

Ministry of Higher Education and Scientific Research Scientific Supervision and Scientific Evaluation Apparatus Directorate of Quality Assurance and Academic Accreditation Accreditation Department

Academic Program and Course Description Guide

Animal production Department

Misan University College of Agriculture

Academic Program Description Form

University Name: Misan University

Faculty/Institute: College of Agriculture

Scientific Department: Department of Animal Production

Academic or Professional Program Name: Bachelor of Science in Agriculture

Final Certificate Name: Bachelor of Science in Agriculture / Animal Production

Academic System: courses

Description Preparation Date:

File Completion Date:

Signature

Head of Department Name:

or Qusai Hattab madhi

Date:

Signature Avus

Scientific Associate Name:

Dr. Ahmed walk Junaan

Date:

The file is checked by:

Department of Quality Assurance and University Performance

Director of the Quality Assurance and University Performance Department:

Date:

Signature:

Approval of the Dean

Dr. Dhurgham Satin Kare

Introduction:

Academic programs and courses are the cornerstone of the higher education system, forming the basis for the development of students' skills and knowledge in various specialized fields. The description of the academic program and course of study provides a detailed framework outlining the educational objectives and academic content to be taught, as well as the criteria by which students' performance will be evaluated.

The description of the academic program also provides students with a comprehensive view of what they can expect from their academic career, from the prerequisites for entry into the program to the career opportunities available after graduation. Courses are addressed as core parts within this framework, where each course is defined by its objectives, content, and evaluation methods, helping students understand what will be taught and how to achieve academic success.

This guide includes a description of the academic program in light of the latest developments in the educational system in Iraq. In this regard, we can only emphasize the importance of writing a description of academic programs and courses to ensure the proper functioning of the educational process.

1- Program Vision

The vision of the academic program is to provide high-quality education that enables students to acquire the knowledge and skills necessary to succeed in their professional and personal lives, develop scientific research that contributes to the progress of society, and strengthen cooperation and partnerships with academic and professional institutions locally and internationally.

2- Program Mission

Providing a distinguished and multidisciplinary education that keeps pace with global developments, contributes to the preparation of qualified graduates who possess the skills and knowledge necessary for the labor market, encourages scientific research and innovation, and promotes ethical values and social responsibility among students.

3- Program Objectives:

- Educating and training students on the latest practices in the field of livestock production.
- 2. Provide the necessary knowledge and skills to deal with animals and improve their productivity.
- 3. Promote scientific research in areas such as animal nutrition, care, and reproduction.
- 4. Develop programs to manage farms and improve productivity.
- 5. Enhance students' understanding of professional ethics in livestock production.
- 6. Encourage interaction with industry and the local community to improve livestock production applications.
- 7. Enhancing interaction with the natural environment and preserving livestock.
- 8. Provide experiential and applied educational opportunities for students in areas such as animal reproduction and care.

4- Program Accreditation

None

5- Other external influences

Ministry of Higher Education and Scientific Research

6- Program Structure				
The structure of the	Number of	Credit hours	Percentage	Reviews*
Education	Courses			
Programme is as				
follows:				
Organization	12	22	12.79	Basic
Requirements				
College	22	71	41.27	Basic
Requirements				
Department	27	79	45.94	Basic
Requirements				
summer training				Basic
Other				

7- Program	description			
Year/Level	Course Code	Course Name	Credit theoretical	Hours Practical
	PRPP151	Principles of Plant Protection	2	3
	PRPO152	Principles of Poultry	2	3
	PRAP153	Principles of Animal Production	2	3
	PLSU154	Plane Surveying	2	3
	PRFI155	Principles of Field Crops	2	3
	PRSS156	Principles of Soil Science	2	3
ear	GEZO157	Zoology	2	3
1st Year	Math	Mathematics	3	/
131	PRST159	Principles of Statistics	2	3
	COMA101	Computer Applications /1	/	2
	COMA102	Computer Applications /2	1	2
	ORCH162	Organic chemistry	2	3
	ANCH163	Analytical Chemistry	2	3
	ARAL104	Arabic Language / 1	2	1
	PRPD240	Principles of dairy science	2	3
-	ARAL204	Arabic Language /2	2	/
	BACR206	AL Baath Crimes	2	/
	ENGL205	English Language /2	2	/
	COMA201	Computer Applications /3	/	2
	GENT 242	Genetics	2	3
=	PRHS243	Principles of Horticulture	2	3
d Year	PRIC244	Principles of Ichthyology	2	3
	FIPR245	Fish Breeding and production	2	3
2n	FOCR246	Fodder and pasture crops	2	3
	PRAC247	Principles of Agriculture Economics	2	1
	PRAG248	Principles of agricultural extension	2	/
	ANME249	Animal production mechanization	2	3
	COMA202	Computer Applications /4	/	2
	BICH251	Biochemistry	2	3
	PRMB252	Principles of Microbiology	2	3
-	ANNU314	Animal Nutrition	2	3
	POTE315	Poultry Products Technology	2	3
٤	РОРН316	Physiology Poultry	2	3
3rd Year	REPH317	Reproductive Physiology	2	3
ı Y	FERA321	Feed and Rations	2	3
3rd	ANPH319	Animal Physiology	2	3
	MEIN318	Medical and Veterinary Insects	2	3
	ANBE320	Animal Environment and Behavior	2	/
	ANEC321	Economics of Animal Production	3	/

	ANDI323	Animal diseases	2	3
	HAMA322	Hatching and Hatches Management	2	3
	DEAE319	Design and Analysis of Experiments	2	3
	POPR441	Poultry Management and Production	2	3
	BUPR442	Buffalo production	2	/
	SHPR443	Sheep and Goats Production	2	3
	ENGL401	English	1	/
	PONU445	Poultry Nutrition	2	3
Ħ	GRPR439	Graduation Project/1	1	3
4th Year	GRPR440	Graduation Project/2	1	3
l li	MEPR446	Meat Production	2	3
4	MESC447	Meat Science	2	3
	CAPR448	Cattle Production	2	3
	MOBI449	Molecular Biology	2	3
	PODI450	Poultry diseases	2	3
	PAMA451	Pasture Managements	2	3
	POBR452	Breeding poultry	2	3

8- Expected learning outcomes of the program			
Knowledge			
1. Deep understanding of agricultural legislation and practices	Students learn about legislation and standards regulating the animal production industry, including food safety and animal welfare.		
2. Knowledge of animal species and their ecosystems	Deep understanding of different animal species and their natural environments, and how these factors affect their health and productivity.		
3. Technology in Animal Production	The use and application of modern technology in improving animal productivity, such as artificial insemination and feed management techniques.		
4. Farm Management and Strategic Planning	Learn how to efficiently manage farms, including production planning, and manage human and financial resources.		
5. Assessment and Consultancy in Livestock Production	Develop skills in performance evaluation and consulting to improve animal productivity and quality.		
6. Scientific research and practical applications	Developing capabilities in conducting scientific research and applying research results in practical work.		
7. Sustainability and Sustainable Development	Understand the basics of sustainability in livestock production and how to apply sustainable practices in everyday work.		
8. Economic Analysis and Assessment	Develop skills in analyzing economic data		

	and evaluating the economic aspects of
	livestock production.
Skills	
Management and LeadershipSkills	Students' ability to efficiently manage
•	farms and organize livestock production
	processes, including production planning
	and human resource management.
Analytic skills.	Ability to analyze data and evaluate the
	performance of livestock production
	operations, and make strategic decisions
	based on data and analytics.
Communication skills	Ability to communicate effectively with
	various stakeholder groups, including
	farmers, agricultural sector workers, and
	government agencies.
Innovation and creativity skills	Ability to develop new and innovative
	solutions to improve animal productivity
	and enhance the effectiveness of
research skills	agricultural operations. Ability to design and implement scientific
research skins	research in the fields of animal production,
	and apply research results in practical
	work.
Negotiation and Problem Solving	Ability to negotiate and solve complex
	problems facing livestock production
	processes effectively and innovatively.
Sustainability and Sustainable Developme	
Skills	practices and improve the environmental
	and economic performance of farms.
Technology skills	Ability to use technology and computing
	tools in improving and managing livestock
	production processes.
Ethics	
Respect and vital care	Deep respect for animals and adherence to global
	biocare standards, with a focus on animal health
	and well-being.
2. Environmental sustainability	Commitment to sustainable agricultural practices
	that preserve the environment and support the
	sustainable development of natural resources.
3. Integrity and Professional Ethics	Adhere to high ethical standards in all aspects of
3. Integrity and Professional Ethics	work in the field of livestock production,
	including research and dealing with customers.
Innovation and continuous development.	Seeking to innovate and improve agricultural
	processes through the application of modern
	technologies and new ideas.
	D e l'el i
Continuous Learning & Development	Prepare for lifelong learning and develop

	personal and professional skills to maintain enduring competitiveness and success.
Collaboration and Teamwork	Ability to work as part of a team and collaborate with colleagues and specialists in related fields to achieve common goals.
7. Professionalism and Dedication	Commitment to professionalism in all aspects, from dealing with customers to project management and dealing with crises.
8. Diversity and respect for different cultures	Appreciation and respect for cultural and social diversity and the ability to interact effectively with people from different backgrounds.

9- Teaching and Learning Strategies	
Active Learning	By encouraging studentsto participate in interactive learning activities such as discussions and practical activities.
COLLABORATIVE LEARNING	By organizing students in groups to work on joint projects and solve problems, which enhances their learning by interacting with each other.
Problem Learning	Present real problems and challenges that students have to solve using the acquired knowledge and skills.
Self-learning	Enhancing students' abilities to develop their personal skills for learning and independence.
Project-based learning	Organizing practical projects from which students learn how to apply theoretical concepts in practical contexts.
Learning from experience	Providing practical and experiential learning opportunities that enhance students' understanding of the subjects.
Technology in Learning	Use technology to promote effective and engaging interaction and delivery of educational content.
Comprehensive evaluation	Use diverse and ongoing assessment methods to measure students' progress and understanding of topics.

10- Evaluation methods

Daily exams (cobs)

Monthly exams

Practical exams

Practical and Theoretical Final Exams

Assessment through summer training in government departments by providing the student with a detailed report of the knowledge and skills acquired during the training

11- Faculty						
Faculty Member	ers					
Academic rank	Specialization		Special Requireme nts/Skills (if applicable)		Number of the teaching staff	
	General	Special			Staff	Lectrurer
Assistant Professor	Plant protection	Plant diseases			1	
Assistant Professor	Fish and marine wealth	Fish and marine wealth			1	
Lecturer	Animal Production	Animal Production			1	
Lecturer	gardening, horticulture	Horticulture and Palms			2	
Lecturer Assistant	Animal Production	Animal Production			3	
Lecturer Assistant	Biology	Microbiology			1	
Lecturer Assistant	Biology	animal			1	
Lecturer Assistant	Field Crops	Field Crops			1	
Lecturer Assistant	Biology	Biology			1	
Lecturer Assistant	Computer engineering	Information Technology			1	

Professional Development

Orientation of new faculty members

Improving teaching methods, making them more effective, conducting research and serving the community		
Professional development of teaching staff:		
Workshops and Training Courses	Organized to update knowledge and skills in areas such as agricultural technology, farm management, and scientific research.	
Participate in many scientific conference and panels	An opportunity to share experiences and knowledge with other livestock researchers.	
Supporting research and scientific projects	Provide resources and funding to support advanced research in critical areas related to livestock production.	
Distance Learning and Technology in Education	Learn to use technology in education and research, including the use of distance learning platforms and modern technological tools.	
Supervision and Mentoring	Supporting and guiding new faculty members and encouraging them to achieve academic and professional success.	
Academic outreach and partnerships	Enhancing cooperation with other universities and institutions at a local and international level to exchange knowledge and experiences.	
Evaluation and development of academic programs	Participate in the development and improvement of curricula to meet the needs of the labor market and society.	
Scientific publishing and contribution to research	Encourage members to publish in high-impact scientific journals and participate in joint research projects.	

12- Acceptance Criteria	
Central	

13 - The most important sources of information about the program

- 1. The website of the College of Agriculture and the University of Maysan.
- 2. Misan University Guide.
- 3. Central Library.
- 4. The most important books and sources for the plant protection department.
- 5. The Internet.

14 - Program Development Plan		
Condition Assessment	Conduct a thorough evaluation of the current livestock production program, including an analysis of academic performance, a review of curricula and programs, and a survey of student and faculty opinions.	
Setting priorities and strategic objectives	Identify specific objectives to be achieved through the development process, such as improving the quality of education, promoting scientific research, and enhancing interaction with	

	industry.
	Redesign and develop curricula to ensure they
Curriculum development and updating	cover the latest knowledge and developments in
	livestock production.
	Provide support for student and faculty research,
Promote research and innovation	and promote research projects that contribute to
Fromote research and fimovation	the development of sustainable agricultural
	practices and innovation in livestock production.
	Develop strategic partnerships with livestock
Enhance interaction with industry and	production industries and the local community to
society	enhance applied learning and training
	opportunities on the ground.
	Provide training opportunities and workshops for
Developing the skills of the teaching staff	faculty to improve teaching, research and
	management skills.
	Establish a continuous system for evaluating
	program performance and following up on the
Evaluation and monitoring: * *	achievement of strategic objectives, making
	adjustments where necessary to improve
	performance.
	Develop marketing strategies to attract potential
Duamation and marketing	students and enhance the reputation of the
Promotion and marketing	academic program at the industry and
	community level.
	Seeking recognized academic accreditations to
EXTERNAL EVALUATION	ensure the quality and professional standards of
	the livestock production program.

Program Skills Outline

				Req	uired	progi	am L	earni	ng ou	tcome	S								
Year/Level	Course Code	Course Name	Basic or optional		Know Obje	vledge ctives			Sk	ills			Etł	nics		C	Senera	al skil	ls
K				A1	A2	A3	A4	B 1	B2	B3	B4	C1	C2	C3	C4	D1	D2	D3	4D
	PRPP151	Principles of Plant Protection	Basic	✓	✓	✓				✓	✓	✓	✓			✓	✓		
	PRPO152	Principles of Poultry	Basic	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
vel	PRAP153	Principles of Animal Production	Basic	✓	✓	✓	✓	✓	✓	✓	✓	✓	√	✓	✓	✓	✓	✓	✓
1st level	PLSU154	Plane Surveying	Basic	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
15	PRFI155	Principles of Field Crops	Basic	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	PRSS156	Principles of Soil Science	Basic	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	GEZO157	Zoology	Basic	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	√	✓
	MATH159	Mathematics	Basic	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

	PRST159	Principles of Statistics	Basic	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	COMA101	Computer Applications /1	Basic	✓	✓	✓	✓	✓	✓	√	✓	✓	✓	✓	✓	✓	✓	✓	√
	COMA102	Computer Applications /2	Basic	1	√	✓	√	✓	✓	√	✓	✓	✓	✓	√	✓	✓	1	✓
	ORCH162	Organic chemistry	Basic	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	ANCH163	Analytical Chemistry	Basic	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	PRPD240	Principles of dairy science	Basic	✓	✓	✓	✓	✓	✓	✓	✓	✓							
	ARAL204	Arabic Language /2	Basic	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	BACR206	AL Baath Crimes	Basic	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	ENGL205	English Language /2	Basic	✓	✓	√	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
level	COMA201	Computer Applications /3	Basic	1	V	✓	√	✓	✓	√	√	✓	√	✓	1	✓	✓	1	✓
2nd	GENT 242	Genetics	Basic	✓	√	√	✓	✓	✓	✓	✓	√	✓	✓	✓	✓	✓	✓	✓
7	PRHS243	Principles of Horticulture	Basic	1	1	✓	√	√	✓	√	√	✓	√	✓	✓	√	✓	✓	✓
	PRIC244	Principles of Ichthyology	Basic	1	√	✓	√	√	✓	√	✓	✓	✓	✓	1	✓	✓	1	✓
	FIPR245	Fish Breeding and production	Basic	✓	✓	✓	✓	√	✓	√	✓	✓	✓	✓	✓	✓	✓	✓	✓

	FOCR246	Fodder and pasture crops	Basic	✓	✓	√	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	~
	PRAC247	Principles of Agriculture Economics	Basic	√	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	PRAG248	Principles of agricultural extension	Basic	✓	✓	√	✓	✓	√	✓	✓	√	√	√	✓	✓	✓	✓	✓
	ANME249	Animal production mechanization	Basic	✓	✓	✓	✓	✓	✓	\	✓	✓	✓	✓	✓	✓	✓	✓	✓
	ANNU314	Animal Nutrition	Basic	✓	√	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	√	√	✓
	POTE315	Poultry Products Technology	Basic	~	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	√	✓
	РОРН316	Physiology Poultry	Basic	✓	✓	✓	✓	✓	✓	✓	√	√	✓	✓	√	✓	✓	✓	✓
level	REPH317	Reproductive Physiology	Basic	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
3rd l	FERA321	Feed and Rations	Basic	1	✓	✓	✓	✓	✓	✓	✓	√	✓	✓	✓	✓	✓	✓	✓
(4)	ANPH319	Animal Physiology	Basic	✓	✓	✓	✓	✓	✓	✓	✓	✓	√	✓	✓	✓	✓	√	✓
	MEIN318	Medical and Veterinary Insects	Basic	√	√	√	√	✓	√	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	ANBE320	Animal Environment and Behavior	Basic	√	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

	ANEC321	Economics of Animal Production	Basic	√	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	ANDI323	Animal diseases	Basic	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	HAMA322	Hatching and Hatches Management	Basic	√	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	√	√
	DEAE319	Design and Analysis of Experiments	Basic	✓	✓	√	✓	✓	√	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	POPR441	Poultry Management and Production	Basic	√	✓	✓	✓	✓	✓	✓	✓	✓							
	BUPR442	Buffalo production	Basic	✓	√	✓	√	✓	√	√	√	✓	✓	✓	✓	✓	✓	√	✓
	SHPR443	Sheep and Goats Production	Basic	✓	√	✓	√	√	✓	✓	✓	✓	✓	✓	✓	✓	√	~	✓
vel	ENGL401	English	Basic	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
4th level	PONU445	Poultry Nutrition	Basic	√	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	√
4	GRPR439	Graduation Project/1	Basic	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	GRPR440	Graduation Project/2	Basic	✓	✓	✓	✓	✓	✓	✓	✓	✓	√	✓	√	✓	✓	✓	✓
	MEPR446	Meat Production	Basic	✓	✓	✓	✓	✓	✓	✓	✓	✓	√	✓	√	✓	✓	√	√
	MESC447	Meat Science	Basic	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

CAPR448	Cattle Production	Basic	✓	✓	✓	√	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
MOBI449	Molecular Biology	Basic	✓	✓	√	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
PODI450	Poultry diseases	Basic	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	√	✓

		Course Desc	cription Form		
	se Name:				
	c Chemistry				
	se Code:				
ORCH					
	ester / Year:				
		urse / First year			
4. Desci	ription Prepar	ration Date:			
	ns of Attendan				
		cal / Practical)			
6. Num	ber of Studyin	g Hours (Total) / Number	r of Units (Total)		
		tor's Name (mention all, i			
	Ayat Jawdat I	Kathem	E mail: ayat.jawdat@t	iobasrah.edu.iq	
8. Cour	se Objectives				
Course	Ohioativas	Definition the studen	at to Organia aba	victor.	
Course	Objectives	Definition the studen	it to Organic chem	ustry	
9 Teac	hing and Lear	ning Strategies			
J. Teac	mng anu Leal	Theoretical lectures			
Stratog	ios	Use the Curriculum	hook		
Strateg	ies	Use the blackboard	DUUK		
10 0	64	Ose the blackboard			
10. Cou	rse Structure	Dearing I coming	This on subject	Lagraina	Evaluation
Week	Hours	Required Learning Outcomes	Unit or subject	Learning method	Evaluation method
		Definition the student	name	Using	method
	2	to Organic		theoretical	
	theoretical	chemistry, Properties of	Introduction of	lectures and	
1	+	the element	Organic	using the	quiz
	3	carbon, Types of	Chemistry	blackboard	
	Practical	chemical bonds		structures	
				Using	
	2	T		theoretical	
	theoretical	Definition the student	Introduction of	lectures and	
2	+	to Hybridization	Organic	using the	quiz
	3		Chemistry	blackboard	
	Practical			structures	
	2	Definition the student		Using	
		to Alkanes , Name	Saturated	theoretical	
2	theoretical	them, isomers,	Saturated	lectures and	aniz
3	3	physical and chemical	Hydrocarbons 'AlKanes'	using the	quiz
	5 Practical	properties	Airanes	blackboard	
				structures	
	2			Using	
_	theoretical	Preparation of alkanes,	Saturated	theoretical	
4	+	cycloalkanes	Hydrocarbons	lectures and	quiz
	3		'AlKanes'	using the	
1	Practical			blackboard	

				-4	
				structures	
5	2 theoretical + 3 Practical	Definition the student to Alkenes , Name them , isomers, physical and chemical properties	unSaturated Hydrocarbons 'AlKenes'	Using theoretical lectures and using the blackboard structures	quiz
6	2 theoretical + 3 Practical	Preparation of alkenes	unSaturated Hydrocarbons 'AlKenes'	Using theoretical lectures and using the blackboard structures	quiz
7	2 theoretical + 3 Practical	Definition the student to Dienes , name and preparation them	unSaturated Hydrocarbons 'AlKenes'	Using theoretical lectures and using the blackboard structures	quiz
8	2 theoretical + 3 Practical	Definition the student to Alkynes , Name them , physical and chemical properties	unSaturated Hydrocarbons 'AlKynes'	Using theoretical lectures and using the blackboard structures	quiz
9	2 theoretical + 3 Practical	Preparation of alkynes	unSaturated Hydrocarbons 'AlKynes'	Using theoretical lectures and using the blackboard structures	quiz
10	2 theoretical + 3 Practical	Definition the student to Aromatic Comopounds, Name them, physical and chemical properties	Aromatic Comopounds	Using theoretical lectures and using the blackboard structures	quiz

11. Course Evaluation

The theoretical part (30) marks:

Written exam (25) marks + quiz exams (5) marks.

Practical part (20) marks:

The first month: a written exam (20 marks).

12. Learning and Teaching Resources

0	
Required textbooks (curricular books, if any)	Introduction of Organic Chemistry Dr. Fadel Suleiman Kammouna
Main references (sources)	
Recommended books and references (scientific	
journals, reports)	
Electronic References, Websites	

Description of the academic program

Course name: Computer basics and office applications/1

Course code

COMA101

Semester/year:Spring Semester/year2024

Date this description was prepared: 10/3/2024

Available forms of attendance are in person

Total number of study hours / total number of units (30) (2) theoretical hours

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

Email: abbas.alrajhe@uomisan.edu.iq Name: ABBAS LUAIBI OBAID

Module Aims

Introducing the student to the basics of computers and types of computers Its classification, operating systems and objectives. As for the goals of the practical side It is to provide the student with skills in using operating and application programs and how to maintain computer security.

Teaching and learning strategies

- 1- Explanation, clarification, and honing general and qualifying skills
- 2- Urging the student to write simple research using the lecture method to create a state of balance between methodological information and source information.
- 3- Urging the student to work on practical projects on the calculator and hold discussion circles among the students on the methodology of the subject and distribute the students into groups.
- **4-Practical lessons in the laboratory**
- 5- The method of self-learning and writing scientific reports, and urging the student to evaluate the answers of his fellow students to develop self-development.

Course structure

Week	hours	required learning outcomes	Name of the unit or topic	Learning method	Evaluation method
1+2	4	Chapter One: Computer Basics	Chapter One: Computer Basics 1. The development of computer generations 2. Electronic computer 3. Data and information 4. Computer features 5. Areas of computer use	Practical lectures + direct presentation methods + dialogue and discussion	Daily, monthly and final tests and reports
3+4	4	Chapter One: Computer Basics 1	 Computer components Types of computers Classification of 	Practical lectures + direct presentation methods +	Daily, monthly and final tests and reports

			computers	dialogue and discussion	
5+6	4	Chapter Two: Computer components	Chapter Two: Computer components 1. Computer components 2. The physical parts of the computer 3. Input devices 4. Output devices 5. Computer box	Practical lectures + direct presentation methods + dialogue and discussion	Daily, monthly and final tests and reports
7+8	4	Chapter Two: Computer components	1.Software entity 2. Number systems 3. Your personal computer 4. Computer platform 5. Factors that must Take this into consideration when purchasing a computer	Practical lectures + direct presentation methods + dialogue and discussion	Daily, monthly and final tests and reports
9+10	4	Chapter Three (Computer security and licensing programs)	Chapter III (Computer security and licensing programs) 1. Ethics of the electronic world 2. Forms of abuses in the world Electronic 3. Computer security 4. Computer privacy 5. Computer software licenses 6. Types of licenses 7. Intellectual property	Practical lectures + direct presentation methods + dialogue and discussion	Daily, monthly and final tests and reports
11+12	4	Chapter Three (Computer security and licensing programs)	1. Electronic hacking 2. Types of electronic hacking 3. Sources of hacking Electronic 4. The most security risks widespread 5. Malicious software 6. Computer viruses 7. Damages resulting from Viruses 8. Components of	Practical lectures + direct presentation methods + dialogue and discussion	Daily, monthly and final tests and reports

			viru			
				ypes of viruses		
				Necessary steps for		
			_	ection		
				n viruses		
				Computer damage		
				numan health		
				Courth chapter		
			_	rating Systems		
				efinition of the		
		the fourth		rating system	Practical	
		chapter		perating system	lectures + direct	Daily, monthly
13+14	4	Operating		tions	presentation	and final tests
13114	•	Systems		bjectives of the	methods +	and reports
		Systems		ating system	dialogue and	and reports
				perating system	discussion	
			class	sification		
			5. E	xamples of some		
				ating systems		
			1.W	indows 7	Practical	
		the fourth	_	ating system	lectures + direct	
		chapter		indows 7	presentation	Daily, monthly
15	4	Operating		ıllation	methods +	and final tests
		Systems	_	irements	dialogue and	and reports
			3.W	indows 7 features	discussion	
				irface components		
Distribu	ıtion of tl	he grade out of 10	0 acco	ording to the tasks a	ssigned to the stud	ent, such as
.daily p	reparatio	n, daily, oral, mo	nthly,	written exams, rep	orts, etc	
Learnin	ng and tea	aching resources				
				Written by: 1- Pro	ofessor Dr. Ghassar	Hamid Abdel
				Majeed		
Require	ed textboo	oks (methodology	•	2-Professor Dr. Zi	ad Muhammad Ab	boud
book for	ur)			3-Professor Dr. M	uhammad Nasser A	Al-Tarfi
				4-Professor Dr. Sa	faa Abbas Al-Man	nouri
				2- International In	formation Networl	k, the Internet
					- A. M. Alawi Hind	
				Arab University C	Center	
				2- Ethics of dealin	g with technical an	d
Main re	eferences	(sources)		communication re	sources - Dr. Husse	ein bin Saeed
				bin Saif		
				3- Ethics of the vir	tual world - Dr. Lo	ouay Al-Zoubi
				2013		
Recomr	nended si	upporting books a	and re	ferences (scientific	journals, reports)
				Library Genesis	· •	
				:websites		
				History of the dev	elopment of compu	ter networks, -
171. 4	• •	T 4 4 •4			http://mawdoo3.co	
Liectro	nic refere	ences, Internet site	es		gspot.com: Informa	
				Internet security		
				•	.com : Internet La	w Laws for
				- using the Interne		
				33333	· -	

Real-time communication protocols in the Internet -
.(RTP SIP), World of Technology website
ARPANET logical map,
.http://russbellew.com/Documents/Arpanet_sep_1974

Description of the academic program

Course name: Computer basics and office applications/2

Course code

COMA102

Semester/year:Spring Semester/year2024

Date this description was prepared: 10/3/2024

Available forms of attendance are in person

Total number of study hours / total number of units (30) (2) theoretical hours

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

Email: abbas.alrajhe@uomisan.edu.iq Name: ABBAS LUAIBI OBAID

Module Aims

- 1- Guiding the student how to use the computer in a manner compatible with his cultural level
- 2- Directing the student how to deal with social sites

Teaching and learning strategies

- 1- Explanation, clarification, and honing general and qualifying skills
- 2- Urging the student to write simple research using the lecture method to create a state of balance between methodological information and source information.
- 3- Urging the student to work on practical projects on the calculator and hold discussion circles among the students on the methodology of the subject and distribute the students into groups.
- 4-Practical lessons in the laboratory
- 5- The method of self-learning and writing scientific reports, and urging the student to evaluate the answers of his fellow students to develop self-development.

