manner linked to the reality of	
daily life to attract the student to the topic of the lesson without straying	
from the core of the topic so that the material is flexible and capable of	
being understood and analysed.	
2-Discussion and dialogue	
3- Enrichment questions	
4-Direct interrogation	
L'Aluation methods	
2 Questions The error And the right thing	
2-Questions The error And the right thing 3 Duties	
34- Evaluation Self	
35- the exame (Daily monthly quarterly final)	
Fmotional and value goals	
1-Thinking Simple (Analysis the problem In a way statistical	
Athlete And find Solutions she has on Basis Results expected)	
2-Thinking Critic: (ability on Cash And discrimination Threads	
Asked And the choice Between them )	
3-Thinking Creative: (ability on production ideas And knock New in	
the solution).	
Teaching and learning methods	
1-Brainstorming method	
2-Use decision making to test the best alternative	
3-Presentation.	
Evaluation methods	
-Tests Miscellaneous(Daily (monthly, quarterly, final)	
2-Tests Oral	
3- Duties	
General and qualifying transferable skills (other skills related to	
employability and personal development).	
1-Skills of collecting and analyzing information about economic	
measurement concepts and how to use them in the fields of statistics	
2- Training and personal development skills on how to apply estimation	
concepts in different fields.	
3- Developing the student's ability to deal with the Internet.	
10. Course structure	

Evaluation	Learning	Name of the unit or	Required learning	hours	the week
method	method	topic	outcomes		
Discussion And t test Oral And the editorial	My presence	The nature of general linear regression analysis	Definitions and concepts	3	the first
Discussion And t test Oral And the editorial	My presence	The autocorrelation problem	Key concepts	3	the second
Discussion And t test Oral And the editorial	My presence	The autocorrelation problem	Key concepts	3	the third
Discussion And t test Oral And the editorial	My presence	The autocorrelation problem	General exercises	3	the fourth
Discussion And t test Oral And the editorial	My presence	Statementthatmethodols is the bestunbiasedlinearestimate	Theoretical steps	3	Fifth
Discussion And t test Oral And the editorial	My presence	Estimating the production function	Realistic applications	3	VI
Discussion And t test Oral And the editorial	My presence	General linear regression analysis	Practical exercises	3	Seventh
Discussion And t test Oral And the editorial	My presence	First month exam	Monthly test	3	VIII
Discussion And t test Oral And the editorial	My presence	Multicollinearity problem	Key concepts	3	Ninth
Discussion And t test Oral And the editorial	My presence	Multicollinearity problem	Key concepts	3	The tenth
Discussion And t test Oral And the editorial	My presence	Multicollinearity problem	General exercises	3	atheistic t
Discussion And t test Oral And the editorial	My presence	Contrast heterogeneity	Key concepts	3	the second ten
Discussion And t test Oral And the editorial	My presence	Contrast heterogeneity	Key concepts	3	the third t
Discussion And t test Oral And the editorial	My presence	Contrast heterogeneity	General exercises	3	the fourth ten
Discussion And t test Oral And the editorial	My presence	Second semester exan		3	Fifth ten

11. Course evaluation

distribution Class from 100 on according to mission Assigned With it requester like Preparation Daily And exams Daily And oral And monthly And editorial And reports ....etc 10-60 degrees Exam ultimate Editorial.

- 7. 40 degrees especially By striving Divided to me:
  - 33)5 degrees Presence.
  - 34)5-10 degrees Duties with.
  - 35)15 degrees Exam Editorial.
  - 36)5 degrees Exam verbal.

12. Learning and teaching resources	
Econometrics book Dr.Dhafer	Required textbooks (methodology, if any)
Hussein Rashid	
	Main references (sources)
	Recommended supporting books and references
	(scientific journals, reports)
	Electronic references, Internet sites

1. name The decision

Time series analysis2

#### 2. Code The decision

3. the chapter / the year

The second semester/fourth stage/2023 - 2024

4. date Preparation this the description

12/6/2024

- 5. Available attendance forms
- My presence
- 6. Number of study hours (total)/number of units (total)

