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circle a guarantee the quality And accreditation Academic
to divide Accreditation

Program description guide

Academic and course

2024

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.

Course description: 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.

Curriculum structure: 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

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:

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

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

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

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

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

8. Expected learning outcomes of the programme	
Knowledge	
Statement of learning outcomes1 **− Using and applying statistical concepts in case studies**	Learning Outcomes1 **− Familiarity with the principles and concepts of statistics**

Skills	
Statement of learning outcomes2 - **Collect and analyze data on statistical topics.**	Learning Outcomes2 - **The ability to understand statistical methods and how to apply them.**
Statement of learning outcomes3 - **Choosing statistical methods to address realistic problems.**	Learning Outcomes3 - **Making comparisons and statistical differences for various topics.**
Value	
Statement of learning outcomes4 - **The ability to understand and distinguish between statistical analyses**	Learning Outcomes4 - **Preparing concepts for various topics**
Statement of learning outcomes5 - **The ability to examine and evaluate realistic and presented topics**	Learning Outcomes5 - **The ability to understand and analyze 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.

10. 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. Program development plan

- Shifting to the Bologna route

Program skills chart

the year / the level	Code The decision	name The decision	Essential or optional?	Outputs Learning required from the program											
				Knowledge				Skills				Value			
				a1	a2	a3	a4	B1	B2	B3	B4	C1	C2	C3	C4
The first		principles Statistics1	Basic	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

		principles Statistics2	**Basic**	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
the second		**principles Possibilities1**	**Basic**	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
		principles Possibilities2	**Basic**	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Third		**Counting Athlete1**	**Basic**	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
		Counting Athlete2	**Basic**	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Fourth		**inference1**	**Basic**	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
		inference2	**Basic**	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

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

The first stage
The first course

Course description form

1. Course Name	
Principles of statistics1	
2. Course Code	
Stat1101\stat	
3. Semester/year	
First semester/fourth stage/2023 - 2024	
4. Date this description was prepared	
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: Lecturer. Hisham Pharaoh Abdel Latif Email:hisham@uodiyala.edu.iq	
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	Objectives o the study subject
9.	
Course outcomes and teaching, learning and evaluation methods 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 Course-specific skills objectives 1- -Interactive skills: Possessing the ability to communicate with the subject professor and colleagues	The strategy

2- -Diagnostic 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	

Evaluation method	Learning method	Name of the unit or topic	Required learning outcomes	hours	the week
Discussion, o and written examination	My presence	The emergence and development of statistics	Basic concepts/definiti ons	3	the first
Discussion, o and written examination	My presence	Collect, classify and tabulate data	Data collection	3	the second
Discussion, o and written examination	My presence	Sample method	Inspection	3	the third
Discussion, o and written examination	My presence	Do the questionnaire	The questionnaire	3	the fourth
Discussion, o and written examination	My presence	Classification and tabulation of data	Data classification	3	Fifth
Discussion, o and written examination	My presence	Types of frequency distributions and curves	Frequency distributions	3	VI
Discussion, o and written examination	My presence	Types of random variables and types of error	Random variables	3	Seventh
Discussion, o and written examination	My presence	Mathematical symbols and terms/exam	Public codes + monthly testing	3	VIII
Discussion, o and written examination	My presence	Measures of central tendency/arithm etic mean	Measurements/ch aracteristics	3	Ninth
Discussion, o and written examination	My presence	Arithmetic/weig hted means	Measurements and characteristics	3	The tenth
Discussion, o and written examination	My presence	Harmonic/quadr atic/geometric	Measurements and characteristics	3	eleventh

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

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. Taha Hussein Al-Zubaidi2013	Required textbooks (methodology, if any)
	Main references (sources)
	Recommended supporting books and references (scientific journals, reports....)
	Electronic references, Internet sites

Course description form

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.	The strategy
10. Course structure	

Evaluation method	Learning method	Name of the unit or topic	Required learning outcomes	hours	the week
lecture	Oral exams	General concepts	Definitions and concepts	3	1
Discussion and dialogue	Self-evaluation and peer evaluation	The nature of economics - the economic problem - economic activities	Understanding characteristics	3	2
Discussion and dialogue	Self-evaluation and peer evaluation	Demand - law of demand - demand schedule - demand curve	Understanding characteristics	3	3
Discussion and dialogue	Self-evaluation and peer evaluation	Factors determining demand - types of demand	Understanding characteristics	3	4
a lecture	Oral exams	Elasticity of demand - types of elasticity - factors affecting elasticity	Definitions and concepts	3	5
Discussion and dialogue	Self-evaluation and peer evaluation	Consumer behavior theory	View and analyze	3	6

Discussion and dialogue	Self-evaluation and peer evaluation	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 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 teaching resources	
Principles of Economics book - Dr. Karim Mahdi Al-Hasnawi	Required textbooks (methodology, if any)
Book of principles of economics. Dr.. Abdel Moneim Al-Sayed Ali	Main references (sources)
Economics book. Dr.. Paul Samelson	Recommended supporting books and references (scientific journals, reports....)
Network of Iraqi Economists	Electronic references, Internet sites

Course description form

1. Course Name	
differentiation	
2. Course Code	
Stat1103\differ	
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)	
45/45	
7. Name of the course administrator (if more than one name is mentioned)	
Name: Assist.Lecturer Amal Hadi Rashid Email:amal@uodiyala.edu.iq	
8. Course objectives	
- Course objectives • Introducing the student to the most important foundations and principles of mathematics • Explain the concept of groups and function diagrams • Highlighting the importance of the field and the corresponding field 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 regions increase and decreaseAnd draw functions	Objectives the article Scholarship
9.	
Course outcomes and teaching, learning and evaluation methods 1- Cognitive objectives: - Make the student able to 2- -To know the most important principles and basic concepts in mathematics 3- -To define the types of functions and relationships to functions 4- To become familiar with the concept of the derivative and the laws 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 1- -Interactive skills: Possessing the ability to communicate with the subject professor and colleagues 2- -Diagnostic skills: the ability to diagnose functions and their real-world applications	The strategy

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-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 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.

10. Course structure

Evaluation method	Learning method	Name of the unit or topic	Required learning outcomes	hours	the week

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

Discussion, ora and written examination	My presen	Derivative of High 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 Points	Understanding and knowledge	3	eleventh
Discussion, ora and written examination	My presen	Maximization and Minimization	Understanding and knowledge	3	twelveth
Discussion, ora and written examination	My presen	Chapter Three: Partial Derivative	Understanding and knowledge	3	Thirteenth
Discussion, ora and written examination	My presen	Total Derivative Partial Derivative Applications	Understanding and knowledge	3	fourteenth
Discussion, ora and written examination	My presen	First semester exa		3	Fifteenth

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:

5 degrees of attendance

5-10 daily assignments

15 monthly exams

10 Oral exam

12.Learning and teaching resources

Calculus book for students of colleges of administration and economics	Required textbooks (methodology, if any)
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

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	
7. Name of the course administrator (if more than one name is mentioned)	
Name: A. P. Firas Ali Muhammad Email:Firas@uodiyala.edu.iq	
8. Course objectives	
- Course objectives • Introducing the student to the most important concepts and basics of computer use • 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.	Objectives of study subject
9.	
Course outcomes and teaching, learning and evaluation methods 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 - Ability skills: - Possessing the ability to communicate with the subject professor 2 - Diagnostic skills: - The ability to diagnose statistical theories 3 – Analytical skills: The ability to understand and analyze concepts, programs and the relationships between them	The strategy

Teaching and learning methods
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- Tests (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- Training and personal development skills on how to use computer applications.
3- Developing the student's ability to use many application programs and interact with the Internet.

10. Course structure

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 Presentation	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 Presentation	Desktop components (Start menu - taskbar - notification area	Practical basic applications	3	Fifth
Theoretical and practical test		First month test		3	VI
HomeworksHomework assignments	Lecture, discussion and dialogue	Physical computer components (input and output devices and system unit)	Definitions and theoretical and applied concepts	3	Seventh
HomeworksHomework assignments	Power point	Setting systems, icons, and performing	Practical applications	3	VIII

	Presentation	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
HomeworksHomework assignments	Power point Presentation	- 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 Presentation	Create, store and transfer files	Basic practical applications	3	fourteenth
Theoretical and practical test		Second monthly test		3	Fifteenth
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	
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)
1. Computer principles and programming in the BASIC language, written by Dr. Marwan Mustafa Na'a (1997) 2. Introduction to Computer Science, written by Dr. Ziad Al-Qadi and M. Abdul Rahim Al-Bashiti (1998) 3. Introduction to computers, assembly and preparation. Jawdat Abu Taha (2002) 4. Introduction to Computer Science, written by Dr. Muhammad Nabhan Suwailem (2001)	Main references (sources)
	Recommended supporting books and references (scientific journals, reports....)
	Electronic references, Internet sites

Course description form

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 human rights agreements, the Universal Declaration of Human Rights, the two international covenants, freedom and its types, democracy, and administrative corruption.	Objectives of 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.	The strategy
.Course structure	

Evaluation method	Learning method	Name of the unit or topic	Required learning outcomes	hours	the week
Oral exams	Lectures	The concept of human rights and its historical roots	Acquire knowledge	2 hours	the first
Oral exams	Lectures	Human rights in the Middle and Modern Ages	Acquire knowledge	2	the second
Oral exams	Lectures	Contents of human rights and the Universal Declaration	Acquire knowledge	2	the third
Oral and written tests	Lectures	The two international covenants on human rights	Acquire knowledge	2	the fourth
Oral and written tests	Lectures	Regional charters and national legislation	Acquire knowledge	2	Fifth
Oral and written tests	Lectures	Forms and generations of human rights	Acquire 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 democracy	Acquire 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)
1- Human Rights Book - Dr. Hamid Hanoun Khaled 2-The Universal Declaration of Human Rights and the t International Covenants on Human Rights 3- The phenomenon of administrative corruption and t role of oversight bodies in combating it - Dr. Omar Jabl Ahmed	Main references (sources)
Iraqi academic journals	Recommended supporting books and references (scientific journals, reports....)

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

Course description form

1. Name of the course
Arabic
2. Course code
Stat1106\Arab.
3. Semester/year
First semester/first stage/2023-2024
4. The date this description was prepared
9/1/2023
5. Available attendance forms
Daily attendance according to the scheduled schedule
6. Number of study hours (total) Number of units (total)
(30) hours of study, two hours per week
7. Name of the course administrator (if more than one name is mentioned)
Name: Assis.Lec. Marwa Mahdi Saleh Amymryamhademana@uodiyala.edu.iq:
8. Course objectives
Objectives of the study subject
Controlling students' spelling and the end of words Raising the level of linguistic proficiency among students in general Refine the words used among students
9. Teaching and learning strategies

How to give a lecture Method of discussion and dialogue	The strategy

10. Course structure					
Discussion, oral a written examinati	My presence	Parts and complements speech	View and analyze	2	the first
Discussion, oral a written examinati	My presence	Effects and their types	View and analyze	2	the second
Discussion, oral a written examinati	My presence	Pre-Islamic literature	View and analyze	2	the third
Discussion, oral a written examinati	My presence	cave Sora	View and analyze	2	the fourth
Discussion, oral a written examinati	My presence	Pendants	View and analyze	2	Fifth

Discussion, oral a written examinati	My presence	The numerical miracle Surat Al-Kahf	View and analyze	2	VI
Discussion, oral a written examinati	My presence	Status and discriminati	View and analyze	2	Seventh
Discussion, oral a written examinati	My presence	The impact of the Qur' on language and literatu	View and analyze	2	VIII
Discussion, oral a written examinati	My presence	The impact of the Prophet's hadith on language and literatur	View and analyze	2	Ninth
Discussion, oral a written examinati	My presence	Poetry movement in th Abbasid era	View and analyze	2	The tenth
Discussion, oral a written examinati	My presence	Poetry movement in th Abbasid era	View and analyze	2	eleventh
Discussion, oral a written examinati	My presence	Manifestations of renew in the Abbasid poem	View and analyze	2	twelveth
Discussion, oral a written examinati	My presence	Manifestations of renew in the Abbasid poem	View and analyze	2	Thirteenth
Discussion, oral a written examinati	My presence	Manifestations of renew in the Abbasid poem		2	fourteenth
Discussion, oral a written examinati	My presence	First semester exam			Fifteenth

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 teaching resources	
Alfiyya Ibn Malik	Required textbooks (methodology, if any)
Alfiyya Ibn Malik	Main references (sources)
Arabic literature books	Recommended supporting books and references (scientific journals, reports....)
Scientific journals for humanities	Electronic references, Internet sites

The first stage

The second course

Course description form

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.iq
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	**Objectives o the study subject**
9.	
Course outcomes and teaching, learning and evaluation methods 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 **Course-specific skills objectives** 1- -Interactive skills: Possessing the ability to communicate with the subject professor and colleagues	**The strategy**