Course structure

Week	hours	required learning outcomes	Name of the unit or topic	Learning method	Evaluation method
1+2	4	Chapter One: Operating the Word program 2010 File Burning, Program Interfaces Tapes Home tab, group Horizon, line and paragraph Paragraph group and Order group	word	Practical lectures + direct presentation methods + dialogue and discussion	Daily, monthly and final tests and reports

	1	A 3 (3 37)	1		1
		And the View tab, the			
		Views group			
		Documents, Show			
		group, and Zoom			
		group			
		Minimize the window,			
		help instructions			D 11
		Chapter Two / Insert		Practical	Daily, monthly
		tab, Page group, and		lectures + direct	and final tests
		Table group, Table		presentation	and reports
		Tools tab, Table Design		methods +	
3+4	4	tab, and Skip tab	word	dialogue and	
		Graphics set, tools		discussion	
		Image, set of links			
		Header and footer			
		group, text group, and			
		symbol group			
		Chapter		Practical	Daily, monthly
		Three/Additional tasks		lectures + direct	and final tests
		For Microsoft Word,		presentation	and reports
		the References and		methods +	
		Tables of Contents tab,		dialogue and	
		the Footnotes group,		discussion	
		the References,			
		Citations and Captions			
		group, and the			
		Indexing group			
		Resource table set, tbui			
		b			
5+6	3	Correspondence and	word		
		group creation,			
		merging			
		Correspondence			
		A group of writing and			
		inserting fields Preview results set			
		Review, proofread and			
		/ -			
		language tab And a			
		comment group, a			
		tracking group Changes set and			
		comparison set And a			
7	2	protection group		1	
7	3	First exam			
		Chapter Four		Practical	Daily, monthly
		Powerpoint Run it		lectures + direct	and final tests
8+9	4	The program	Power point	presentation	and reports
017	-	interfaces and the File	1 ower point	methods +	
		tab Open a		dialogue and	
		presentation file and		discussion	

				T	
		save a new one Save a			
		stock presentation as			
		Open and close an			
		inventory presentation			
		View and print slides			
		on paper and the Home			
		tab Page setup, theme			
		and background set			
		Slideshow tab h			
		View tab and Views		Practical	Daily, monthly
		group		lectures + direct	and final tests
		Presentation and		presentation	and reports
		presentation set Main		methods +	
		Show set and set		dialogue and	
		Direction, color and		discussion	
		grayscale			
		Zoom in, zoom out and			
10+11	4	group	Power point		
		Help window and			
		instructions			
		Chapter Five /			
		Inserting and adding			
		objects Motions,			
		adding shapes and			
		groups Drawing and			
		investigating t			
		Inserts tab and Tables		Practical	Daily, monthly
		group		lectures + direct	and final tests
		And a set of photos		presentation	and reports
		Collection of		methods +	
		illustrations and links		dialogue and	
		A set of text and		discussion	
		symbols			
12+13	4	Adding animations to	Power point		
		slides and objects The	•		
		Transitions tab and the			
		Preview group A group			
		is transferred to a slide			
		Set the timing and			
		movements tab			
		A preview group and			
		an animation group Custom drivetrain and		Practical	Doile
		kit		lectures + direct	Daily, monthly and final tests
14	4	The timing is a	Power point	presentation methods +	and reports
		comprehensive exam as a review and solution		dialogue and	
		Book questions b		discussion	
		DOOK QUESTIONS D		uiscussivii	
15	3	Second exam			
		Second exam grade out of 100 according	a to the teelse	esigned to the stud-	ant such as

.daily preparation, daily, oral, monthly	y, written exams, reports, etc
Learning and teaching resources	
	Computer basics and office applications, Part Two/ Microsoft Office 2010 Ministry of Higher Education and Scientific Research
Required textbooks (methodology, book four)	Written by: 1- Professor Dr. Ghassan Hamid Abdel Majeed
	2-Professor Dr. Ziad Muhammad Abboud
	3-Professor Dr. Muhammad Nasser Al-Tarfi
	4-Professor Dr. Safaa Abbas Al-Mamouri
	2- International Information Network, the Internet
	1.Microsoft PowerPoint 2010 Step by Step(448 pages; Print ISBN: 978-0-7356-2691-1), by Joyce Cox and Joan Lambert, 2.Beginning Microsoft Word 2010, by
Main references (sources)	T.y Anderson, Guy Hart-Davis
	3. PowerPoint 2010 AdvancedSlides, Animation and
	Layouts.
	Stephen Moffat, The Mouse Training Company
Recommended supporting books and a	references (scientific journals, reports)
	Library Genesis
	:websites
	History of the development of computer networks, -
	objective website: http://mawdoo3.com
	http://youstaff.blogspot.com: Information and
	Internet security
Electronic references, Internet sites	http://geeklesstech.com: Internet Law Laws for
	- using the Internet
	Real-time communication protocols in the Internet -
	.(RTP SIP), World of Technology website
	ARPANET logical map,
	.http://russbellew.com/Documents/Arpanet_sep_1974

Course Description Form

1. Course Name: Principles of Field Crops - First Stage		
2. Course Code:		
PRFI155		
3. Semester / Year: Second Semester		
4. Description Preparation Date: 10/3/2024		

5. Forms of Attendance: Weekly						
6 Numl	6. Number of Studying Hours (Total) / Number of Units (Total) 75 hours					
0. INUIII	oer or study	ying flours (Total) / Isumik	Der of Clifts (Total) 7	5 Hours		
7. Cour	se Adminis	trator's Name (mention all	, if more than one na	ame)		
	Ali Adnan l		Email: ali.adnan@ud	omisan.edu.iq		
8. Cour	se Objectiv					
□ To study the main cereal crops in Iraq and the world. □ To include the study of scientific methods used in cereal crop cultivation. □ To study the suitable environmental conditions for each major field crop. □ To identify the main methods to increase productivity for each field crop. □ To study the problems related to pests and diseases of each field crop.					h major field for each field	
9. Teacl	hing and Le	earning Strategies				
Strategi	The strategy is to familiarize the student with the main cereal crops prevalent in Iraq and the world. □ To classify cereal crops according to their environmental needs. □ To differentiate the importance of each crop based on usage. □ To know the scientific methods used in planting each crop. □ To evaluate each crop in terms of production and storage				tal needs. usage. rop.	
10. Cou	rse Structu					
Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method	
1	2 theory, 3 practical	Principles of Field Crops	Field crops: definition, evolution, origin	Theory + Practical	Exams + Quizzes	
2	2 theory, 3 practical	Principles of Field Crops	Environmental factors in Iraq and the world and their relation to crop growth: location, terrain, climate, soil, water resources	Theory + Practical	Exams + Quizzes	
3	2 theory, 3 practical	Principles of Field Crops	Classification of field crops by life cycle	Theory + Practical	Exams + Quizzes	
4	2 theory, 3 practical	Principles of Field Crops	Temperature: factors affecting temperature, its relation to crops, adaptation methods to mitigate temperature effects	Theory + Practical	Exams + Quizzes	
5	2 theory,	Principles of Field	Light:	Theory + Practical	Exams + Quizzes	
	J	Crops	importance of	1 I actical	Quizzes	

	practical		light for plants,		
	pi acucai		plant adaptation to light, significance in seed germination		
6	2 theory, 3 practical	Principles of Field Crops	Water: soil water content, crop water use efficiency, impact of water scarcity, water stress damage	Theory + Practical	Exams + Quizzes
7	2 theory, 3 practical	Principles of Field Crops	Monthly exam	Theory + Practical	Exams + Quizzes
8	2 theory, 3 practical	Principles of Field Crops	Soil: soil texture, structure, composition, organic matter, soil water and air, harmful salt effects on crops	Theory + Practical	Exams + Quizzes
9	2 theory, 3 practical	Principles of Field Crops	Air: air pollution, wind effects on crop growth and soil	Theory + Practical	Exams + Quizzes
10	2 theory, 3 practical	Principles of Field Crops	Mutual benefit, competition, antagonism	Theory + Practical	Exams + Quizzes
11	2 theory, 3 practical	Principles of Field Crops	Seeds: importance, composition, maturity, dormancy, seed diagnosis and testing	Theory + Practical	Exams + Quizzes
12	2 theory, 3 practical	Principles of Field Crops	Weeds and their control methods	Theory + Practical	Exams + Quizzes
13	2 theory, 3 practical	Principles of Field Crops	Crop rotations	Theory + Practical	Exams + Quizzes
14	2 theory, 3 practical	Principles of Field Crops	Major crops in the world and Iraq	Theory + Practical	Exams + Quizzes
15	2 theory, 3 practical	Principles of Field Crops	Monthly exam	Theory + Practical	Exams + Quizzes
11. Cou	rse Evaluat	ion			
Distribu	ition of the	grade out of 50 according	to the tasks assigned	to the student,	such as

.homework, daily, oral, monthly, written exams, reports, etc			
12. Learning and Teaching Resources			
Required textbooks (curricular books, if any)	Principles of Field Crops by Dr. Majid Mohsen Al-Ansari and Dr. Abdul Hamid Ahmed Al- Younis		
Main references (sources)	From textbooks, supplementary books, internet, and scientific research.		
Recommended books and references (scientific journals, reports)	Scientific journals in core specializations		
Electronic References, Websites			

	Course Description Form				
1. Cour	rse Name: Past	ture management			
2 G	G 1				
2. Cour PAMA	rse Code:				
		all Semester - First Cour	300		
3. Seme	ester / Tear: F	an Semester - First Cour	se		
4. Desc	ription Prepar	ration Date: 10/3/2024			
	<u></u>				
5. Forn	ns of Attendan	ice: weekly			
hours7	5 6. Number o	of Studying Hours (Tota	l) / Number of Units	(Total)	
	41	4 1 NT / 41 W	• • • • • • • • • • • • • • • • • • • •		
		ntor's Name (mention all			
	Rasha Naji Al se Objectives	oa <u> </u>	Email: rashanaji@ı	iomisan.eau.iq	
8. Cour	se Objectives	. The student is abl	. 4d	a a man wa h an d 4h a	
 The student is able to understand and comprehend the pasture management subject Enables the student to know the most important ways to prote natural pastures Familiarity with the most important types of natural pastures Detection and knowledge of the palatability of pasture plant The student can judge the quality of pasture plants 				to protect eastures are plants.	
9. Teac	hing and Lear	ning Strategies	<u> </u>		
Strateg	The theoretical part of the lecture is interactive, brainstorming, •••• dialogue, and discussion. As for the practical part, there is an assignment to group work to reveal leadership skills, and assignment of tasks and a report for each field visit				e is an
10. Cou	rse Structure				
Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	2 Theoretical Practical 3	Pasture management	The importance of pastures	Theoretical + Practical	Exams + Cups
2	2 Theoretical Practical 3	Pasture management	Vegetable . clothing	Theoretical + Practical	Exams + Cups

3	2 Theoretical Practical 3	Pasture management	Environmental factors and natural pastures	Theoretical + Practical	Exams + Cups
4	2 Theoretical Practical 3	Pasture management	Climatic factors.	Theoretical + Practical	Exams + Cups
5	2 Theoretical Practical 3	Pasture management	Pasture management and its relationship to soil and water conservation	Theoretical + Practical	Exams + Cups
6	2 Theoretical Practical 3	Pasture management	The role of . plants in maintaining soil and pastoral areas in Iraq and the world	Theoretical + Practical	Exams + Cups
7	2 Theoretical Practical 3	Pasture management	.Monthly exam	Theoretical + Practical	Exams + Cups
8	2 Theoretical Practical 3	Pasture management	Grazing and its various effects on fodder production, plant growth, and root growth	Theoretical + Practical	Exams + Cups
9	2 Theoretical Practical 3	Pasture management	Animal load and its determining factors	Theoretical + Practical	Exams + Cups
10	2 Theoretical Practical 3	Pasture management	Exploitation of natural pastures	Theoretical + Practical	Exams + Cups
11	2 Theoretical Practical 3	Pasture management	Sources of exploitation of pastoral plants and the condition of natural pastures	Theoretical + Practical	Exams + Cups
12	2 Theoretical Practical 3	Pasture management	Livestock management and pasture redressing	Theoretical + Practical	Exams + Cups
13	2 Theoretical Practical 3	Pasture management	For natural and artificial coverings and harmful plants in pastures	Theoretical + Practical	Exams + Cups
14	2 Theoretical Practical 3	Pasture management	Methods of taking pasture samples and estimating	Theoretical + Practical	Exams + Cups

			pasture productivity		
15	2 Theoretical Practical 3	Pasture management	Monthly exam	Theoretical + Practical	Exams + Cups
11. Cou	rse Evaluation	n			
.homew	ork, daily, or	rade out of 100 according al, monthly, written exam	9	d to the student,	such as
12. Lea	rning and Tea	ching Resources			
Required textbooks (curricular books, if any)			Pasture managen Al-Takriti Ramadan, Taif A Hassan (1976 (Al-Tamimi, Mah	hmed and Abba	
Main re	eferences (sou	rces)			
Recom	mended books	and references			
(scienti	fic journals, r	eports)			
Electro	nic Reference	s, Websites			

Course Description Form

Course Description Form					
1- Course Name					
Feed and Rations					
2-CourseCode					
FERA321					
3-semester/ year					
2023 – 2024 (Spring	g Semester)				
4-The date of prepa	aring this description				
25 April 2024					
Available attendan	ce forms				
6. Number of study	hours (total) / number of units (total)				
75 hours (2 theoret	ical + 3 practical) *15 weeks				
Name of course add	ministrator (if more than one name is mentioned)				
Name: M.Sc Ali Ja					
Name: M.Sc Dour	nia Mohi Mohsen				
Course Objectives					
	Preparing graduates who are able to know:				
	1- Theoretical and practical methods for the formation and synthesis of				
	feed mixtures for agricultural animal husbandry projects.				
Objectives of the	2- Field work skills, and how to establish and prepare animal breeding				
unit	projects.				
	3- Types of animal feed such as molasses and silag				
	4- Feed mixtures, their types and importance in the productivity				
	5- Applying for external tests by local / regional / international bodies.				
TEACHING AND LEARNING STRATEGIES					
Strategy	1- Enabling students to analyze and think about topics related to the				
	intellectual framework of fodder and relationships				
	2- Enabling students to analyze to identify non-traditional feed provided				
	to animals				

- 3- Enabling students to analyze and think about how to provide environmental conditions that affect agricultural animals in terms of health and productivity.
- 4- Enabling students to analyze to identify the best relationships prevailing in agricultural animal husbandry projects.

10. Course Structure

10. Course Structure							
Fifteenth	Hours	Intended Learning Outcomes	Module / Course Name or	Learning method	Valuation Method		
1	5	Introducing students to the appropriate leech for agricultural animals and its specifications	Leech/Types of Leeches/ Specifications of Ideal Leeches	Theoretical lectures. 2- Practical lectures. Displays Dialogue and Discussion	Daily and monthly reports .		
2	5	Empowering students on how to form relationships to balance nutrients in them	Steps for forming a bush	1- Theoretical lectures. 2- Practical lectures. Displays Dialogue and Discussion	Daily and monthly reports .		
3	5	Introducing students to the most important factors affecting the nutritional value of the leeches used in animal nutrition	Factors affecting the nutritional value of feedstuffs	Theoretical lectures. 2- Practical lectures. Displays Dialogue and Discussion	Daily and monthly reports .		
4	5	Introducing students to the most important practical methods used to improve the nutritional value of feedstuffs used in feeding farm animals, especially ruminants	Improving the nutritional value of low-quality feedstuffs	1- Theoretical lectures. 2- Practical lectures. Displays Dialogue and Discussion	Daily and monthly reports .		
5	5		Exam		Daily and monthly		

					reports .
6	5	Introducing students to the sections and types of feed used in animal nutrition	Classification of Fodder /Concentrate / Coarse	1- Theoretical lectures. 2- Practical lectures. Displays Dialogue and Discussion	Daily and monthly reports .
7	5	Introducing students to food additives, their types and their importance in terms of health and economic	Food Additives	1- Theoretical lectures. 2- Practical lectures. Displays Dialogue and Discussion	Daily and monthly reports .
8	5	Enabling students to manufacture and mix meals . as well as methods of preserving fodder	Feed Manufacturing/Silage Manufacturing/Threshing Manufacturing	1- Theoretical lectures. 2- Practical lectures. Displays Dialogue and Discussion	Daily and monthly reports .
9	5	Introducing students to the most important points and general specifications that must be available in fodder materials	Feed Material Evaluation	1- Theoretical lectures. 2- Practical lectures. Displays Dialogue and Discussion	Daily and monthly reports .
10	5		Exam		Daily and monthly reports .
11	5	Introducing students to the animal's protein needs according to age and production	Nutritional Needs/Protein Needs	1- Theoretical lectures. 2- Practical lectures. Displays Dialogue and Discussion	Daily and monthly reports .
12	5	Introducing students to the	Energy needs/ needs for minerals and vitamins	1- Theoretical	Daily and monthly

	animal's r of minera elements a vitamins according and produ	1		lectures. 2- Practical	reports .
	elements a vitamins according				
	vitamins according			lectures.	
	_			Displays	
	_	to age		Dialogue	
	arra proac	_		and	
	•			Discussion	
				1-	Daily and
	Enabling			Theoretical	monthly
	students t	0		lectures.	reports .
	know the	noods		2- Practical	reports.
13 5	of farm a	nimals N	Milk Cows Needs/Meat	lectures.	
	of nutrien		Cows Needs	Displays	
	according			Dialogue	
	productio			and	
	productio	'11 ·		Discussion	
				1-	Daily and
				Theoretical	monthly
	Introduci	nσ		lectures.	reports .
	students t			2- Practical	icpoins.
14 5	nutritiona		Sheep Needs/Goat Needs	lectures.	
	needs of s		neep recus Gout recus	Displays	
	and goats	_		Dialogue	
	and goats	•		and	
				Discussion	
		В	Business needs/wool	1-	Daily and
			production needs	- Theoretical	monthly
	Enabling	P		lectures.	reports .
	students t	0		2- Practical	.
15 5	know the	needs		lectures.	
	of work a	nimals		Displays	
	of nutrien	nts		Dialogue	
				and	
				Discussion	
Course Evaluat	tion				
Distribution of	the score of 100	according	to the tasks assigned to th	e student such	as daily
		_	, c		·
	• /				
			McDonald, P., Edwards, R.	A. and .1	
Required textbooks (curricular books, if any)					
		4			
			CM20 2JE, England.		
			Pond, W.G., Church D.C. and Pond, K.R., .2		
			1995. Basic Animal Nutrition and Feeding		
			4th Ed. John Wiley & Sons.		
Main References (Sources)			1 animal-nutrition-7th-edition.pdf (wordpress.com)		
			2- Cultivation anduseof fodder. Mahdi Abdul Latif		
		A	Al-Tamimi .		
		3	3- Modern machines from the Internet and from		
			specialized scientific fields and a magazine		
			Agricultural Sciences - Iraq and the Library of		
Distribution of the score of 100 according preparation, daily, oral, monthly and was Learning and Teaching Resources Required textbooks (curricular)		ly and write rees M G G P 19	McDonald, P., Edwards, R.A. and .1 Greenhalgh, J.F.D., 1987. Animal Nutrition. 4th Longman group (FE) Ltd Essex CM20 2JE, England. Pond, W.G., Church D.C. and Pond, K.R., .2 1995. Basic Animal Nutrition and Feeding		

	Satisfaction.
Recommended books and references (scientific journals, reports)	animal-nutrition-7th-edition.pdf (wordpress.com)
E-References, Websites	Agriculture Free Full-Text Animal Nutrition and Productions (mdpi.com)

Course Description Form

1- Course Name					
Animal Nutrition					
2-CourseCode					
ANNU314	ANNU314				
3-semester/ year					
2023 – 2024 (Fall Semester)					
4-The date of preparing this d	escription				
25 April 2024					
Available attendance forms					
6. Number of study hours (total	,	• • • • • • • • • • • • • • • • • • • •			
75 hours (2 theoretical + 3 pra	· · · · · · · · · · · · · · · · · · ·				
Name of course administrator	(if more th	an one name is mentioned)			
Name: Eng. Ali Jassim Mohammed					
Course Objectives	D		4-1		
	_	Preparing graduates who are able to know:			
		1- How to digest, absorb and metabolize nutritional			
		nutrients. 2. Field work skills, and how to establish and prepare			
Objectives of the unit		2- Field work skills, and how to establish and prepare animal breeding projects.			
Objectives of the unit		3- Types of animal feed such as molasses and silage			
	• •	5- The work of the digestive system in the animal .			
		5- Applying for external tests by local / regional /			
		international bodies.			
TEACHING AND LEARNING STRATEGIES					
			nd think about t	topics	
		1- Enabling students to analyze and think about topics related to the intellectual framework of animal nutrition			
		2- Enabling students to analyze to identify the digestive			
Strategy		system in simple and ruminant animals.			
		3- Enabling students to identify the main nutrients.			
		4- Enabling students to identify the structure of the body of			
		animals and plants.			
10. Course Structure					
Eifteanth Haurs Intended I	earning	Module / Course Name	Learning	Valuation	
Fifteenth Hours Outcomes		or	method	Method	
Introducir	g students	Food /Animal Body	1-	Doily and	
1 to the com	ponents of	Composition/Plant	Theoretical	Daily and monthly	
the animal	-	Composition/Water	lectures.	reports .	
body and l	nowledge	Role and Needs in	2- Practical	reports.	

		of the main	Animal	lectures.	
		nutrients.	Body/Water Properties and Functions/ Energy .	Displays Dialogue and Discussion	
2	5	Enabling students to know the digestive system and its work in ruminants	Digestive processes in animals / digestive system /pseudo-ruminants / types of digestion / enzymes / qualities of enzymes /microbial digestion of carbohydrates /	1- Theoretical lectures. 2- Practical lectures. Displays Dialogue and Discussion	Daily and monthly reports .
3	5	Introducing students to the components of saliva, its work and its importance in ruminants	Saliva Production/Saliva Functions/ Factors Affecting the Quantity and Quality of Saliva / Factors Affecting Digestion	1- Theoretical lectures. 2- Practical lectures. Displays Dialogue and Discussion	Daily and monthly reports .
4	5	Introducing students to the components of saliva, its work and its importance in ruminants	Saliva Production/Saliva Functions/ Factors Affecting the Quantity and Quality of Saliva / Factors Affecting Digestion	1- Theoretical lectures. 2- Practical lectures. Displays Dialogue and Discussion	Daily and monthly reports .
5	5	Enabling students to know proteins, their properties, classification, enzymatic and microbial digestion and metabolism	Second:Proteins/ Classification of proteins/Amino acids/Properties of proteins /Metabolism of proteins in rumen/Enzymatic digestion of proteins/Third: Lipids Classification of lipids /Fat properties/ Digestion of lipids in rumen		Daily and monthly reports .
6	5		exam	1- Theoretical lectures. 2- Practical lectures. Displays	Daily and monthly reports .

7	5	Introducing students to inorganic elements and their importance in the life of the organism . As well as enabling students to know the animal's energy needs	Fourth: Inorganic elements/Essential or necessary inorganic elements/Fifth:Vitamins /Nutritional needs of various nutrients/First: Energy needs/Energy processing in the animal's body/ Total	Dialogue and Discussion 1- Theoretical lectures. 2- Practical lectures. Displays Dialogue and Discussion	Daily and monthly reports .
8	5	Enabling students to know the animal's protein needs	Second: Protein Needs/Crude Protein/Real Protein/Biological Value/	1- Theoretical lectures. 2- Practical lectures. Displays Dialogue and Discussion	Daily and monthly reports .
9	5	Enabling students to know the types and numbers of microorganisms in the rumen of ruminants	Microbiology in rumen / classification of bacteria/ nutrients needed by bacteria/cilia of rumen/other microorganisms	1- Theoretical lectures. 2- Practical lectures. Displays Dialogue and Discussion	Daily and monthly reports .
10	5	Introducing students to concentrated and coarse feed used in animal nutrition	Feed and Feedstuffs/ First: Concentrated Feedstuffs/ Second :Coarse Feedstuffs		Daily and monthly reports .
11	5	Enabling students to manufacture and mix meals . as well as methods of preserving fodder	/ Type I: Green Coarse Feedstuffs / Type II :Silage/ Type III -Dry Coarse Feedstuffs /	1- Theoretical lectures. 2- Practical lectures. Displays Dialogue and Discussion	Daily and monthly reports .
12	5		exam	1- Theoretical lectures. 2- Practical lectures. Displays Dialogue	Daily and monthly reports .