3/ 2.5

- 7. Name of the course administrator (if more than one name is mentioned) Name: A.L Amel Hadi Rashid Email :amal@uodiyala.edu.iq
  - 8. Course objectives

Course objectives: In most areas of life, including industrial and economic changes, as well demographic and medical changes, we need statistical methods and methods in order to anal and treat phenomena, as well as predict through them the future. Time series analysis considered one of the most important statistical methods that can be integrated with vari fields, especially the economic field, as it is used in Determine the general trend of time series data as well as... That is why this article aims to Identify the most important basic components of the time seriesIncluding learning ab

statistical models such as autoregressive models and moving averagesARIMA regular, seaso and double,That is why this article aims to:

6- Recognizing the nature of stable and unstable time series, poor stability in the arithme mean or variance

Autocorrelation functions and treatment methods for unstable chains

7- Methods of diagnosing, estimating, and testing seasonal and non-seasonal Box-Jenk

models and the multiplicative model.

8-Testing the fit of the model to time series

9-Methods of comparison between the models under study.

**10-** Internal and external forecasting based on optimal modelsTo benefit from it economic and social planning, for statistical comparison purposes, and in time series analysis

0						
9.						
<ul> <li>Knowledge And understanding <ul> <li>Ability on analysis data .</li> <li>Supply Students With knowledge Applied Statistics in Different fields life Like social And economic And others <ul> <li>Ability to knowledge requester in Appreciation For data And prediction And benefit For purposes Planning.</li> </ul> </li> <li>Accommodation requester For concept Analysis And benefit from that in His life the operation In the future.</li> <li>Skills Private With the topic <ul> <li>skills employment using it Analysis Statistician the appropriate For data.from during the side Natri on Data Real</li> <li>skills reach to Forecasting Futurist And take resolution Appropriate building on establish</li> </ul> </li> </ul></li></ul>						
<ul> <li>Methods education And learning         <ul> <li>throw Lectures and give exercises ongoing And applied For differently phenomena Like economic And physics And others To find a employment Statistics Differently Domains</li> <li>to organize discussions Collective around analysis series Tempora Than constribte in exchange Ideas And learning Mutual between t atudante</li> </ul> </li> </ul>						
Methods Evaluation Exams Periodicity And discussions in Theme lecture						
<ul> <li>skills Thinking</li> <li>Thinking And listening To ask.</li> <li>to understand the question.</li> <li>the focus on requirements the question.</li> <li>the answer minute And scientific For requirements the question</li> </ul>						
.Course structure						
Evaluation	Learning	Name of the unit	Required learning	hours	the week	
method	method	or topic	outcomes			

Discussion And	My present	_	Double		3	the first
the test Oral An			exponenti			
the editorial			al			
			smoothing	Knowledge a		
			- Brown's	understanding		
			method			
		-	Holt			
			method			
Discussion And	My presenc	-	Triple		3	the second
the test Oral An			exponenti			
the editorial			al			
			smoothing			
			method			
			(Winter			
			method)			
		-	Case	Mental skills		
			studies			
			using			
			statistical			
			programs,			
			practical			
			applicatio			
			<u>n</u>		-	
Discussion And	My presenc		Time		3	the third
the test Oral An			series			
the editorial			extrapolati			
			on			
		-	Stability	Knowledge a		
			in the	understanding		
			arithmetic			
			mean			
		-	- Stability			
		<b>—</b>	in contrast		-	.1
Discussion And	My presenc	Trans	formations		3	the fourth
the test Ural An		on da				
the editorial		-	Autocorrel			
			ation	N.C		
			Tunction	Iviental skills		
		-	Partial			
			autocorrel			
			ation			
			function			

Discussion And the test Oral An the editorial	<ul> <li>Box- Jenkins model analysis</li> <li>Stochastic model (stable and unstable)</li> <li>Knowledge understanding</li> </ul>	3	Fifth
Discussion And My present the test Oral An the editorial	<ul> <li>Stages of building the model</li> <li>Diagnosis</li> <li>Autoregre ssive model</li> <li>Moving average model</li> <li>Simple mixed model</li> </ul>	3	VI
Discussion And the test Oral An the editorial	<ul> <li>Using the autocorrel ation function and the partial autocorrel ation function in diagnosis</li> <li>Methodol ogical methods for analyzing time series data</li> <li>Autocorrel ation coefficient</li> </ul>	a a	Seventh