2- -Diagnostic 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 method	Name of the unit or topic	Required learning outcomes	hours	the week
Discussion And the test Oral And the editorial	My presence	Moments, torsion and splay	Understanding the subject of moments	3	the first
Discussion And the test Oral And the editorial	My presence	Measures of absolute and relative torsion	Understanding skewness measures	3	the second
Discussion And the test Oral And the editorial	My presence	Exercises on torsion and flattening	The ability to solve exercises	3	the thir
Discussion And the test Oral And the editorial	My presence	Linear correlation	The concept of correlation/independent variables and dependent variables	3	the four
Discussion And the test Oral And the editorial	My presence	Simple linear correlation	Understanding the relationship between variables	3	Fifth
Discussion And the test Oral And the editorial	My presence	Partial correlation coefficient	Understanding partial correlation	3	VI
Discussion And the test Oral And the editorial	My presence	Multiple correlation coefficient	Understanding multiple correlation	3	Seventh
Discussion And the test Oral And the editorial	My presence	Solve exercises/exams	Solve exercises/exams	3	VIII
Discussion And the test Oral And the editorial	My presence	Correlation coefficient of ranks and traits	Understanding rank correlation	3	Ninth
Discussion And the test Oral And the editorial	My presence	The concept of simple linear regression	The concept of regression	3	The ten
Discussion And the test Oral And the editorial	My presence	Multiple regression/two variables	Understanding multiple regression	3	atheisti ten
Discussion And the test Oral And the editorial	My presence	Comparison between simple and multiple linear regression	An applied explanation and comparison in regression	3	the second ten
Discussion And the test Oral And the editorial	My presence	The concept of probability/general rules	Understanding probability theory	3	the thir ten
Discussion And the test Oral And the editorial	My presence	Introduction to some probability distributions	Understanding probability distributions	3	the four ten
Discussion And the test Oral And the editorial	My presence	Second semester exa		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 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 Hussein Rashid	Required textbooks (methodology, if any)
	Main references (sources)
	Recommended supporting books and references (scientific journals, reports….)
	Electronic references, Internet sites

Course description form

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
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	**Objectives of article Scholarship**

• 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 Ways Scientific And the operation	
9.	
Course outcomes and teaching, learning and evaluation methods 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** 1- -Interactive skills: Possessing the ability to communicate with the subject professor and colleagues 2- -Diagnostic skills: the ability to take advantage of many integration methods to find the integration of complex functions 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)	**The strategy**

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

the exam	**lectures, printe lectures, Explanation of lectures via YouTub channel**	Inverse Trigonometr Functions	**Integration Functions Trigonometry And functic 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 t 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 the test Oral And the editorial	**My presence**	Maximization an Minimization	**Understanding knowledge** a	3	the secon ten
Discussion An the test Oral And the editorial	**My presence**	Chapter Three: Partial Derivativ	**Understanding knowledge** a	3	the third ten
Discussion An the test Oral And the editorial	**My presence**	Total Derivative Partial Derivative Applications	**Understanding knowledge** a	3	the fourth ten
Discussion An the test Oral And the editorial	**My presence**	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

Calculus book for students of colleges of administration and economics	Required textbooks (methodology, if any)
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

Course description form

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 • Introducing the student to the most important foundations and principles of management science. • 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.	**Objectives the st subject**
9.	
Course outcomes and teaching, learning and evaluation methods 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.** **3- To explain administrative concepts.** **4- To apply administrative concepts with realistic examples and case studies.**	**The strategy**

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

1- Tests Applied miscellaneous

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 method	Learning method	Name of the unit or topic	Required learning outcomes	hours	the week
Self-assessment, peer assessment, oral exams, monthly and daily assignments and tests	**Lecture, discussion, dialogue, interrogation and enrichment**	The nature of management, its development and its importance	Definitions and administrative concepts	2	the first
	Lecture, 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
	Lecture, discussion, dialogue, interrogation and enrichment	Objectives and strategic planning	Clarifying important concepts and application steps	2	the fourth
	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 t
	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

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 emphasis on business management	Required textbooks (methodology, if any)

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

Course description form

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
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	**Objectives of study subject**
9.	
Course outcomes and teaching, learning and evaluation methods 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	**The strategy**

Course-specific skills objectives

1- -Interactive skills: Possessing the ability to communicate with the subject professor and colleagues
2- -Diagnostic 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).

Emotional and value goals

1-Thinking Simple:(Analysis Problem and finding 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 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 method	Name of the unit or topic	Required learning outcomes	hours	the week
Discussion, oral and written examination	My presence	Introduction financial accounting	Understand and clarify	3	the first
Discussion, oral and written examination	My presence	Introduction to financial accounting	Understand and clarify	3	the second
Discussion, oral and written examination	My presence	Foundations of financial operations analysis	Understand and clarify	3	the thir
Discussion, oral and written examination	My presence	Foundations of financial operations analysis	Understand and clarify	3	the four
Discussion, oral and written examination	My presence	Capital and financi operations	Understand and clarify	3	Fifth
Discussion, oral and written examination	My presence	Capital and financir operations	Understand and clarify	3	VI
Discussion, oral and written examination	My presence	Merchandise operations (buyi and selling)	Understand and clarify	3	Seventh
Discussion, oral and written examination	My presence	Merchandise operations (buying and selling)	Understand and clarify	3	VIII
Discussion, oral and written examination	My presence	Commercial papers	Understand and clarify	3	Ninth
Discussion, oral and written examination	My presence	Commercial papers	Understand and clarify	3	The ten
Discussion, oral and written examination	My presence	fixed assets	Understand and clarify	3	atheisti ten
Discussion, oral and written examination	My presence	fixed assets	Understand and clarify	3	the second ten
Discussion, oral and written examination	My presence	Final accounts a financial statements	Understand and clarify	3	the thir ten
Discussion, oral and written examination	My presence	Final accounts and financial statements	Understand and clarify	3	the four ten
	My presence	**final 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 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

	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

Course description form

1.Course Name :
Principles of Economics
2.Course Code
Stat1205\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					
Evaluation method	Learning method	Name of the unit or topic	Required learning outcomes	hours	the week
lecture	Oral exams	General concepts	Definitions and concepts	3	1
Discussion and dialogue	Self-evaluation and peer evaluation	The nature of economics - the economic problem - economic activities	Understanding characteristics	3	2
Discussion and dialogue	Self-evaluation and peer evaluation	Demand - law of demand - demand schedule - demand curve	Understanding characteristics	3	3
Discussion and dialogue	Self-evaluation and peer evaluation	Factors determining demand - types of demand	Understanding characteristics	3	4
a lecture	Oral exams	Elasticity of demand - types of elasticity - factors affecting elasticity	Definitions and concepts	3	5
Discussion and dialogue	Self-evaluation and peer evaluation	Consumer behavior theory	View and analyze	3	6
Discussion and dialogue	Self-evaluation and peer evaluation	Supply, influencing factors, and modern theory of consumer behavior	View and analyze	3	7
		First month exam/For the first semester	-	3	8
a lecture	Oral exams	Production Theory - Law of	View and analyze	3	9

		Diminishing Returns			
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 evaluation					
Degree distribution from100According to the tasks assigned to the student, such as daily preparation, daily, oral, monthly and written exams, and reports.....etc					
12.Learning and teaching resources					
Principles of Economics book - Dr.Karim Mahdi Al-Hasnawi			Required prescribed books(Methodology, if any)		
Principles of economics book.Dr.Abdel Moneim Al-Sayed Ali			Main references(Sources)		
Economics book.Dr.Paul Samelson			Recommended supporting books and references(Scientific journals,Reports....)		
Network of Iraqi Economists			Electronic references,Internet sites		

Course description form

1. Course name:
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.	The strategy

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

			topics covered in the unit. Know how to improve pronunciation correctly		
Homework, activities and exercises - attendance and active participation during the lecture	- Presentation - Discussion and dialogue - Examples from students' realities	Your word, Question, countries, Reading and speaking, Numbers	**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**	**second week**
Homework, activities and exercises - attendance and active participation during the lecture	Presentation - discussion and dialogue - examples from students' real lives	Negatives, Questions, Short answers, Jobs, Reading and listening/Social Expressions	**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 third week**
Homework, activities and exercises - attendance and active participation during the lecture	- Presentation - Discussion and dialogue - Examples from students' realities	Family and friends, possess an adjectives, has, have, adjective + noun, the family, Reading and writing, The alphabet	**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**	**fourth week**

			Know how to improve pronunciation correctly		
Homework, activities and exercises - attendance and active participation during the lecture	- Presentation - Discussion and dialogue - Examples from students' realities	The way I live, present simple, a and an, adjective + noun, Sport, food, Drink, language and nationalities, Listening, how much	**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 fifth 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, activities and exercises - attendance and active participation during the lecture	- Presentation - Discussion and dialogue - Examples from students' realities	I can do that, can/cant, Adverb, Requests of offers, verbs, Opposite verbs, Everyday problems.	**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**
Homework, activities and exercises - attendance and active participation during the lecture	- Presentation - Discussion and dialogue - Examples from students' realities	Please and thank you, I'd like, some any, like and would like, Shopping, food, in a restraint, Listening, Reading and listening, Replay.	**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 twelfth week**
Homework, activities and exercises - attendance and active participation during the lecture	- Presentation - Discussion and dialogue - Examples from students' realities	Here and now, present continues, colors, clothes, what this matter	**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**

Homework, activities and exercises - attendance and active participation during the lecture	- Presentation - Discussion and dialogue - Examples from students' realities	It's time to go, present simple and present continues, Opposite verbs, Reading and listening, Replay.	**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 fourteenth week**
Homework, activities and exercises - attendance and active participation during the lecture	- Presentation - Discussion and dialogue - Examples from students' realities	Future plans, Revision, Transport, Reading and Speaking, a mini autobiography, Social expressions, revision.	**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 fifteenth week**

11. Course evaluation	
Annual pursuit degree (40%) distributed between daily and monthly exams, preparation, daily participation, and reports Final exam score (60%)	
12. Learning and teaching resources	
New head way plus beginner John and Liz Soars (Oxford)	Required textbooks (methodology, if any)
New head way plus beginner	Main references (sources)
	Recommended supporting books and references (scientific journals, reports....)
	Electronic references, Internet sites

The second stage
The first course

Course description form

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 **1- Introducing the student to the principles of probability** **2- Providing the student with topics different from the principles of probabi** **3- Explain the importance of the principles of probability**.	**Objectives of the st** **subject**
9.	
1. Required program outcomes and teaching, learning and 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.	**The strategy**

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 4- Direct interrogation 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- 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 maps. 3- Use the problem-solving method. 4- Using the presentation method Evaluation methods 5- Objective questionsObjective Test items are divided into:- B- True and false questionsTrue/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
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

10. Course structure

Evaluation method	Learning method	Name of the unit or topic	Required learning outcomes	hours	the week
Discussion And the test Oral Ar the editorial	My presence	Basics of group and subgroup	Introducing th student to the basics of grou And how to configure it	3	the first
Discussion And the test Oral Ar 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 Ar the editorial	My presence	Combinations	Explain the principle combinations in Dragging items from groups	3	the third
Discussion And the test Oral Ar the editorial	My presence	Permutations	Explain the principle permutation in	3	the fourth

			withdrawing element from groups		
Discussion And the test Oral Ar the editorial	My presence	Solve general exercise	Involving students in solving T Marin	3	Fifth
Discussion And the test Oral Ar 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 Ar the editorial	My presence	Randomized trials	Explain what experiments are Randomization and h to conduct it	3	Seventh
Discussion And the test Oral Ar 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 Ar 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 Ar the editorial	My presence	Randomized experiments and probability	Understanding and knowledge	3	atheistic ten
Discussion And the test Oral Ar the editorial	My presence	The first law of probability	Understanding and knowledge	3	the second te
Discussion And the test Oral Ar 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 Ar 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	
Book of possibilities Composition Assistant Professor Aleem Ismail Al-Gharabi Dr. Zafer Hussein Rashid Teacher Ali Abdul Hussein Al-Wakeel	Required textbooks (methodology, if any)
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

Course description form

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 **It aims to identify the sampling methods and methods through which data are 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**	**Objectives of study subject**
9.	
Course outcomes and teaching, learning and evaluation methods Make the student able to: 1- What is meant by a sample, its characteristics, and the basic steps 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	**The strategy**

3- Enabling ratio estimates

Teaching and learning methods

1- lecture.
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- 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