	1	1	1	1	
				and Discussion	
13	5	Introducing student to food additives, their types and their importance in terms of health and economic	nutritional value of feedstuffs/nutritional	1- Theoretical lectures. 2- Practical lectures. Displays Dialogue and Discussion	Daily and monthly reports .
14	5	Introducing student to the most important diseases that affect ruminants resulting from malnutrition	indigestion/rumen acidity/milk fever/urea poisoning/	1- Theoretical lectures. 2- Practical lectures. Displays Dialogue and Discussion	Daily and monthly reports .
15	5	Enabling students to know the types of pastures and how to exploit them	Fynloitation/	1- Theoretical lectures. 2- Practical lectures. Displays Dialogue and Discussion	Daily and monthly reports .
Course Ev	ı Valuation			Discussion	
Distributi	on of the	score of 100 according	ng to the tasks assigned to th ritten examinations and rep		as daily
		· · · · · · · · · · · · · · · · · · ·			
Learning and Teaching Resources Required textbooks (curricular books, if any)			Feeding an animal . Translated by Saad Abdel Hussein Naji and Talal Youssef Boutros . Technical Institutes Foundation. 1985 Dietetics Written by Shaker Abdul Amir Al-Attar and Dr. Gamal Abdel Rahman Tawfiq 2014 . Faculty of Agriculture, University of Baghdad.		
Main References (Sources)			1 animal-nutrition-7th-edition.pdf (wordpress.com) 2- Recent articles from the Internet and from specialized scientific fields, the Journal of Agricultural Sciences - Iraq, and the library.		
		oks and references s, reports)	animal-nutrition-7th-edition.pdf (wordpress.com)		
E-Referen		-	Agriculture Free Full-Text Animal Nutrition and Productions (mdpi.com)		

1- Course Name						
Reproductive Physiology						
2-CourseCode						
REPH317						
3-semester/ year						
2023 – 2024 (Fall S	Semeste	er)				
4-The date of prep	aring t	his	description			
10/3/2024			•			
Available attendar	nce fori	ms				
6. Number of study	y hours	s (to	tal) / number of units	(total)		
75 hours (2 theore	tical +	3 pr	actical) *15 weeks			
			or (if more than one na	me is mentioned)		
Name: M.Sc Ali J	assim I	Moh	nammed			
Course Objectives						
, and the second		Pr	eparing graduates wh	o are able to know	7 :	
		1-	Increasing the produc	tivity of the anima	al from birth i	n theory
		an	d practice .			
Objectives of the u	mit	2-	Field work skills and l	now to establish a	nd manage pro	ojects.
Objectives of the u	11111	3-	The work of the repro	ductive system in	the animal .	
		4- Applying for external tests by local / regional / international				
		bo	bodies.			
TEACHING AND	LEAR					
			Enabling students to a			elated to
		the intellectual framework of reproductive philosophy				
		2- Enabling students to analyze to identify the reproductive system				
		in farm animals.				
Strategy		3- Enabling students to analyze and think about topics related to				
		providing appropriate environmental conditions for the stages of				
		pregnancy and childbirth.				
		4- Enabling students to obtain knowledge on how to use modern				
		me	methods to raise the reproductive efficiency of animals.			
10. Course Structu	ire					
			Intended Learning	Module /	Learning	Valuation
Fifteenth	Hours	S	Outcomes	Course Name	method	Method
				or		
					1-	
					Theoretical	
			The student should		lectures.	
			identify the male	Domes desert	2-	Daily and
1	5		reproductive	Reproductive	Practical	monthly
			system, its	Physiology	lectures.	reports .
			anatomy, and its		Displays	reports .
			functions		Dialogue and	
					Discussion	

2	5	The student should know about the process of sperm formation	Reproductive Physiology	1- Theoretical lectures. 2- Practical lectures. Displays Dialogue and Discussion	Daily and monthly reports .
3	5	The student should know about the female reproductive system, its anatomy, and its functions	Reproductive Physiology	1- Theoretical lectures. 2- Practical lectures. Displays Dialogue and Discussion	Daily and monthly reports .
4	5	The student should be familiar with the process of egg formation	Reproductive Physiology	1- Theoretical lectures. 2- Practical lectures. Displays Dialogue and Discussion	Daily and monthly reports .
5	5		exam		Daily and monthly reports .
6	5	The student should identify the hormones regulating reproductive endocrine glands, hypothalamus, pituitary gland, pineal glandetc.)	Reproductive Physiology	1- Theoretical lectures. 2- Practical lectures. Displays Dialogue and Discussion	Daily and monthly reports .
7	5	The student learns about puberty and sexual maturity	Reproductive Physiology	1- Theoretical lectures. 2- Practical lectures. Displays Dialogue	Daily and monthly reports .

				and Discussion	
8	5	The student should learn about the reproductive cycle in agricultural animals	Reproductive Physiology	1- Theoretical lectures. 2- Practical lectures. Displays Dialogue and Discussion	Daily and monthly reports .
9	5	The student should know about the production of gametes (quanta) and transportation	Reproductive Physiology	1- Theoretical lectures. 2- Practical lectures. Displays Dialogue and Discussion	Daily and monthly reports .
10	5	The student should know about fertility and pregnancy	Reproductive Physiology		Daily and monthly reports .
11	5		exam	1- Theoretical lectures. 2- Practical lectures. Displays Dialogue and Discussion	Daily and monthly reports .
12	5	The student should know about pregnancy and childbirth	Reproductive Physiology	1- Theoretical lectures. 2- Practical lectures. Displays Dialogue and Discussion	Daily and monthly reports .
13	5	The student learns about artificial insemination (introduction, semen collection and artificial	Reproductive Physiology	1- Theoretical lectures. 2- Practical lectures.	Daily and monthly reports .

		ingomingtion		Dianlaria			
		insemination techniques)		Displays			
		techniques)		Dialogue and			
				Discussion			
				1-			
				Theoretical			
		The student should		lectures.			
		learn about	D 1	2-	Daily and		
14	5	managing and	Reproductive	Practical	monthly		
		improving	Physiology	lectures.	reports .		
		reproduction		Displays	_		
		_		Dialogue and			
				Discussion			
				1-			
				Theoretical			
			exam	lectures.			
				2- Practical	Daily and		
15	5			lectures.	monthly reports .		
				Displays			
				Displays Dialogue			
				and			
				Discussion			
Course Evaluation	<u> </u>			Discussion			
		of 100 according to the tas	sks assigned to the	e student such	as daily		
		nonthly and written exam	_		us unity		
Learning and Tea		-		501 t S 			
Required textbook		Physiology of Farm Anim	al Reproduction.	University of F	Baghdad.		
(curricular books,		2011					
any)							
• /	I	Physiology, Comparative Member Function Science, Friday Youth					
		Foundation, 2009					
Main References		A modern machine base from the Internet and from specialized					
(Sources)		scientific fields, the Journal of Agricultural Sciences - Iraq, and the					
` '		consensual library that is related to the material.					
Recommended books							
and references							
(scientific journals	5,						
reports)							
E-References,							
Websites							

Course Description Form 1. Course Name: Design and Analysis of Experiments – Third Stage

2. Course Code:

DEAE319

3. Semester / Year: Semester-based - First Course

4. Description Preparation Date: 10/3/2024

5. Forms of Attendance: Weekly

75 hours 6. Number of Studying Hours (Total) / Number of Units (Total)

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

Name: Ali Adnan Hassoni Email: ali.adnan@uomisan.edu.iq

8. Course Objectives

Course Objectives

Educate students on the fundamental principles of designing and analyzing experiments, emphasizing the importance of this subject in reinforcing the practical aspect of conducting scientific research. Students will learn about the main concepts of design such as experiments, experimental units, factors, treatments, replications, and experimental error, and how to choose the appropriate design for agricultural experiments to reach correct conclusions and decisions

9. Teaching and Learning Strategies

Strategies

The strategy is implemented through lectures, discussions, solving scientific and practical examples, daily and monthly exams, assignments, and brainstorming sessions.

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	2 Theory, 3 Practical	Design of Completely Randomized Block Design (R.B.C.D)	Design and Analysis of Experiments	Lectures and Discussions	Semester Exam, Daily Exam, Student
2	2 Theory, 3 Practical	Significant differences according to the Least Significant	Design and Analysis of Experiments	Lectures and Discussions	Performance Evaluation, Homework
3	2 Theory, 3 Practical	Estimation of missing data in R.B.C.D design	Design and Analysis of Experiments	Lectures and Discussions	
4	2 Theory, 3 Practical	R.B.C.D design with more than one observation	Design and Analysis of Experiments	Lectures and Discussions	
5	Theory,	Latin Square Design (L.S.D)	Design and Analysis of Experiments	Lectures and Discussions	

	Practical								
6	Theory, 3 Practical	Dunnett's Comparison Test	Design and Analysis of Experiments	Lectures and Discussions	Semester				
7	2 Theory, 3 Practical	Monthly Exam	Design and Analysis of Experiments	Lectures and Discussions	Exam, Daily Exam, Student Performance				
8	Theory, 3 Practical	Types of complex experiments and how to distinguish between	Design and Analysis of Experiments	Lectures and Discussions	Evaluation, Homework				
9	Theory, 3 Practical	Factorial experiments with two factors in C.R.D design	Design and Analysis of Experiments	Lectures and Discussions					
10	Theory, 3 Practical	Factorial experiments in R.B.C.D design	Design and Analysis of Experiments	Lectures and Discussions					
11	Theory, 3 Practical	Factorial experiments in Latin Square Design	Design and Analysis of Experiments	Lectures and Discussions					
12	Theory, 3 Practical	Monthly Exam	Design and Analysis of Experiments	Lectures and Discussions					
13	2 Theory, 3 Practical	Split-plot experiments with two factors in C.R.D design	Design and Analysis of Experiments	Lectures and Discussions					
14	2 Theory, 3 Practical	Split-plot experiments with two factors in R.B.C.D design	Design and Analysis of Experiments	Lectures and Discussions					
15	Theory, 3 Practical	Split-plot experiments with two factors in Latin Square Design	Design and Analysis of Experiments	Lectures and Discussions					
11. Cou	11. Course Evaluation								
.homew	Distribution of the grade out of 50 according to the tasks assigned to the student, such as .homework, daily, oral, monthly, written exams, reports, etc 12. Learning and Teaching Resources								
		s (curricular books, if any)	"Design and Analysis of Agricultural Experiments" by Dr. Khasha Mahmoud Al- Rawi.						
Main re	eferences (se	ources)	From textbooks, supplementary books, the internet, and scientific research						

Recommended books and references	"Design and Analysis of Agricultural
(scientific journals, reports)	Experiments"
Electronic References, Websites	

1. Course Name: Principle of Horticulture									
1. Cours	se Name:	Prin	iciple of Horticulture						
2 Cours	2. Course Code:								
PRHS24									
	+3 ster / Yea	n. 20	02 2024						
3. Seme	ster / Tea	r. 20	J23- 202 4						
4 Dogor	intion Dn	onon	ration Date: 10/3/2024						
4. Desci	трион т т	epai	ation Date. 10/3/2024						
5 Form	s of Atten	dan	ce.						
3. F 01 III	of fitten	luaii	 						
6. Numl	ber of Stu	dvin	g Hours (Total) / Num	ber of Units (Total)					
			3 practical) *15 weeks	• • • • • • • • • • • • • • • • • • • •					
			tor's Name (mention all		ame)				
	Dunya Mo		` _	,	,				
	se Objecti								
	•		-The student must be	familiar with the scie	ence of fruits and	palm trees			
			and methods of their r						
			-The student must be f	familiar with the scie	ence of vegetable	crops and			
			their production methods						
			-The student must be familiar with the science of ornamental plants and						
Сописо	Ohioativa		methods of their propagation						
Course	Objective	S	-The student must be familiar with the science of garden engineering and						
			methods of its implementation						
			-He has knowledge of methods of breeding and improving horticultural						
			plants						
			- He has knowledge of other sciences, such as physiology, fruit storage,						
			anatomy, and plant classification						
9. Teach	ning and I	Lear	ning Strategies						
			-Explanation and clari	ification using metho	ods				
			-Direct dialogue with students by asking						
			-Student collections, homework, and writing reports						
Strategi	ies		-Practical lessons in agricultural fields						
			-Scientific trips to learn about the most important fodder crops grown in						
			Iraq		•				
	-Self-learning method								
10. Cou	rse Struct	ure							
Week Hours Required Learning Unit or subject Learning Evaluation						Evaluation			
vveek	Hours	Ou	tcomes	name	method	method			
		V	ovelodge of the history	Introduction to	Lecture,				
1	1 5		owledge of the history		discussion,				
1			d development of rticulture	the history of horticulture	reports,				
		1101	uculture	noruculture	laboratories,				

				practical in
				the fields
				Lecture,
			Methods of	discussion,
2	5	Learn how horticultural	reproduction of	reports,
4	3	crops reproduce	horticultural	laboratories,
			crops	practical in
			•	the fields
				Lecture,
				discussion,
		Identifying deciduous	Types of	reports,
3	5	fruit trees	deciduous fruit	laboratories,
		Huit trees	trees	practical in
				the fields
				Lecture,
			TD	discussion,
4	5	Identify evergreen trees	Types of	reports,
		, , , , , , , , , , , , , , , , , , , ,	evergreen trees	laboratories,
				practical in
				the fields
		Learn about summer vegetable crops		Lecture,
			Different families of plants	discussion,
5	5			reports,
3	3			laboratories,
				practical in
				the fields
				Lecture,
			Different families of plants	discussion,
	_	Identify winter vegetable		reports,
6	5	crops		laboratories,
		Crops		practical in
				the fields
				Lecture,
				discussion,
		Learn about different	Summer	reports,
7	5	summer ornamental	ornamental plants	laboratories,
		plants	oi namentai piants	practical in
				the fields
				Lecture,
		Learn about different	•_4	discussion,
8	5	winter ornamental	winter	reports,
		plants	ornamental plants	laboratories,
				practical in
				the fields
		To learn how to divide		Lecture,
		fruit trees according to	Fruit trees	discussion,
9	5	environmental	tropical and	reports,
		conditions as well as	subtropical	laboratories,
		according to plant	regions	practical in
		families		the fields
10	5	The student learns how	Plant families of	Lecture,
	I			

		to divide vegetable crops according to their families	vegetable crops	discussion, reports, laboratories, practical in the fields
11	5	The student learns about ornamental plants and methods of propagating and cultivating them	Ornamental plants and methods of propagation and cultivation	Lecture, discussion, reports, laboratories, practical in the fields
12	5	The student learns how to create a plantation and multiply horticultural plants	Establishing plantation and methods of propagating horticultural plants	Lecture, discussion, reports, laboratories, practical in the fields
13	5	The student will learn how to establish orchards and plant various fruit trees	Establishing orchards and learning about tree pollination methods	Lecture, discussion, reports, laboratories, practical in the fields
14	5	The student learns to grow and propagate medicinal plants	Cultivation and propagation of medicinal and aromatic plants	Lecture, discussion, reports, laboratories, practical in the fields Lecture, discussion, reports, laboratories, practical in the fields
15	5	Remind students of the summary of previous topics	A quick review of previous topics	Lecture, discussion, reports, laboratories, practical in the fields Lecture, discussion, reports, laboratories, practical in the fields

11. Course Evaluation

Distribution of the grade out of 50 according to the tasks assigned to the student, such as .homework, daily, oral, monthly, written exams, reports, etc

12. Learning and Teaching Resources	12. Learning and Teaching Resources		
Required textbooks (curricular books, if any)	Principles of horticulture / Dr. Jabbar Abbas Al-Dujaili, Dr. Iman Jaber Abdel Rasoul, Nisreen Khalil Abdel Aziz Principles of horticulture/Karim Saleh Abdul and Saad Zaghloul Al-Najjar		
Main references (sources)	Ornamental plants in Iraq/Dr. Sami and Nisreen Al-Najjar Deciduous fruit/Dr. Alaa Abdul Razzaq Al- Jumaili and others		
Recommended books and references (scientific journals, reports)	Propagation of horticultural plants/Dr. Muhammad Abbas Salman Vegetable production/Dr. Adnan Nasser is wanted and others		
Electronic References, Websites			

Description of the ac	ademic program
Course name: Computer basics and office applica	ations/3
COMA202	
Course code	
Semester/year :Spring Semester/year2024	
Date this description was prepared: 2/1/2024	
Available forms of attendance are in person	
Total number of study hours / total number of un	its (30) (2) theoretical hours
Name of the course administrator (if more than o	,
Email: abbas.alrajhe@uomisan.edu.iq	Name: ABBAS LUAIBI OBAID
Module Aims	
Explaining the basics of Excel	
Explain how to use equations and functions in Ex	
Explaining how to prepare financial statements in	n Excel
Teaching and learning strategies	
1- Explanation, clarification, and honing general	
2- Urging the student to write simple research usi	
balance between methodological information and	
3- Urging the student to work on practical project	
circles among the students on the methodology of	the subject and distribute the students into
groups.	

Course structure

4-Practical lessons in the laboratory

5- The method of self-learning and writing scientific reports, and urging the student to

evaluate the answers of his fellow students to develop self-development.

Week	hours	required learning outcomes	Name of the unit or topic	Learning method	Evaluation method
1+2	4	Identify the program with explanation For bars, effective value and range Cells, columns and rows Know the MMV menu commands, which are save Save as mf, open and dark MMVetc	Excel	Practical lectures + direct presentation methods + dialogue and discussion	Daily, monthly and final tests and reports
3+4	4	Know the page menu commands The main ones are clipboard and font Coordinating, merging and centering cells knowledge of number formatting and page menu commands Home	Excel	Practical lectures + direct presentation methods + dialogue and discussion	Daily, monthly and final tests and reports
5+6	3	Knowledge of styles, including formatting tables and cells, home page menu commands Knowledge of editing, including smise Digital, linear and depth scanning Formats and page menu commands Home Knowledge of drawer list commands. Drawer list commands (Insert)	Excel	Practical lectures + direct presentation methods + dialogue and discussion	Daily, monthly and final tests and reports
7	3	First exam			
8+9	4	Introduction to charts, their types, and how to create them and change their location. Charts Knowledge of ready-made functions and how to include, use and verify them	Excel	Practical lectures + direct presentation methods + dialogue and discussion	Daily, monthly and final tests and reports
10+11	4	Knowledge of sorting and filtering data and how to arrange data in ascending and descending order (data list commands). Know how to put a password For lush and how to hide and show	Excel	Practical lectures + direct presentation methods + dialogue and discussion	Daily, monthly and final tests and reports

		Depths as well as presentation meth	ods			
12+13	4	Paper and handle bar Freezing rows and columns is a review (Reviw) and view commands Know the rules for writin mathematical form Introduction to mathematical form	l w list (View) ledge of ng nulas.	Excel	Practical lectures + direct presentation methods + dialogue and discussion	Daily, monthly and final tests and reports
14	4	Knowing how to prepare financial statements and an introduction to operations Arithmetic		Excel	Practical lectures + direct presentation methods + dialogue and discussion	Daily, monthly and final tests and reports
15	3	Second exam				
.daily pr	eparation	e grade out of 100 ac n, daily, oral, monthl	_		- C	dent, such as
Learnin	g and tead	ching resources	Commi	-ton boolea	and office annihood	iona Dant Thind/
Required textbooks (methodology, book four)		Micros Minist Resear Writte Majeed 2-Profe 3-Profe 4-Profe 2- Inte	soft Office 2 ry of Higher ch n by: 1- Pr d essor Dr. Z essor Dr. S rnational I	er Education and S rofessor Dr. Ghassa Jiad Muhammad Al Iuhammad Nasser afaa Abbas Al-Mai nformation Netwon	cientific n Hamid Abdel bboud Al-Tarfi mouri rk, the Internet	
Main references (sources)		Print I Joan L T.y An	1.Microsoft EXCEEL 2010 Step by Step(448 pages; Print ISBN: 978-0-7356-2691-1), by Joyce Cox and Joan Lambert, 2.Beginning Microsoft Word 2010, by T.y Anderson, Guy Hart-Davis Stephen Moffat, The Mouse Training Company			
Recomn	nended su	pporting books and		•	journals, reports)
Electronic references, Internet sites			:websit History objecti http://y Interne http://g - using	y of the dev ve website: youstaff.blo et security geeklesstec the Intern	velopment of composite the composite of the composite of the common comments of the common comments and common comments of the common c	om nation and nw Laws for

.(RTP SIP), World of Technology website
ARPANET logical map,
.http://russbellew.com/Documents/Arpanet_sep_1974

Description of the academic program

Course name: Computer basics and office applications/4

Course code

COMA202

Semester/year:Spring Semester/year2024

Date this description was prepared: 10/3/2024

Available forms of attendance are in person

Total number of study hours / total number of units (30) (2) theoretical hours

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

Email: abbas.alrajhe@uomisan.edu.iq Name: ABBAS LUAIBI OBAID

Module Aims

- For the student to become familiar with the history of computer networks and the Internet
- Introducing the student to the importance of computer networks and the Internet
- Introducing the student to the basics of computer networks and the Internet
- Introducing the student to browsing and searching on the Internet
- Introducing the student to electronic messages and conversations
- Introducing the student to the ethics of the Internet world

Teaching and learning strategies

- 1- Explanation, clarification, and honing general and qualifying skills
- 2- Urging the student to write simple research using the lecture method to create a state of balance between methodological information and source information.
- 3- Urging the student to work on practical projects on the calculator and hold discussion circles among the students on the methodology of the subject and distribute the students into groups.
- **4-Practical lessons in the laboratory**
- 5- The method of self-learning and writing scientific reports, and urging the student to evaluate the answers of his fellow students to develop self-development.

Course structure

Week	hours	required learning outcomes	Name of the unit or topic	Learning method	Evaluation method
1+2	4	Chapter One: Introduction to networks, definition of computer networks, benefits of computer	Basics of networks and office applications, Part Four	Practical lectures + direct presentation methods + dialogue and discussion	Daily, monthly and final tests and reports

		networks Types of computer networks, classification of networks (according to connection method, according to engineering design, according to type of service, according to			
3+4	4	network scope) The World Wide Web (ways to connect to the Internet, Internet protocols, device addresses (IP), website addresses (web pages)) Data transfer rate / Internet and Extranet / Cloud computing / Cloud computing applications, components of cloud computing, types of cloud computing Benefits and disadvantages of cloud computing	Basics of networks and office applications, Part Four	Practical lectures + direct presentation methods + dialogue and discussion	Daily, monthly and final tests and reports
5+6	3	Chapter Two (Browsing and searching the Internet, web browsers, the Internet Explorer browser, components of the Internet Explorer interface) Additional tasks in the browser, searching on the Internet, using search engines, advanced search, searching by customizing the	Basics of networks and office applications, Part Four	Practical lectures + direct presentation methods + dialogue and discussion	Daily, monthly and final tests and reports

		search field, types of sites.			
7	3	First exam			
8+9	4	Chapter Three (Electronic messages and conversations, introduction, e- mail, e-mail features, creating a new e-mail account Log in to email, Microsoft Outlook,	Basics of networks and office applications, Part Four	Practical lectures + direct presentation methods + dialogue and discussion	Daily, monthly and final tests and reports
10+11	4	Skype chat program, the necessary steps to download the Skype chat program, the process of installing the Skype chat program,Learn about the components of the Skype chat program, the menu bar in the Skype chat program, other parts of the Skype chat program, additional tasks in the Skype chat program.	Basics of networks and office applications, Part Four	Practical lectures + direct presentation methods + dialogue and discussion	Daily, monthly and final tests and reports
12+13	4	Chapter Four: Ethics of the Internet world, Internet law and types of infringements in the digital space, technology ethics, etiquette and ethics of dealing with the Internet, The effects of negative use of the Internet on life and society,	Basics of networks and office applications, Part Four	Practical lectures + direct presentation methods + dialogue and discussion	Daily, monthly and final tests and reports

		information and				
		Internet security,				
		information				
		security,				
		Weaknesses in the	Basics of	Practical	Daily, monthly	
		Internet, security	networks and	lectures + direct	and final tests	
		problems,	office	presentation	and reports	
		computer	applications, Part	methods +	and reports	
14	4	vulnerability,	Four			
			rour	dialogue and discussion		
		computer and information		discussion		
		protection				
15	3	Second exam				
		he grade out of 100 ac			ent, such as	
		n, daily, oral, monthly	y, written exams, rep	orts, etc		
Learnir	Learning and teaching resources					
				and office application	ons, Part fourth/	
				Microsoft Office 2010		
			•	r Education and Sc	ientific	
			Research			
Require	ed textbo	oks (methodology,				
book fo		ons (memorogy)	Written by: 1- Professor Dr. Ghassan Hamid Abdel			
0001110	· /		Majeed			
			2-Professor Dr. Ziad Muhammad Abboud			
			3-Professor Dr. Muhammad Nasser Al-Tarfi			
			4-Professor Dr. Safaa Abbas Al-Mamouri			
				nformation Networ	,	
				es and office applica		
	•		Step(448 pages; Print ISBN: 978-0-7356-2691-1), by			
Main re	eferences	(sources)	Joyce Cox and Joan Lambert, 2.Beginning Microsoft			
			Word 2010, by T.y Anderson, Guy Hart-Davis			
			Stephen Moffat, The Mouse Training Company			
Recomi	mended s	upporting books and i		journals, reports)	
			Library Genesis			
			:websites		4	
			•	History of the development of computer networks, -		
			•	http://mawdoo3.co		
				gspot.com: Inform	ation and	
Electronic references, Internet sites			Internet security	T T	T 6	
		,		n.com : Internet La	w Laws for	
			- using the Interne		41 T 4 4	
				nication protocols i		
				.(RTP SIP), World of Technology website		
			ARPANET logical map,			
			.http://russbellew.com/Documents/Arpanet_sep_1974			

Course Description Form				
1- Course Name				
Management and production of poultry				

2-CourseC	Code						
POPR441	POPR441						
3-semester							
2023 – 202		,					
	of prepare	aring this description					
10/3/2024	. 44 1	C					
Available a	attendan	ce iorms					
6. Number	of study	hours (total) / number o	f units (total)				
		ical + 3 practical) *15 we	<u> </u>				
Name of co	ourse ad	ministrator (if more than	one name is mentioned	l)			
Name: M.	Sc Ali Ja	assim Mohammed					
Course Ob	jectives						
Objectives unit	of the	Preparing graduates what I- How to establish bree 2- Field work skills, and chicken and poultry . 3- How to make feed mid 4- Applying for external	eding and management I how to create and prep xes used in poultry pro	pare projects for jects.	raising		
TEACHIN	IG AND	LEARNING STRATEG					
Strategy		 Enabling students to analyze and think about topics related to the intellectual framework of the subject of poultry management and production. Enabling students to analyze to identify the topics related to measuring productivity . Enabling students to identify the optimal use of fodder materials available in the market . 					
10. Course	Structu		•				
Fifteenth	Hours	Intended Learning	Module / Course	Learning	Valuation		
		Outcomes	Name or	method	Method		
1	5	Introducing students to the general concept of managing poultry projects	Poultry science and the concept of managing poultry projects.	Theoretical lectures. Practical lectures. Displays Dialogue and Discussion	Daily and monthly reports .		
2	5	The student should learn about the importance of poultry projects Egg and meat production projects The student should learn about the importance of poultry projects Egg and meat production projects Displays Dialogue and Discussion			Daily and monthly reports .		
3	5	Enabling students to know the internal organs of the chicken and its functions,(male and female digestive and reproductive	The internal organs of the chicken and its functions,(male and female digestive and reproductive and egg	1- Theoretical lectures. 2- Practical lectures. Displays Dialogue and	Daily and monthly reports .		

		systems and the components of the egg.	components)	Discussion	
4	5	The student should learn about the types of poultry houses and breeding supplies	Types of poultry houses and breeding supplies.	1- Theoretical lectures. 2- Practical lectures. Displays Dialogue and Discussion	Daily and monthly reports .
5	5	The student should be familiar with hatching and hatching management (selection of hatching egg specifications, treatment of hatching eggs before and during hatching, stages of embryonic development,types of hatching,factors affecting fertility and hatching rates, hatching problems)	Hatching and Hatch Management	1- Theoretical lectures. 2- Practical lectures. Displays Dialogue and Discussion	Daily and monthly reports .
6	5	The student should be familiar with the management and production of meat broilers (types of modern breeds and their specifications, nursing and caring for broilers, raising and caring for meat broilers, breeding systems, feeding meat broilers and types of ties ,marketing meat broilers, meat preparation operations in slaughterhouses)	Management and production of meat poultry	1- Theoretical lectures. 2- Practical lectures. Displays Dialogue and Discussion	Daily and monthly reports .
7	5	The student should know about the management and production of laying hens (types of modern breeds and their specifications, nursing and care of laying hens, breeding	Management and production of laying hens	1- Theoretical lectures. 2- Practical lectures. Displays Dialogue and Discussion	Daily and monthly reports .

		systems, feeding laying hens during the stages of growth and production, calculations of egg production rates)			
8	5	Enabling students to know the compulsory qalash (its methods and benefits)	Mandatory straws	1- Theoretical lectures. 2- Practical lectures. Displays Dialogue and Discussion	Daily and monthly reports .
9	5	Enabling students to know the management of mothers' herds (mothers of meat and eggs)	Management of maternal herds (broiler and egg mothers)	1- Theoretical lectures. 2- Practical lectures. Displays Dialogue and Discussion	Daily and monthly reports .
10	5	The student should learn about raising turkey, ducks and almonds.	Raising turkeys, ducks and almonds .	1- Theoretical lectures. 2- Practical lectures. Displays Dialogue and Discussion	Daily and monthly reports .
11	5	The student should be familiar with the management of poultry fields in hot weather .	Manage poultry fields in hot climates	1- Theoretical lectures. 2- Practical lectures. Displays Dialogue and Discussion	Daily and monthly reports .
12	5	The student should get acquainted with the management of fodder factories and fodder preparation	Management of fodder factories and preparation of fodder.	1- Theoretical lectures. 2- Practical lectures. Displays Dialogue and Discussion	Daily and monthly reports .
13	5	Enabling students to know poultry disease and methods of prevention and treatment.	Poultry disease and methods of prevention and treatment .	1- Theoretical lectures. 2- Practical lectures. Displays Dialogue and Discussion	Daily and monthly reports .
14	5	The student should identify the records and their types in the	Records and their types in poultry fields.	1- Theoretical lectures. 2- Practical	Daily and monthly reports .

		poultry fields.			lectures. Displays Dialogue and Discussion	
15	5			exam		Daily and monthly reports .
Course Ev	aluation			•		
			_	the tasks assigned to the examinations and re		s daily
Learning a	Learning and Teaching Resources					
Required textbooks (curricular books, if any)		Al-Zubaidi, Suhaib Saad Alwan (1986), Poultry Management, University of Basra.				
Main References (Sources)		spec Agr	nodern machine base fro cialized scientific fields, ricultural Sciences - Irac ary that is related to the	the Journal of q, and the conse		
		ks and references reports)	Har	ndbook of Poultry Vetl	Books	
F-References Websites Pou		ltry Science ltry (almerja.com)				

1- Course Name					
Feed poultry	Feed poultry				
2-CourseCode	2-CourseCode				
POBN445					
3-semester/ year					
2023 – 2024 (Fall Ser	mester)				
4-The date of prepar	ring this description				
10/3/2024					
Available attendance	e forms				
6. Number of study l	hours (total) / number of units (total)				
	cal + 3 practical) *15 weeks				
	inistrator (if more than one name is mentioned)				
Name: M.Sc Ali Jas	sim Mohammed				
Course Objectives					
	Preparing graduates who are able to know:				
	1- How to digest, absorb and metabolize nutritional nutrients.				
Objectives of the	2- Field work skills, and how to create and prepare projects for raising				
unit	chicken and poultry.				
umt	3- How to make feed mixes used in poultry projects.				
	5- The work of the digestive system in the animal.				
5- Applying for external tests by local / regional / international l					
TEACHING AND L	LEARNING STRATEGIES				

1- Enabling students to analyze and think about topics related to the intellectual framework of poultry feeding.