Discussion And the test Oral An the editorial	My presend	<ul> <li>Autocorrel ation coefficient test</li> <li>Box- Jenkins method for time series analysis</li> <li>Model diagnosis</li> <li>Autoregre ssive model of degreeP</li> <li>Model of moving circles of degreeq</li> <li>Autoregre ssive model of</li> </ul>	Mental skills	3	VIII
Discussion And the test Oral An the editorial	My presenc	Estimation using the method of moments and the maximum likelihood method	Knowledge understanding	3 8	Ninth
Discussion And the test Oral An the editorial	My presenc	<ul> <li>Seasonal autoregres sive model</li> <li>Seasonal moving averages model</li> </ul>	Mental skills	3	The tenth

		Unstationary seasonal mixed model			
Discussion And M the test Oral An the editorial	ſy presenc	<ul> <li>Check model fit</li> <li>Price test</li> <li>Jean Price test</li> </ul>	Knowledge understanding	3 8	atheistic t
Discussion And M the test Oral An the editorial	ly presenc	<ul> <li>Multiplica tive seasonal model</li> <li>Estimate landmarks</li> </ul>	Mental skills	3	the second ten
Discussion A M the test Oral A the editorial	ly presenc	- Forecastin g modelsAR IMA	Knowledge understanding	3 8	the third t
Discussion A M the test Oral A the editorial	ly presenc	Case studies using statistical programs	Mental skills	3	the fourth ten
Discussion A M the test Oral A the editorial	ly presenc	Second semester exam	Knowledge understanding	<sub>2</sub> 3	Fifth ten
1. Course evalua	ation				
distribution Class fro Daily And exams Dail 11-50 degrees Ex 8. 40 degrees espect 37)5 degrees Pres 38)5-10 degrees 39)15 degrees Ex 40)5 degrees Exa	om 100 on a ly And oral A cam ultimate ially By striv sence. Duties with cam Editoria im verbal.	according to mission And monthly And edi Editorial with 10 de ving Divided to me: Exam practical . l.	Assigned With it re torial And reports grees Exam practica	equester lik .etc al ultimate .	e Preparation
2. Learning and t	teaching re	sources			
analysis ch the second Written by a praiseworth And the doc And the	ains Tem all from Do y tor dream doctor	porality Secti Red ctor Munaf Yu s Ahmed Frida Firas Ahm	quired textbooks (met	thodology, if	any)

William W. S. Wei(2006) "Time Series Analysis: Univariate and Multivariate Methods" Addison-Wesley Pub.	Main references (sources)
James Douglas Hamilton(1994) "Time Series Analysis" Wiley.	Recommended supporting books and references (scientific journals, reports)
	Electronic references, Internet sites

1. name The decision

Statistical applications2

### 2. Code The decision

3. the chapter / the year

Second semester/fourth stage/2023 - 2024

4. date Preparation this the description

1/20/2024

5. Available attendance forms

My presence

6. Number of study hours (total)/number of units (total)

#### 3/2

7. Name of the course administrator (in	f more than one name is mentioned)
Name: A.L.D Omer Adel AbdulWahab	Email :omersta@uodiyala.edu.iq

8. Course objectives

- Course objectives	Objectives	
1 – Introducing the student to statistical applications	the st	
	subject	
2– Providing the student with various topics related to statisti		
applications		
3- Explain the importance of statistical applications.		
9.		
1. A- Cognitive objectives	The strategy	
a1- That the student knows the most important principles and basic concepts		
of statistical applications.		
a2- The student should explain statistical concepts in statistical applications		
a3- That the student applies the concepts of statistical applications in		
theoretical and practical reality.		
a4- To be creative in using modern and contemporary concepts in statistical		
applications.		
a5- To express an opinion or issue a judgment regarding statistical concepts		
in statistical applications.		
B - The skills objectives of the course.		