Evaluation method	Learning method	Name of the unit or topic	Required learning outcomes	hours	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 and written examination	My presence	Confidence limits for the population mean and variance	Understand and analyze	3	the third
Discussion, ora and written examination	My presence	Estimate the ratio	Understand and analyze	3	the fourth
Discussion, ora and written examination	My presence	Choosing a sample size to estimate the population mean and variance	Understand and analyze	3	Fifth
Discussion, ora and written examination	My presence	What is stratified sampling?	Understand and analyze	3	VI
Discussion, ora and written examination	My presence	Estimate the mean and population sum for stratification	Understand and analyze	3	Seventh
	My presence	First month exam		3	VIII
Discussion, ora and written examination	My presence	How to choose a regular sample to estimate the mean and the total of the population	Understand and analyze	3	Ninth
Discussion, ora and written examination	My presence	Estimating the variance of the mean and total of the population, estimating the sample size	Understand and analyze	3	The tenth
Discussion, ora and written examination	My presence	Estimate the ratioR for simple random sample	Understand and analyze	3	eleventh
Discussion, ora and written examination	My presence	Estimating the mean and total using proportions in a stratified sample	Understand and analyze	3	twelveth
Discussion, o and writ examination	My presence	One-stage cluster random sampling	Understand and analyze	3	Thirteenth

Discussion, o and writ examination	My presence	Estimating the arithmetic mean and the sum Estimating the variance of the arithmetic mean	Understand and analyze	3	fourteenth
	My presence	Second month exam		3	Fifteenth

1. 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 marks assignments with.
3) 15 marks for the first written exam
4) 15 marks for the second written exam

2. Learning and teaching resources

no There is	Required textbooks (methodology, if any)
1- Abu paternal aunt , slave merciful Mohammed, Al-Husseini ,slave Righteousness Satisfied, Indian, Mahmoud Mohammed Ibrahim (1995), Dar Mars For publication. Riyadh, The kingdom Arabic Saudi Arabia 2- Thompson, S, K (2002) sampling, 2nd Wiley, New York. 3-Benedetto,jjandFerreira.pJ(2001). Modern sampling theory, Birkhauser 4- Sampath, S. (2000). Sampling theory and methods, cRc press	Main references (sources)
nothing	Recommended supporting books and references (scientific journals, reports….)
no There is	Electronic references, Internet sites

Course description form

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
1- Educational benefit, by learning about the concept of matrices and their related concepts. 2- Methods of mathematical statistics from calculus 3- Identify the importance and types of statistical applications of mathematical methods 4- Studying mathematical methods that minimize costs and maximize profits.
9.Teaching and learning strategies

1- The student is introduced to the scientific concept of 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.	The strategy

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.Course structure

Evaluation method	Learning method	Name of the unit or topic	Required learning outcomes	hours	the week
Homework+Daily exam	Giving focused lectures with practical examples	Basic concepts and use of mathematics in economic analysis	Understanding diagonal matrices:The upper triangular matrix,Lower triangular matrix,Matrix(Fixed-Zero-Unit-Deaf-The coiled one-Yellowed)	3	1
Homework	Giving focused lectures with practical examples	Matrices and determinants, matrix algebra and its types	Explanation of matrix transposition,Symmetric matrices	3	2

Homework+Daily exam	Mathematical examples	Matrix switcher Algebraic operations on the matrix(Addition, subtraction and multiplication)	Understanding symmetry convolutional matrices	3	3
Homework	Mathematical examples	Quantitative matrix multiplication methods Conjugate matrix Inverse matrix	Explanation of matrix accompaniment	3	4
Homework	Mathematical examples	Determinants, their types, and ways to find them Properties of determinants kaos method Kraemer's method	Explanation of matrix transposition	3	5
Homework	Mathematical 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
Homework	Mathematical examples	Exponents and functions	Understanding convolutional hierarchical arrays	3	7
Homework+Daily exam	Mathematical examples	Quantitative matrix multiplication methods	Understanding permutations, determinants	3	8
Homework	Mathematical examples	Conjugate matrix	Explain the first	3	9

			determiner and the conjugate		
Homework	Mathematical examples	Inverse matrix	Explain determinants and algebraic complements	3	10
Homework	Mathematical examples	Determinants, their types, and ways to find them	Explaining methods for calculating determinants(Stock method,The first and accompanying neutral method,A way to blaspheme)	3	11
Homework	Mathematical examples	Properties of determinants	Understanding the binary conjugate of a square matrix,Inverse matrix	3	12
Homework+Daily exam	Mathematical examples	kaos method	Explain the methods of calculating the matrix inverse(Dual accompaniment,Retail)	3	13
Homework	Mathematical examples	Kraemer's method	Definition of matrix,Equal matrices,Algebraic operations on matrices(Plural,And subtraction,Multiplication by a constant,beating)	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, divided 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. Adnan Shamkhi 2- Mathematical Economics / Dr. Hussein Bakhit 3- Mathematics for Administrators / Dr. Dhafer Rasheed 4-Electronic information network	Required prescribed books(Methodology, if any)
	Main references(Sources)
All sources are good	Recommended supporting books and references(Scientific journals,Reports....)
Video lectures on YouTube	Electronic references,Internet sites

Course description form

1. name The decision	
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 **1- Enable the student to recognize arithmetic and geometric sequences, how to so 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.**	**Objectives of study subject**
9.	
Course outcomes and teaching, learning and evaluation methods **Objectives Cognitive :**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.	**The strategy**

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 method	Name of the unit or topic	Required learning outcomes	hours	the week
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**
		final exam			**VI 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

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

Course description form

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

- 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.	**Objectives of study subject**
9.	
Course outcomes and teaching, learning and evaluation methods 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	**The strategy**

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

10. Course structure

Evaluation method	Learning method	Name of the unit or topic	Required learning outcomes	hours	the week
Discussion An the test Oral And the editorial	**My presence**	**Basic concepts /emergence And develop the control Quality**	**Understand and clarify**	2	the first
Discussion An the test Oral And the editorial	**My presence**	**Concept painting the control/Species Plates the control Quality**	Understand and clarify	2	the second
Discussion An the test Oral And the editorial	**My presence**	**Methods Statistics/Roads Statistics Used in the control**	Understand and clarify	2	the third
Discussion An the test Oral And the editorial	**My presence**	**Importance the control**	Understand and clarify	2	the fourth
Discussion An the test Oral And the editorial	**My presence**	**the control Quality And its types**	Understand and clarify	2	Fifth
Discussion An the test Oral And the editorial	**My presence**	**Species Variables Used**	Understand and clarify	2	VI
Discussion An the test Oral And the editorial	**My presence**	**variables amount**	Understand and clarify	2	Seventh

Discussion An the test Oral And the editorial	**My presence**	**Roads Statistics Quantity**	Understand and clarify	2	VIII
Discussion An the test Oral And the editorial	**My presence**	**painting the middle Arithmetic**	Understand and clarify	2	Ninth
Discussion An the test Oral And the editorial	**My presence**	**painting Term**	Understand and clarify	2	The tenth
Discussion An the test Oral And the editorial	**My presence**	**painting Term By credit on deviation Standard**	Understand and clarify	2	atheistic t
Discussion An the test Oral And the editorial	**My presence**	**Advantages painting Term**	Understand and clarify	2	the second ten
Discussion An the test Oral And the editorial	**My presence**	**painting deviation Standard**	Understand and clarify	2	the third t
Discussion An the test Oral And the editorial	**My presence**	**painting deviation By credit on Term**	Understand and clarify	2	the fourth ten
	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 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 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. Course objectives

- Course objectives • Introducing the student to the most important foundations, principles and uses of application**MATLAB** In programming • Explaining the concept of groups and function diagrams in programming languages**MATLAB** • Highlight the importance**MATLAB** Knowing the form of a function in programming • This course aims to study programming in a language**MATLAB**The student can write a program in the language**MATLAB to find solutions to statistical and mathematical equations**	**Objectives of study subject**
9.	
Course outcomes and teaching, learning and evaluation methods 1- Cognitive objectives: - Make the student able to 2- -To know the most important principles and basic concepts in...MATLAB 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	**The strategy**

6- Each application should be applied in any field used in the academic stages

Course-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.

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

Emotional and value goals

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

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

1. Preparation Duties Safiya And home
2. Preparation Reports on Experiments the operation
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 collecting and analyzing information about computer concepts and how to use them in the fields of statistics

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 structure

Evaluation method	Learning method	Name of the unit or topic	Required learning outcomes	hours	the 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	Seventh
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

bookMATLAB**For students of colleges of administration and economics**	Required textbooks (methodology, if any)
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

Course description form

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
8. Course objectives

- 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	**Objectives of study subject**
9.	
Course outcomes and teaching, learning and evaluation methods 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 **Course-specific skills objectives**	**The strategy**

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.

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 method	Name of the unit or topic	Required learning outcomes	hours	the week
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 test Oral And the editorial	**My presence**	**Agricultural sector indices and statistics**	**View and analyze**	3	the third t
Discussion And the test Oral And the editorial	**My presence**	**Agricultural sector indices and statistics**	**agricultural**	3	the fourth ten
	My presence	**First semester exam**		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

Book of Economic Statistics, **Dr**.**Amin Yassin Fawaz2019**.	Required textbooks (methodology, if any)
	Main references (sources)
	Recommended supporting books and references (scientific journals, reports….)
	Electronic references, Internet sites

Course description form

1. name The decision
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

- Course objectives 1- Initialization requester To view on the world Computational To 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.	**Objectives of study subject**
9.	
Course outcomes and teaching, learning and evaluation methods 1- Cognitive objectives: - Make the student able to 2- -To know the most important principles and basic concepts in computers 3- -To determine the types of functions and relationships to functions in**the computer** 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 **Course-specific skills objectives**	**The strategy**

1. The ability to understand mathematical and engineering problems and convert them to a mathematical formula in Excel.
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.

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

Emotional and value goals

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

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

1. Preparation Duties Safiya And home
2. Preparation Reports on Experiments the operation
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 collecting and analyzing information about computer concepts and how to use them in the fields of statistics

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 structure

Evaluation method	Learning method	Name of the unit or topic	Required learning outcomes	hours	the week

Daily exam and practical report	Two hours of theoretical lectures and two hours of laboratory	Basics of system implementationexcel	See the interfaceexcel	3	the firs
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 fou
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	Seventh
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 and practical report	Two hours of theoretical lectures and two hours of laboratory	Lecture given and presented atData Show+Computer Lab	Explanation of the topic (Internet service providers + Internet sites + Internet browsers)	3	atheisti ten
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 the operating systemWindows10 (Operation steps + desktop components + icons)	3	the second ten
Daily exam and practical report	Two hours of theoretical lectures and two hours of laboratory	Lecture given and presented atData Show+Computer Lab	Continued lecture (previous + taskbar + start menuStart	3	the thir ten
Daily exam and practical report	Two hours of theoretical lectures and two hours of laboratory	Lecture given and presented atData Show+Computer Lab	Types of operating systems in computers	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

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

model a description The decision

1. Course Name	
Baath crimes in Iraq	
2. Course Code	
Uni2109\Com.	
3. Semester/year	
First semester / second stage /2023- 2024	
4. Date this description was prepared	
12/6/2024	
5. Available attendance forms	
My presence	
6. Number of study hours (total)/number of units (total)	
hour30/30	
7. Name of the course administrator (if more than one name is mentioned)	
Name: A.P. Dr. Omar Jabbar Ahmed Email:omarjabar@uodiyala.edu.iq	
8. Course objectives	
Teaching and understanding students about the massacres 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.	Objectives of study subject
9. Teaching and learning strategies	
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.	The strategy

).Course structure

road Evaluation	road Learning	name Unit or the topic	Outputs Learning required	hours	the week
Tests Oral	Lectures	Concept the crime And its sections	acquisition knowledge	2	the first
Tests Oral	Lectures	Species Crimes International	acquisition knowledge	2	the second
Tests Oral	Lectures	decisions The court Criminal Supreme	acquisition knowledge	2	the third

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	Seventh
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	atheistic 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 Ministry of Higher Education and Scientific Research 2023	Required textbooks (methodology, if any)
The Iraqi Penal Code and the Supre Criminal Court	Main references (sources)
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

Course description form

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: 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

Introducing the student to the basics of the English language Introducing the student to the rules of the English language and the basics of conversation.	The strategy

10. Course structure

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

active participation during the lecture	individual and group training		appropriate vocabulary in any type of conversation about the topics covered in the unit. Know how to improve pronunciation correctly		
Oral exams, homework, activities and exercises - attendance and active participation during the lecture	Discussion and dialogue, self-learning, cooperative learning, individual and group training	Unit2 The way we live	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	second 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	Unit3 It all went wrong	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 third week
Oral tests, homework, activities and exercises, attendance and	Discussion and dialogue, self-learning,	Unit4 Let's go shopping	Use of the main linguistic structures in oral	2	fourth week

active participation during the lecture	cooperative learning, individual and group training		communication. Use appropriate vocabulary in any type of 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	Unit5 What do you want to do?	Use of the main linguistic structures in oral communication. Use appropriate vocabulary in any type of conversation about the topics covered in the unit. Know how to improve pronunciation correctly	2	The fifth 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	Unit6 Tell me what's it like	Use of the main linguistic structures in oral communication. 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

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

			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**	**Unit13 Earning a living**	**Use of the main linguistic structures in oral communication. 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**
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**	**Use of the main linguistic structures in oral communication. Use appropriate vocabulary in any type of conversation about the topics covered in the unit. Know how to improve pronunciation correctly**	**2**	**The fourteenth week**
		final exam		**2**	**The fifteenth week**