2- Enabling students to analyze to identify the digestive system and its work in poultry birds.

- 3- Enabling students to identify the main nutrients.
- 4- Enabling students to identify the best ways to synthesize feed mixes.
- 5-Enabling students to identify the optimal use of fodder materials available in the market $\ .$

10. Course Structure

Strategy

Fifteenth	Hours	Intended Learning Outcomes	Module / Course Name or	Learning method	Valuation Method
1	5	Introducing students to energy, its components, sections, importance and the factors affecting it .	Energysources .Split it up .Influences	1- Theoretical lectures. 2- Practical lectures. Displays Dialogue and Discussion	Daily and monthly reports .
2	5	The student should identify the proteins, their types, classification, their importance for birds, and the impact of increasing and decreasing them.	Proteins – their types and classification The effect of their increase and decrease	1- Theoretical lectures. 2- Practical lectures. Displays Dialogue and Discussion	Daily and monthly reports .
3	5	Introducing students to the most important factors affecting protein utilization.	Proteins and factors affecting their utilization	1- Theoretical lectures. 2- Practical lectures. Displays Dialogue and Discussion	Daily and monthly reports .
4	5	Enabling students to know the vitamins and their importance for the bird and its sections and the factors affecting them .	Vitamins - their classification and factors affecting their needs	1- Theoretical lectures. 2- Practical lectures. Displays Dialogue and	Daily and monthly reports .

				Discussion	
5	5	Introducing students to inorganic elements and their importance to birds and provoking their increase and decrease.	Minerals, their classification, the effect of their increase and decrease	1- Theoretical lectures. 2- Practical lectures. Displays Dialogue and Discussion	Daily and monthly reports .
6	5	Introducing students to the nutrients, the importance of water for the bird and its sources.	Water is its importance, functions, sources and quality	1- Theoretical lectures. 2- Practical lectures. Displays Dialogue and Discussion	Daily and monthly reports .
7	5		Monthly Exam		Daily and monthly reports .
8	5	Enabling students to know the digestive system and its work in poultry birds, types of digestion, and nutrient metabolism.	Digestion and Metabolism - Digestive System - Its Functions	1- Theoretical lectures. 2- Practical lectures. Displays Dialogue and Discussion	Daily and monthly reports .
9	5	Introducing students to the end products of digestion of nutrients, and the factors affecting digestion.	End-products of digestion - factors affecting digestion	1- Theoretical lectures. 2- Practical lectures. Displays Dialogue and Discussion	Daily and monthly reports .
10	5	Introducing students to the feed used in feeding poultry birds, their sources and types.	Primary fodder materials, their sources and types		Daily and monthly reports .
11	5	Introducing students to food	Vitamins, minerals and	1- Theoretical	Daily and monthly

		additives, their types and their importance in terms of health and economic	feed additives	lectures. 2- Practical lectures. Displays Dialogue and Discussion	reports .
12	5	Enabling students to know the feed concentrates and mixtures used in poultry nutrition and its production requirements	Feed concentrates, mixtures and their production requirements	1- Theoretical lectures. 2- Practical lectures. Displays Dialogue and Discussion	Daily and monthly reports .
13	5	Introducing students to the fodder factory, its departments and its importance in animal production projects.	Feed Production and Manufacturing Feed Factory Its Importance and Sections	1- Theoretical lectures. 2- Practical lectures. Displays Dialogue and Discussion	Daily and monthly reports .
14	5	Introduce students to periodic maintenance of the feed factory and methods of synthesizing feed mixtures.	Laboratory Maintenance Formation and Synthesis of Relationships and Quality Control	1- Theoretical lectures. 2- Practical lectures. Displays Dialogue and Discussion	Daily and monthly reports .
Course Evaluation	5		Second Month Exam	1- Theoretical lectures. 2- Practical lectures. Displays Dialogue and Discussion	Daily and monthly reports .

Course Evaluation

Distribution of the score of 100 according to the tasks assigned to the student such as daily preparation, daily, oral, monthly and written examinations and reports

Learning and Teaching Resources	Learning and Teaching Resources				
Required textbooks (curricular books, if any)	Al Yaseen. Ali Abdul Khaliq , Abdul Abbas , Mohammed Hassan (2010), Poultry Feeding, University of Baghdad , Faculty of Agriculture . Al-Kassar, Ali Mahmoud Jawad , Ammar Hussein , Ali Saif (2021). Poultry feed and chemical analysis. University of Kufa . Faculty of Agriculture				
Main References (Sources)	1 - Recent articles from the Internet and from specialized scientific fields, the Journal of Agricultural Sciences - Iraq and the library of satisfaction, which is related to the feeding of poultry birds.				
Recommended books and references (scientific journals, reports)	Handbook of Poultry Nutrition VetBooks Poultry Nutrition MDPI Books				
E-References, Websites	Poultry Science				

1. Course Name: Pasture	e management				
2. Course Code:	2. Course Code:				
PAMA451					
3. Semester / Year: Fall S	Semester - First Course				
4. Description Preparation	on Date : 10/3/2024				
5. Forms of Attendance:	weekly				
hours 75 6. Number of S	tudying Hours (Total) / Number of Units (Total)				
	's Name (mention all, if more than one name)				
Name: Rasha Naji Abd	Name: Rasha Naji Abd Email: rashanaji@uomisan.edu.iq				
8. Course Objectives					
	• The student is able to understand and comprehend the pasture				
	management subject				
	• Enables the student to know the most important ways to protect				
Course Objectives	natural pastures				
	• Familiarity with the most important types of natural pastures				
	••• Detection and knowledge of the palatability of pasture plants.				
	•••• The student can judge the quality of pasture plants				
9. Teaching and Learnin	ř				
	The theoretical part of the lecture is interactive, brainstorming, •••				
	dialogue, and discussion. As for the practical part, there is an				
Strategies	assignment to group work to reveal leadership skills, and assignment				
	.of tasks and a report for each field visit				
10.0					
10. Course Structure					

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	2 Theoretical Practical 3	Pasture management	The importance of pastures	Theoretical + Practical	Exams + Cups
2	2 Theoretical Practical 3	Pasture management	Vegetable . clothing	Theoretical + Practical	Exams + Cups
3	2 Theoretical Practical 3	Pasture management	Environmental factors and natural pastures	Theoretical + Practical	Exams + Cups
4	2 Theoretical Practical 3	Pasture management	Climatic factors.	Theoretical + Practical	Exams + Cups
5	2 Theoretical Practical 3	Pasture management	Pasture management and its relationship to soil and water conservation	Theoretical + Practical	Exams + Cups
6	2 Theoretical Practical 3	Pasture management	The role of . plants in maintaining soil and pastoral areas in Iraq and the world	Theoretical + Practical	Exams + Cups
7	Theoretical Practical 3	Pasture management	.Monthly exam	Theoretical + Practical	Exams + Cups
8	2 Theoretical Practical 3	Pasture management	Grazing and its various effects on fodder production, plant growth, and root growth	Theoretical + Practical	Exams + Cups
9	2 Theoretical Practical 3	Pasture management	Animal load and its determining factors	Theoretical + Practical	Exams + Cups
10	2 Theoretical Practical 3	Pasture management	Exploitation of natural pastures	Theoretical + Practical	Exams + Cups
11	2 Theoretical Practical 3	Pasture management	Sources of exploitation of pastoral plants and the condition of natural pastures	Theoretical + Practical	Exams + Cups
12	2 Theoretical Practical 3	Pasture management	Livestock management and pasture redressing	Theoretical + Practical	Exams + Cups
13	2	Pasture management	For natural and	Theoretical +	Exams +

	Theoretical Practical 3		artificial coverings and harmful plants in pastures	Practical	Cups
14	2 Theoretical Practical 3	Pasture management	Methods of taking pasture samples and estimating pasture productivity	Theoretical + Practical	Exams + Cups
15	2 Theoretical Practical 3	Pasture management	Monthly exam	Theoretical + Practical	Exams + Cups
11. Co	urse Evaluatio	n			
		rade out of 100 according al, monthly, written exan		d to the student,	such as
		ching Resources	•		
Requir	red textbooks (curricular books, if any)	Pasture managen Al-Takriti Ramadan, Taif A Hassan (1976 (Al-Tamimi, Mah	hmed and Abba	
Main ı	references (sou	rces)			
Recommended books and references (scientific journals, reports)					
Electro	onic Reference	s, Websites			

1. Course Name: Avian Physiology
2. Course Code:
POPH316
3. Semester / Year: The second spring semester
4. Description Preparation Date:
5. Forms of Attendance: Compact

6. Num	6. Number of Studying Hours (Total) / Number of Units (Total)						
7 Cour	7. Course Administrator's Name (mention all, if more than one name)						
			`	i, ii more than one ii Email:	ame)		
			Tamu Wajeeu	<u> </u>			
o. Cour	8. Course Objectives The student acquires knowledge about the various physiological						
			functions of poultry bi		various physion	ogicai	
			Turney or pourty of				
a	011 4		The student is educate	ed about fundamenta	l tools for exami	ining basic	
Course	Objective	2C	The student is educated about fundamental tools for examining basic aspects of body anatomy.				
			•	•			
			Identify how the body	's systems work and	the influences ba	ased on their	
			operation.				
9. Teacl	hing and l		ing Strategies				
			Explanation and clari	fication			
			The lecture method				
Strateg	ies		Student groups	01 1 1			
			Practical lessons in the				
			Method of self-learning	ng and writing scient	itic reports		
10. Cou	rse Struct				1 -	I	
Week	Hours	_	uired Learning	Unit or subject	Learning	Evaluation	
		Out	comes	name	method	method	
		D - J	6 1 hl 1 !	A Dl	Explanation,		
1			ody fluids and blood in	Avian Physiology	presentation	Exam	
		bird	is.		of the form, and lecture		
					Explanation,		
			heart, blood		presentation		
2			ulation, and nervous	Avian Physiology	of the form,	Exam	
		cont	ontrol over it.		and lecture		
					Explanation,		
2		Bird	l nervous system	Avian Physiology	presentation		
3			tral nervous system)		of the form,	Exam	
					and lecture		
					Explanation ,		
			l nervous system		presentation		
4		(per	(peripheral nervous system)	Avian Physiology	Exam of the	Exam	
		syste			form, and		
					lecture		
			respiratory system		Explanation,		
5			irds (its components,	Avian Physiology	presentation	Exam	
-		_	exchange		of the form,		
			hanism)		and lecture		
			urinary system of		Explanation,		
6			s (its components,	Avian Physiology	presentation	Exam	
			ctions, renal ation)	V	of the form, and lecture		
		_	urinary system of		Explanation,	+	
7			s (salt glands and	Avian Physiology	presentation,	Exam	
,				A VIGIL I HYSIUIUGY	of the form,	LAGIII	
	factors affecting their of the form,						

	secretions, urine, its properties, and nitrogen content)		and lecture	
8	Thermoregulation device	Avian Physiology	Explanation, presentation of the form, and lecture	Exam
9	Digestive system (mouth, pharynx, esophagus, crop, glandular stomach, spasmodic stomach, small intestine, auricle, rectum, Cloaca)	Avian Physiology	Explanation, presentation of the form, and lecture	Exam
10	Digestive system (glands of the digestive system, regulation of food intake by nervous control)	Avian Physiology	Explanation, presentation of the form, and lecture	Exam
11	The digestive system (secretion, digestion, absorption, and speed of passage of food through the digestive canal)	Avian Physiology	Explanation, presentation of the form, and lecture	Exam
12	Endocrine system	Avian Physiology	Explanation, presentation of the form, and lecture	Exam
13	Reproduction in male birds (sexual organs, sperm formation process)	Avian Physiology	Explanation, presentation of the form, and lecture	Exam
14	Reproduction in birds (artificial insemination, factors affecting fertility, male sex hormones)	Avian Physiology	Explanation, presentation of the form, and lecture	Exam
15	Reproduction in females (components of the female system and its functions, female sex glands)	Avian Physiology	Explanation, presentation of the form, and lecture	Exam
11. Cour	se Evaluation			
	tion of the grade out of 50 according	_	d to the student,	such as
	ork, daily, oral, monthly, written exaning and Teaching Resources	ms, reports, etc		
Require	d textbooks (curricular books, if			
any) Main ref	ferences (sources)			
	ended books and references			
(scientifi	ic journals, reports)			
Electron	ic References, Websites			

1. Cours	1. Course Name: Principle of Horticulture						
2 Cours	2. Course Code:						
	PRHS243						
		r: 2023- 2024					
er geme	5001 / 100						
4. Descr	ription Pr	eparation Date: 24- 4 - 2024	4				
5. Form	5. Forms of Attendance:						
		dying Hours (Total) / Num	· · · · · · · · · · · · · · · · · · ·				
		cal + 3 practical) *15 weeks					
		istrator's Name (mention al	ll, if more than one n	ame)			
		ohi Mohsin					
8. Cours	se Object		familian with the sai	ones of funits and	I nolm tugg		
		-The student must be		ence of fruits and	i paini trees		
			and methods of their reproduction The student must be familiar with the science of vegetable arons and				
			-The student must be familiar with the science of vegetable crops and				
		_	their production methods -The student must be familiar with the science of ornamental plants and				
		mothods of their prop	methods of their propagation				
Course	Objective		-The student must be familiar with the science of garden engineering and				
			methods of its implementation				
		_	-He has knowledge of methods of breeding and improving horticultural				
		S	plants				
		_	- He has knowledge of other sciences, such as physiology, fruit storage,				
			anatomy, and plant classification				
9. Teach	ning and l	Learning Strategies					
		-Explanation and clar	rification using metho	ods			
		_	-Direct dialogue with students by asking				
			-Student collections, homework, and writing reports				
Strategi	ies	· · · · · · · · · · · · · · · · · · ·	-Practical lessons in agricultural fields				
		-Scientific trips to lear	-Scientific trips to learn about the most important fodder crops grown in				
		Iraq			_		
-Self-learning method							
10. Course Structure							
Week	Hours	Required Learning	Unit or subject	Learning	Evaluation		
WCCK	Hours	Outcomes	name	method	method		
	5	Knowledge of the history	Introduction to	Lecture,			
1		and development of	the history of horticulture	discussion,			
		horticulture		reports,			
				laboratories,			

				practical in
				the fields
				Lecture,
			Methods of	discussion,
2	5	Learn how horticultural	reproduction of	reports,
4	3	crops reproduce	horticultural	laboratories,
			crops	practical in
			•	the fields
				Lecture,
			Types of	discussion,
		Identifying deciduous		reports,
3	5	fruit trees	deciduous fruit	laboratories,
		Truit trees	trees	practical in
				the fields
				Lecture,
			TD C	discussion,
4	5	Identify evergreen trees	Types of	reports,
		V	evergreen trees	laboratories,
				practical in
				the fields
			Different families	Lecture,
				discussion,
5	5	Learn about summer		reports,
3	3	vegetable crops	of plants	laboratories,
			•	practical in
				the fields
			Different families of plants	Lecture,
				discussion,
_	_	Identify winter vegetable		reports,
6	5	crops		laboratories,
		crops		practical in
				the fields
				Lecture,
		Learn about different summer ornamental plants		discussion,
			Summer ornamental plants	reports,
7	5			laboratories,
				practical in
				the fields
				Lecture,
		Learn about different	•_4	discussion,
8	5	winter ornamental	winter	reports,
		plants	ornamental plants	laboratories,
		1		practical in
				the fields
		To learn how to divide		Lecture,
		fruit trees according to	Fruit trees	discussion,
9	5	environmental conditions as well as according to plant	tropical and	reports,
	3		subtropical	laboratories,
			regions	practical in
		families		the fields
10	5	The student learns how	Plant families of	Lecture,

		to divide vegetable crops according to their families	vegetable crops	discussion, reports, laboratories, practical in the fields
11	5	The student learns about ornamental plants and methods of propagating and cultivating them	Ornamental plants and methods of propagation and cultivation	Lecture, discussion, reports, laboratories, practical in the fields
12	5	The student learns how to create a plantation and multiply horticultural plants	Establishing plantation and methods of propagating horticultural plants	Lecture, discussion, reports, laboratories, practical in the fields
13	5	The student will learn how to establish orchards and plant various fruit trees	Establishing orchards and learning about tree pollination methods	Lecture, discussion, reports, laboratories, practical in the fields
14	5	The student learns to grow and propagate medicinal plants	Cultivation and propagation of medicinal and aromatic plants	Lecture, discussion, reports, laboratories, practical in the fields Lecture, discussion, reports, laboratories, practical in the fields
15	5	Remind students of the summary of previous topics	A quick review of previous topics	Lecture, discussion, reports, laboratories, practical in the fields Lecture, discussion, reports, laboratories, practical in the fields

11. Course Evaluation

Distribution of the grade out of 50 according to the tasks assigned to the student, such as .homework, daily, oral, monthly, written exams, reports, etc

12. Learning and Teaching Resources			
Required textbooks (curricular books, if	Principles of horticulture / Dr. Jabbar Abbas		
any)	Al-Dujaili, Dr. Iman Jaber Abdel Rasoul,		
	Nisreen Khalil Abdel Aziz		
	Principles of horticulture/Karim Saleh Abdul		
	and Saad Zaghloul Al-Najjar		
Main references (sources)	Ornamental plants in Iraq/Dr. Sami and		
	Nisreen Al-Najjar		
	Deciduous fruit/Dr. Alaa Abdul Razzaq Al-		
	Jumaili and others		
Recommended books and references	Propagation of horticultural plants/Dr.		
(scientific journals, reports)	Muhammad Abbas Salman		
	Vegetable production/Dr. Adnan Nasser is		
	wanted and others		
Electronic References, Websites			

1. Course Name: For	1. Course Name: Forage and Pastures Crops					
	•					
2. Course Code:						
PRFI155						
3. Semester / Year:						
2023- 2024						
4. Description Prepar	ration Date:					
24- 4 - 2024						
5. Forms of Attendan	ce:					
6. Number of Studyin	ng Hours (Total) / Number of Units (Total)					
75 hours (2 theoretical	al + 3 practical) *15 weeks					
7. Course Administra	ator's Name (mention all, if more than one name)					
Name:Dunya Mohi M	Iohsin					
8. Course Objectives						
	- The course seeks to identify the importance of forage crops and					
	methods of cultivation, management, and cutting					
	-It includes knowledge of the types of forage crops and their places of					
	origin					
	- Knowledge of the processes related to soil service, such as plowing,					
	smoothing, leveling, dividing the land, and irrigation channels					
Course Objectives	- Knowledge of the processes related to serving the crop, such as					
Course Objectives	cultivation methods, appropriate seed quantities, fertilization, and					
	appropriate mowing and cutting times.					
	- Study of feed mixtures, their types and their importance in animal					
	productivity					
	- Knowing the types of feed provided to animals, such as hay and silage					

9. Teaching and Learning Strategies				
	-Explanation and clarification			
	-Lecture method			
	-Student groups			
Strategies	-Practical lessons in agricultural fields			
	-Scientific trips to learn about the most important fodder crops grown in			
	Iraq			
	-Self-learning method			

10. Course Structure

10. Cou	rse Struci	1	Unit on authiost	Lagraina	Evaluation
Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	method
1	5	A historical overview of forage crops and some important terms for forage crops	Forage crops	Explanation, presentation of the model and lecture	Exam
2	5	The importance of forage crops and the division and classification of forage crops	Forage crops	Explanation, presentation of the model and lecture	Exam
3	5	Economic importance and agricultural management of legumes	Forage crops	Explanation, presentation of the model and lecture	Exam
4	5	The economic importance and agricultural management of the Egyptian clover crop	Forage crops	Explanation, presentation of the model and lecture	Exam
5	5	Economic importance and agricultural management chicking vetches, Medic	Forage crops	Explanation, presentation of the model and lecture	Exam
6	5	The economic importance and agricultural management of forage crops: cowpea, vetch, and bird foot trefoil	Forage crops	Explanation, presentation of the model and lecture	Exam
7	5	Economic importance and agricultural management of fenugreek, mung and soybean crops	Forage crops	Explanation, presentation of the model and lecture	Exam
8	5	The economic importance and agricultural management of cereal crops, including barley and oats	Forage crops	Explanation, presentation of the model and lecture	Exam
9	5	The economic	Forage crops	Explanation,	Exam

		T	T	T .	 	
		importance and		presentation		
		agricultural		of the model		
		management of maize		and lecture		
		and Sorghum crops				
		The economic		Evalenation		
		importance and		Explanation,		
10	5	agricultural	Forage crops	presentation	Exam	
		management of millet		of the model		
		crops Sudan grass		and lecture		
		er ops stramming rans		Explanation,		
		Feed mixtures - types -		presentation		
11	5	advantages and benefits	Forage crops	of the model	Exam	
		auvantages and benefits				
				and lecture		
				Explanation,		
12	5	Breeding forage crops	Forage crops	presentation	Exam	
			a sign i II.	of the model		
				and lecture		
				Explanation,		
13	5	Feed manufacturing -	Forage crops	presentation	Exam	
13	3	hay	rorage crops	of the model	Lxaiii	
				and lecture		
				Explanation,		
	_	Feed manufacturing -		presentation	_	
14	5	silage	Forage crops	of the model	Exam	
		Situage		and lecture		
				Explanation,		
		Mechanization of fodder		presentation,		
15	5		Forage crops	-	Exam	
		crop production		of the model		
				and lecture		
11. Cou	rse Evalu	ation				
Distribu	ution of th	ne grade out of 50 according	to the tasks assigned	d to the student,	such as	
.homew	ork, daily	, oral, monthly, written exa	ms, reports, etc			
12. Lea	rning and	Teaching Resources				
		oks (curricular books, if	Fodder crops and	pastures. Dr R	amadan	
any)		,	Ahmed Al-Takriti and Dr. Tawakkol Younis			
			.Rizk and Dr. Hikmat Askar Rumi			
			Recent articles from the Internet and from			
			specialized scientific fields, the Iraqi Journal of			
			, <u> </u>			
		Agricultural Sciences, and the virtual library				
		1-The field crops _ principles and a practice				
			2- Agronomy journal.3- Websites, Articles, FAO reports			
Main references (sources)						
Main references (sources)		Field crop produc	zuon a. Abaul M	ajeeu Ai		
			voloitation of for	ldon d Mahdi		
			Cultivation and exploitation of fodder d. Mahdi			
		.Abdul Latif Al Tamimi				
				.Fodder crops d. Nasser Hussein Safar		
			Recent articles from the Internet and from			
			specialized scientific fields and magazines			
			Agricultural Sciences - Iraqi Virtual Library			

	Forage crops, Agriculture Canada
Recommended books and references (scientific journals, reports)	Iraqi academic scientific journals
Electronic References, Websites	crop Science Society Of America Library Genesis

Course Description Form						
1. Course Name: Prin	nciples of animal production					
2. Course Code: - PR	2. Course Code: - PRAP153					
3. Semester / Year: S	pring Semester / Year 2024					
4 D						
4. Description Prepai	ration Date: 1-2-2024					
5. Forms of Attendar	nca: Attandanca					
5. Forms of Attenuar	ice. Attenuance					
6. Number of Studyi	ng Hours (Total) / Number of Units (Total):-					
	l and 3 practical) Number of units (3.5)					
7. Course Administra	ator's Name (mention all, if more than one name)					
Name: Duaa Ali Hus	sein Email:					
8. Course Objectives						
	:Graduating students who are able to					
	The importance of the science of animal production principles, which					
	deals with the details of the economic importance of livestock and global					
	and local livestock species, their management and care					
Course Objectives	Study the types and importance of other form enimals such as huffele					
Course Objectives	Study the types and importance of other farm animals such as buffalo, sheep and goats, their management and care					
	.succp and goats, their management and care					
	Identify the feeding systems and feeds for farm animals Know					
	reproduction and artificial insemination in livestock					
9. Teaching and Lear	rning Strategies					
	This course is designed to suit first-year students in the Animal					
	Production Department. In order to achieve the desired goal of studying					
	this course, it seeks to introduce students to the importance of animal					
	production and its relationship to other sciences and the most important					
Strategies	breeds of cows, buffaloes and sheep and how to design pens for each type					
	in addition to learning about caring for newborn calves and methods of					
	lactation as well as learning how to establish successful breeding projects					
	for poultry or cows and other farm animals Enabling students to think					
	and analyze to identify the role of management (the role of the human					
	factor or the breeder himself) successful in animal fields of various types					