B1 -			
Communication and communication skills: - Possessing a high level of skills			
in information technology, working with others (love of teamwork)			
B2 – Analytical skills: Skills in identifying the relationship between			
mathematical and statistical concepts in statistical applications.			
Teaching and learning methods			
1- Use the brainstorming methodBrainstorming.			
2- Using various mind maps.			
3- Use the problem-solving method.			
4- Using the presentation method			
Evaluation methods			
1- Objective questionsObjective Test items are divided into:-			
a- True and false questionsTrue/False Items			
B - Multiple choice questionsMultiple Choice Items			
C - Interview questionsMatching Items			
2- HomeworksHomework assignments			
3- Self-evaluation and peer evaluationPeer and Self-Assessment			
4- The tests are divided into:-			
a- Formative achievement tests accompanying teaching plans			

- B Various final achievement tests:
- 1- Monthly final exams at the end of each academic month
- 2- Semester final exams at the end of each semester
- 3- Final final exams at the end of the academic year

Evaluation	Learning	Name of the unit or	Required learning	hours	the week
method	method	topic	outcomes		
Discussion And th test Oral And the editorial	My presenc	Basics of programming in MATLAB	review	3	the first
Discussion And th test Oral And the editorial	My presenc	Use MATLAB	introduction	3	the second
Discussion And th test Oral And the editorial	My presenc	Detect the presence of outliers in the data	Detection and estimation of missing values	3	the third
Discussion And th test Oral And the editorial	My presenc	Detect the presence of outliers in the data Estimating missing data	practical application	3	the fourth
Discussion And th test Oral And the editorial	My presenc	a testChi-Square for good matching	I tested	3	Fifth

10. Course structure

Discussion And th test Oral And the editorial	My presenc	a testChi-Square for good matching	practical application	3	VI
Discussion And th test Oral And the editorial	My presenc	Drawing the appropriateness of statistical distributions Draw a simple linear regression equation	Graphical representation of data	3	Seventh
Discussion And th test Oral And the editorial	My presenc	First monthly test for the second semester		3	VIII
Discussion And th test Oral And the editorial	My presenc	Generating data that suffers from the autocorrelation problem Testing for the presence of an autocorrelation problem in the data	The autocorrelation problem	3	Ninth
Discussion And th test Oral And the editorial	My presenc	Generating a random error boundary variance heterogeneity problem Addressing the problem of non-homogeneity of the variance of random error bounds	Error heterogeneity problem	3	The tenth
Discussion And th test Oral And the editorial	My presenc	The autocorrelation problem Error heterogeneity problem	practical application	3	atheistic t
Discussion And th test Oral And the editorial	My presenc	Generating a multicollinearity problem between explanatory variables Detecting the problem of multicollinearity in data	Multicollinearity problem	3	the second ten
Discussion And th test Oral And the editorial	My presenc	Analyzing the questionnaire form through a programSPSS	Analysis of the questionnaire form	3	the third t
Discussion And th test Oral And the editorial	My presenc	Multicollinearity problem Analysis of the questionnaire form	practical application	3	the fourth ten
Discussion And th test Oral And the editorial	My presenc	A second monthly test for the second semester		3	Fifth ten

distribution Class from 100 on according to mission Assigned With it requester like Preparation Daily And exams Daily And oral And monthly And editorial And reports ....etc

12-60 degrees Exam ultimate Editorial.

9. 40 degrees especially By striving Divided to me:

41)10 degrees Presence.

42)5 degrees Duties with.

43)15 degrees Exam Editorial.

44)10 degrees Exam verbal.	
12. Learning and teaching resources	
Statistical applications d.Abdul Aziz	Required textbooks (methodology, if any)
Ahmed2010	
	Main references (sources)
	Recommended supporting books and references
	(scientific journals, reports)
	Electronic references, Internet sites

1. name The decision

#### Multivariate1

2. Code The decision

Mull 453

3. the chapter / the year

First semester/fourth stage/2023 - 2024

4. date Preparation this the description

12/3/2024

- 5. Available attendance forms
  - My presence
- 6. Number of study hours (total)/number of units (total)

3/3

7. Name of the course administrator (if more than one name is mentioned) Name: A.P D. Anam Abdulrahman Noman Email :inaamsta@uodiyala.edu.iq