11. Course evaluation

Annual pursuit degree (40%) distributed between daily and monthly exams, preparation, daily participation, and reports
Final exam score (60%)

12. Learning and teaching resources

New head way plusPre-intermediateJohn and Liz Soars (Oxford)	Required textbooks (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

Course description form

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 **1- Introducing the student to probability distributions** **2- Providing the student with topics different from probability distributions** **3- Explaining the importance of probability distributions.**	**Objectives of the study subject**
9.	
1. Required program outcomes and teaching, learning and evaluation 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	**The strategy**

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 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:- 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- 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 maps. 3- Use the problem-solving method. 4- Using the presentation method Evaluation methods 5- Objective questionsObjective Test items are divided into:- B- True and false questionsTrue/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	

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 testsVarious achievement examinations (daily, monthly, end of semester)
2- Using the oral examination methodOrallyTests
3- Use the Homework Assignments method

10. Course structure

Evaluation method	Learning method	Name of the unit or topic	Required learning outcomes	hours	the week
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 editorial			**probabilistic 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 editorial	**My presence**	**Discrete aggregate function**	**Introducing studen to the aggregate function and metho for calculating it**	3	VI
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 continuo 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 ten
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. 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

Book of possibilities **Composition** **Assistant Professor Aleem Ismail Al–Gharabi** **Dr. Zafer Hussein Rashid** **Teacher Ali Abdul Hussein Al–Wakeel**	Required textbooks (methodology, if any)
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

Course description form

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

- Course objectives • Introducing the student to the most important foundations and 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	**Objectives of study subject**

9.	
Course outcomes and teaching, learning and evaluation methods 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 **Course-specific skills objectives** 1- -Interactive skills: Possessing the ability to communicate with the subject professor and colleagues	**The strategy**

2- -Diagnostic 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 method	Learning method	Name of the unit or topic	Required learning outcomes	hours	the week
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 Dr.Abdul Majeed Hamza	Required textbooks (methodology, if any)
	Main references (sources)
	Recommended supporting books and references (scientific journals, reports…)

Course description form

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 the study 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. B -Skills Private With the topic 1 - skills employment And use Tools Statistics	**The strategy**

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	Elementary operations and the inverse of elementary operations	Knowledge and understanding	3	1
Exams Monthly And daily And posts	My presence	Equivalent matrices	Learn mathematically the meaning of equivalence and how to use it	3	2
Exams Monthly And daily And posts	My presence	Suppressive 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 equations	Simplifying mathematical operations and how to formulate them mathematically in the form of a matrix	3	5
Exams Monthly And daily And posts	My presence	Methods for solving linear equations	Simplifying mathematical operations and how to formulate them mathematically in the form of a matrix	3	6
Exams Monthly And daily And posts	My presence	Vectors	Understanding mathematical concepts related to the subject	3	7
Exams Monthly And daily And posts	My presence	Supported vectors	Understanding mathematical concepts related to the subject	3	8
Exams Monthly And daily And posts	My presence	Linear compositions	Simplifying mathematical operations and how to formulate them in the	3	9

			form of a matrix		
Exams Monthly And daily And posts	My presence	Solve questions	How to deal with realistic issues	3	10
Exams Monthly And daily And posts	My presence	Latent roots	Simplifying mathematical 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 mathematical operations and how to formulate them in the form of a matrix	3	12
Exams Monthly And daily And posts	My presence	Solve questions	How to deal with realistic issues	3	13
Exams Monthly And daily And posts	My presence	Distributions Conditional Application of matrices in advanced	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

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
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.

1.40 degrees especially By striving Divided to me:

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

5 degrees Exam verbal

12. Learning and teaching resources

Introduction to linear algebra Matrices for students of administration and economics	Required textbooks (methodology, if any)
Schaum Briefs Series	Main references (sources)
	Recommended supporting books and references (scientific journals, reports….)
	Electronic references, Internet sites

Course description form

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@uodiyala.edu.iq**	
8. Course objectives	
- Course objectives **1**−Enabling the student to recognize differential equations, their types, and hov 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.**	**Objectives of the study subject**
9. **The strategy**	
Course outcomes and teaching, learning and evaluation methods **Objectives Cognitive :**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 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 differential equations and how to use them in the fields of statistics.
2 - Training and personal development skills on how to apply the concepts of differential equations in various fields.
3- Development Capabilities requester on Dealing with The Internet.

.Course structure					
Evaluation method	**Learning method**	**Name of the unit or topic**	**Required learning outcomes**	**hours**	**the week**
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**

Daily assignment		differential equations			
Discussions Practical application Daily assignment	**Lectures**	Higher order linear differential equations	**Understand and clarify**	**3**	**atheistic ten**
Discussions Practical application Daily assignment	**Lectures**	**The general solution of the second order linear homogeneous differential equation**	**Understand and clarify**	**3**	**the second ten**
Discussions Practical application Daily assignment	**Lectures**	**The general solution of the non-homogeneous linear differential equation of the second order/normal effect method**	**Understand and clarify**	**3**	**the third ten**
Discussions Practical application Daily assignment	**Lectures**	**General solution of the second-order inhomogeneous linear differential equation/indefinite coefficients method**	**Understand and clarify**	**3**	**the fourth ten**
		The exam is monthly		**3**	**Fifth ten**
		final exam			**VI 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

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

10. plan development The decision Academic
The department relies on a plan to change or update academic vocabulary or subjects every four years

Course description form

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
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.	**Objectives of the st** **subject**

9.	
Course outcomes and teaching, learning and evaluation methods Make the student able to: 1- Understand the basics of quality control 2- Understand statistical quality control	**The strategy**

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

10. Course structure

Evaluation method	Learning method	Name of the unit or topic	Required learning outcomes	hours	the week
Discussion An the test Oral And the editorial	My presenc	**Concept Variables Quality**	**Understand and clarify**	3	the first
Discussion An the test Oral And the editorial	My presenc	**Species Variables Qualitative**	**Understand and clarify**	3	the second
Discussion An the test Oral And the editorial	My presenc	**Importance Variable Quality**	**Understand and clarify**	3	the third
Discussion An the test Oral And the editorial	My presenc	**road broke down non Conformity**	**Understand and clarify**	3	the fourth
Discussion An the test Oral And the editorial	My presenc	**road middle broke down non Conformity**	**Understand and clarify**	3	Fifth
Discussion An the test Oral	My presenc	**road number Violations**	**Understand and clarify**	3	VI

And the editorial					
Discussion An the test Oral And the editorial	My presenc	**painting middle number Violations**	**Understand and clarify**	3	Seventh
Discussion An the test Oral And the editorial	My presenc	**painting the middle Arithmetic Mobile**	**Understand and clarify**	3	VIII
Discussion An the test Oral And the editorial	My presenc	**Importance painting middle Mobile**	**Understand and clarify**	3	Ninth
Discussion An the test Oral And the editorial	My presenc	**Concept painting the middle Engineering Mobile**	**Understand and clarify**	3	The tenth
Discussion An the test Oral And the editorial	My presenc	**Relationship betwee Board Engineering And the average Mobile**	**Understand and clarify**	3	atheistic ten
Discussion An the test Oral And the editorial	My presenc	**painting The mask And knock Calculate it**	**Understand and clarify**	3	the second t
Discussion An the test Oral And the editorial	My presenc	**Importance Use it**	**Understand and clarify**	3	the third ten
Discussion An the test Oral And the editorial	My presenc	**Importance And knock Calculate it painting Multi Variables**	**Understand and clarify**	3	the fourth te
Discussion An the test Oral And the editorial	My presenc	**Exam monthly**		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 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 mentioned)
Name: A.L Amal Hadi Rashid Email :laith88@uodiyala.edu.iq
8. Course objectives

- Course objectives • Introducing the student to the most important foundations, principles and uses of application**MATLAB**In programming • Explaining the concept of groups and function diagrams in programming languages**MATLAB** • Highlight the importance**MATLAB**Knowing the form of a function in programming • This course aims to study programming in a language**MATLAB**The student can write a program in the language**MATLAB to find solutions to statistical and mathematical equations**	**Objectives of study subject**

9.	
Course outcomes and teaching, learning and evaluation methods 1- Cognitive objectives: - Make the student able to 2- -To know the most important principles and basic concepts in...MATLAB 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 **Course-specific skills objectives**	**The strategy**

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.

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

Emotional and value goals

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

1. Preparation Duties Safiya And the house
2. Preparation Reports on Experiments the operation
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 collecting and analyzing information about computer concepts and how to use them in the fields of statistics
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 structure

Evaluation method	Learning method	Name of the unit or topic	Required learning outcomes	hours	the week

Exam daily And an exam quarterly And report practical	Lectures theory Two hours And laboratory Two hours	Identify on ingredients Interface And a role all part	Identify on Interface MATLAB	3	the first
Exam daily And an exam quarterly And report practical	Lectures theory Two hours And laboratory Two hours	How identification Matrices Mono And duality The dimension	identification Matrices Simple	3	the second
Exam daily And an exam quarterly And report practical	Lectures theory Two hours And laboratory Two hours	How Modulation Matrices And extract data Of which	control With matrices	3	the thir
Exam daily And an exam quarterly And report practical	Lectures theory Two hours And laboratory Two hours	Identify on How call up Functions Included in the language like Functions Trigonometry And logarithmic And functions Rounding	Functions Desktop Ready made	3	the four
Exam daily And an exam quarterly And report practical	Lectures theory Two hours And laboratory Two hours	How Print Matrices And control With mattresses Decimal In which	printing Default And the coordinator	3	Fifth
Exam daily And an exam quarterly And report practical	Lectures theory Two hours And laboratory Two hours	study How repetition to implement part from the program A number Specific from times	Episodes Repetitiveness	3	VI
Exam daily And an exam quarterly And report practical	Lectures theory Two hours And laboratory Two hours	How Control ferries Conditional With elements Matrix	ferries Conditional	3	Seventh
Exam daily And an exam quarterly And report practical	Lectures theory Two hours And laboratory Two hours	How Programming Functions Sports from Type Sequences	Programming Sequences	3	VIII
Exam daily And an exam quarterly And report practical	Lectures theory Two hours And laboratory Two hours	fee Functions Sports And control In format region The drawing	fee Functions Sports	3	Ninth
Exam daily And an exam	Lectures theory Two hours And	fee Functions Sports Multiple Variables And fees Animated	acting Functions Sports Complex	3	The ten

quarterly And report practical	laboratory Two hours				
Exam daily And an exam quarterly And report practical	Lectures theory Two hours And laboratory Two hours	Use Algebra linear in Solution Equations The utensils Sin	Solution Equations The utensils Sin	3	atheisti ten
Exam daily And an exam quarterly And report practical	Lectures theory Two hours And laboratory Two hours	How Solution And programming Integrals Sports Complex numerically	integration Numerical	3	the second ten
Exam daily And an exam quarterly And report practical	Lectures theory Two hours And laboratory Two hours	How design Interface user Moot Simplified	design Interfaces Simplified	3	the thir ten
Exam daily And an exam quarterly And report practical	Lectures theory Two hours And laboratory Two hours	import data from Programs Other And export Results to her	import And export data	3	the four ten
Exam daily And an exam quarterly And report practical	Lectures theory Two hours And laboratory Two hours	simplification Equations fatalism And fractal using MATLAB	Manipulation Jabri With equations	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 of administration and economics	Required textbooks (methodology, if any)
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

Course description form

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
8. Course objectives

- 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	**Objectives of study subject**
9.	
Course outcomes and teaching, learning and evaluation methods 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	**The strategy**

5- To explain his opinion on the concepts of economic statistics
6- To apply survey concepts with realistic examples and case studies

Course-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.

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 method	Learning method	Name of the unit or topic	Required learning outcomes	hours	the week
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

Discussion An 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 An the test Oral And the editorial	**My presence**	**Applications of agricultural output statistics and statistics**	**Applications and exercises**	3	The tenth
Discussion An the test Oral And the editorial	**My presence**		**Other agricultural**	3	atheistic t
Discussion An the test Oral And the editorial	**My presence**	**Test of the first month of the second semester**	-	3	the second ten
Discussion An the test Oral And the editorial	**My presence**	**Agricultural sector indices and statistics**	**View and analyze**	3	the third t
Discussion An the test Oral And the editorial	**My presence**		**agricultural**	3	the fourth ten
Discussion An the 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

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 Hussein Rashid**	Required textbooks (methodology, if any)

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

third stage
The first course

Course description form

1. name The decision	
Mathematical 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	
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.. Ayad Habeeb Shimal Email: ayadstatistic@uodiyala.edu.iq	
8. Course objectives	
- Course objectives − **Introducing the student to the most important principles of mathemati statistics and its importance.** − **What do statistical distributions mean?** − **What are the steps of statistical analysis based on mathemati statistics?** − **What are the methods of displaying data?** − **Developing the method of conclusion.**	**Objectives of study subject**
9.	
Course outcomes and teaching, learning and evaluation methods **Objectives 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.	**The strategy**

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 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 method	Learning method	Name of the unit or topic	Required learning outcomes	hours	the week
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 exams /Oral	lecture And the discussion	Conditional prob.	Understand and explain	3	9
Evaluation Self /the exams /Oral	lecture And the discussion	Some related	Understand and explain	3	10
Evaluation Self /the exams /Oral	lecture And the discussion	Marginal pdf order statistics	Understand and explain	3	11
Evaluation Self /the exams /Oral	lecture And the discussion	Join pdf order statistics	Understand and explain	3	12
Evaluation Self /the exams /Oral	lecture And the discussion	Sample average	Understand and explain	3	13
Evaluation Self /the exams /Oral	lecture And the discussion	Sample range And mgf	Understand and explain	3	14
Evaluation Self /the exams /Oral	clarification questions	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.