10 Cou	rse Struc	fure			
Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	5	Introducing students to general information about animal production and its economic and nutritional importance	Factors affecting the productive efficiency of farm animals	Lectures and practical + theoretical presentation methods + dialogue and discussion	Daily, monthly, final tests and daily reports
2	5	Explaining and clarifying the obstacles facing livestock and .ways to improve it	Obstacles facing animal production in Iraq and ways to improve them	Lectures and practical + theoretical presentation methods + dialogue and discussion	Daily, monthly, final tests and daily reports
3	5	Introducing students to livestock, its types and how to care for it	Cattle classification - Global dairy cows - their management and care	Lectures and practical + theoretical presentation methods + dialogue and discussion	Daily, monthly, final tests and daily reports
4	5	Introducing students to dual-purpose cows and local and international sheep and goat breeds	Dual-purpose cows - Iraqi cows - Global sheep breeds	Lectures and practical + theoretical presentation methods + dialogue and discussion	Daily, monthly, final tests and daily reports
5	5	Introducing students to how to establish and care for a flock of sheep and goats	Establishing and managing a flock of sheep and goats	Lectures and practical + theoretical presentation methods + dialogue and discussion	Daily, monthly, final tests and daily reports
6	5	Introducing students to the specifications of global and local buffalo and its different breeds Introducing students to	Buffalo - For buffalo - General characteristics - Physiological - characteristics	Lectures and practical + theoretical presentation methods + dialogue and discussion Lectures and	Daily, monthly, final tests and daily reports Daily,

	the importance of poultry projects and meat and egg production	Economic importance of poultry projects	practical + theoretical presentation methods + dialogue and discussion	monthly, final tests and daily reports
5	Introducing students to the feed materials for farm animals and how .to prepare feed	Nutrition, feed and methods of preparing feed	Lectures and practical + theoretical presentation methods + dialogue and discussion	Daily, monthly, final tests and daily reports
5	Explaining and clarifying health programs for animals, and how to prevent diseases	Health care for farm animals	Lectures and practical + theoretical presentation methods + dialogue and discussion	Daily, monthly, final tests and daily reports
5	A detailed explanation of the importance of raising calves and heifers and providing the necessary needs for their upbringing	The importance of raising calves and heifers in cow fields	Lectures and practical + theoretical presentation methods + dialogue and discussion	Daily, monthly, final tests and daily reports
5	Introducing students to the reproductive system of cows and the importance of the reproductive process, and how to raise reproductive efficiency	Physiology of reproduction and artificial insemination	Lectures and practical + theoretical presentation methods + dialogue and discussion	Daily, monthly, final tests and daily reports
5	Introducing students to raising and improving animals and the importance of breeding and selection	Genetic improvement in poultry	Lectures and practical + theoretical presentation methods + dialogue and discussion	Daily, monthly, final tests and daily reports
5	A detailed explanation of the importance of the equine family and how to manage and care for .them	Agricultural animals - their management and .care	Lectures and practical + theoretical presentation methods + dialogue and discussion	Daily, monthly, final tests and daily reports Daily,
	5 5	poultry projects and meat and egg production Introducing students to the feed materials for farm animals and how .to prepare feed Explaining and clarifying health programs for animals, and how to prevent diseases A detailed explanation of the importance of raising calves and heifers and providing the necessary needs for their upbringing Introducing students to the reproductive system of cows and the importance of the reproductive process, and how to raise reproductive efficiency Introducing students to raising and improving animals and the importance of breeding and selection A detailed explanation of the importance of the equine family and how to manage and care for .them	poultry projects and meat and egg production Introducing students to the feed materials for farm animals and how to prepare feed Explaining and clarifying health programs for animals, and how to prevent diseases A detailed explanation of the importance of raising calves and heifers and providing the necessary needs for their upbringing Introducing students to the reproductive system of cows and the importance of the reproductive efficiency Introducing students to raising and improving animals and the importance of breeding and selection A detailed explanation of the importance of breeding and selection A detailed explanation of the importance of the equine family and how to manage and care for .them	Doultry projects and meat and egg production Introducing students to the feed materials for farm animals and how .to prepare feed Nutrition, feed and methods of preparing feed Lectures and practical + theoretical presentation methods + dialogue and discussion

	production efficiency	the productive efficiency of farm animals	practical + theoretical presentation methods + dialogue and discussion	monthly, final tests and daily reports
15	Review for the final exam			
11. Cou	rse Evaluation			
.homew	ntion of the grade out of 50 according ork, daily, oral, monthly, written exacrning and Teaching Resources	_	ed to the student,	such as
Require	ed textbooks (curricular books, if	اساسيات الانتاج الحيواني تأليف أ. د. أحمد سليمان محمود و أ. د.		
any)		محمود رياض المهدي)2013		
	المبادئ الانتاج الحيواني تأليف د. مظفر نافع الصائغ كد. طه 1987 (الكتاب 1987 (الكتاب 1987 (الكتاب 1987 (الكتاب 1986 الطيور الداجنة تأليف د. صهيب سعيد علوان (1986 مطبعة جامعة البصرة - 3 . انتاج دواجن ترجمة د. مصلح الدواجيا منتجات الدواجن تأليف د. حمدي عبد العزيز الفياض ، د. سعد عبد الحسين ناجي 1989 (الطبعة األولي، مديرية مطبعة التعليم المعالي - بغداد - العراق.			جاسم الطه – د المنهجي- 2 .)ادارة (- 1986مطبعة ج حسين- 4 .تكنولوم الفياض ، د. س
Recommended books and references		ابحاث تصنيفية ورسائل جامعية مختلفة تربية وانتاج الطيور		
(scientif	ïc journals, reports)	الداجنة المعلومات المتوفرة على شبكة االنترنت ذات العالقة والمعلومات المتوفرة في الدوريات المحلية والعربية والعالمية والتي لمعلومات المتوفرة في الدوريات المحلية والعربية والعالمية والتي		
Electron	nic References, Websites	https://nicehatchir poultry-husbandr https://www.brita	y /	

7. Course Administrator's Name (mention all, if more than one name)				
	·	Email:		
8. Course Objectives	S			
	The student becomes	s familiar with poultry products.		
	Acquire the knowled	lge of producing eggs, poultry meat, and biofuel		
	using poultry waste.			
	Identify the chemical composition and nutritional value of poultry			
Course Objectives	products.			
	Recognize the circumstances that impact poultry products.			
	Understand the methods for promoting poultry products and			
	distributing them to customers.			
	Identify how to pres	erve and store poultry products.		
9. Teaching and Lea	rning Strategies			
	Explanation and cla	rification		
	Lecture method			
Strategies	Student groups			
	Practical lessons in t	he field		
	Scientific trips to follow up on poultry projects in Iraq			

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	2	The situation of poultry production in Iraq and the Arab world, the importance of expanding poultry production, the situation of egg production, and the situation of poultry meat production.	Technology of poultry products	Explanation, presentation of the form, and lecture	Exam
2	2	Types of poultry projects, measuring the specific weight of the egg.	Technology of poultry products		Exam
3	2	The nutritional value of eggs, the composition of the egg, eggs in human nutrition, factors affecting the nutritional value of eggs, the glycerol contents of the egg, measuring the percentage of shell weight.	Technology of poultry products	Explanation, presentation of the form, and lecture	Exam
4	2	Chemistry of eggs and egg products, egg shells and membranes, egg whites, egg yolks, shell color.	Technology of poultry products	Explanation, presentation of the form, and lecture	Exam
5	2	Egg microbiology, contamination of the egg	Technology of poultry products	Explanation, presentation	Exam

		before and after laying, the ability of the egg to resist microorganisms, changes caused by the egg's microorganisms, factors affecting the shell.		of the form, and lecture	
6	2	Egg storage and marketing, changes that occur in eggs during storage, methods of preserving and storing eggs, marketing liquid eggs, measuring the whiteness of eggs.	Technology of poultry products	Explanation, presentation of the form, and lecture	Exam
7	2	Poultry meat production, preparing broilers, receiving and incubating chicks, commercial breeds of broilers, standard rates for the economic characteristics of broilers and factors affecting them, egg index scale.	Technology of poultry products	Explanation, presentation of the form, and lecture	Exam
8	2	Chemical and nutritional properties of poultry meat, composition of poultry meat, factors affecting the chemical composition of poultry meat, Hu unit scale	Technology of poultry products	Explanation, presentation of the form, and lecture	Exam
9	2	Processes for preparing poultry meat for consumption, types of poultry birds used in meat production, processes for preparing poultry meat, cutting poultry carcasses, quality of yolks	Technology of poultry products	Explanation, presentation of the form, and lecture	Exam
10	2	Quality of poultry meat and methods of preserving it, grading live poultry and characteristics adopted in grading, grading carcasses, maintaining quality, yolk shape	Technology of poultry products	Explanation, presentation of the form, and lecture	Exam

11	2	Cold storage, refrigeration requirements, freezing meat, freezing requirements in poultry slaughterhouses, methods used in freezing poultry meat, changes in the nutritional value of poultry meat during storage, yolk color and factors affecting it.	Technology of poultry products	Explanation, presentation of the form, and lecture	Exam
12	2	Microbiology of poultry meat, methods for measuring yolk color	Technology of poultry products	Explanation, presentation of the form, and lecture	Exam
13	2	Flavor and tenderness of poultry meat	Technology of poultry products	Explanation, presentation of the form, and lecture	Exam
14	2	Bloody and fleshy spots	Technology of poultry products	Explanation, presentation of the form, and lecture	Exam
15	2	The effect of cooking methods on the flavor and tenderness of poultry meat and its nutritional values, egg .grading and inspection	Technology of poultry products	Explanation, presentation of the form, and lecture	Exam
11. Course Evaluation					
Distribution of the grade out of 50 according to the tasks assigned to the student, such as					
.homework, daily, oral, monthly, written exams, reports, etc					
12. Learning and Teaching Resources Required textbooks (curricular books, if					
any)	cu iexidot	oks (culticulat books, il			
Main references (sources)					
		ooks and references			
		ls, reports)			
Electro	nic Refere	ences, Websites			

1. Course Name: Principles of Genetics
2. Course Code: :- GENE235
3. Semester / Year: Spring Semester / Year 2024
4. Description Preparation Date: 1-2-2024

5. Forms of Attendance: Attendance

6. Number of Studying Hours (Total) / Number of Units (Total):-

5 hours (2 theoretical and 3 practical) Number of units (3.5)

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

Name: M.M. Duaa Ali Hussein M.M. Hamid Majeed

Email:

8. Course Objectives

Course Objectives

Graduating students who are able to:

- Work in the field of genetic characterization of farm animals
- Work on studying farm animal breeds
- The possibility of preserving them and enhancing their economic characteristics
- Help students understand the curriculum and vocabulary of the lesson
- Animal genetics curriculum and learn about the history of genetics
- Introduce livestock projects and focus on the genetic aspects in the country
- Practical practice of the most important animal genetics projects and conduct test crosses for a number of farm animals

9. Teaching and Learning Strategies

Strategies

This course is designed to suit the second year students in the Animal Production Department. In order to achieve the desired goal of studying this course, genetics studies the biodiversity in farm animals and the effect of genetic factors on different animals and studies how similar and different animal species are in terms of phenotypic and genetic characteristics

10. Cou	10. Course structure							
Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method			
1	5	Introducing students to information about general genetics and the history of genetics	General Introduction to Genetics	Lectures Theoretical and practical	Daily and monthly tests			
2	5	Studying the definition of nucleic acids and methods of their synthesis and division	Nucleic Acids	Lectures Theoretical and practical	Daily and monthly tests			
3	5	Introducing students to Mendel's laws (the law of segregation and independent segregation	Mendelian Inheritance	Lectures Theoretical and practical	Daily and monthly tests			

4	5	Introducing students to the phenotypic traits of the animal	Types of Dominance	Lectures Theoretical and practical	Daily and monthly tests	
5	5	Explaining and clarifying the effect of the gene on the appearance of several phenotypic traits in the same species	Multiple Alleles	Lectures Theoretical and practical	Daily and monthly tests	
6	5	Introducing students to some phenotypic traits affected by the sex of the .living organism	Sex-Determined Traits	Lectures Theoretical and practical	Daily and monthly tests	
7	5	Introducing students to the term genetic interference and the meaning of lethal alleles and the most important diseases that they can cause to humans and animals	Genetic interference and lethal alleles	Lectures Theoretical and practical	Daily and monthly tests	
8	5	Introducing students to the characteristics of genetic material during division	Complete linkage	Lectures Theoretical and practical	Daily and monthly tests	
9	5	Introducing students to the state of crossing over during growth	Genetic crossing over	Lectures Theoretical and practical	Daily and monthly tests	
10	5	Explaining quantitative inheritance and determining mapping distances in diploid organisms	Chromosome maps	Lectures Theoretical and practical	Daily and monthly tests	
11	5	Introducing students to the term genetic replication	Gene duplication and its laws	Lectures Theoretical and practical	Daily and monthly tests	
12	5	Explaining the effect of the mother and cytoplasmic inheritance	Cytoplasmic inheritance	Lectures Theoretical and practical	Daily and monthly tests	
13	5	Introducing students to the meaning of the genetic code, gene expression and genetic control over protein synthesis	Gene expression	Lectures Theoretical and practical	Daily and monthly tests	
14	5	Explaining the difference in chromosomal structure	Chromosomes	Lectures Theoretical and practical	Daily and monthly tests	
15	5	Introducing students to genetic mutations, their types and the reasons for their occurrence	Genetic mutations	Lectures Theoretical and practical	Daily and monthly tests	
11. Cou	rse Evalu	ation				
Distribution of the grade out of 50 according to the tasks assigned to the student, such as						

.homework, daily, oral, monthly, written exams	s, reports, etc
12. Learning and Teaching Resources	
Required textbooks (curricular books, if any)	عدنان حسن مجد(1982) أساسيات في الوراثة . دار الكتب للطباعة والنشر .الموصل. 1- خالد حامد حسن (2017) اساسيات علم الوراثة. مطبعة جامعة ديالى. جمهورية العراق. 2- شبكة المعلومات الدولية الانترنت
Main references (sources)	. Breeding and Genetics Muir , W.M. and S.E., Aggrey (2003) PoultryGenetics , Breeding and Biotechnology Principles of Genetics , Editors : D.P.,Snustad . (and M.J.,Simmons (2000 Interactive concepts in Biology . Tenth Edition .Version (4.0) CD شبكة المعلومات الدولية الإنترنت
Recommended books and references	المجلات العلمية الاكاديمية العراقية
(scientific journals, reports)	J. of Heredity
Electronic References, Websites	Library Genesis

1. Course Name:
Organic Chemistry
2. Course Code:
ORCH162
3. Semester / Year:
The Second spring course / First year
4. Description Preparation Date:
5. Forms of Attendance:
Mandatory (Theoretical / Practical)
6. Number of Studying Hours (Total) / Number of Units (Total)
7. Course Administrator's Name (mention all, if more than one name)

Name: Ayat Jawdat Kathem Email: ayat.jawdat@uobasrah.edu.iq								
	rse Objectives							
	e Objectives	Definition the student	Definition the student to Organic chemistry					
9. Teac	ching and Learning S	Strategies						
Strate		Theoretical lectures Use the Curriculum be Use the blackboard	ook					
10. Co	urse Structure							
Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method			
1	2 theoretical + 3 Practical	Definition the student to Organic chemistry,Properties of the element carbon,Types of chemical bonds	Introduction of Organic Chemistry	Using theoretical lectures and using the blackboard structures	quiz			
2	2 theoretical + 3 Practical	Definition the student to Hybridization	Introduction of Organic Chemistry	Using theoretical lectures and using the blackboard structures	quiz			
3	2 theoretical + 3 Practical	Definition the student to Alkanes, Name them, isomers, physical and chemical properties	Saturated Hydrocarbons 'AlKanes'	Using theoretical lectures and using the blackboard structures	quiz			
4	2 theoretical + 3 Practical	Preparation of alkanes, cycloalkanes	Saturated Hydrocarbons 'AlKanes'	Using theoretical lectures and using the blackboard structures	quiz			
5	2 theoretical + 3 Practical	Definition the student to Alkenes, Name them, isomers, physical and chemical properties	unSaturated Hydrocarbons 'AlKenes'	Using theoretical lectures and using the blackboard structures	quiz			

6	2 theoretical + 3 Practical	Preparation of alkenes	unSaturated Hydrocarbons 'AlKenes'	Using theoretical lectures and using the blackboard structures	quiz
7	2 theoretical + 3 Practical	Definition the student to Dienes, name and preparation them	unSaturated Hydrocarbons 'AlKenes'	Using theoretical lectures and using the blackboard structures	quiz
8	2 theoretical + 3 Practical	Definition the student to Alkynes, Name them, physical and chemical properties	unSaturated Hydrocarbons 'AlKynes'	Using theoretical lectures and using the blackboard structures	quiz
9	2 theoretical + 3 Practical	Preparation of alkynes	unSaturated Hydrocarbons 'AlKynes'	Using theoretical lectures and using the blackboard structures	quiz
10	2 theoretical + 3 Practical	Definition the student to Aromatic Comopounds, Name them, physical and chemical properties	Aromatic Comopounds	Using theoretical lectures and using the blackboard structures	quiz

11. Course Evaluation

The theoretical part (30) marks:

Written exam (25) marks + quiz exams (5) marks.

Practical part (20) marks:

The first month: a written exam (20 marks).

12. Learning and Teaching Resources	
Required textbooks (curricular books,	Introduction of Organic Chemistry
if any)	Dr. Fadel Suleiman Kammouna
Main references (sources)	
Recommended books and references	
(scientific journals, reports)	
Electronic References, Websites	

Description of the academic program

Course name: Computer basics and office applications/1

Course code

COMA101

Semester/year:Spring Semester/year2024

Date this description was prepared: 2/1/2024

Available forms of attendance are in person

Total number of study hours / total number of units (30) (2) theoretical hours

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

Email: abbas.alrajhe@uomisan.edu.iq Name: ABBAS LUAIBI OBAID

Module Aims

Introducing the student to the basics of computers and types of computers Its classification, operating systems and objectives. As for the goals of the practical side It is to provide the student with skills in using operating and application programs and how to maintain computer security.

Teaching and learning strategies

- 1- Explanation, clarification, and honing general and qualifying skills
- 2- Urging the student to write simple research using the lecture method to create a state of balance between methodological information and source information.
- 3- Urging the student to work on practical projects on the calculator and hold discussion circles among the students on the methodology of the subject and distribute the students into groups.
- **4-Practical lessons in the laboratory**
- 5- The method of self-learning and writing scientific reports, and urging the student to evaluate the answers of his fellow students to develop self-development.

Course structure

Week	hours	required learning outcomes	Name of the unit or topic	Learning method	Evaluation method
1+2	4	Chapter One: Computer Basics	Chapter One: Computer Basics 1. The development of computer generations 2. Electronic computer 3. Data and information 4. Computer features 5. Areas of computer use	Practical lectures + direct presentation methods + dialogue and discussion	Daily, monthly and final tests and reports
3+4	4	Chapter One: Computer Basics 1	 Computer components Types of computers Classification of 	Practical lectures + direct presentation methods +	Daily, monthly and final tests and reports

			computers	dialogue and discussion	
5+6	4	Chapter Two: Computer components	Chapter Two: Computer components 1. Computer components 2. The physical parts of the computer 3. Input devices 4. Output devices 5. Computer box	Practical lectures + direct presentation methods + dialogue and discussion	Daily, monthly and final tests and reports
7+8	4	Chapter Two: Computer components	1.Software entity 2. Number systems 3. Your personal computer 4. Computer platform 5. Factors that must Take this into consideration when purchasing a computer	Practical lectures + direct presentation methods + dialogue and discussion	Daily, monthly and final tests and reports
9+10	4	Chapter Three (Computer security and licensing programs)	Chapter III (Computer security and licensing programs) 1. Ethics of the electronic world 2. Forms of abuses in the world Electronic 3. Computer security 4. Computer privacy 5. Computer software licenses 6. Types of licenses 7. Intellectual property	Practical lectures + direct presentation methods + dialogue and discussion	Daily, monthly and final tests and reports
11+12	4	Chapter Three (Computer security and licensing programs)	1. Electronic hacking 2. Types of electronic hacking 3. Sources of hacking Electronic 4. The most security risks widespread 5. Malicious software 6. Computer viruses 7. Damages resulting from Viruses 8. Components of	Practical lectures + direct presentation methods + dialogue and discussion	Daily, monthly and final tests and reports

			10. N prot From 11. C	ses ypes of viruses Necessary steps for ection n viruses Computer damage numan health		
13+14	4	the fourth chapter Operating Systems	the fourth chapter Operating Systems 1. Definition of the operating system 2. Operating system functions 3. Objectives of the operating system 4. Operating system classification 5. Examples of some operating systems		Practical lectures + direct presentation methods + dialogue and discussion	Daily, monthly and final tests and reports
15	4	the fourth chapter Operating Systems	1.Windows 7 operating systems 2.Windows 7 installation requirements 3.Windows 7 features 4. Surface components		Practical lectures + direct presentation methods + dialogue and discussion	Daily, monthly and final tests and reports
			0 acco	ording to the tasks a written exams, rep		ent, such as
				···		
Require	Required textbooks (methodology, book four)			Majeed 2-Professor Dr. Zi 3-Professor Dr. M 4-Professor Dr. Sa	ofessor Dr. Ghassar ad Muhammad Ab uhammad Nasser A afaa Abbas Al-Man aformation Networ	oboud Al-Tarfi 10uri
Main references (sources)		1- Internet Ethics - A. M. Alawi Hind - Al-Shabsi Arab University Center 2- Ethics of dealing with technical and communication resources - Dr. Hussein bin Saeed bin Saif 3- Ethics of the virtual world - Dr. Louay Al-Zoubi				
Recom	Recommended supporting books and re			2013 ferences (scientific	journals, reports	.)
Electronic references, Internet sites			Library Genesis :websites History of the development of the developmen	elopment of compu http://mawdoo3.co gspot.com: Informa a.com: Internet La	ter networks, - om ation and	

Real-time communication protocols in the Internet -
.(RTP SIP), World of Technology website
ARPANET logical map,
.http://russbellew.com/Documents/Arpanet_sep_1974

Description of the academic program

Course name: Computer basics and office applications/2

Course code

COMA102

Semester/year:Spring Semester/year2024

Date this description was prepared: 2/1/2024

Available forms of attendance are in person

Total number of study hours / total number of units (30) (2) theoretical hours

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

Email: abbas.alrajhe@uomisan.edu.iq Name: ABBAS LUAIBI OBAID

Module Aims

- 1- Guiding the student how to use the computer in a manner compatible with his cultural level
- 2- Directing the student how to deal with social sites

Teaching and learning strategies

- 1- Explanation, clarification, and honing general and qualifying skills
- 2- Urging the student to write simple research using the lecture method to create a state of balance between methodological information and source information.
- 3- Urging the student to work on practical projects on the calculator and hold discussion circles among the students on the methodology of the subject and distribute the students into groups.
- 4-Practical lessons in the laboratory
- 5- The method of self-learning and writing scientific reports, and urging the student to evaluate the answers of his fellow students to develop self-development.

Course structure

Week	hours	required learning outcomes	Name of the unit or topic	Learning method	Evaluation method
1+2	4	Chapter One: Operating the Word program 2010 File Burning, Program Interfaces Tapes Home tab, group Horizon, line and paragraph Paragraph group and Order group	word	Practical lectures + direct presentation methods + dialogue and discussion	Daily, monthly and final tests and reports

	I	A 1/1 T/1 / 1 / 1	1		
		And the View tab, the			
		Views group			
		Documents, Show			
		group, and Zoom			
		group			
		Minimize the window,			
		help instructions			
		Chapter Two / Insert		Practical	Daily, monthly
		tab, Page group, and		lectures + direct	and final tests
		Table group, Table		presentation	and reports
		Tools tab, Table Design		methods +	
3+4	4	tab, and Skip tab	word	dialogue and	
		Graphics set, tools		discussion	
		Image, set of links			
		Header and footer			
		group, text group, and			
		symbol group		D	D 11
		Chapter		Practical	Daily, monthly
		Three/Additional tasks		lectures + direct	and final tests
		For Microsoft Word,		presentation	and reports
		the References and		methods +	
		Tables of Contents tab,		dialogue and	
		the Footnotes group,		discussion	
		the References,			
		Citations and Captions			
		group, and the			
		Indexing group			
		Resource table set, tbui			
		b Correspondence and			
5+6	3	_	word		
		group creation,			
		merging			
		Correspondence			
		A group of writing and inserting fields Preview			
		results set			
		Review, proofread and			
		language tab And a			
		comment group, a			
		tracking group			
		Changes set and			
		comparison set And a			
		protection group			
7	3	First exam	<u> </u>		
			1	D	D.9 03
		Chapter Four		Practical least-read line of	Daily, monthly
	4	Powerpoint Run it		lectures + direct	and final tests
8+9		The program	Power point	presentation methods +	and reports
		interfaces and the File		methods + dialogue and	
		tab Open a presentation file and		discussion	
		presentation me and		discussion	

		~			
		save a new one Save a			
		stock presentation as			
		Open and close an			
		inventory presentation			
		View and print slides			
		on paper and the Home			
		tab Page setup, theme			
		and background set			
		Slideshow tab h			
		View tab and Views		Practical	Daily, monthly
		group		lectures + direct	and final tests
		Presentation and		presentation	and reports
		presentation set Main		methods +	
		Show set and set		dialogue and	
		Direction, color and		discussion	
		grayscale			
10.11	4	Zoom in, zoom out and	D		
10+11	4	group	Power point		
		Help window and instructions			
		Chapter Five /			
		Inserting and adding			
		objects Motions,			
		adding shapes and			
		groups Drawing and			
		investigating t			
		Inserts tab and Tables		Practical	Daily, monthly
		group		lectures + direct	and final tests
		And a set of photos		presentation	and reports
		Collection of		methods +	und reports
		illustrations and links		dialogue and	
		A set of text and		discussion	
		symbols			
10.10		Adding animations to	D		
12+13	4	slides and objects The	Power point		
		Transitions tab and the			
		Preview group A group			
		is transferred to a slide			
		Set the timing and			
		movements tab			
		A preview group and			
		an animation group			
		Custom drivetrain and		Practical	Daily, monthly
		kit		lectures + direct	and final tests
14	4	The timing is a	Power point	presentation	and reports
	-	comprehensive exam as	- o or point	methods +	
		a review and solution		dialogue and	
		Book questions b		discussion	
15	3	Second exam			
Distribu	tion of the	grade out of 100 according	g to the tasks a	ssigned to the stud	ent, such as

.daily preparation, daily, oral, monthly	, written exams, reports, etc				
Learning and teaching resources	Learning and teaching resources				
	Computer basics and office applications, Part Two/ Microsoft Office 2010 Ministry of Higher Education and Scientific Research				
Required textbooks (methodology, book four)	Written by: 1- Professor Dr. Ghassan Hamid Abdel Majeed				
	2-Professor Dr. Ziad Muhammad Abboud				
	3-Professor Dr. Muhammad Nasser Al-Tarfi				
	4-Professor Dr. Safaa Abbas Al-Mamouri				
	2- International Information Network, the Internet				
Main references (sources)	1.Microsoft PowerPoint 2010 Step by Step(448 pages; Print ISBN: 978-0-7356-2691-1), by Joyce Cox and Joan Lambert, 2.Beginning Microsoft Word 2010, by T.y Anderson, Guy Hart-Davis				
	3. PowerPoint 2010 AdvancedSlides, Animation and Layouts. Stephen Moffat, The Mouse Training Company				
Recommended supporting books and r	eferences (scientific journals, reports)				
Electronic references, Internet sites	Library Genesis :websites History of the development of computer networks, - objective website: http://mawdoo3.com http://youstaff.blogspot.com: Information and Internet security http://geeklesstech.com: Internet Law Laws for - using the Internet Real-time communication protocols in the Internet(RTP SIP), World of Technology website ARPANET logical map, .http://russbellew.com/Documents/Arpanet_sep_1974				

Course Description Form

1. Course Name: Principles of Field Crops - First Stage

1. Course Name: Principles of Field Crops - First Stage				
2. Course Code:				
PRFI155				
3. Semester / Year: Second Semester				
4. Description Preparation Date: 20/09/2023				
5. Forms of Attendance: Weekly				
6. Number of Studying Hours (Total) / Nun	nber of Units (Total) 75 hours			
7. Course Administrator's Name (mention all, if more than one name)				
Name: Ali Adnan Hassoun	Email: ali.adnan@uomisan.edu.iq			
8. Course Objectives	-			

			1 · · · · · · · · · · · · ·	141			
		•	cereal crops in Iraq		1		
			☐ To include the study of scientific methods used in cereal crop				
			cultivation. ☐ To study the suitable environmental conditions for each major field				
		*	ble environmental co	onditions for eac	h major field		
Course	Objectives	crop.	:4] J- 4- :		C C - - - - -		
		☐ To identify the ma	in methods to increa	ise productivity	ior each ileid		
		Crop.	lems related to pests	and disagged of	oogh field		
		• •	iems related to pests	and diseases of	each field		
0 Tood	ning and I a	crop. earning Strategies					
J. Teach	ing and Lo		familiarize the stude	nt with the main	cereal crops		
		prevalent in Iraq and		iii wiiii tiic iiiaiii	i cerear crops		
		_	crops according to th	neir environmen	tal needs.		
Strategi	ies	•	e importance of eacl				
			tific methods used in	-	0		
			crop in terms of prod		-		
10. Cou	rse Structu						
Week	Hours	Required Learning	Unit or subject	Learning	Evaluation		
Week	nours	Outcomes	name	method	method		
	2 theory,	Principles of Field	Field crops:	Theory +	Exams +		
1	3	Crops	definition,	Practical	Quizzes		
	practical		evolution, origin				
	2 theory,	Principles of Field	Environmental	Theory +	Exams +		
	3	Crops	factors in Iraq	Practical	Quizzes		
	practical		and the world				
2			and their relation				
			to crop growth:				
			location, terrain, climate, soil,				
			water resources				
	2 theory,	Principles of Field	Classification of	Theory +	Exams +		
3	3	Crops	field crops by life	Practical	Quizzes		
	practical	•	cycle				
	2 theory,	Principles of Field	Temperature:	Theory +	Exams +		
	3	Crops	factors affecting	Practical	Quizzes		
	practical		temperature, its				
			relation to crops,				
4			adaptation				
			methods to				
			mitigate				
			temperature				
	2 theory	Dringiples of Field	effects Light:	Theory	Exams +		
	2 theory,	Principles of Field Crops	importance of	Theory + Practical	Quizzes		
	practical	Crops	light for plants,	Tacucai	Quilles		
5	practical		plant adaptation				
			to light,				
			significance in				
			seed germination				
6	2 theory,	Principles of Field	Water: soil water	Theory +	Exams +		
U	3	Crops	content, crop	Practical	Quizzes		

	practical		water use efficiency, impact of water scarcity, water stress damage		
7	2 theory, 3 practical	Principles of Field Crops	Monthly exam	Theory + Practical	Exams + Quizzes
8	2 theory, 3 practical	Principles of Field Crops	Soil: soil texture, structure, composition, organic matter, soil water and air, harmful salt effects on crops	Theory + Practical	Exams + Quizzes
9	2 theory, 3 practical	Principles of Field Crops	Air: air pollution, wind effects on crop growth and soil	Theory + Practical	Exams + Quizzes
10	2 theory, 3 practical	Principles of Field Crops	Mutual benefit, competition, antagonism	Theory + Practical	Exams + Quizzes
11	2 theory, 3 practical	Principles of Field Crops	Seeds: importance, composition, maturity, dormancy, seed diagnosis and testing	Theory + Practical	Exams + Quizzes
12	2 theory, 3 practical	Principles of Field Crops	Weeds and their control methods	Theory + Practical	Exams + Quizzes
13	2 theory, 3 practical	Principles of Field Crops	Crop rotations	Theory + Practical	Exams + Quizzes
14	2 theory, 3 practical	Principles of Field Crops	Major crops in the world and Iraq	Theory + Practical	Exams + Quizzes
15	2 theory, 3 practical	Principles of Field Crops	Monthly exam	Theory + Practical	Exams + Quizzes
	rse Evaluat				
.homew	ork, daily,	grade out of 50 according oral, monthly, written example.		to the student,	such as
		Ceaching Resources s (curricular books, if any)	Al-Ansari and Dr Younis	. Abdul Hamid	Ahmed Al-
Main re	Main references (sources) From textbooks, supplementary books, interne and scientific research.				