### 8. Course objectives

Goals The decision	Objectives		
1- The student's knowledge of the basic concepts about dealing with matrices through			
practical phenomena and examples, and linking the subject of multiple variables with the			
subject of linear algebra, which the student studied over two semesters (the first is			
matrices and the second is linear algebra).			
2- The student's knowledge of the basic concepts of the multivariable subject, starting			
with one variable, two variables, and more, and linking the concepts of variables to the			
normal distribution with two variables or more, and benefiting from that by writing the			
normal distribution function for one or two variables.			
9.	- :		
	The strategy		
Knowledge And understanding			
- Ability on analysis data using Programs Statistics .			
- Supply Students With knowledge Applied Statistics in Different			
fields life Like social And economic And others			
- Ability to knowledge requester in the exams Statistics And			
attention By studying Cases in the field Healthy And agricultural			
And saving data For application And extract Results .			

- Accommodation requester For concept Analysis And benefit from
that in His life the operation In the future.
Skills Private With the topic
- skills employment using it Analysis Statistician the appropriate
For data.from during the side Natri on Data Real
- Skills to reach future decisions and make an appropriate decision based on
foundations
Sound scientific
Teaching and learning methods
- Giving lectures and giving continuous and applied exercises on various phenomer
- And others to learn about the use of statistics in various fields
- Organizing group discussions on specific time series analysis, which contributes to
the exchange of ideas and mutual learning among students
the exchange of ideas and mutual learning among students.
Evaluation methods
Periodic exams and discussions on the lecture topic
thinking skills
- Thinking and listening to the question.
- Understand the question.
- Focus on the requirements of the question.
- Accurate and scientific answer to the question requirements

# .Course structure

Evaluation method	Learning method	Name of the unit or topic	Required learning outcomes	hours	the week
Self- evaluation/tests/or al/enrichmentSolve examples within the section and take a daily exam And (homework)	Lecture and discussion	The matrix, trace of matrix, identity matrix, the vector, matrix operation, type (diagonal, triangular, null, addition, multiplication)	The matrix, trace of matrix, identity matrix, the vector, matrix operation, type (diagonal, triangular, null, addition, multiplication)	3	1
Self- evaluation/tests/or al/enrichmentSolve examples within the section and take a daily exam And (homework)	Lecture and discussion	Distribution and association Laws for matrices, multiplication by diagonal matrix, linear equation	Distribution and association Laws for matrices, multiplication by diagonal matrix, linear equation	3	2
Self- evaluation/tests/or al/enrichmentSolve examples within the section and take a daily exam	Lecture and discussion	Vector operation (inner product, leangth, norm, normalization, orthogonal,	Vector operation (inner product, leangth, norm, normalization, orthogonal,	3	3

	T			1	
And (homework)		orthonormal, linear	orthonormal, linear		
		independent)	independent)		
Self-	Lecture	The determination	The determination	3	4
evaluation/tests/or	and	of square matrix,	of square matrix,		
al/enrichmentSolve	discussion	minor inverse	minor inverse		
examples within		matrix, rank of	matrix, rank of		
the section and		matrix, elementary	matrix, elementary		
take a daily exam		row (column),	row (column),		
And (homework)		generalized inverse	generalized inverse		
		matrix	matrix		
Self-	Lecture	Similar linear	Similar linear	3	5
evaluation/tests/or	and	equation:	equation:		
al/enrichmentSolve	discussion	(homogeneous	(homogeneous		
examples within		system, non	system, non		
the section and		homogeneous	homogeneous		
take a daily exam		system) of equation,	system) of equation,		
And (homework)		orthogonal matrix	orthogonal matrix		
		properties of	properties of		
		orthogonal matrix	orthogonal matrix		
Self-	Lecture	Quadratic form:	Quadratic form:	3	6
evaluation/tests/or	and	type of quadratic	type of quadratic		
al/enrichmentSolve	discussion	forms. Idempotent	forms. Idempotent		
examples within		matrix, properties of	matrix, properties of		
the section and		Idempotent matrix	Idempotent matrix		
take a daily exam		•	•		
And (homework)					
Self-	Lecture	Characteristic roots	Characteristic roots	3	7
evaluation/tests/or	and	and vector of a	and vector of a		
al/enrichmentSolve	discussion	matrix.	matrix.		
examples within					
the section and					
take a daily exam					
And (homework)					
Self-	Lecture	Partition matrices.	Partition matrices.	3	8
evaluation/tests/or	and	properties of	properties of	_	
al/enrichmentSolve	discussion	partition, sum.	partition, sum.		
examples within		product.	product.		
the section and		determination and	determination and		
take a daily exam		inverse of partition	inverse of partition		
And (homework)					
Self-	Lecture	Differentiation with	Differentiation with	3	9
evaluation/tests/or	and	vectors and	vectors and		
al/enrichmentSolve	discussion	matrices hession	matrices hession		
examples within	u15CU55IVII	matrix	matrix		
		man is,	man is,		