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

plan development The decision Academic .10
- Use Books methodology Modern. - Application Practical For tests. - Use Programs the computer Statistics Modern. Benefit from Research New And apply it.

Course description form

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
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.	**Objectives of article Scholarship**
9.	
Course outcomes and teaching, learning and evaluation methods Make the student able to: 1- Understand the basics of linear regression analysis	**The strategy**

2- Understanding the simple linear regression model
3- Understand the basics of using a regression model
4- Understand the assumptions of the regression model
5- Understanding the stages of building a regression model
6- Understanding the assumptions about the random error term
7- Understand the processes of estimating model parameters
8- Understand the ordinary least squares method
9- Understanding methods for testing model parameters

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- 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 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

Evaluation 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- 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

10. Course structure

Evaluation method	Learning method	Name of the unit or topic	Required learning outcomes	hours	the week
Discussion And the test Oral Ar the editorial	**My presence**	**Concept Regressio linear**	**Definition and basi concepts**	3	the first
Discussion And the test Oral Ar the editorial	**My presence**	**Species Forms Regression**	**Model applications**	3	the second
Discussion And the test Oral Ar the editorial	**My presence**	**Uses Regression**	**Ways to use regression**	3	the third
Discussion And the test Oral Ar the editorial	**My presence**	**Model Regressio linear Simple**	**Solving exercises**	3	the fourth
Discussion And the test Oral Ar the editorial	**My presence**	**Methods appreciation Milestones Model decline linear Simple**	**Understand and know the methods**	3	Fifth

Discussion And the test Oral Ar the editorial	**My presence**	**inference Statistician For models Regression linear Simple**	**Definition and basi concepts**	3	VI
Discussion And the test Oral Ar the editorial	**My presence**	**Tests Moral For landmarks Ability**	**Practical applications**	3	Seventh
Discussion And the test Oral Ar the editorial	**My presence**	**border trust For landmarks Ability**	**Definition and basi concepts**	3	VIII
Discussion And the test Oral Ar 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 the test Oral Ar the editorial	**My presence**	**Forecasting In while**	**Definition and basi concepts**	3	atheistic t
Discussion And the test Oral Ar the editorial	**My presence**	**Schedule analysis variance**	**Absorb and understand**	3	the second ten
Discussion And the test Oral Ar the editorial	**My presence**	**Models Nonlinearity**	**Solving exercises**	3	the third t
Discussion And the test Oral Ar the editorial	**My presence**	**Methods appreciation Models For sin Simple**	**Definition and basi concepts**	3	the fourth ten
Exam	**My presence**	**Second semeste exam**		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

2- 60 degrees Exam ultimate Editorial.

2.40 degrees especially By striving Divided to me:

5) 5 degrees Presence.
6) 5 degrees Duties with.
7) 15 degrees Exam Editorial first
8) 15 degrees Exam Editorial second

12. Learning and teaching resources

analysis Regression Mr. Dr Submissive the narrator	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
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 • Introducing the student to the most important foundations and principles of linear programming • 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.	**Objectives of article Scholarship**
9.	
Course outcomes and teaching, learning and evaluation methods 10- Cognitive objectives: - Make the student able to 11- -To know the most important principles and basic concepts in mathematical programming 12- -To define the types of functions and relationships to functions	**The strategy**

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

11- -Interactive skills: Possessing the ability to communicate with the subject professor and colleagues
12- -Diagnostic skills: the ability to build programs and their real-world applications
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 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 method	Learning method	Name of the unit or topic	Required learning outcomes	hours	the week
Discussion And the test Oral And the editorial And the application Practical	My presenc	Introduction to OR	**Students should be Able to understand some concepts Basic programming, mathematics, operations research, programming, an computers, giving examples**	3	the first
Discussion And the test Oral And the editorial And the application Practical	My presenc	Introduction to linear programming	**Learn about the li mathematical model, li programming, and operat research**	3	the second
Discussion And the test Oral And the editorial And the application Practical	My presenc	Method of solving linear programming	**Methods for solving li programs**	3	the third
Discussion And the test	My presenc	Graphical method	**Drawing method as a meth for solving a linear progran**	3	the fourth

Oral And the editorial And the application Practical					
Discussion And the test Oral And the editorial And the application Practical	My presenc	Simplex method	**The optimal solution metho using simplex**	3	Fifth
Discussion And the test Oral And the editorial And the application Practical	My presenc	**First exam**	**First test and evaluation**	3	VI
Discussion And the test Oral And the editorial And the application Practical	My presenc	Dual model	**Duality and the correspond model**	3	Seventh
Discussion And the test Editorial And the application Practical	My presenc	Primal and Dual model	**The relationship between prototype and the binary**	3	VIII
Discussion And the test Oral And the editorial And the application Practical	My presenc	Dual simplex	**The corresponding simplex its usefulness in the solutior**	3	Ninth

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

And the application Practical					

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.

.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

Introduction to operations research	Required textbooks (methodology, if any)
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

Course description form

1. name The decision	
Data management usingSPSS 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	
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.	**Objectives of study subject**
9.	
Course outcomes and teaching, learning and evaluation methods Make the student able to:	**The strategy**

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

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 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 variables.
2- Training skills to conduct various statistical tests.
3- Questionnaire preparation skills.

.Course structure

Evaluation method	Learning method	Name of the unit or topic	Required learning outcomes	hours	the week
Discussion An the test Oral And the editorial	**My presence**	**Data types, types of program windowsSPSS**	**Understand and analyze**	3	the first
Discussion An the test Oral And the editorial	**My presence**	**The most important characteristics of a windowData view, data entry**	Understand and analyze	3	the second
Discussion An the test Oral And the editorial	**My presence**	**Names and attributes of variables in a sheetVariable view, creating partial sums of variables, designing a statistical questionnaire**	Understand and analyze	3	the third
Discussion An the test Oral And the editorial	**My presence**	**Arranging data, transforming variables, merging data, dividing data**	Understand and analyze	3	the fourth

Discussion An 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 An 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 An 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 An the test Oral And the editorial	**My presence**	**Histogram, chartNormal QQ Plot**	Understand and analyze	3	The tenth
Discussion An the test Oral And the editorial	**My presence**	**a planDetrended Normal QQ Plot, configure confidenc intervals**	Understand and analyze	3	atheistic t
Discussion An the test Oral And the editorial	**My presence**	**Trimmed arithmetic mean, quartiles and percentiles**	Understand and analyze	3	the second ten
Discussion An 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 An 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

	My presence	**First semester exam**		3	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

4- 60 degrees Exam ultimate Editorial.

.40 degrees especially By striving Divided to me:

13) 5 degrees Presence.
14) 5 degrees Duties with.
15) 15 degrees Exam Editorial first
16) 15 degrees Exam Editorial second

2. 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

Course description form

1. name The decision	
Biostatistics1	
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 1- Application on data the Actual / Assigned Students By reading the topic pre- from several sources Scientific Self Relevance By decision And the lecture 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	**Objectives of study subject**
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 reach to decisions Futurism And take resoluti Appropriate building on establish Scientific Intact

Methods education And learning

- throw Lectures and give exercises ongoing And applied I different phenomena Like economic And demographics
-
- And others To find out employment Statistics Differently Doma
- to organize discussions Collective around analysis ser

Temporal certain, Than constribte in exchange Ideas And learni

Mutual between the students.

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 questior

.Course structure

Evaluation method	Learning	Name of the unit or topic	Required learning outcomes	hours	the week

	meth od				
Discussion, oral and written examination	My presen	Metrics and data in the biosphere	Understand and analyze	2	the first
Discussion, oral and written examination	My presen	Rates and metrics	Understand and analyze	2	the second
Discussion, oral and written examination	My presen	Event, probability and conditional probability	Understand and analyze	2	the third
Discussion, oral and written examination	My presen	Some important discrete distributions in the biological field (binomial and Poisson)	Understand and analyze	2	the fourth
Discussion, oral and written examination And practical application	My presen	Some important continuous distributions in the biological field (exponential, normal, and chi-square,FT,)	Understand and analyze	2	Fifth
Discussion, oral and written examination	My presen		Understand and analyze	2	VI
Discussion, oral and written examination	My presen	Vital applications of probability distributions.	Understand and analyze	2	Seventh
Discussion, oral and written examination	My presen	Types of hypotheses and standard error.	Understand and analyze	2	VIII
Discussion, oral and written examination	My presen	HidingAverage s and one-sample tests	Understand and analyze	2	Ninth

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 (methodolo if any)
Computer applications using softwareSPSS Kamal Alwan Al-Mashhadani, Dr. Imad Hazem Aboudi	Main references (sources)

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

Course description form

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	
1- Educational benefit, by learning about the concept of demographic statistics and the concepts associated with it. 2- Demographic census methods 3- 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 statistics	The strategy

2- Expanding the student's scientific awareness when linking various cognitive information and then applying it in his advanced research studies B- Subject-specific skills 1- Applications of demographic statistics to the statistical reality 2- Identify modern methods in demographic statistics in order to use them for policy experiments and ways to develop them.	

10. Course structure					
Evaluation method	Learning method	Name of the unit or topic	Required learning outcomes	hours	the week
Homework + daily exam	**Giving focused lectures with practical examples**	**Some basic concepts of demographic analysis**	**Understand and clarify**	**3**	**1**
Homework	**Giving focused lectures with practical examples**	**The nature of demographic information**	Understand and clarify	**3**	**2**
Homework + daily exam	**Mathematical examples**	**Methods with data**	Understand and clarify	**3**	**3**
Homework	**Mathematical examples**	**Data and information available from United Nations offices**	Understand and clarify	**3**	**4**
Homework	**Mathematical examples**	**Population growth rates**	Understand and clarify	**3**	**5**
Homework	**Mathematical examples**	**Fertility rates**	Understand and clarify	**3**	**6**
Homework	**Mathematical examples**	**Cross-sectional mortality rates**	Understand and clarify	**3**	**7**
Homework	**Mathematical examples**	**The life span**	Understand and clarify	**3**	**8**

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

11. Course evaluation

Degree distribution from100 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

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 - Annual Report)	Electronic references, Internet sites

Course description form

1. name The decision
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 concepts with approximate numerical solutions** • **The student learned how to deal with large numbers and h to perform iterative operations on them For high accuracy** • **Introducing the student to how to apply numerical algorith with extreme accuracy**	**Obje ves the study subje**
9. Teaching and learning strategies	
Course outcomes and teaching, learning and evaluation methods 28- Cognitive objectives: - Make the student able to 29- -To know the most important principles and basic concepts in mathematics 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	**The strat y**

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

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.	

10. Course structure

Evaluation method	Learning method	Name of the unit or topic	Required learning outcomes	hours	the week
the exam	**Diction**	**Order of completion of operations The error - Absolute error -Relative error -The rounde error**	**Precision By deali 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	**Diction**	**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**

the exam	**Diction**	**Fake location method**	**to understand the solution Numerica**	3	**7**
the exam	**Diction**	**Special iterative methods**	**building Methods Iterative**	3	**8**
the exam	**Diction**	**Power series**	**Benefit from Sequences Powers**	3	**9**
the exam	**Diction**	**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	**Diction**	**Front differences**	**knowledge Concep Differences And its applicatior**	3	**12**
the exam	**Diction**	**Background differences**	**knowledge Concep Differences And its applicatior**	3	**13**
the exam	**Diction**	**Central differences**	**knowledge Concep Differences And its applicatior**	3	**14**
the exam	**Diction**	**The relationship between the differences**	**knowledge Concep Differences And its applicatior**	3	**15**

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.

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

Third stage
the second course

Course description form

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 mentioned)	
Name: A. P. Dr.. Ayad Habeeb Email: ayadstatistic@uodiyala.edu.iq	
20. Course objectives	
- Course objectives **−Introducing the student to the most important vocabulary of ordinal mathemati** **statistics and its importance.** **−What do composite statistical distributions mean?** **−What are the steps of statistical analysis based on mathematical statistics a** **estimation of distribution parameters?** **− Developing work on integrating mathematical statistics distributions** **− Knowledge of conditional mathematical statistics**	**Objectives** **the st** **subject**
21.	
Course outcomes and teaching, learning and evaluation methods **Objectives Cognitive** 1- That Known requester The information Statistics Sports. 2- That Known requester Most important basics science Statistics The athlete. 3- That Known requester Most important Distributions Statistics.	**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 structure

Evaluation method	Learning method	Name of the unit or topic	Required learning outcomes	hours	the week
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/exam	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 moment – generating function**	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 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.