Recommended books and references (scientific journals, reports)	Scientific journals in core specializations
Electronic References, Websites	

_	Course Description Form			
1. Course Name: Pastur	re management			
2. Course Code:				
PAMA451				
3. Semester / Year: Fall	Semester - First Cou	ırse		
4. Description Preparat	ion Date:			
5. Forms of Attendance	: weekly			
hours 75 6. Number of S	Studying Hours (Tot	al) / Number of Units (Total)		
7. Course Administrato	r's Name (mention al	l, if more than one name)		
Name: M.M. Rasha Naj	i Abd	Email: rashanaji@uomisan.edu.iq		
8. Course Objectives				
	• The student is ab management subje	ect		
	• Enables the student to know the most important ways to protect			
Course Objectives	natural pastures			
	• Familiarity with the most important types of natural pastures			
	••• Detection and knowledge of the palatability of pasture plants.			
	•••• The student	can judge the quality of pasture plants		
9. Teaching and Learning	ng Strategies			
	_	rt of the lecture is interactive, brainstorming, •••		
		ussion. As for the practical part, there is an		
Strategies		ip work to reveal leadership skills, and assignment		
	of tasks and a rep	ort for each field visit		
10. Course Structure				

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	2 Theoretical Practical 3	Pasture management	The importance of pastures	Theoretical + Practical	Exams + Cups
2	2 Theoretical Practical 3	Pasture management	Vegetable . clothing	Theoretical + Practical	Exams + Cups
3	2 Theoretical Practical 3	Pasture management	Environmental factors and natural pastures	Theoretical + Practical	Exams + Cups
4	2 Theoretical Practical 3	Pasture management	Climatic factors.	Theoretical + Practical	Exams + Cups
5	2	Pasture management	Pasture	Theoretical +	Exams +

	Theoretical Practical 3		management and its relationship to soil and water conservation	Practical	Cups
6	2 Theoretical Practical 3	Pasture management	The role of . plants in maintaining soil and pastoral areas in Iraq and the world	Theoretical + Practical	Exams + Cups
7	2 Theoretical Practical 3	Pasture management	.Monthly exam	Theoretical + Practical	Exams + Cups
8	2 Theoretical Practical 3	Pasture management	Grazing and its various effects on fodder production, plant growth, and root growth	Theoretical + Practical	Exams + Cups
9	2 Theoretical Practical 3	Pasture management	Animal load and its determining factors	Theoretical + Practical	Exams + Cups
10	2 Theoretical Practical 3	Pasture management	Exploitation of natural pastures	Theoretical + Practical	Exams + Cups
11	2 Theoretical Practical 3	Pasture management	Sources of exploitation of pastoral plants and the condition of natural pastures	Theoretical + Practical	Exams + Cups
12	2 Theoretical Practical 3	Pasture management	Livestock management and pasture redressing	Theoretical + Practical	Exams + Cups
13	2 Theoretical Practical 3	Pasture management	For natural and artificial coverings and harmful plants in pastures	Theoretical + Practical	Exams + Cups
14	2 Theoretical Practical 3	Pasture management	Methods of taking pasture samples and estimating pasture productivity	Theoretical + Practical	Exams + Cups
15	2 Theoretical Practical 3	Pasture management	Monthly exam	Theoretical + Practical	Exams + Cups
11. Co	ourse Evaluation	n			

Distribution of the grade out of 100 according to the tasks assigned to the student, such as .homework, daily, oral, monthly, written exams, reports, etc				
12. Learning and Teaching Resources				
Required textbooks (curricular books, if any) Pasture management book Al-Takriti Ramadan, Taif Ahmed and Abbas Mahdi Hassan (1976 (Al-Tamimi, Mahdi Abdel Latif (1987)				
Main references (sources)				
Recommended books and references				
(scientific journals, reports)				
Electronic References, Websites				

	Course Description Form
1- Course Name	
Feed and Rations	
2-CourseCode	
FERA321	
3-semester/ year	
2023 – 2024 (Spring	g Semester)
4-The date of prepa	aring this description
25 April 2024	
Available attendan	ce forms
6. Number of study	hours (total) / number of units (total)
	ical + 3 practical) *15 weeks
Name of course add	ministrator (if more than one name is mentioned)
Name: M.Sc Ali Ja	assim Mohammed
Name: M.Sc Dour	nia Mohi Mohsen
Course Objectives	
	Preparing graduates who are able to know:
	1- Theoretical and practical methods for the formation and synthesis of
	feed mixtures for agricultural animal husbandry projects.
Objectives of the	2- Field work skills, and how to establish and prepare animal breeding
unit	projects.
	3- Types of animal feed such as molasses and silag
	4- Feed mixtures, their types and importance in the productivity of yuan
	·
	5- Applying for external tests by local / regional / international bodies.
TEACHING AND	LEARNING STRATEGIES
Strategy	1- Enabling students to analyze and think about topics related to the

intellectual framework of fodder and relationships

- 2- Enabling students to analyze to identify non-traditional feed provided to animals
- 3- Enabling students to analyze and think about how to provide environmental conditions that affect agricultural animals in terms of health and productivity .
- 4- Enabling students to analyze to identify the best relationships prevailing in agricultural animal husbandry projects.

10		CI4	4
10.	Course	Strii	cture

Fifteenth	Hours	Intended Learning Outcomes	Module / Course Name or	Learning method	Valuation Method
1	5	Introducing students to the appropriate leech for agricultural animals and its specifications	Leech/Types of Leeches/ Specifications of Ideal Leeches	Theoretical lectures. 2- Practical lectures. Displays Dialogue and Discussion	Daily and monthly reports .
2	5	Empowering students on how to form relationships to balance nutrients in them	Steps for forming a bush	1- Theoretical lectures. 2- Practical lectures. Displays Dialogue and Discussion	Daily and monthly reports .
3	5	Introducing students to the most important factors affecting the nutritional value of the leeches used in animal nutrition	Factors affecting the nutritional value of feedstuffs	1- Theoretical lectures. 2- Practical lectures. Displays Dialogue and Discussion	Daily and monthly reports .
4	5	Introducing students to the most important practical methods used to improve the nutritional value of feedstuffs used in feeding farm animals, especially	Improving the nutritional value of low-quality feedstuffs	1- Theoretical lectures. 2- Practical lectures. Displays Dialogue and Discussion	Daily and monthly reports .

		ruminants			
5	5		Exam		Daily and monthly reports .
6	5	Introducing students to the sections and types of feed used in animal nutrition	Classification of Fodder /Concentrate / Coarse	1- Theoretical lectures. 2- Practical lectures. Displays Dialogue and Discussion	Daily and monthly reports .
7	5	Introducing students to food additives, their types and their importance in terms of health and economic	Food Additives	1- Theoretical lectures. 2- Practical lectures. Displays Dialogue and Discussion	Daily and monthly reports .
8	5	Enabling students to manufacture and mix meals . as well as methods of preserving fodder	Feed Manufacturing/Silage Manufacturing/Threshing Manufacturing	1- Theoretical lectures. 2- Practical lectures. Displays Dialogue and Discussion	Daily and monthly reports .
9	5	Introducing students to the most important points and general specifications that must be available in fodder materials	Feed Material Evaluation	1- Theoretical lectures. 2- Practical lectures. Displays Dialogue and Discussion	Daily and monthly reports .
10	5		Exam		Daily and monthly reports .
11	5	Introducing students to the animal's protein needs according to age and production	Nutritional Needs/Protein Needs	1- Theoretical lectures. 2- Practical lectures. Displays Dialogue and	Daily and monthly reports .

				Discussion	
12	5	Introducing students to the animal's needs of mineral elements and vitamins according to age and production.	Energy needs/ needs for minerals and vitamins	1- Theoretical lectures. 2- Practical lectures. Displays Dialogue and Discussion	Daily and monthly reports .
13	5	Enabling students to know the needs of farm animals of nutrients and according to production.	Milk Cows Needs/Meat Cows Needs	1- Theoretical lectures. 2- Practical lectures. Displays Dialogue and Discussion	Daily and monthly reports .
14	5	Introducing students to the nutritional needs of sheep and goats.	Sheep Needs/Goat Needs	1- Theoretical lectures. 2- Practical lectures. Displays Dialogue and Discussion	Daily and monthly reports .
15	5	Enabling students to know the needs of work animals of nutrients	Business needs/wool production needs	1- Theoretical lectures. 2- Practical lectures. Displays Dialogue and Discussion	Daily and monthly reports .
Course Eva				4 1: · · 4	
			ng to the tasks assigned to the		as daily
preparation, daily, oral, monthly and written examinations and reports Learning and Teaching Resources					
Required textbooks (curricular books, if any)		McDonald, P., Edwards, R.A. and .1 Greenhalgh, J.F.D., 1987. Animal Nutrition. 4th Longman group (FE) Ltd Essex CM20 2JE, England. Pond, W.G., Church D.C. and Pond, K.R., .2 1995. Basic Animal Nutrition and Feeding 4th Ed. John Wiley & Sons.		., .2	
Main Refer	ences (So	ources)	1 animal-nutrition-7th-editio 2- Cultivation anduseof fod Al-Tamimi.	n.pdf (wordpre	,

	3- Modern machines from the Internet and from specialized scientific fields and a magazine Agricultural Sciences - Iraq and the Library of Satisfaction .
Recommended books and references (scientific journals, reports)	animal-nutrition-7th-edition.pdf (wordpress.com)
E-References, Websites	Agriculture Free Full-Text Animal Nutrition and Productions (mdpi.com)

1- Course Name	
Animal Nutrition	
2-CourseCode	
ANNU314	
3-semester/ year	
2023 – 2024 (Fall Semester)	
4-The date of preparing this	description
25 April 2024	_
Available attendance forms	
6. Number of study hours (to	otal) / number of units (total)
75 hours (2 theoretical + 3 p	ractical) *15 weeks
Name of course administrat	or (if more than one name is mentioned)
Name: Eng. Ali Jassim	
Mohammed	
Course Objectives	
	Preparing graduates who are able to know:
	1- How to digest, absorb and metabolize nutritional nutrients.
	2- Field work skills, and how to establish and prepare animal
Objectives of the writ	breeding projects.
Objectives of the unit	3- Types of animal feed such as molasses and silage
	5- The work of the digestive system in the animal.
	5- Applying for external tests by local / regional / international
	bodies.
TEACHING AND LEARNI	NG STRATEGIES
G ₄ 4	1- Enabling students to analyze and think about topics related
Strategy	to the intellectual framework of animal nutrition

- 2- Enabling students to analyze to identify the digestive system in simple and ruminant animals.
- 3- Enabling students to identify the main nutrients.
- 4- Enabling students to identify the structure of the body of animals and plants .

10. Course S	ucture				
Fifteenth	Hours	Intended Learning Outcomes	Module / Course Name or	Learning method	Valuation Method
1	5	Introducing students to the components of the animal and plant body and knowledge of the main nutrients.	Food /Animal Body Composition/Plant Composition/Water Role and Needs in Animal Body/Water Properties and Functions/ Energy .	1- Theoretical lectures. 2- Practical lectures. Displays Dialogue and Discussion	Daily and monthly reports .
2	5	Enabling students to know the digestive system and its work in ruminants	Digestive processes in animals / digestive system /pseudoruminants / types of digestion / enzymes / qualities of enzymes /microbial digestion of carbohydrates /	1- Theoretical lectures. 2- Practical lectures. Displays Dialogue and Discussion	Daily and monthly reports .
3	5	Introducing students to the components of saliva, its work and its importance in ruminants	Saliva Production/Saliva Functions/ Factors Affecting the Quantity and Quality of Saliva / Factors Affecting Digestion	1- Theoretical lectures. 2- Practical lectures. Displays Dialogue and Discussion	Daily and monthly reports .
4	5	Introducing students to the components of saliva, its work and its importance in ruminants	Saliva Production/Saliva Functions/ Factors Affecting the Quantity and Quality of Saliva / Factors Affecting Digestion	1- Theoretical lectures. 2- Practical lectures. Displays Dialogue and Discussion	Daily and monthly reports .
5	5	Enabling students to know proteins,	Second:Proteins/ Classification of		Daily and monthly

		their properties, classification, enzymatic and microbial digestion and metabolism	proteins/Amino acids/Properties of proteins /Metabolism of proteins in rumen/Enzymatic digestion of proteins/Third: Lipids Classification of lipids /Fat properties/ Digestion of lipids in rumen		reports.
6	5		exam	1- Theoretical lectures. 2- Practical lectures. Displays Dialogue and Discussion	Daily and monthly reports .
7	5	Introducing students to inorganic elements and their importance in the life of the organism . As well as enabling students to know the animal's energy needs	Fourth: Inorganic elements/Essential or necessary inorganic elements/Fifth: Vitamins /Nutritional needs of various nutrients/First: Energy needs/Energy processing in the animal's body/ Total digested nutrients	1- Theoretical lectures. 2- Practical lectures. Displays Dialogue and Discussion	Daily and monthly reports .
8	5	Enabling students to know the animal's protein needs	Second: Protein Needs/Crude Protein/Real Protein/Biological Value/	1- Theoretical lectures. 2- Practical lectures. Displays Dialogue and Discussion	Daily and monthly reports .
9	5	Enabling students to know the types and numbers of microorganisms in the rumen of ruminants	Microbiology in rumen / classification of bacteria/ nutrients needed by bacteria/cilia of rumen/other microorganisms	1- Theoretical lectures. 2- Practical lectures. Displays Dialogue and	Daily and monthly reports .

				Discussion	
10	5	Introducing students to concentrated and coarse feed used in animal nutrition	Feed and Feedstuffs/ First: Concentrated Feedstuffs/ Second :Coarse Feedstuffs		Daily and monthly reports .
11	5	Enabling students to manufacture and mix meals . as well as methods of preserving fodder	/ Type I: Green Coarse Feedstuffs / Type II :Silage/ Type III -Dry Coarse Feedstuffs /	1- Theoretical lectures. 2- Practical lectures. Displays Dialogue and Discussion	Daily and monthly reports .
12	5		exam	1- Theoretical lectures. 2- Practical lectures. Displays Dialogue and Discussion	Daily and monthly reports .
13	5	Introducing students to food additives, their types and their importance in terms of health and economic	Third: Food additives/ factors affecting the nutritional value of feedstuffs/nutritional problems related to the digestive tract of ruminants / bloating /acute indigestion/	1- Theoretical lectures. 2- Practical lectures. Displays Dialogue and Discussion	Daily and monthly reports .
14	5	Introducing students to the most important diseases that affect ruminants resulting from malnutrition .	Simple indigestion/rumen acidity/milk fever/urea poisoning/ ketosis/rumen glut	1- Theoretical lectures. 2- Practical lectures. Displays Dialogue and Discussion	Daily and monthly reports .
15	5	Enabling students to know the types of pastures and how to exploit	Rangelands/Rangelands Types/Natural Rangeland Exploitation/	1- Theoretical lectures. 2-	Daily and monthly reports .

Course Evaluation	Overgrazing/Organized Grazing/Grazing Problems	Practical lectures. Displays Dialogue and Discussion	
Distribution of the score of 100 acco	ding to the tasks assigned to the	student such as daily	
preparation, daily, oral, monthly an	9	· ·	
Learning and Teaching Resources			
Required textbooks (curricular books, if any)	Feeding an animal . Translated by Saad Abdel Hussein Naji and Talal Youssef Boutros . Technical Institutes Foundation. 1985 Dietetics Written by Shaker Abdul Amir Al-Attar and Dr. Gamal Abdel Rahman Tawfiq 2014 . Faculty of Agriculture, University of Baghdad.		
1 animal-nutrition-7th-edition.pdf (wordpress.com) 2- Recent articles from the Internet and from specialized scientific fields, the Journal of Agricultu Sciences - Iraq, and the library.		ernet and from Journal of Agricultural	
Recommended books and references (scientific journals, reports)	animal-nutrition-7th-edition.pdf ((wordpress.com)	
E-References, Websites	Agriculture Free Full-Text Ani Productions (mdpi.com)	mal Nutrition and	

Reproductive Physiology 2-CourseCode REPH317 3-semester/ year 2023 – 2024 (Fall Semester) 4-The date of preparing this description 25 April 2024 Available attendance forms 6. Number of study hours (total) / number of units (total) 75 hours (2 theoretical + 3 practical) *15 weeks Name of course administrator (if more than one name is mentioned) Name: M.Sc Ali Jassim Mohammed Course Objectives Preparing graduates who are able to know: 1- Increasing the productivity of the animal from birth in theory and practice	1- Course Name				
REPH317 3-semester/ year 2023 – 2024 (Fall Semester) 4-The date of preparing this description 25 April 2024 Available attendance forms 6. Number of study hours (total) / number of units (total) 75 hours (2 theoretical + 3 practical) *15 weeks Name of course administrator (if more than one name is mentioned) Name: M.Sc Ali Jassim Mohammed Course Objectives Preparing graduates who are able to know: 1- Increasing the productivity of the animal from birth in theory	Reproductive Physiology				
3-semester/ year 2023 – 2024 (Fall Semester) 4-The date of preparing this description 25 April 2024 Available attendance forms 6. Number of study hours (total) / number of units (total) 75 hours (2 theoretical + 3 practical) *15 weeks Name of course administrator (if more than one name is mentioned) Name: M.Sc Ali Jassim Mohammed Course Objectives Preparing graduates who are able to know: 1- Increasing the productivity of the animal from birth in theory	2-CourseCode				
2023 – 2024 (Fall Semester) 4-The date of preparing this description 25 April 2024 Available attendance forms 6. Number of study hours (total) / number of units (total) 75 hours (2 theoretical + 3 practical) *15 weeks Name of course administrator (if more than one name is mentioned) Name: M.Sc Ali Jassim Mohammed Course Objectives Preparing graduates who are able to know: 1- Increasing the productivity of the animal from birth in theory	REPH317				
4-The date of preparing this description 25 April 2024 Available attendance forms 6. Number of study hours (total) / number of units (total) 75 hours (2 theoretical + 3 practical) *15 weeks Name of course administrator (if more than one name is mentioned) Name: M.Sc Ali Jassim Mohammed Course Objectives Preparing graduates who are able to know: 1- Increasing the productivity of the animal from birth in theory	3-semester/ year				
25 April 2024 Available attendance forms 6. Number of study hours (total) / number of units (total) 75 hours (2 theoretical + 3 practical) *15 weeks Name of course administrator (if more than one name is mentioned) Name: M.Sc Ali Jassim Mohammed Course Objectives Preparing graduates who are able to know: 1- Increasing the productivity of the animal from birth in theory	2023 – 2024 (Fall Semeste	er)			
Available attendance forms 6. Number of study hours (total) / number of units (total) 75 hours (2 theoretical + 3 practical) *15 weeks Name of course administrator (if more than one name is mentioned) Name: M.Sc Ali Jassim Mohammed Course Objectives Preparing graduates who are able to know: 1- Increasing the productivity of the animal from birth in theory	4-The date of preparing t	his description			
6. Number of study hours (total) / number of units (total) 75 hours (2 theoretical + 3 practical) *15 weeks Name of course administrator (if more than one name is mentioned) Name: M.Sc Ali Jassim Mohammed Course Objectives Preparing graduates who are able to know: 1- Increasing the productivity of the animal from birth in theory	25 April 2024				
75 hours (2 theoretical + 3 practical) *15 weeks Name of course administrator (if more than one name is mentioned) Name: M.Sc Ali Jassim Mohammed Course Objectives Preparing graduates who are able to know: 1- Increasing the productivity of the animal from birth in theory	Available attendance for	ns			
75 hours (2 theoretical + 3 practical) *15 weeks Name of course administrator (if more than one name is mentioned) Name: M.Sc Ali Jassim Mohammed Course Objectives Preparing graduates who are able to know: 1- Increasing the productivity of the animal from birth in theory					
Name of course administrator (if more than one name is mentioned) Name: M.Sc Ali Jassim Mohammed Course Objectives Preparing graduates who are able to know: 1- Increasing the productivity of the animal from birth in theory	6. Number of study hours	s (total) / number of units (total)			
Name: M.Sc Ali Jassim Mohammed Course Objectives Preparing graduates who are able to know: 1- Increasing the productivity of the animal from birth in theory	75 hours (2 theoretical +	75 hours (2 theoretical + 3 practical) *15 weeks			
Course Objectives Preparing graduates who are able to know: 1- Increasing the productivity of the animal from birth in theory	Name of course administr	rator (if more than one name is mentioned)			
Preparing graduates who are able to know: 1- Increasing the productivity of the animal from birth in theory	Name: M.Sc Ali Jassim	Mohammed			
1- Increasing the productivity of the animal from birth in theory	Course Objectives				
g i		Preparing graduates who are able to know:			
and practice		1- Increasing the productivity of the animal from birth in theory			
Objectives of the unit	Objectives of the unit	and practice .			
2- Field work skills and how to establish and manage projects.	Objectives of the unit	2- Field work skills and how to establish and manage projects.			
3- The work of the reproductive system in the animal.		3- The work of the reproductive system in the animal.			
4- Applying for external tests by local / regional / international		4- Applying for external tests by local / regional / international			

	bodies.
TEACHING AND LEAF	RNING STRATEGIES
	1- Enabling students to analyze and think about topics related to
	the intellectual framework of reproductive philosophy
	2- Enabling students to analyze to identify the reproductive system
	in farm animals.
Strategy	3- Enabling students to analyze and think about topics related to
	providing appropriate environmental conditions for the stages of
	pregnancy and childbirth .
	4- Enabling students to obtain knowledge on how to use modern
	methods to raise the reproductive efficiency of animals.

Fifteenth	Hours	Intended Learning Outcomes	Module / Course Name or	Learning method	Valuation Method
1	5	The student should identify the male reproductive system, its anatomy, and its functions	Reproductive Physiology	1- Theoretical lectures. 2- Practical lectures. Displays Dialogue and Discussion	Daily and monthly reports .
2	5	The student should know about the process of sperm formation	Reproductive Physiology	1- Theoretical lectures. 2- Practical lectures. Displays Dialogue and Discussion	Daily and monthly reports .
3	5	The student should know about the female reproductive system, its anatomy, and its functions	Reproductive Physiology	1- Theoretical lectures. 2- Practical lectures. Displays Dialogue and Discussion	Daily and monthly reports .
4	5	The student should be familiar with the process of egg formation	Reproductive Physiology	1- Theoretical lectures. 2-	Daily and monthly reports .

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				Practical lectures. Displays Dialogue and Discussion	
5	5		exam		Daily and monthly reports .
6	5	The student should identify the hormones regulating reproductive endocrine glands, hypothalamus, pituitary gland, pineal glandetc.)	Reproductive Physiology	1- Theoretical lectures. 2- Practical lectures. Displays Dialogue and Discussion	Daily and monthly reports .
7	5	The student learns about puberty and sexual maturity	Reproductive Physiology	1- Theoretical lectures. 2- Practical lectures. Displays Dialogue and Discussion	Daily and monthly reports .
8	5	The student should learn about the reproductive cycle in agricultural animals	Reproductive Physiology	1- Theoretical lectures. 2- Practical lectures. Displays Dialogue and Discussion	Daily and monthly reports .
9	5	The student should know about the production of gametes (quanta) and transportation	Reproductive Physiology	1- Theoretical lectures. 2- Practical lectures. Displays Dialogue and Discussion	Daily and monthly reports .
10	5	The student should know about fertility	Reproductive Physiology		Daily and monthly

		and pregnancy			reports .
11	5		exam	1- Theoretical lectures. 2- Practical lectures. Displays Dialogue and Discussion	Daily and monthly reports .
12	5	The student should know about pregnancy and childbirth	Reproductive Physiology	1- Theoretical lectures. 2- Practical lectures. Displays Dialogue and Discussion	Daily and monthly reports .
13	5	The student learns about artificial insemination (introduction, semen collection and artificial insemination techniques)	Reproductive Physiology	1- Theoretical lectures. 2- Practical lectures. Displays Dialogue and Discussion	Daily and monthly reports .
14	5	The student should learn about managing and improving reproduction	Reproductive Physiology	1- Theoretical lectures. 2- Practical lectures. Displays Dialogue and Discussion	Daily and monthly reports .
15	5		exam	1- Theoretical lectures. 2- Practical lectures. Displays Dialogue and Discussion	Daily and monthly reports .

Course Evaluation					
Distribution of the scor	Distribution of the score of 100 according to the tasks assigned to the student such as daily				
preparation, daily, oral	, monthly and written examinations and reports				
Learning and Teaching	Resources				
Required textbooks	Physiology of Farm Animal Reproduction, University of Baghdad,				
(curricular books, if	2011				
any)					
	Physiology, Comparative Member Function Science, Friday Youth				
	Foundation, 2009				
Main References (Sources)	A modern machine base from the Internet and from specialized scientific fields, the Journal of Agricultural Sciences - Iraq, and the consensual library that is related to the material.				
Recommended books					
and references					
(scientific journals,					
reports)					
E-References,					
Websites					

	gn and Analysis of Experiments – Third Stage				
2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1 Course I tailet Design and I mary sis of Emperiments Time a seage				
2. Course Code:					
3. Semester / Year: Se	mester-based – First Course				
4. Description Prepara	ation Date: 20/9/2023				
5. Forms of Attendance	ee: Weekly				
75 hours 6. Number of	f Studying Hours (Total) / Number of Units (Total)				
	tor's Name (mention all, if more than one name)				
Name: Ali Adnan Hassoni Email: ali.adnan@uomisan.edu.iq					
8. Course Objectives					
	Educate students on the fundamental principles of designing and				
	analyzing experiments, emphasizing the importance of this subject in				
	reinforcing the practical aspect of conducting scientific research.				
	Students will learn about the main concepts of design such as				
Course Objectives	experiments, experimental units, factors, treatments, replications, and				
	experimental error, and how to choose the appropriate design for				
	agricultural experiments to reach correct conclusions and decisions				
0 Teaching and Leave	ning Strataging				
9. Teaching and Learn	mig strategies				

Strategies

The strategy is implemented through lectures, discussions, solving scientific and practical examples, daily and monthly exams, assignments, and brainstorming sessions.