the section and		determination of	determination of		
take a daily exam		maximum and	maximum and		
And (homework)		minima	minima		
Self-	Lecture	Multivariate normal	Multivariate normal	3	10
evaluation/tests/or	and	distribution	distribution	-	
al/anniahmantCalva	diamaion	Multivariate joint	Multivariata joint		
al/enrichmentSolve	aiscussion		Multivariate joint		
examples within		distribution,	distribution,		
the section and		absolute	absolute		
take a daily exam					
And (homework)					
Self-	Lecture	Marginal and	Marginal and	3	11
evaluation/tests/or	and	conditional	conditional		
al/enrichmentSolve	discussion	distribution	distribution		
examples within	uiscussion				
the section and		independent partial	independent partial		
take a daily exam		correlation	correlation		
And (homework)		coefficient	coefficient		
Self-	Lecture	Moment of	Moment of	3	12
evaluation/tests/or	and	multidimensional	multidimensional		
al/enrichmentSolve	discussion	variables variance	variables variance		
examples within	uiscussion	variables, variance,			
the section and		covariance, and	covariance, and		
take a daily exam		correction	correction		
And (homework)					
Self-	Lecture	Transformation of	Transformation of	3	13
evaluation/tests/or	and	variables	variables		
al/enrichmentSolve	discussion				
examples within	ubcubbion				
the section and					
take a daily exam					
And (homework)					
Self-	Lecture	Multivariate normal	Multivariate normal	3	14
evaluation/tests/or	and	distribution: density	distribution: density		
al/enrichmentSolve	discussion	standard form of	standard form of		
examples within		normal density	normal density		
the section and		anditional density	anditional dansity		
take a daily exam					
And (homework)		of the multivariate	of the multivariate		
		normal distribution.	normal distribution.		
Self-	Lecture	Properties of	Properties of	3	15
evaluation/tests/or	and	multiple normal	multiple normal		
al/enrichmentSolve	discussion	distribution	distribution		
examples within					
the section and					
take a daily exam	1			1	
J					
And (homework)					
And (homework) 11. Course evaluation	on				
And (homework) 11. Course evaluation Degree distribution	on from100 ac	cording to the tasks	assigned to the stude	nt, such	as daily
And (homework) 11. Course evaluation Degree distribution preparation, daily, o	on from100 ac oral, monthly	ccording to the tasks , written exams, reports	assigned to the stude s, etc.	nt, such	as daily

13-50 marks final written exam with 10 marks final practical exam.

#### **10.40** degrees for the pursuit, divided into:

45) 5 degrees of attendance.

46) 5-10 grades of assignments with a practical exam.

47) 15 marks for written exam.

48) 5 marks for oral exam.

12. Learning and teaching resources

Multivariate analysis, Dr. Ziad Al-Rawi	Required textbooks (methodology any)
Raykov, T. & Marcoulides G.; (2008); "An Introduction to Applied	Main references (sources)
Multivariate Analysis"; Routledge: Taylor & Francis Group; New-York	· · · ·
	<b>Recommended</b> supporting
	books and references (scientific
	journals, reports)
	Electronic references, Internet s
- skills plural And analysis data.	Skills the public And
2- Skills Conclusion And put Solutions the theory.	qualifying Movable (Skills
3- Skills How Dealing with data And the number T	The other Related Capable
massive one Of which any hig data	recruitment And evolution
mussive one of which any big uutu	personal).