.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.

4. Learning and teaching resources

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

Course description form

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
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.	**Objectives of the st** **subject**

9.

Course outcomes and teaching, learning and evaluation methods	**The strategy**
Make the student able to: 34- Understand the basics of linear regression analysis 35- Understanding the multiple linear regression model 36- Understand the basics of using a 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 Explanations 2-Questions The error And the right thing 3-Duties	

33- Evaluation Self
34- the exams (Daily, monthly, quarterly, final).

Emotional and value goals

7- Ability on to examine And evaluation Threads Asked .
8- Ability on Cash And discrimination Threads Asked And the choice Between them .
9- 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

10. Course structure

Evaluation method	Learning method	Name of the unit or topic	Required learning outcomes	hours	the week
Discussion Ar the test Oral And the editorial	My presenc	**Concept Forms Regression Multimeter**	**Understand and analyze**	3	the first
Discussion Ar the test Oral And the editorial	My presenc	**Concept Multiplicity linear**	Understand and analyze	3	the second
Discussion Ar the test Oral And the editorial	My presenc	**road Squares Minor**	Understand and analyze	3	the third
Discussion Ar the test Oral And the editorial	My presenc	**Link linear**	Understand and analyze	3	the fourth

Discussion An the test Oral And the editorial	My presenc	**Link linear Simple**	Understand and analyze	3	Fifth
Discussion An the test Oral And the editorial	My presenc	**Factor Link Partial**	Understand and analyze	3	VI
Discussion An the test Oral And the editorial	My presenc	**Factor Link Multimeter**	Understand and analyze	3	Seventh
Discussion An the test Oral And the editorial	My presenc	**Solution exercises /Exam**	Understand and analyze	3	VIII
Discussion An the test Oral And the editorial	My presenc	**Factor Engagement Ranks And the qualities**	Understand and analyze	3	Ninth
Discussion An the test Oral And the editorial	My presenc	**a test Moral Landmarks**	Understand and analyze	3	The tenth
Discussion An the test Oral And the editorial	My presenc	**border trust For landmarks**	Understand and analyze	3	atheistic ten
Discussion An the test Oral And the editorial	My presenc	**comparison between Regression linear Simple And multiple**	Understand and analyze	3	the second ten
Discussion An the test Oral And the editorial	My presenc	**Tests Moral Landmarks As a whole**	Understand and analyze	3	the third ten
Discussion An the test Oral And the editorial	My presenc	**Methods appreciation Landmarks Nonlinearity Multiple**	Understand and analyze	3	the fourth ten
	My presenc	**Second semester exam**		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

8- 60 degrees Exam ultimate Editorial.

3.40 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 Mr. Dr Submissive the narrator	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
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

- Course objectives • Introducing the student to the most important foundations and principles of operations research and quantitative decision making • 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.	**Objectives of article Scholarship**
9.	
Course outcomes and teaching, learning and evaluation methods 43- Cognitive objectives: - Make the student able to 44- -To know the most important principles and basic concepts in quantitative programming and applied mathematics 45- -To define the types of functions and relationships to functions 46- To become familiar with programming tools and optimal decision making	**The strategy**

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

35- -Interactive skills: Possessing the ability to communicate with the subject professor and colleagues

36- -Diagnostic 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 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

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).

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 method	Learning method	Name of the unit or topic	Required learning outcomes	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 mo linear programmi and operati 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 An the test Oral And the editorial	**My presence**	**Assignment problem**	**How to solve optima allocation problems**	**3**	**Fifth**

And the application Practical					
Discussion An the test Oral And the editorial And the application Practical	My presence	First exam	First test and evaluation	3	VI
Discussion An the test Oral And the editorial And the application Practical	My presence	Testing of primal solution	Identify the concept the initial solution an the optimal solution transportation mode	3	Seventh
Discussion An the test Editorial And the application Practical	My presence	Stepping stone	How to test the ini solution transportation mod using the rock jump method	3	VIII
Discussion An the test Oral And the editorial And the application Practical	My presence	Modified distribution	Use the adjus distribution method testing	3	Ninth
Discussion An the test Oral And the editorial And the application Practical	My presence	Practical examples	Practical examples	3	The tenth
Discussion An the test Oral And the editorial And the application Practical	My presence	Second exam	Second test a evaluation	3	atheistic te
Discussion An the test Oral	My presence	Network analysis	Learn about network analy method	3	the second ten

And the editorial And the application Practical					
Discussion An the test Oral And the editorial And the application Practical	**My presence**	**PERT**	**Get to know Bu style**	**3**	**the third te**
Discussion An the test Oral And the editorial And the application Practical	**My presence**	**Reduce(time/cost)**	**How to redu completion times**	**3**	**the fourth t**
Discussion An the test Editorial And the application Practical	**My presence**	**Game theory.**	**The concept competition and theory of profit and l**	**3**	**Fifth ten**
Editorial + My application	**My presence**	**Final exam**	**Level rating**	**3**	**VI 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

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 research	Required textbooks (methodology, if any)
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

Course description form

1. name The decision
Data management usingSPSS 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
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.	**Objectives of study subject**
9.	
Course outcomes and teaching, learning and evaluation methods Make the student able to:	**The strategy**

49- Introducing the student to the most important windows in the programSPSS
50- Introducing the student to the importance of the programSPSS
51- Statement of the most important characteristics of the windowData view
52- Introducing the student to how to design a statistical questionnaire
53- Providing the student with applications about arranging data, converting variables, merging data, and dividing data
54- Providing the student with applications for questionnaire analysis
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 variables in the program.
58- The student knows how to deal with data and how to test it according to a normal distribution.
59- The student will know how to explain the results of hypothesis testing for quantitative and descriptive data.
60- The student must do homework on the homogeneity tests

Course-specific skills objectives

40- Interactive skills: Possessing the ability to communicate with the subject professor and colleagues.
41- Diagnostic skills: the ability to deal with a statistical problem.
42- 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.
43- Direct interrogation.

Evaluation methods

7- Questions The error And the right thing .
8- Questions the choice from Multi .
9- Questions Explanations .
10- Duties .
11- Evaluation Self .
12- the exams (Monthly , The quarterly , Final).

Emotional 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.

6- Questionnaire preparation skills.

10. Course structure

Evaluation method	Learning method	Name of the unit or topic	Required learning outcomes	hours	the week
Discussion An 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 An the test Oral And the editorial	**My presence**	**One sample t test, Independent sample t test**	**Understand and clarify**	3	Fifth
Discussion An the test Oral And the editorial	**My presence**	**Paired sample t test, One way anova**	**Understand and clarify**	3	VI

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

).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

Course description form

1. name The decision
Biostatistics2
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 objectives

Course objectives **5- Application on data the Actual / Assigned Students By reading the topic pre- from several sources Scientific Self Relevance By decision And the lecture** **6- after teaching Subject Manage researcher from help Researchers in various Applications Scientific different** **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** **Graduating requester mm With this Subject Applied the mission in all Domains Research**	**Objectives the st subject**
9.	
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	**The strate**

- 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 reach to decisions Futurism And take resolution Appropri building on establish Scientific Intact

Methods education And learning

- throw Lectures and give exercises ongoing And applied For differ phenomena Like economic And demographics
-
- And others To find out employment Statistics Differently Domains
- to organize discussions Collective around analysis series Tempo certain, Than constribte in exchange Ideas And learning Mut between the students.

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

10. Course structure

Evaluation method	Learning method	Name of the unit or topic	Required learning outcomes	hours	the week
Discussion, oral a written examinati	**My presen**	**Testing proportions and correlations**	**Understand and explain**	2	the first

Discussion, oral ar written examinati	**My presenc**	**Exercises on proportion testing**	**Understand and explain**	2	the seco
Discussion, oral ar written examinati	**My presenc**	**Testing the signal for one or two samples**	**Understand and explain**	2	the third
Discussion, oral ar written examinati	**My presenc**	**Exercises on proportion testing**	**Understand and explain**	2	the fourt
Discussion, oral ar written examinati And practical application	**My presenc**	**Wilcoxon rank-sum test**	**Understand and explain**	2	Fifth
Discussion, oral ar written examinati	**My presenc**	**Wilcoxon rank sum test**	**Understand and explain**	2	VI
Discussion, oral ar written examinati	**My presenc**	**Chi-square test**	**Understand and explain**	2	Seventh
	My presenc	**the first exam**		2	VIII
Discussion, oral ar written examinati	**My presenc**	**Correlation tests**	**Understand and explain**	2	Ninth
Discussion, oral ar written examinati	**My presenc**	**Exercises on correlation testing**	**Understand and explain**	2	The tent
Discussion, oral ar written examinati	**My presenc**	**Regression tests**	**Understand and explain**	2	atheistic ten
Discussion, oral ar written examinati	**My presenc**	**Exercises about regression testing**	**Understand and explain**	2	the seco ten
Discussion, oral ar written examinati	**My presenc**	**Compatibility table test**	**Understand and explain**	2	the third ten
	My presenc	**Second exam**	**Second exam**	2	the fourt ten
Discussion, oral ar written examinati	**My presenc**	**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 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	Main references (sources)
Biostatistics A foundation for analysis in the health sciences	Recommended supporting books 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.edu.iq
8. Course objectives

Course objectives **9- Application on data the Actual / Assigned Students By reading the topic pre- from several sources Scientific Self Relevance By decision And the lecture** **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 lecture** **5- Practical exercises on how to measure the levels of the topic according to the available data and how to interpret the results** **Graduating requester mm With this Subject Applied the mission in all Domains Research**	**Objectives of study subject**

9.

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	**The strategy**

- 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 reach to decisions Futurism And take resolution Appropri building on establish Scientific Intact

Methods education And learning

- **throw Lectures and give exercises ongoing And applied For different phenomena I economic And demographics**
-
- **And others To find out employment Statistics Differently Domains**
- **to organize discussions Collective around analysis series Temporal certain, Than constr**

in exchange Ideas And learning Mutual between the students.

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

10. Course structure

Evaluation method	Learning method	Name of the unit or topic	Required learning outcomes	hours	the week
Discussion, oral a written examinati	**My presen**	**Concepts Basic /Definitions Immigration**	**Understand and explain**	2	the first
Discussion, oral a written examinati	**My presen**	**Pedigree And rates Immigration**	**Understand and explain**	2	the secon
Discussion, oral a written examinati	**My presen**	**marriage And divorce**	**Understand and explain**	2	the third

Discussion, oral an written examinatio	**My presenc**	**Learning**	**Understand and explain**	2	the fourth
Discussion, oral an written examinatio And practical application	**My presenc**	**power the job**	**Understand and explain**	2	Fifth
Discussion, oral an written examinatio	**My presenc**	**Industry**	**Understand and explain**	2	VI
Discussion, oral an written examinatio	**My presenc**	**Projection Births**	**Understand and explain**	2	Seventh
	My presenc	**method Composition**		2	VIII
Discussion, oral an written examinatio	**My presenc**	**Methods Immigration**	**Understand and explain**	2	Ninth
Discussion, oral an written examinatio	**My presenc**	**Immigration The imamba**	**Understand and explain**	2	The tenth
Discussion, oral an written examinatio	**My presenc**	**Immigration Reverse**	**Understand and explain**	2	atheistic ten
Discussion, oral an written examinatio	**My presenc**	**road I extend marriage**	**Understand and explain**	2	the secon ten
Discussion, oral an written examinatio	**My presenc**	**Rates Sprague**	**Understand and explain**	2	the third ten
	My presenc	**Second exam**	**Second exam**	2	the fourth ten
Discussion, oral an written examinatio	**My presenc**	**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

12- 50 degrees Exam ultimate Editorial with 10 degrees Exam practical ultimate.