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10. Cou	10. Course Structure						
Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method		
1	2 Theory, 3 Practical	Design of Completely Randomized Block Design (R.B.C.D)	Design and Analysis of Experiments	Lectures and Discussions			
2	Theory, 3 Practical	Significant differences according to the Least Significant	Design and Analysis of Experiments	Lectures and Discussions	Semester		
3	2 Theory, 3 Practical	Estimation of missing data in R.B.C.D design	Design and Analysis of Experiments	Lectures and Discussions	Exam, Daily Exam, Student Performance		
4	2 Theory, 3 Practical	R.B.C.D design with more than one observation	Design and Analysis of Experiments	Lectures and Discussions	Evaluation, Homework		
5	2 Theory, 3 Practical	Latin Square Design (L.S.D)	Design and Analysis of Experiments	Lectures and Discussions			
6	2 Theory, 3 Practical	Dunnett's Comparison Test	Design and Analysis of Experiments	Lectures and Discussions			
7	2 Theory, 3 Practical	Monthly Exam	Design and Analysis of Experiments	Lectures and Discussions			
8	2 Theory, 3 Practical	Types of complex experiments and how to distinguish between	Design and Analysis of Experiments	Lectures and Discussions	Semester Exam, Daily Exam,		
9	2 Theory, 3 Practical	Factorial experiments with two factors in C.R.D design	Design and Analysis of Experiments	Lectures and Discussions	Student Performance Evaluation, Homework		
10	2 Theory, 3 Practical	Factorial experiments in R.B.C.D design	Design and Analysis of Experiments	Lectures and Discussions	HOMEWOIK		
11	Theory,	Factorial experiments in Latin Square Design	Design and Analysis of Experiments	Lectures and Discussions			

	Practical				
12	2 Theory, 3 Practical	Monthly Exam	Design and Analysis of Experiments	Lectures and Discussions	
13	2 Theory, 3 Practical	Split-plot experiments with two factors in C.R.D design	Design and Analysis of Experiments	Lectures and Discussions	
14	2 Theory, 3 Practical	Split-plot experiments with two factors in R.B.C.D design	Design and Analysis of Experiments	Lectures and Discussions	
15	2 Theory, 3 Practical	Split-plot experiments with two factors in Latin Square Design	Design and Analysis of Experiments	Lectures and Discussions	
11. Cou	rse Evaluat	tion			
.homew	ork, daily,	grade out of 50 according oral, monthly, written exar reaching Resources	_	d to the student, such as	
		s (curricular books, if any)	C	lysis of Agricultural Dr. Khasha Mahmoud Al-	
Main re	eferences (se	ources)	From textbooks, supplementary books, the internet, and scientific research		
Recom	mended boo	oks and references	"Design and Analysis of Agricultural		
(scientif	fic journals	, reports)	Experiments"		
Electro	Electronic References, Websites				

1. Course Name: Principle of Horticulture
2. Course Code:
PRHS243
3. Semester / Year: 2023- 2024
4. Description Preparation Date: 24- 4 - 2024
5. Forms of Attendance:
6. Number of Studying Hours (Total) / Number of Units (Total)
hours (2 theoretical + 3 practical) *15 weeks 75
7. Course Administrator's Name (mention all, if more than one name)
Name: Dunya Mohi Mohsin
8. Course Objectives

	-The student must be familiar with the science of fruits and palm trees
	and methods of their reproduction
	-The student must be familiar with the science of vegetable crops and
	their production methods
	-The student must be familiar with the science of ornamental plants and
Course Objectives	methods of their propagation
Course Objectives	-The student must be familiar with the science of garden engineering and
	methods of its implementation
	-He has knowledge of methods of breeding and improving horticultural
	plants
	- He has knowledge of other sciences, such as physiology, fruit storage,
	anatomy, and plant classification
9. Teaching and Lear	rning Strategies
	-Explanation and clarification using methods
	-Direct dialogue with students by asking
	-Student collections, homework, and writing reports
Strategies	-Practical lessons in agricultural fields
	-Scientific trips to learn about the most important fodder crops grown in
	Iraq
	-Self-learning method
10 0 0	

10. Course Structure Required Lea

Week	Hours	Required Learning	Unit or subject	Learning	Evaluation
VVCCR	Hours	Outcomes	name	method	method
1	5	Knowledge of the history and development of horticulture	Introduction to the history of horticulture	Lecture, discussion, reports, laboratories, practical in the fields	
2	5	Learn how horticultural crops reproduce	Methods of reproduction of horticultural crops	Lecture, discussion, reports, laboratories, practical in the fields	
3	5	Identifying deciduous fruit trees	Types of deciduous fruit trees	Lecture, discussion, reports, laboratories, practical in the fields	
4	5	Identify evergreen trees	Types of evergreen trees	Lecture, discussion, reports, laboratories, practical in the fields	
5	5	Learn about summer vegetable crops	Different families of plants	Lecture, discussion, reports, laboratories,	

	1	1	Т	
				practical in the fields
				Lecture, discussion,
6	5	Identify winter vegetable crops	Different families of plants	reports, laboratories,
				practical in the fields
		Learn about different		Lecture, discussion,
7	5	summer ornamental	Summer ornamental plants	reports, laboratories,
		plants	ornamental plants	practical in the fields
				Lecture, discussion,
8	5	Learn about different winter ornamental	winter	reports,
0	3	plants	ornamental plants	laboratories, practical in
				the fields
		To learn how to divide fruit trees according to	Fruit trees	Lecture, discussion,
	_	environmental	tropical and	reports,
9	5	conditions as well as	subtropical	laboratories,
		according to plant families	regions	practical in the fields
		Th4 1 1		Lecture,
		The student learns how to divide vegetable crops	Plant families of vegetable crops	discussion, reports,
10	5	according to their		laboratories,
		families		practical in
				the fields Lecture,
		The student learns about	Ornamental plants and	discussion,
11	5	ornamental plants and	methods of	reports,
		methods of propagating and cultivating them	propagation and	laboratories, practical in
		and contraining them	cultivation	the fields
		The student leaves lea	Establishing	Lecture,
		The student learns how to create a plantation	plantation and methods of	discussion, reports,
12	5	and multiply	propagating	laboratories,
		horticultural plants	horticultural	practical in
			plants	the fields Lecture,
		The student will learn	Establishing	discussion,
13	5	how to establish orchards and plant various fruit trees	orchards and learning about	reports,
			tree pollination	laboratories,
		various iruit trees	methods	practical in the fields
14	5	The student learns to	Cultivation and	Lecture,

		grow and propagate medicinal plants	propagation of medicinal and aromatic plants	discussion, reports, laboratories, practical in the fields Lecture, discussion, reports, laboratories, practical in the fields	
15	5	Remind students of the summary of previous topics	A quick review of previous topics	Lecture, discussion, reports, laboratories, practical in the fields Lecture, discussion, reports, laboratories, practical in the fields	
11. Cou	rse Evalu	ation			
Distribu	ition of th	e grade out of 50 according	to the tasks assigned	d to the student, such as	
	_	, oral, monthly, written exa	ms, reports, etc		
		Teaching Resources			
Required textbooks (curricular books, if any)		Principles of horticulture / Dr. Jabbar Abbas Al-Dujaili, Dr. Iman Jaber Abdel Rasoul, Nisreen Khalil Abdel Aziz Principles of horticulture/Karim Saleh Abdul and Saad Zaghloul Al-Najjar			
Main references (sources)		Ornamental plants in Iraq/Dr. Sami and Nisreen Al-Najjar Deciduous fruit/Dr. Alaa Abdul Razzaq Al- Jumaili and others			
Recommended books and references (scientific journals, reports)			Muhammad Abba	tion/Dr. Adnan Nasser is	
Electron	nic Refere	ences, Websites			

Description of the academic program

Course name: Computer basics and office applications/3		

Date this description was prepared: 2/1/2024

Available forms of attendance are in person

Total number of study hours / total number of units (30) (2) theoretical hours

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

Email: abbas.alrajhe@uomisan.edu.iq Name: ABBAS LUAIBI OBAID

Module Aims

Explaining the basics of Excel

Explain how to use equations and functions in Excel -

Explaining how to prepare financial statements in Excel

Teaching and learning strategies

- 1- Explanation, clarification, and honing general and qualifying skills
- 2- Urging the student to write simple research using the lecture method to create a state of balance between methodological information and source information.
- 3- Urging the student to work on practical projects on the calculator and hold discussion circles among the students on the methodology of the subject and distribute the students into groups.
- **4-Practical lessons in the laboratory**
- 5- The method of self-learning and writing scientific reports, and urging the student to evaluate the answers of his fellow students to develop self-development.

Course structure

Week	hours	required learning outcomes	Name of the unit or topic	Learning method	Evaluation method
1+2	4	Identify the program with explanation For bars, effective value and range Cells, columns and rows Know the MMV menu commands, which are save Save as mf, open and dark MMVetc	Excel	Practical lectures + direct presentation methods + dialogue and discussion	Daily, monthly and final tests and reports
3+4	4	Know the page menu commands The main ones are clipboard and font Coordinating, merging and centering cells knowledge of number formatting and page menu commands Home	Excel	Practical lectures + direct presentation methods + dialogue and discussion	Daily, monthly and final tests and reports
5+6	3	Knowledge of styles, including formatting tables and cells, home page menu commands Knowledge of editing,	Excel	Practical lectures + direct presentation methods +	Daily, monthly and final tests and reports

		including smise Digital, linear and depth scanning Formats and page menu commands Home Knowledge of drawer list commands. Drawer list commands (Insert)		dialogue and discussion	
7	3	First exam			
8+9	4	Introduction to charts, their types, and how to create them and change their location. Charts Knowledge of ready-made functions and how to include, use and verify them	Excel	Practical lectures + direct presentation methods + dialogue and discussion	Daily, monthly and final tests and reports
10+11	4	Knowledge of sorting and filtering data and how to arrange data in ascending and descending order (data list commands). Know how to put a password For lush and how to hide and show Depths as well as presentation methods	Excel	Practical lectures + direct presentation methods + dialogue and discussion	Daily, monthly and final tests and reports
12+13	4	Paper and handle formula bar Freezing rows and columns is a review list (Reviw) and view (View) commands Knowledge of the rules for writing mathematical formulas. Introduction to mathematical formulas	Excel	Practical lectures + direct presentation methods + dialogue and discussion	Daily, monthly and final tests and reports
14	4	Knowing how to prepare financial statements and an introduction to operations Arithmetic	Excel	Practical lectures + direct presentation methods + dialogue and discussion	Daily, monthly and final tests and reports
15	3	Second exam			

Distribution of the grade out of 100 according to the tasks assigned to the student, such as .daily preparation, daily, oral, monthly, written exams, reports, etc

Learning and teaching resources

Required textbooks (methodology, book four)	Computer basics and office applications, Part Third/ Microsoft Office 2010 Ministry of Higher Education and Scientific Research Written by: 1- Professor Dr. Ghassan Hamid Abdel Majeed 2-Professor Dr. Ziad Muhammad Abboud
	3-Professor Dr. Muhammad Nasser Al-Tarfi 4-Professor Dr. Safaa Abbas Al-Mamouri 2- International Information Network, the Internet
Main references (sources)	1.Microsoft EXCEEL 2010 Step by Step(448 pages; Print ISBN: 978-0-7356-2691-1), by Joyce Cox and Joan Lambert, 2.Beginning Microsoft Word 2010, by T.y Anderson, Guy Hart-Davis Stephen Moffat, The Mouse Training Company
Recommended supporting books and r	references (scientific journals, reports)
Electronic references, Internet sites	Library Genesis :websites History of the development of computer networks, - objective website: http://mawdoo3.com http://youstaff.blogspot.com: Information and Internet security http://geeklesstech.com: Internet Law Laws for - using the Internet Real-time communication protocols in the Internet(RTP SIP), World of Technology website ARPANET logical map, .http://russbellew.com/Documents/Arpanet_sep_1974

Description of the academic program

Course name: Computer basics and office appli	ications/4		
Course code			
COMA202			
Semester/year :Spring Semester/year2024			
Date this description was prepared: 2/1/2024			
Available forms of attendance are in person			
Total number of study hours / total number of	units (30) (2) theoretical hours		
Name of the course administrator (if more than	one name is mentioned)		
Email: abbas.alrajhe@uomisan.edu.iq	Name: ABBAS LUAIBI OBAID		
Module Aims			
• For the student to become familiar with the history of computer networks and the Internet			
• Introducing the student to the importance of computer networks and the Internet			
• Introducing the student to the basics of compu	iter networks and the Internet		

- Introducing the student to browsing and searching on the Internet
- Introducing the student to electronic messages and conversations
- Introducing the student to the ethics of the Internet world

Teaching and learning strategies

- 1- Explanation, clarification, and honing general and qualifying skills
- 2- Urging the student to write simple research using the lecture method to create a state of balance between methodological information and source information.
- 3- Urging the student to work on practical projects on the calculator and hold discussion circles among the students on the methodology of the subject and distribute the students into groups.
- **4-Practical lessons in the laboratory**
- 5- The method of self-learning and writing scientific reports, and urging the student to evaluate the answers of his fellow students to develop self-development.

Course structure

Week	hours	required learning	Name of the unit or	Learning	Evaluation
WCCK	nours	outcomes	topic	method	method
1+2	4	Chapter One: Introduction to networks, definition of computer networks, benefits of computer networks Types of computer networks, classification of networks (according to connection method, according to engineering design, according to type of service, according to network scope)	Basics of networks and office applications, Part Four	Practical lectures + direct presentation methods + dialogue and discussion	Daily, monthly and final tests and reports
3+4	4	The World Wide Web (ways to connect to the Internet, Internet protocols, device addresses (IP), website addresses (web pages)) Data transfer rate / Internet and Extranet / Cloud computing / Cloud computing	Basics of networks and office applications, Part Four	Practical lectures + direct presentation methods + dialogue and discussion	Daily, monthly and final tests and reports

		T	T	1	
		applications, components of cloud computing, types of cloud computing Benefits and disadvantages of			
5+6	3	cloud computing Chapter Two (Browsing and searching the Internet, web browsers, the Internet Explorer browser, components of the Internet Explorer interface) Additional tasks in the browser, searching on the Internet, using search engines, advanced search, searching by customizing the search field, types of sites.	Basics of networks and office applications, Part Four	Practical lectures + direct presentation methods + dialogue and discussion	Daily, monthly and final tests and reports
7	3	First exam			
8+9	4	Chapter Three (Electronic messages and conversations, introduction, e- mail, e-mail features, creating a new e-mail account Log in to email, Microsoft Outlook,	Basics of networks and office applications, Part Four	Practical lectures + direct presentation methods + dialogue and discussion	Daily, monthly and final tests and reports
10+11	4	Skype chat program, the necessary steps to download the Skype chat program, the process of installing the Skype chat program,Learn	Basics of networks and office applications, Part Four	Practical lectures + direct presentation methods + dialogue and discussion	Daily, monthly and final tests and reports

		about the components of the Skype chat program, the menu bar in the Skype chat program, other parts of the Skype chat program, additional tasks in the Skype chat program.			
12+13	4	Chapter Four: Ethics of the Internet world, Internet law and types of infringements in the digital space, technology ethics, etiquette and ethics of dealing with the Internet, The effects of negative use of the Internet on life and society, information and Internet security, information security,	Basics of networks and office applications, Part Four	Practical lectures + direct presentation methods + dialogue and discussion	Daily, monthly and final tests and reports
14	4	Weaknesses in the Internet, security problems, computer vulnerability, computer and information protection	Basics of networks and office applications, Part Four	Practical lectures + direct presentation methods + dialogue and discussion	Daily, monthly and final tests and reports
15	3	Second exam			
Distribution of the grade out of 100 according to the tasks assigned to the student, such as .daily preparation, daily, oral, monthly, written exams, reports, etc					
Required textbooks (methodology, book four)			Computer basics at Microsoft Office 20 Ministry of Higher Research Written by: 1- Prof Majeed	010 Education and Sci	entific

	<u></u>
	2-Professor Dr. Ziad Muhammad Abboud
	3-Professor Dr. Muhammad Nasser Al-Tarfi
	4-Professor Dr. Safaa Abbas Al-Mamouri
	2- International Information Network, the Internet
	1. Computer basics and office applications, Step by
	Step(448 pages; Print ISBN: 978-0-7356-2691-1), by
Main references (sources)	Joyce Cox and Joan Lambert, 2.Beginning Microsoft
	Word 2010, by T.y Anderson, Guy Hart-Davis
	Stephen Moffat, The Mouse Training Company
Recommended supporting books and r	references (scientific journals, reports)
	Library Genesis
	:websites
	History of the development of computer networks, -
	objective website: http://mawdoo3.com
	http://youstaff.blogspot.com: Information and
	Internet security
Electronic references, Internet sites	http://geeklesstech.com : Internet Law Laws for
	- using the Internet
	Real-time communication protocols in the Internet -
	.(RTP SIP), World of Technology website
	ARPANET logical map,
	.http://russbellew.com/Documents/Arpanet_sep_1974

1- Course Name			
Management and	production of poultry		
2-CourseCode			
POPR441			
3-semester/ year			
2023 – 2024 (Fall S	emester)		
4-The date of prepare	aring this description		
8 February 2024			
Available attendan	ce forms		
6. Number of study	hours (total) / number of units (total)		
75 hours (2 theoret	cical + 3 practical) *15 weeks		
Name of course add	ministrator (if more than one name is mentioned)		
Name: M.Sc Ali Ja	assim Mohammed		
Course Objectives			
	Preparing graduates who are able to know:		
Objectives of the	1- How to establish breeding and management projects for poultry birds.		
	2- Field work skills, and how to create and prepare projects for raising		
unit	chicken and poultry.		
	3- How to make feed mixes used in poultry projects.		

		4- Applying for external tests by local / regional / international bodies.			
TEACHIN	IG AND	LEARNING STRATEG	IES		
Strategy Strategy		 Enabling students to intellectual framework oppoduction. Enabling students to productivity . Enabling students to available in the market 	of the subject of poultry analyze to identify the t identify the optimal use	management a	nd measuring
10. Course	Structu		•		
Fifteenth	Hours	Intended Learning Outcomes	Module / Course Name or	Learning method	Valuation Method
1	5	Introducing students to the general concept of managing poultry projects	Poultry science and the concept of managing poultry projects.	Theoretical lectures. Practical lectures. Displays Dialogue and Discussion	Daily and monthly reports .
2	5	The student should learn about the importance of poultry projects	Importance of poultry projects Egg and meat production projects	1- Theoretical lectures. 2- Practical lectures. Displays Dialogue and Discussion	Daily and monthly reports .
3	5	Enabling students to know the internal organs of the chicken and its functions, (male and female digestive and reproductive systems and the components of the egg.	The internal organs of the chicken and its functions,(male and female digestive and reproductive and egg components)	1- Theoretical lectures. 2- Practical lectures. Displays Dialogue and Discussion	Daily and monthly reports .
4	5	The student should learn about the types of poultry houses and breeding supplies	Types of poultry houses and breeding supplies.	1- Theoretical lectures. 2- Practical lectures. Displays Dialogue and Discussion	Daily and monthly reports .
5	5	The student should be familiar with hatching and hatching management (selection of hatching egg specifications, treatment of hatching eggs before and	Hatching and Hatch Management	1- Theoretical lectures. 2- Practical lectures. Displays Dialogue and Discussion	Daily and monthly reports .

		during hatching ,			
		stages of embryonic			
		development,types of			
		hatching,factors			
		affecting fertility and			
		hatching rates,			
		hatching problems)			
		The student should be			
		familiar with the			
		management and			
		production of meat			
		broilers (types of modern breeds and			
				1- Theoretical	
		their specifications,		lectures.	
		nursing and caring for	Management and	2- Practical	Daily and
6	5	broilers, raising and caring for meat	production of meat	lectures.	monthly
		broilers, breeding	poultry	Displays	reports .
		systems, feeding meat		Dialogue and	
		broilers and types of		Discussion	
		ties ,marketing meat			
		broilers, meat			
		preparation			
		operations in			
		slaughterhouses)			
		The student should			
		know about the			
		management and			
		production of laying			
		hens (types of modern		1- Theoretical	
		breeds and their		lectures.	
		specifications, nursing	Management and	2- Practical	Daily and
7	5	and care of laying	production of laying	lectures.	monthly
		hens, breeding	hens	Displays	reports .
		systems, feeding		Dialogue and	
		laying hens during the		Discussion	
		stages of growth and			
		production,			
		calculations of egg production rates)			
	1	production rates)		1- Theoretical	
				lectures.	
		Enabling students to		2- Practical	Daily and
8	5	know the compulsory	Mandatory straws	lectures.	monthly
-	-	qalash (its methods	J 22 22	Displays	reports.
		and benefits)		Dialogue and	
				Discussion	
		Enabling students to	Management of	1- Theoretical	Doily or d
9	1	know the management	maternal herds	lectures.	Daily and
	5	<u> </u>	mater nar ner as		monthly
9	5	of mothers' herds (mothers of meat and	(broiler and egg mothers)	2- Practical lectures.	monthly reports .

		eggs)		Displays Dialogue and Discussion	
10	5	The student should learn about raising turkey, ducks and almonds .	Raising turkeys, ducks and almonds .	1- Theoretical lectures. 2- Practical lectures. Displays Dialogue and Discussion	Daily and monthly reports .
11	5	The student should be familiar with the management of poultry fields in hot weather .	Manage poultry fields in hot climates	1- Theoretical lectures. 2- Practical lectures. Displays Dialogue and Discussion	Daily and monthly reports .
12	5	The student should ge acquainted with the management of fodder factories and fodder preparation	fodder factories and	1- Theoretical lectures. 2- Practical lectures. Displays Dialogue and Discussion	Daily and monthly reports .
13	5	Enabling students to know poultry disease and methods of prevention and treatment.	Poultry disease and methods of prevention and treatment .	1- Theoretical lectures. 2- Practical lectures. Displays Dialogue and Discussion	Daily and monthly reports .
14	5	The student should identify the records and their types in the poultry fields.	Records and their types in poultry fields.	1- Theoretical lectures. 2- Practical lectures. Displays Dialogue and Discussion	Daily and monthly reports .
15	5		exam		Daily and monthly reports .
Course Evaluation Distribution of the score of 100 according to the tasks assigned to the student such as daily preparation, daily, oral, monthly and written examinations and reports Learning and Teaching Resources Required textbooks (curricular Al-Zubaidi , Suhaib Saad Alwan (1986), Poultry Managament University of Pages					
,	Management, University of Basra . Main References (Sources) A modern machine base from the Internet and from specialized scientific fields, the Journal of				

	Agricultural Sciences - Iraq, and the consensual library that is related to the material.
Recommended books and references	Handbook of Poultry VetBooks
(scientific journals, reports)	
E Defenences Websites	Poultry Science
E-References, Websites	Poultry (almerja.com)

		Course Descripti	OH FOLH		
1- Course Name					
Feed poultry					
2-CourseCode					
POBN445					
3-semester/ year					
2023 – 2024 (Fall Se	mester)				
4-The date of prepar	ring this	description			
8 February 2024					
Available attendance	e forms				
6. Number of study	hours (to	otal) / number of units	(total)		
75 hours (2 theoretic	cal + 3 p	ractical) *15 weeks			
Name of course adn	ninistrate	or (if more than one na	me is mentioned)		
Name: M.Sc Ali Jas	ssim Mol	nammed			
Course Objectives					
Objectives of the unit	Preparing graduates who are able to know: 1- How to digest, absorb and metabolize nutritional nutrients. 2- Field work skills, and how to create and prepare projects for raising chicken and poultry. 3- How to make feed mixes used in poultry projects. 5- The work of the digestive system in the animal. 5- Applying for external tests by local / regional / international bodies.				
TEACHING AND I	TEACHING AND LEARNING STRATEGIES				
1- Enabling students to analyze and think about topics related to the intellectual framework of poultry feeding. 2- Enabling students to analyze to identify the digestive system and its work in poultry birds. 3- Enabling students to identify the main nutrients. 4- Enabling students to identify the best ways to synthesize feed mixes. 5-Enabling students to identify the optimal use of fodder materials available in the market .					
10. Course Structure					
Fifteenth	Hours	Intended Learning Outcomes	Module / Course Name or	Learning method	Valuation Method
1	5	Introducing students to energy,	Energysources .Split it up	1- Theoretical	Daily and monthly

	its components, sections, importance and the factors affecting it .	.Influences	lectures. 2- Practical lectures. Displays Dialogue and Discussion	reports .
2 5	The student should identify the proteins, their types, classification, their importance for birds, and the impact of increasing and decreasing them.	Proteins – their types and classification The effect of their increase and decrease	1- Theoretical lectures. 2- Practical lectures. Displays Dialogue and Discussion	Daily and monthly reports .
3 5	Introducing students to the most important factors affecting protein utilization.	Proteins and factors affecting their utilization	1- Theoretical lectures. 2- Practical lectures. Displays Dialogue and Discussion	Daily and monthly reports .
4 5	Enabling students to know the vitamins and their importance for the bird and its sections and the factors affecting them .	Vitamins - their classification and factors affecting their needs	1- Theoretical lectures. 2- Practical lectures. Displays Dialogue and Discussion	Daily and monthly reports .
5 5	Introducing students to inorganic elements and their importance to birds and provoking their increase and decrease.	Minerals, their classification, the effect of their increase and decrease	1- Theoretical lectures. 2- Practical lectures. Displays Dialogue and Discussion	Daily and monthly reports .
6 5	Introducing students to the nutrients, the	Water is its importance, functions,	1- Theoretical lectures.	Daily and monthly reports .

		importance of water for the bird and its	sources and	2- Practical	
		sources .	quality	lectures. Displays Dialogue and Discussion	
7	5		Monthly Exam		Daily and monthly reports .
8	5	Enabling students to know the digestive system and its work in poultry birds, types of digestion, and nutrient metabolism.	Digestion and Metabolism - Digestive System - Its Functions	1- Theoretical lectures. 2- Practical lectures. Displays Dialogue and Discussion	Daily and monthly reports .
9	5	Introducing students to the end products of digestion of nutrients, and the factors affecting digestion.	End-products of digestion - factors affecting digestion	1- Theoretical lectures. 2- Practical lectures. Displays Dialogue and Discussion	Daily and monthly reports .
10	5	Introducing students to the feed used in feeding poultry birds, their sources and types.	Primary fodder materials, their sources and types		Daily and monthly reports .
11	5	Introducing students to food additives, their types and their importance in terms of health and economic	Vitamins, minerals and feed additives	1- Theoretical lectures. 2- Practical lectures. Displays Dialogue and Discussion	Daily and monthly reports .
12	5	Enabling students to know the feed concentrates and mixtures used in poultry nutrition and its production	Feed concentrates, mixtures and their production requirements	1- Theoretical lectures. 2- Practical lectures.	Daily and monthly reports .

		requireme	nts		Displays Dialogue and Discussion	
13	5	Introducing students to the fodder factory, its departments and its importance in animal production projects.		Feed Production and Manufacturing Feed Factory Its Importance and Sections	1- Theoretical lectures. 2- Practical lectures. Displays Dialogue and Discussion	Daily and monthly reports .
14	5	Introduce students to periodic maintenance of the feed factory and methods of synthesizing feed mixtures.		Laboratory Maintenance Formation and Synthesis of Relationships and Quality Control	1- Theoretical lectures. 2- Practical lectures. Displays Dialogue and Discussion	Daily and monthly reports .
15	5			Second Month Exam	1- Theoretical lectures. 2- Practical lectures. Displays Dialogue and Discussion	Daily and monthly reports .
Course Evaluation						
Distribution of the s preparation, daily, o	oral, moi	nthly and wr				ns daily
Learning and Teach	ing Reso	ources				
Required textbooks (curricular books, if any)		Al Yaseen. Ali Abdul Khaliq, Abdul Abbas, Mohammed Hassan (2010), Poultry Feeding, University of Baghdad, Faculty of Agriculture. Al-Kassar, Ali Mahmoud Jawad, Ammar Hussein, Ali Saif (2021). Poultry feed and chemical analysis. University of Kufa. Faculty of Agriculture			ng, lture . r Hussein , analysis. e	
Main References (Sources)			specialize Agricultu	t articles from the d scientific fields, t ral Sciences - Iraq on, which is related	he Journal of and the librai	ry of
Recommended book	s and re	ferences	Handbook	of Poultry Nutrition	n VetBooks	

(scientific journals, reports)	Poultry Nutrition MDPI Books
E-References, Websites	Poultry Science

			Course			
1. Cour	1. Course Name: Pasture management					
2. Cour	2. Course Code:					
	PAMA451					
		all S	Semester - First Cour	'se		
C Scine	Section 1 carries		semester rust cour			
4. Desci	ription Prepar	atio	on Date:20/9/ 2023			
5. Form	s of Attendan	ce:	weekly			
hours7	5 6. Number o	of St	tudying Hours (Tota	l) / Number of Units	(Total)	
1100157	e of i (diliber)) <u> </u>	taajing 110a15 (10ta	i) / I (dillisel of cilles	(1000)	
7. Cour	se Administra	tor	's Name (mention all,	, if more than one na	me)	
Name:	Rasha Naji Al	bd		Email: rashanaji@u	omisan.edu.iq	
8. Cour	se Objectives					
9. Teac	• The student is able to understand and comprehend the pasture management subject • Enables the student to know the most important ways to protect Course Objectives • Familiarity with the most important types of natural pastures • • • Detection and knowledge of the palatability of pasture plants. • • • • The student can judge the quality of pasture plants 9. Teaching and Learning Strategies The theoretical part of the lecture is interactive, brainstorming, • • • dialogue, and discussion. As for the practical part, there is an assignment to group work to reveal leadership skills, and assignment of tasks and a report for each field visit				astures are plants. s orming, •••	
10. Cou	rse Structure					
Week	Hours		equired Learning atcomes	Unit or subject name	Learning method	Evaluation method
1	2 Theoretical Practical 3	Pa	sture management	The importance of pastures	Theoretical + Practical	Exams + Cups
2	2 Theoretical Practical 3	Pa	sture management	Vegetable . clothing	Theoretical + Practical	Exams + Cups
3	2 Theoretical Practical 3	Pa	sture management	Environmental factors and natural pastures	Theoretical + Practical	Exams + Cups

Pasture

Climatic factors.