2.40 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 / Amir Hanna Hormuz	Required textbooks (methodology, any)
Demographic statistics books	Main references (sources)

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

Course description form

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 with approximate numerical solutions** • **The student learned how to deal with large numbers and how perform iterative operations on them For high accuracy** • **Introducing the student to how to apply numerical algorithms v extreme accuracy**	**Objectives of study subject**

9. Teaching and learning strategies

Course outcomes and teaching, learning and evaluation methods 61- Cognitive objectives: - Make the student able to 62- -To know the most important principles and basic concepts in mathematics	**The strategy**

63- -To 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 and case studies

Course-specific skills objectives

44- -Interactive skills: Possessing the ability to communicate with the subject professor and colleagues

45- -Diagnostic skills: the ability to diagnose functions and their real-world applications

46- 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

47- Evaluation Self

48- 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

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 method	Learning method	Name of the unit or topic	Required learning outcomes	hours	the week
the ex	Dicti	Front expansion power series	Understan g variab Pow		
the ex	Dicti	Backscrew force series	Identify the typ Disassembl forc		
the ex	Dicti	Central differences	Understand t central differenc		
the ex	Dicti	Completion formulas Newton's forward formula	Know the metho of completi		
the ex	Dicti	Newton's backwards formula	Know the metho of completi		
the ex	Dicti	- Split differences	Know the metho 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	Lacrange for different periods	The benefit sequenc Powe		
the ex	Dicti	Numerical differentiation and numerical integration - Derivation of the numerical differential formula	Understa differential calcul And numeri integrati		
the ex	Dicti	Numerical integration - trapezoid	Understa differential calcul And numeri integrati		
the ex	Dicti	Simpson	Understa differential calcul And numeri integrati		
the ex	Dicti	Solve differential equations	Find the numeri soluti For different equatio		
the ex	Dicti	Gauss-Jacobi – seidel	Numerical soluti of syste Equatio		

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

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

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

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

The fourth stage

The first course

Course description form

1. name The decision
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: ayadstatistic@uodiyala.edu.iq
8. Course objectives

- Course objectives − **Introducing the student to the most important principles of statistical inferen and its importance.** − **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.**	**Objectives of study subject**
9.	
Course outcomes and teaching, learning and evaluation methods **Objectives Cognitive** 1- That Known requester The information on Estimates Statistics. 2- 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.	**The strategy**

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 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 method	Learning method	Name of the unit or topic	Required learning outcomes	hours	the week
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 Majeed Hamza Al-Nasser Prof. Dr. Dhafer Hussein Rashid /dr. iden hassan, dr. hamza Ismael	Main references (sources)
Mathematical statistics /Rob Hogg	Recommended supporting books and references (scientific journals, reports….)
the library Default Iraqi /And Resear Internet External .	Electronic references, Internet sites

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.

Course description form

13. name The decision	
Design and analysis of experiments$_1$	
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	
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.	**Objectives of the st** **subject**
21.	
Course outcomes and teaching, learning and evaluation methods 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- 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

9- Evaluation Self
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

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	Learning method	Name of the unit or topic	Required learning outcomes	hours	the week
Discussion An the test Oral And the editorial	**My presence**		**Concepts and terminology in experimental design Experience The Worker Processing Experimental piece or uni randomness (randomization)**	3	the first
Discussion An the test Oral And the editorial	**My presence**		**Repetition Experimental error the design Essentials for a good experience Analysis of variance**	3	the second
Discussion An the test Oral	**My presence**		**Simple experimental designs**	3	the third

And the editorial			**Completely randomized design Mathematical model statistical analysis an experience (1) Contrast compounds an experience (2) Smoothing of treatment variances**		
Discussion An the test Oral And the editorial	**My presence**		**Bartlett's test Cochrane test application (1) application (2) an experience (3)**	3	the fourth
Discussion An the test Oral And the editorial	**My presence**		**an experience (4) A completely randomized design with more than one observation of the experimental unit One an experience (5)**	3	Fifth
Discussion An the test Oral And the editorial	**My presence**		**the exams Tests that are determined before experimentation Perpendicular correspondences Example (1) Example (2) Example (3) an experience (6) Pickling trends an experience (7)**	3	VI
Discussion An the test Oral And the editorial	**My presence**		**Tests that are suggested after experimentation Multiple comparison 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)**	3	Seventh

			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 An the test Oral And the editorial	**My presence**		**Random complete sectors** **Design specifications** **Represent results (responses) with symbols** **Mathematical model** **Estimating model effects** **statistical analysis** **an experience (8)**	3	VIII
Discussion An the test Oral And the editorial	**My presence**		**Missing values and methods for estimating them** **application (8)** **Standard errors** **The relative adequacy of a randomized complete block design** **application(9)**	3	Ninth
Discussion An the test Oral And the editorial	**My presence**		**Imperfect randomized block designs** **The idea of incomplete sector designs** **Balanced incomplete randomized block design** **Mathematical model of design** **statistical analysis**	3	The tenth
Discussion An the test Oral And the editorial	**My presence**		**Building balanced incomplete sector designs** **experience (9)**	3	atheistic ten
Discussion An the test Oral And the editorial	**My presence**		**an experience (10)** **Correcting processor averages**	3	the second ten

			Testing the difference between the means of two corrected treatments		
Discussion An the test Oral And the editorial	**My presence**		**Latin square design Design specifications Mathematical model of design statistical analysis**	3	the third ten
Discussion An the test Oral And the editorial	**My presence**		**an experience (11) Estimating missing values application (10) Standard errors an experience (12) Relative adequacy application (11)**	3	the fourth ten
Discussion An the test Oral And the editorial	**My presence**		**First semester exam**	3	Fifth ten

3. 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

2- 60 degrees Exam ultimate Editorial.

1. 40 degrees especially By striving Divided to me:
   5) 5 degrees Presence.
   6) 5 degrees Duties with.
   7) 15 degrees Exam Editorial first
   8) 15 degrees Exam Editorial second

4. Learning and teaching resources

design Experiments And analysis Results (Section The first) (partial the second) Professor Perfection Alwan behind Al-Mashhadani	Required textbooks (methodology, if any)
Experimental Design and Analysis Howard J. Seltman July 11, 2018	Main references (sources)
International Journal of Experimental Design and Process Optimization Modern Experimental Design	Recommended supporting books and references (scientific journals, reports….)

no There is	Electronic references, Internet sites

Course description form

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

- Course objectives • Introducing the student to the most important foundations and principles of economic measurement • Explain the concept of estimation methods • Highlighting the importance of regression model estimation problems • This course aims to study standard problems for estimating regression models The student can estimate regression models and systems of simultaneo equations	**Objectives the st subject**

9.

Course outcomes and teaching, learning and evaluation methods 10- Cognitive objectives: - Make the student able to 11- -To know the most important principles and basic concepts in economic measurement 12- -To determine estimation methods	**The strategy**

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

11- -Interactive skills: Possessing the ability to communicate with the subject professor and colleagues
12- -Diagnostic 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-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 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 method	Name of the unit or topic	Required learning outcomes	hours	the week
Discussion An the test Oral And the editorial	**My presence**	**The nature of econometric analysis**	**Definitions And concepts**	3	the first
Discussion An the test Oral And the editorial	**My presence**	**Standard analysis functions**	**establish Analysis Standard**	3	the second
Discussion An the test Oral And the editorial	**My presence**	**Linking internal and external variables**	**to understand relations**	3	the third
Discussion An the test Oral And the editorial	**My presence**	**Statistical and measurement indicators**	**Concepts President**	3	the fourth
Discussion An the test Oral And the editorial	**My presence**	**Statement that methodols is the best unbiased linear estimate**	**steps theory**	3	Fifth
Discussion An the test Oral And the editorial	**My presence**	**Estimating the consumption function**	**Applications Realistic**	3	VI
Discussion An the test Oral And the editorial	**My presence**	**Simple linear regression analysis**	**exercises practical**	3	Seventh
Discussion An the test Oral And the editorial	**My presence**	**First month exam**	**a test Monthly**	3	VIII

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

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	Required textbooks (methodology, if any)
Economic measurement book Dr. My affairs Hadi Kazem	Main references (sources)

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

Course description form

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 addition irregular and random changes that are related to the occurrence of unexpec developments such as the occurrence of natural or health disasters or wars a disturbances... That is why this article aims to Identify the most important basic components of the time series **1-** 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.	**Objectives of the st subject**
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 Appreciation For data And prediction And benefit For purposes Planning.

- 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 reach to Forecasting Futurist And take resoluti Appropriate building on establish Scientific Intact

Methods education And learning

- throw Lectures and give exercises ongoing And applied F different phenomena Like economic And demographics And othe To find out employment Statistics Differently Domains
- to organize discussions Collective around analysis series Tempo certain, Than constribte in exchange Ideas And learning Mut between the students.

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

.Course structure

Evaluation method	Learning method	Name of the unit or topic	Required learning outcomes	hours	the week

Discussion, or and written examination	My presenc	The concept of time series, the concept of forecasting and its types	Knowledge ar understandin	3	the first
Discussion, or and written examination	My presenc	- Data appearanc e patterns - Data types for time series	Mental skills	3	the second
Discussion, or and written examination	My presenc	- The most important metrics used in quantitati ve forecastin g - General concepts of forecastin g using time series	Knowledge and understanding	3	the third
Discussion, or and written examination	My presenc	- Accuracy of forecastin g methods - Autovaria nce function - Autocorre lation function - Properties of the autocorrel	Mental skills	3	the fourth

		ation function - Partial autocorrelation function - Autocorrelation function of the sample - Partial autocorrelation 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	- Types of models in analysis methods - Time series analysis methods Aggregate model With practical application	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

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

		calculating the seasonal index			
Discussion, or and written examination	My presenc	- Averages method - Method of ratio to moving media - Singular exponential smoothing - practical application	Mental skills	3	the fourth ten
Discussion, or and written examination	My presenc	First semester exam	Knowledge and understanding	3	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

4- 50 degrees Exam ultimate Editorial with 10 degrees Exam practical ultimate.

3. 40 degrees especially By striving Divided to me:

13)5 degrees Presence.

14)5-10 degrees Duties with Exam practical .

15)15 degrees Exam Editorial.

16)5 degrees Exam verbal.

2. Learning and teaching resources

chains Temporality 1 chains Temporality And the numb standard Written by Doctor slave T gentle one Hassan Showman And doctor Nazar The cashier	Required textbooks (methodology, if any)
William W. S. Wei(2006) “Time Series Analysis: Univariate and	Main references (sources)

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

Course description form

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 **1- Introducing the student to statistical applications** **2- Providing the student with various topics related to statisti applications** **3- Explain the importance of statistical applications.**	**Objectives the st subject**
9.	
1. A- Cognitive objectives 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.	**The strategy**

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

10. Course structure

Evaluation method	Learning method	Name of the unit or topic	Required learning outcomes	hours	the week
Discussion An the test Oral And the editorial	**My presence**	**Definition of simulation, definition of programmingMatlab**	**Introducing the student to simulation and how to use the programMatlab**	3	the first
Discussion An the test Oral	**My presence**	**Generating data using the inverse method,**	**Explain how to generate data**	3	the second

And the editorial		**generating data for continuous distributions**			
Discussion An the test Oral And the editorial	**My presence**	**practical application**	**practical application**	3	the third
Discussion An the test Oral And the editorial	**My presence**	**Generating distributions (exponential, uniform, gamma)**	**Explain how to generate data**	3	the fourth
Discussion An the test Oral And the editorial	**My presence**	**Generating data using the inverse method for discrete distributions**	**Explain how to generate data**	3	Fifth
Discussion An the test Oral And the editorial	**My presence**	**Generating distributions (Poisson, binomial, geometric)**	**Explain how to generate data**	3	VI
Discussion An the test Oral And the editorial	**My presence**	**practical application**	**practical application**	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**	**Generating a normal distribution using the Box-Miller method**	Explain how to generate data	3	Ninth
Discussion An the test Oral And the editorial	**My presence**	**Generating the dependent variable according to the linear regression model**	**Explain how to generate data**	3	The tenth
Discussion An the test Oral And the editorial	**My presence**	**practical application**	**practical application**	3	atheistic t
Discussion An the test Oral And the editorial	**My presence**	**Case study application: testing hypotheses**	**Introducing the student to how to use simulation in case studies**	3	the second ten
Discussion An the test Oral And the editorial	**My presence**	**Case study application: analysis of variance for a single criterion**	**Introducing the student to how to use simulation in case studies**	3	the third t

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 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- 60 degrees Exam ultimate Editorial.

4. 40 degrees especially By striving Divided to me:
   17)10 degrees Presence.
   18)5 degrees Duties with.
   19)15 degrees Exam Editorial.
   20)10 degrees Exam verbal.

12. Learning and teaching resources

	Required textbooks (methodology, if any)
	Main references (sources)
	Recommended supporting books and references (scientific journals, reports….)
	Electronic references, Internet sites

Course description form

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
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	**Objectives of study subject**
9.	
Course outcomes and teaching, learning and evaluation methods 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	**The strategy**

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

17- -Diagnostic 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 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 scientific research 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 structure

Evaluation method	Learning method	Name of the unit or topic	Required learning outcomes	hours	the week
Discussion Ar the test Oral And the editorial	**My presenc**	**Introduction to scientific research**	Understanding and knowledge of basi concepts	2	the first
Discussion Ar the test Oral And the editorial	**Introduction scientific research**	**Introduction to scientific research**	Understanding and knowledge of basic concepts	3	the second
Discussion Ar the test Oral And the editorial	**My presenc**	**Introduction to scientific research**	Understanding and knowledge of basic concepts	3	the third
Discussion Ar the test Oral And the editorial	**My presenc**	**Introductions to the research and presentatio of its introductory pages**	Understanding and knowledge of basic concepts	3	the fourth
Discussion Ar the test Oral And the editorial	**My presenc**	**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 presentati of its introductory page**	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 and written examination	**My presence**	**The theoretical, analytic and final framework for the research**	Understanding and knowledge of basic concepts	3	atheistic t
Discussion, oral and written examination	**My presence**	**The theoretical, analytic and final framework for the research**	Understanding and knowledge of basic concepts	3	the second ten
Discussion, oral and written examination	**My presence**	**Technical aspects of writing scientific researc**	Understanding and knowledge of basic concepts	3	the third t
Discussion, oral and written examination	**My presence**	**For the technical aspect of writing scientific research**	Understanding and knowledge of basic concepts	3	the fourth ten
Discussion, oral and written examination	**My presence**	**For the technical aspect of writing scientific research**	Understanding and knowledge of basic concepts	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

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

Course description form

1. name The decision
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: ayadstatistic@uodiyala.edu.iq
8. Course objectives

- Course objectives − **Introducing the student to the most important principles of inference ab statistical hypothesis testing and its importance.** − **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.**	**Objectives the st subject**
9.	
Course outcomes and teaching, learning and evaluation methods **Objectives Cognitive** 1- That Known requester The information on Estimates Statistics. 2- 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**	**The strateg**

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 method	Learning method	Name of the unit or topic	Required learning outcomes	hours	the week
Evaluation Self /the exams /Oral	lecture And the discussion	Bayes estimation	Bayes estimation	3	1
Evaluation Self /the exams /Oral	lecture And the discussion	Bayes testing application	Bayes testing application	3	2
Evaluation Self /the exams /Oral	lecture And the discussion	Testing hypotheses	Testing hypotheses	3	3
Evaluation Self /the exams /Oral	lecture And the discussion	Simple hypotheses	Simple hypotheses	3	4
Evaluation Self /the exams /Oral	lecture And the discussion	Composite hypotheses	Composite hypotheses	3	5
Evaluation Self /the exams /Oral	lecture And the discussion	Type of error	Type of error	3	6
Evaluation Self /the exams /Oral	lecture And the discussion	Power function	Power function	3	7
Evaluation Self /the exams /Oral	lecture And discussion/exam	Best critical regression	Best critical regression	3	8
Evaluation Self /the exams /Oral	lecture And the discussion/	Generalized likelihood ratio	Generalized likelihood ratio	3	9
Evaluation Self /the exams /Oral	lecture And the discussion	Generalized likelihood ratio	Generalized likelihood ratio	3	10
Evaluation Self /the exams /Oral	lecture And the discussion	Uniformly most powerful test	Uniformly most powerful test	3	11
Evaluation Self /the exams /Oral	lecture And the discussion	Sequential test of hypotheses	Sequential test of hypotheses	3	12
Evaluation Self /the exams /Oral	lecture And the discussion	application	application	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	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 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 Majeed Hamza Al–Nasser Prof. Dr. Dhafer Hussein Rashid /dr. iden hassan, dr. hamza Ismael	Main references (sources)
Mathematical statistics /Rob Hogg	Recommended supporting books and references (scientific journals, reports….)
the library Default Iraqi /And Resear Internet External .	Electronic references, Internet 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.

Course description form

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

- 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.	**Objectives of study subject**

9.	
Course outcomes and teaching, learning and evaluation methods Make the student able to: 22- Understand the basics of designing and analyzing experiments 23- Understanding completely randomized design 24- Understand the randomized complete block design	**The strategy**

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 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

10. Course structure

Evaluation method	Learning method	Name of the unit or topic	Required learning outcomes	hours	the week
Discussion An the test Oral And the editorial	**My presence**		**Greek Latin square design Mathematical model an experience(1) Missing values an experience(2)**	3	the first
Discussion An the test Oral And the editorial	**My presence**		**Yuden square design Mathematical model statistical analysis an experience(2)**	3	the second
Discussion An the test Oral And the editorial	**My presence**		**Global experience Factorial experiment with a completely randomized design an experience(3) an experience (4)**	3	the third
Discussion An the test Oral And the editorial	**My presence**		**an experience (5) Factorial experiment with randomized complete block design statistical analysis an experience (6)**	3	the fourth
Discussion An the test Oral	**My presence**		**Factorial experiment with a Latin square**	3	Fifth

And the editorial			**design Mathematical model an experience (7)**		
Discussion An the test Oral And the editorial	**My presence**		**Inclusion How to implement the idea of inclusion Types of integration an experience (8)**	3	VI
Discussion An the test Oral And the editorial	**My presence**		**an experience (9) Methods of integrating global experiences in four sectors The first method The second method**	3	Seventh
Discussion An the test Oral And the editorial	**My presence**		**Partial replication of factorial experiments Partial redundancy configuration**	3	VIII
Discussion An the test Oral And the editorial	**My presence**		**Partial replication with eight treatments an experience (9)**	3	Ninth
Discussion An the test Oral And the editorial	**My presence**		**Splinter cutting experiments Split-plot experiments with a completely randomized design an experience (10)**	3	The tenth
Discussion An the test Oral And the editorial	**My presence**		**Split-block experiments with a randomized complete block design an experience (11)**	3	atheistic t
Discussion An the test Oral And the editorial	**My presence**		**Split pieces experiments with a Latin square design an experience (12)**	3	the second ten
Discussion An the test Oral And the editorial	**My presence**		**Analysis of covariance Linear model in analysis of covariance Analysis of covariance with a completely randomized design an experience(13)**	3	the third t
Discussion An the test Oral And the editorial	**My presence**		**Analysis of covariance with a randomized complete block design an experience (14) Analysis of covariance with a Latin square**	3	the fourth ten

			design an experience (15)		
Discussion An the test Oral And the editorial	**My presence**		**Second semester exam**	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

9- 60 degrees Exam ultimate Editorial.

6. 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

design Experiments And analysis Results (Section The first) (partial the second) Professor Perfection Alwan behind Al-Mashhadani	Required textbooks (methodology, if any)
Experimental Design and Analysis Howard J. Seltman July 11, 2018	Main references (sources)
International Journal of Experimental Design and Process Optimization Modern Experimental Design	Recommended supporting books and references (scientific journals, reports….)
no There is	Electronic references, Internet sites

Course description form

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
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	**Objectives of study subject**

9.	
Course outcomes and teaching, learning and evaluation methods 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 **Course-specific skills objectives**	**The strategy**

31- -Interactive skills: Possessing the ability to communicate with the subject professor and colleagues
32- -Diagnostic 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

Evaluation methods

1-Questions Explanations
2-Questions The error And the right thing
3-Duties
34- Evaluation Self
35- 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 method	Name of the unit or topic	Required learning outcomes	hours	the week
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**	**Statement that methodols is the best unbiased linear estimate**	**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 Hussein Rashid	Required textbooks (methodology, if any)
	Main references (sources)
	Recommended supporting books and references (scientific journals, reports….)
	Electronic references, Internet sites

Course description form

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 wel 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 se 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 arithm 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 analy	**Objectives of study subject**

9.	
Knowledge And understanding - Ability on analysis data . - Supply Students With knowledge Applied Statistics in Different fields life Like social And economic And others - Ability to knowledge requester in Appreciation For data And prediction And benefit For purposes Planning. - 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 reach to Forecasting Futurist And take resolution Appropria building on establish Scientific Intact Methods education And learning - throw Lectures and give exercises ongoing And applied For differe phenomena Like economic And physics And others To find c employment Statistics Differently Domains - to organize discussions Collective around analysis series Tempora Than constribte in exchange Ideas And learning Mutual between t students. 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	**The strategy**

.Course structure

Evaluation method	Learning method	Name of the unit or topic	Required learning outcomes	hours	the week

Discussion And the test Oral An the editorial	My presenc	- Double exponenti al smoothing - Brown's method - Holt method	Knowledge a understanding	3	the first
Discussion And the test Oral An the editorial	My presenc	- Triple exponenti al smoothing method (Winter method) - Case studies using statistical programs, practical applicatio n	Mental skills	3	the secon
Discussion And the test Oral An the editorial	My presenc	Time series extrapolati on - Stability in the arithmetic mean - - Stability in contrast	Knowledge a understanding	3	the third
Discussion And the test Oral An the editorial	My presenc	Transformations on data - Autocorrel ation function - Partial autocorrel ation function	Mental skills	3	the fourth

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

		- Autocorrelation coefficient test			
Discussion And the test Oral An the editorial	My presenc	- Box-Jenkins method for time series analysis - Model diagnosis - Autoregressive model of degreeP - Model of moving circles of degreeq - Autoregressive model for moving averages of degree (p,q)	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 a understanding	3	Ninth
Discussion And the test Oral An the editorial	My presenc	- Seasonal autoregressive model - Seasonal moving averages model	Mental skills	3	The tenth

		Unstationary seasonal mixed model			
Discussion And the test Oral An the editorial	My presenc	- Check model fit - Price test - Jean Price test	Knowledge a understanding	3	atheistic t
Discussion And the test Oral An the editorial	My presenc	- Multiplicative seasonal model - Estimate landmarks	Mental skills	3	the secon ten
Discussion A the test Oral A the editorial	My presenc	- Forecasting modelsARIMA	Knowledge a understanding	3	the third t
Discussion A the test Oral A the editorial	My presenc	Case studies using statistical programs	Mental skills	3	the fourth ten
Discussion A the test Oral A the editorial	My presenc	Second semester exam	Knowledge a understanding	3	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

11-50 degrees Exam ultimate Editorial with 10 degrees Exam practical ultimate .

8. 40 degrees especially By striving Divided to me:

37)5 degrees Presence.

38)5-10 degrees Duties with Exam practical .

39)15 degrees Exam Editorial.

40)5 degrees Exam verbal.

2. Learning and teaching resources

analysis chains Temporality Secti the second Written by all from Doctor Munaf Yu praiseworthy And the doctor dreams Ahmed Frida And the doctor Firas Ahm Mohammed	Required textbooks (methodology, 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

Course description form

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 (if more than one name is mentioned)
Name: A.L.D Omer Adel AbdulWahab Email :omersta@uodiyala.edu.iq
8. Course objectives

- Course objectives **1- Introducing the student to statistical applications** **2- Providing the student with various topics related to statisti applications** **3- Explain the importance of statistical applications.**	**Objectives the st subject**
9.	
1. A- Cognitive objectives 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.	**The strategy**

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

10. Course structure

Evaluation method	Learning method	Name of the unit or topic	Required learning outcomes	hours	the week
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 secon
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

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

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

12-60 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 Ahmed2010	Required textbooks (methodology, if any)
	Main references (sources)
	Recommended supporting books and references (scientific journals, reports….)
	Electronic references, Internet sites

Course description form

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 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.	**Objectives the study subject**
9.	
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 .	**The strategy**

- 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 phenomen such as economic and demographic
- And others to learn about the use of statistics in various fields
- Organizing group discussions on specific time series analysis, which contributes t

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/oral/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/oral/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/oral/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

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

the section and take a daily exam And (homework)		**determination of maximum and minima**	**determination of maximum and minima**		
Self-evaluation/tests/oral/enrichmentSolve examples within the section and take a daily exam And (homework)	**Lecture and discussion**	**Multivariate normal distribution, Multivariate joint distribution, absolute**	**Multivariate normal distribution, Multivariate joint distribution, absolute**	**3**	10
Self-evaluation/tests/oral/enrichmentSolve examples within the section and take a daily exam And (homework)	**Lecture and discussion**	**Marginal and conditional distribution, independent partial correlation coefficient**	**Marginal and conditional distribution, independent partial correlation coefficient**	**3**	11
Self-evaluation/tests/oral/enrichmentSolve examples within the section and take a daily exam And (homework)	**Lecture and discussion**	**Moment of multidimensional variables, variance, covariance, and correction**	**Moment of multidimensional variables, variance, covariance, and correction**	**3**	12
Self-evaluation/tests/oral/enrichmentSolve examples within the section and take a daily exam And (homework)	**Lecture and discussion**	**Transformation of variables**	**Transformation of variables**	**3**	13
Self-evaluation/tests/oral/enrichmentSolve examples within the section and take a daily exam And (homework)	**Lecture and discussion**	**Multivariate normal distribution: density standard form of normal density, conditional density of the multivariate normal distribution.**	**Multivariate normal distribution: density standard form of normal density, conditional density of the multivariate normal distribution.**	**3**	14
Self-evaluation/tests/oral/enrichmentSolve examples within the section and take a daily exam And (homework)	**Lecture and discussion**	**Properties of multiple normal distribution**	**Properties of multiple normal distribution**	**3**	15
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.					

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 Multivariate Analysis"; Routledge: Taylor & Francis Group; New-York	Main references (sources)
	Recommended supporting books and references (scientific journals, reports....)
	Electronic references, Internet si
- skills plural And analysis data. **2- Skills Conclusion And put Solutions the theory.** **3- Skills How Dealing with data And the number T massive one Of which any big data**	**Skills the public And qualifying Movable (Skills The other Related Capable recruitment And evolution personal).**