Pasture management

Pasture management

4

5

Theoretical

Practical 3

Theoretical +

Theoretical +

Practical

Exams +

Exams +

Cups

	Theoretical Practical 3		management and its relationship to soil and water conservation	Practical	Cups
6	2 Theoretical Practical 3	Pasture management	The role of . plants in maintaining soil and pastoral areas in Iraq and the world	Theoretical + Practical	Exams + Cups
7	2 Theoretical Practical 3	Pasture management	.Monthly exam	Theoretical + Practical	Exams + Cups
8	2 Theoretical Practical 3	Pasture management	Grazing and its various effects on fodder production, plant growth, and root growth	Theoretical + Practical	Exams + Cups
9	2 Theoretical Practical 3	Pasture management	Animal load and its determining factors	Theoretical + Practical	Exams + Cups
10	2 Theoretical Practical 3	Pasture management	Exploitation of natural pastures	Theoretical + Practical	Exams + Cups
11	2 Theoretical Practical 3	Pasture management	Sources of exploitation of pastoral plants and the condition of natural pastures	Theoretical + Practical	Exams + Cups
12	2 Theoretical Practical 3	Pasture management	Livestock management and pasture redressing	Theoretical + Practical	Exams + Cups
13	2 Theoretical Practical 3	Pasture management	For natural and artificial coverings and harmful plants in pastures	Theoretical + Practical	Exams + Cups
14	2 Theoretical Practical 3	Pasture management	Methods of taking pasture samples and estimating pasture productivity	Theoretical + Practical	Exams + Cups
15	2 Theoretical Practical 3	Pasture management	Monthly exam	Theoretical + Practical	Exams + Cups
11. Co	ourse Evaluation	n			

Distribution of the grade out of 100 according to the tasks assigned to the student, such as					
.homework, daily, oral, monthly, written exams	.homework, daily, oral, monthly, written exams, reports, etc				
12. Learning and Teaching Resources					
Required textbooks (curricular books, if any)	Pasture management book Al-Takriti Ramadan, Taif Ahmed and Abbas Mahdi Hassan (1976 (Al-Tamimi, Mahdi Abdel Latif (1987				
Main references (sources)					
Recommended books and references					
(scientific journals, reports)					
Electronic References, Websites					

Course Descr	ription Form		
1. Course Name: mea	at production		
2. Course Code:			
MEPR446			
3. Semester / Year: F	Fall semester 2024		
4. Description Prepa	ration Date:		
5. Forms of Attendar	nce: Compact		
•	ng Hours (Total) / Num	ber of Units (Total) 75 hours (2 theoretical + 3	
practical) *15 weeks			
- 0			
		, if more than one name)	
Name:noor falah ma		- ·	
shabib munshid jasii	m	Email:	
8. Course Objectives			
o. Course Objectives		t to the types of beef cettle, the behitst of each 1	
		t to the types of beef cattle, the habitat of each 1 wn methods of raising them in the world, what are	
		ase production efficiency in a way that is	
		ype of beef cattle, what are the special concerns for	
		nd their axes, and how to invest in production	
Course Objectives	efficiency	na then axes, and now to invest in production	
	2. Giving the student important information and foundations about beef		
	cattle, which will enable him to manage beef cattle fields and produce		
		t production qualities compared to the traditional	
	methods used that are not based on sound scientific foundations.		
9. Teaching and Lea	9. Teaching and Learning Strategies		
	Explanation and clarifi	cation	
	The lecture method		
Strategies	Writing scientific repor	rts	
	Scientific trips		

10. Cours	se Structure	e			
Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	2	The concept of traditional and modern meat production	meat production	Explanation presentation of the model and lecture	the exam
2	2	Biological hubs for meat production	meat production	Explanation, presentation of the model and lecture	the exam
3	2	The reality of production and consumption of beef cattle	meat production	Explanation, presentation of the model and lecture	the exam
4	2	Challenges and obstacles to beef cattle production	meat production	Explanation, presentation of the model and lecture	the exam
5	2	Growth and development of meat animals	meat production	Explanation, presentation of the model and lecture	the exam
6	2	Factors affecting growth	meat production	Explanation, presentation of the model and lecture	the exam
7	2	Breeding patterns for meat animals	meat production	Explanation, presentation of the model and lecture	the exam
8	2	Optimal investment for production efficiency	meat production	Explanation, presentation of the model and lecture	the exam
9	2	Composition of carcasses and slaughtering ratio	meat production	Explanation, presentation of the model and lecture	the exam
10	2	Modern production technologies	meat production	Explanation, presentation of the model and lecture	the exam
11	2	Marketing class	meat production	Explanation, presentation of the model and lecture	the exam
12	2	Genetic variation in meat traits	meat production	Explanation, presentation of the model and lecture	the exam

13	2	Establishing and managing a herd of beef cattle	meat production	Explanation, presentation of the model and lecture	the exam	
14	2	Beef cattle production systems	meat production	Explanation, presentation of the model and lecture	the exam	
15	2	Raising young calves	meat production	Explanation, presentation of the model and lecture	the exam	
11. Cours	se Evaluati	on				
	_	rade out of 50 according tral, monthly, written exan	0	to the student,	such as	
		eaching Resources				
Required	textbooks	(curricular books, if any)				
Main references (sources)			Beef cattle production - Dr. Fouad Abdel Latif Abdel Karim			
Recommended books and references			-	Iraqi academic scientific journals		
(scientific journals, reports)			Journal of Agric Basra	ultural Sciences	/University of	
Electroni	c Referenc	es, Websites	Animal Science	Journal		

1. Course Name: Ecology and animal behavior			
2. Course Code:			
ANBE320			
3. Semester / Year: Fall semester 2024			
4. Description Preparation Date:			
5. Forms of Attendance: Compact			
6. Number of Studying Hours (Total) / Number of Studying Hours (Total)	mber of Units (Total) 30 hours (2 theoretical)*15		
weeks			
7. Course Administrator's Name (mention all, if more than one name)			
Name:noor falah mahde	Email:		
8. Course Objectives			

Introducing the student to the concept of the environment and its relationship with animals, and studying the natural behavior of the animal, which brings it comfort and well-being, which is ultimately reflected in its productive performance.

Study the sections of environmental science and their definitions Study of environmental factors and their impact on animals and the administrative aspect of fields

Study of animal behavior at various stages of its life

Studying the natural behavior of the animal, which brings it comfort and well-being, which is ultimately reflected in its productive performance

9. Teaching and Learning Strategies

Explanation and clarification

The lecture method

Strategies Writing scientific reports

Scientific trips

10. Course Structure

Course Objectives

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	2	Definitions of ecology and its sections	Ecology and animal behavior	Explanation presentation of the model and lecture	the exam
2	2	Laws of distribution of animals on Earth	Ecology and animal behavior	Explanation, presentation of the model and lecture	the exam
3	2	Environmental factors and their impact on animals	Ecology and animal behavior	Explanation, presentation of the model and lecture	the exam
4	2	Sources of heat in the animal's body and factors affecting it	Ecology and animal behavior	Explanation, presentation of the model and lecture	the exam
5	2	Heat, humidity and their effect on animals	Ecology and animal behavior	Explanation, presentation of the model and lecture	the exam
6	2	Thermal balance	Ecology and animal behavior	Explanation, presentation of the model and lecture	the exam
7	2	Convection, radiation, conduction and evaporation	Ecology and animal behavior	Explanation, presentation of the model and lecture	the exam
8	2	Camels and the desert environment	Ecology and animal behavior	Explanation, presentation	the exam

		T					
				of the model			
				and lecture			
		The role of the		Explanation,			
9	2	hypothalamus and	Ecology and	presentation	the exam		
		pituitary gland	animal behavior	of the model			
		F		and lecture			
		Sweating and body		Explanation,			
10	2	temperature regulating	Ecology and	presentation	the exam		
		factors	animal behavior	of the model			
				and lecture			
		The concept of animal		Explanation,			
11	2	behavior and its impact	Ecology and	presentation	the exam		
		on production	animal behavior	of the model			
		_		and lecture			
		Behavior of cattle	Foology and	Explanation,			
12	2	before, during and after	Ecology and animal behavior	presentation of the model	the exam		
		calving	animai benavior	and lecture			
				Explanation,			
		Food intake, rumination	Ecology and	presentation			
13	2	and water drinking	animal behavior	of the model	the exam		
		behavior of the animal	ammai benavioi	and lecture			
				Explanation,			
		Lactation behavior, bull	Ecology and	presentation			
14	2	behavior	animal behavior	of the model	the exam		
				and lecture			
				Explanation,			
1.5		Behavior of sheep and goats	Ecology and animal behavior	presentation			
15	2			of the model	the exam		
				and lecture			
11. Cou	ırse Evalu	ation					
Distrib	ution of th	ne grade out of 50 according	to the tasks assigne	d to the student,	such as		
		y, oral, monthly, written exa		,			
		Teaching Resources					
Require	Required textbooks (curricular books, if						
any)							
Main references (sources)			Agricultural animal environment Dr. Akram				
				Thanoun and Animal Behavior / Talal Youssef			
Boutros and Dr. Diaa Khalil Ibrahim							
Recomi	mended b	ooks and references	Iraqi academic so	Iraqi academic scientific journals			
(scienti	fic journa	ls, reports)	Journal of Agricultural Sciences/University of				
			Basra				
TIL			1 1 1 C 1 T 1 T 1 C 1 T 1				

Behavior Science

Animal Science Journal- Journal of Animal

Electronic References, Websites

1. Course Name: meat science	

	2. Course Code:					
1	MESC447 3. Semester / Year: Spring semester 2024					
J. Semester	. / Ital. b	pring semester 2024				
4. Descripti	ion Prepa	ration Date:				
5. Forms of	f Attendar	nce: Compact				
6. Number practical) *	•	ng Hours (Total) / Numb	oer of Units (Total) 7	5 hours (2 theor	etical + 3	
7. Course A	dministr	ator's Name (mention all	, if more than one na	ame)		
Name:noor shabib mur			Email:			
8. Course C) bjectives					
Course Ob		Introducing the student meat science Study the chemical commuscle into meat Introducing the student Teaching the student how to obtain highly tee Introducing the student contamination and methods.	position of meat and to the carcasses and ow to preserve fresh nder meat • nt to the most impor	d the processes of d meat of different , chilled and froz	f converting • nt animals • en meat •	
7. Teaching	g anu Lea	Explanation and clarific	ration			
Strategies		The lecture method Writing scientific repor Scientific trips				
10. Course	Structure					
Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method	
1	2	the introduction	meat science	Explanation presentation of the model and lecture	the exam	
2 Types of remeat		Types of red and white meat	meat science	Explanation, presentation of the model and lecture	the exam	
3	2	Types of voluntary and involuntary muscles	meat science	Explanation, presentation of the model and lecture	the exam	
4	2	Chemical composition of meat	meat science	Explanation, presentation of the model and lecture	the exam	

5	2	Mechanics of muscle contraction	meat science	Explanation, presentation of the model and lecture	the exam	
6	2	Regor mortis and the factors affecting it	meat science	Explanation, presentation of the model and lecture	the exam	
7	2	Physical properties of fresh meat	meat science	Explanation, presentation of the model and lecture	the exam	
8	2	Physical properties of cooked meat	meat science	Explanation, presentation of the model and lecture	the exam	
9	2	The most important techniques for improving tenderness	meat science	Explanation, presentation of the model and lecture	the exam	
10	2	Meat storage methods	meat science	Explanation, presentation of the model and lecture	the exam	
11	2	Meat contamination	meat science	Explanation, presentation of the model and lecture	the exam	
12	2	Meat processing	meat science	Explanation, presentation of the model and lecture	the exam	
13	2	Meat packaging	meat science	Explanation, presentation of the model and lecture	the exam	
14	2	Sausage industry	meat science	Explanation, presentation of the model and lecture	the exam	
15	2	Smoking meat	meat science	Explanation, presentation of the model and lecture	the exam	
11. Course	11. Course Evaluation					
Distribution of the grade out of 50 according to the tasks assigned to the student, such as .homework, daily, oral, monthly, written exams, reports, etc						
	12. Learning and Teaching Resources					
	Required textbooks (curricular books, if any) Meat Science Book - Dr. muharib Abdul Hamid Taher					

Main references (sources)	Meat Technology Book - Dr. Youssef Al-
	Sharik and the book "Meat Science and
	Technology" - Dr. Majed Bashir Al-Aswad
Recommended books and references (scientific	Iraqi academic scientific journals
journals, reports)	Journal of Agricultural Sciences/University of
	Basra
Electronic References, Websites	Animal Science Journal

	Course De	escri	ption Form			
1. Cour	1. Course Name: Principles of domestic birds					
			•			
2. Cour	se Code:					
PRPO1	52					
3. Seme	ster / Yea	r: Sı	oring semester 2024			
4. Descr	iption Pr	epar	ation Date:			
	•	_				
5. Form	s of Atten	dan	ce: Compact			
			•			
6. Numl	oer of Stu	dvin	g Hours (Total) / Nun	ber of Units (Total)	75 hours (2 theor	retical + 3
	l) *15 we	•		, ,		
7. Cour	se Admin	istra	tor's Name (mention a	ll, if more than one n	ame)	
	oor falah		<u> </u>	Email:		
Zainab	Zidane K	hala	f	Eman:		
8. Cour	se Objecti	ives	·			
Course Objectives Introducing the student to the importance of poultry and how the poultry industry develops Introducing the student to the most important body systems of birds Teaching the student how to prepare poultry diets Introducing the student to the principles of poultry genetics and improvement Identify the most important diseases that affect poultry				s of birds		
9. Teacl	ning and I	Lear	ning Strategies			
Explanation and clarification The lecture method Writing scientific reports Scientific trips						
10. Cou	10. Course Structure					
Week	Hours	Re	quired Learning tcomes	Unit or subject name	Learning method	Evaluation method
1	2	the	introduction	Principles of domestic birds	Explanation presentation of the model	the exam

				and lecture	
				Explanation,	
		Economic importance of	Principles of	presentation	
2	2	Economic importance of	domestic birds	-	the exam
		the poultry industry	aomesuc biras	of the model	
				and lecture	
			D	Explanation,	
3	2	Types of poultry birds	Principles of	presentation	the exam
			domestic birds	of the model	
				and lecture	
		D. H.	D 1 . 6	Explanation,	
4	2	Poultry science and	Principles of	presentation	the exam
		related sciences	domestic birds	of the model	
				and lecture	
		The anatomical	D 1 . 6	Explanation,	
5	2	structure of the most	Principles of	presentation	the exam
		important organs in the	domestic birds	of the model	
		body: feathers and skin		and lecture	
			D	Explanation,	
6	2	Skeletal system	Principles of	presentation	the exam
-			domestic birds	of the model	
				and lecture	
			D	Explanation,	
7	2	Musculature	Principles of	presentation	the exam
		1vIuseuluvui e	domestic birds	of the model	
				and lecture	
			ID	Explanation,	
8	2	Circulatory device	Principles of	presentation	the exam
-		J 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	domestic birds	of the model	
				and lecture	
			D • • • • •	Explanation,	
9	2	2 Urinary and reproductive system	Principles of domestic birds	presentation	the exam
				of the model	
				and lecture	
				Explanation,	
10	2	Nervous system	Principles of	presentation	the exam
			domestic birds	of the model	
				and lecture	
				Explanation,	
11	2	Respiratory system	Principles of	presentation	the exam
_		<u>.</u>	domestic birds	of the model	
				and lecture	
				Explanation,	
12	2	Lymphatic system	Principles of	presentation	the exam
14		J F	domestic birds	of the model	
				and lecture	
				Explanation,	
13	2	Genetic improvement in	Principles of	presentation	the exam
	-	poultry	domestic birds	of the model	me exam
		77 . 4.4	<u> </u>	and lecture	
14	2	Nutrition and feed	Principles of	Explanation,	the exam
		materials	domestic birds	presentation	

				of the model and lecture		
15	2	The most important poultry diseases	Principles of domestic birds	Explanation, presentation of the model and lecture	the exam	
11. Cou	rse Evalu	ation				
Distribution of the grade out of 50 according to the tasks assigned to the student, such as				such as		
.homew	ork, daily	y, oral, monthly, written ex	kams, reports, etc			
12. Lea	rning and	Teaching Resources				
Require	ed textboo	oks (curricular books, if				
any)						
Main r	eferences	(sources)	Dictionary of po	Dictionary of poultry science		
Recommended books and references			Iraqi academic s	Iraqi academic scientific journals		
(scientific journals, reports)			Journal of Agric	Journal of Agricultural Sciences/University of		
			Basra	Basra		
Electro	nic Refere	ences, Websites	Poultry science-	Poultry science- Animal Science Journal		

1. Course Name:	2 4541741011 1 61111			
Animal Physiology				
2. Course Code:				
ANPH319				
3. Semester / Year:				
2023 -2024				
4. Description Preparation Date:				
1-7-2024				
5. Forms of Attendance:				
Attendance				
6. Number of Studying Hours (Total) / Num	nber of Units (Total)			
75 hours (2 theoretical & 3 practical * 15 weeks)/ 3.5 units				
7. Course Administrator's Name (mention all, if more than one name)				
Name: Faisal Ghazi Lazim	Email: f.bio1987@gmail.com			
8. Course Objectives				

Course Objectives	To knowledge of general animal physiology, and study the structure and functions of the animal body through studying the body's systems and organs.
9. Teaching and Lear	rning Strategies
	Presenting academic courses by using the pictures and illustrations. 1-
	Conducting practical lectures in laboratories and training students to -2
Strategies	do the laboratory tests
	3- Discussions and dialogues during the lecture

10. Course Structure

10. COU	rse Struc	1	I == 4	l = .	
Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	5	Introduction about the animal physiology	Animal Physiology	-Theoretical and Practical lectures - data show - Discussion and dialogue	
2	5	Cell physiology, definitions about the cell, cell membrane structure, cell membrane movement, and what is related to them	Animal Physiology	-Theoretical and Practical lectures - data show - Discussion and dialogue	
3	5	Cell membrane function, methods of transport across the cell membrane,	Animal Physiology	-Theoretical and Practical lectures - data show - Discussion and dialogue	
4	5	Circulatory system, heart and blood vessels, heart cavities and valves.	Animal Physiology	-Theoretical and Practical lectures - data show - Discussion and dialogue	
5	5	Electrical conduction of the heart muscle, control of heart function, blood pressure and its control, factors that regulate heart function, and other related topics.	Animal Physiology	-Theoretical and Practical lectures - data show - Discussion and dialogue	
6	5	General structure and function of the respiratory system,	Animal Physiology	-Theoretical and Practical lectures - data show - Discussion	

	1				
				and dialogue	
7		Control of the breathing		-Theoretical	
		process, factors that		and Practical	
	5	controlling the rate of	Animal	lectures	
		ventilation, main	Physiology	- data show	
		functions of the		- Discussion	
		respiratory system		and dialogue	
		The nervous system,	Animal Physiology	-Theoretical	
		sections of the nervous		and Practical	
8	5	system, how the nervous system works, types of axons		lectures	
	3			- data show	
				- Discussion	
				and dialogue	
		Nerve impulse,		-Theoretical	
		neurotransmitters,		and Practical	
0	_	neuromuscular	Animal	lectures	
9	5	connection, nerve reflex,	Physiology	- data show	
		vital activities controlled		- Discussion	
		by the nervous system		and dialogue	
		Endocrine system,		-Theoretical	
		endocrinology,		and Practical	
10	_	hormones, their	Animal	lectures	
10	5	structure and	Physiology	- data show	
		concentrations in the	. 3.	- Discussion	
		body.		and dialogue	
		•		-Theoretical	
		General functions of	Animal Physiology	and Practical	
	_	hormones, regulation of hormone secretion, methods of measuring it, glands		lectures	
11	5			- data show	
				- Discussion	
				and dialogue	
				-Theoretical	
		Physiology of the urinary system, structure of the urinary system, renal unit,	Animal Physiology	and Practical	
				lectures	
12	5			- data show	
				- Discussion	
				and dialogue	
				-Theoretical	
		T		and Practical	
1.5	_	Urinary tract, nervous	Animal	lectures	
13	5	hormonal regulation of kidney function,	Physiology	- data show	
			<i>v 8y</i>	- Discussion	
				and dialogue	
				-Theoretical	
		Metabolism and energy release, protein metabolism,	Animal Physiology	and Practical	
				lectures	
14	5			- data show	
				- Discussion	
				and dialogue	
		Carbohydrate	Animal	-Theoretical	
15	5	metabolism, fat	Physiology	and Practical	
		metabolishi, iat	1 Hystotogy	and raciicar	

	metabolism, water and	lectures		
	mineral metabolism,	- data show		
	vitamins	- Discussion		
		and dialogue		
11. Cou	11. Course Evaluation			
Distribution of the grade out of 50 according to the tasks assigned to the student, such as				
.homew	.homework, daily, oral, monthly, written exams, reports, etc			
12. Learning and Teaching Resources				
Required textbooks (curricular books, if		1. شتيوي العبد الله: علم وظائف االعضاء ، ط 1 (عمان ، دار		
المسيرة للنشر والتوزيع ، 2012).				
	سباخ ناصر العلوجي: علم وظائف الأعضاء ، (عمان ، دار			
الفكر ناشرون وموزعون ، 2014).		الفكر ناشرون وموزعون ، 2014).		

1- A course Name: Principles of Freedom and Democracy				
2- Course Code				
DEHR207				
3- Semester / Year / Semester – Second Course				
4- Date of preparation of this description				
5- Available attendance forms: Weekly				
6- Number of study hours (total): hours	S			
7- Course Supervisor Name: Asst. Prof. Dr. Ali Aziz Dawood				
Email: ali_izaz@uomisan.edu.iq				
8- A course objectives				
	Introducing students to the concept of freedom			
	and democracy and their origins			
	Introducing students to human rights and			
	.democracy in ancient civilizations			
	Introducing students to human rights in divine			
Subject objectives	.laws and religions			
Subject objectives	Emphasizing the features and characteristics of			
	human rights and the extent of their application			
	.in power			
	Emphasizing the application of freedom and			
	democracy in their correct concept according to			
0.77	.the societal perspective			
9- Teaching and learning strategies				
	The strategy in applying this course is for the			
TOTAL CLA	student to become familiar with the nature of			
The Strategy:	freedom and democracy, their definition, and the			
	most important ways of spreading and applying			
	them, as well as defining the special features of			

			ıman rights under the	O	ernments in
10.0			our contemporary world.		
10- Course s	tructure	D 1			1
The Week	Hours	Required learning outcomes	Unit or topic name	Learning method	Evaluation method
Day 1	theoretical 1	Introduction to Freedom and Democracy	Definition and objectives	Theoretical lecture	Exams + Quizzes
Day 2	theoretical 1	Advantages of freedom and democracy	Introductions to Freedom and Democracy in Ancient Civilizations	Theoretical lecture	Exams + Quizzes
Day 3	theoretical 1	Learn about human rights	Human rights in ancient civilizations	Theoretical lecture	Exams + Quizzes
Day 4	theoretical 1	Understanding and awareness are the most important human rights.	Guarantees for the implementation of the human right to live as a human being	Theoretical lecture	Exams + Quizzes
Day 5 The Week	theoretical 1 Hours	Defining the concept and characteristics of human rights Required learning outcomes	Defining the concept of human rights and their divisions Unit or topic name	Theoretical lecture Learning method	Exams + Quizzes Evaluation method
Day 6	theoretical 1	Forms of human rights	Explaining and clarifying the forms and classifications of human rights	Theoretical lecture	Exams + Quizzes
Day 7	theoretical 1	Public freedoms	Definition of freedom	Theoretical lecture	Exams + Quizzes
Day 8	theoretical 1	Freedom and democracy in th western perspective	Explanation and clarification of e freedom and democracy from the Western perspective	Theoretical lecture	Exams + Quizzes
Day 9	theoretical 1	Characteristics of democracy	Explanation and clarification of the most important features	Theoretical lecture	Exams + Quizzes

Day 10	theoretical 1	The emergence of democracy	The most important ways to spread democracy	Theoretical lecture	Exams + Quizzes
Day 11	theoretical 1	Forms of democracy	Defining the most important forms of democracy	Theoretical lecture	Exams + Quizzes
Day 12	theoretical 1	Islam and democracy	Governance and authority in the Islamic concept	Theoretical lecture	Exams + Quizzes
Day 13	theoretical 1	Democratic State	Is a democratic state a state of citizenship?	Theoretical lecture	Exams + Quizzes
Day 14	theoretical 1	Dictatorships	How dictatorial regimes arise	Theoretical lecture	Exams + Quizzes
Day 15	theoretical 1	midterm exam review	Monthly exam	Theoretical lecture	Exams + Quizzes
11- Course	Evaluation				
0		0	the tasks assigned to ams, reports, posters		uch as daily

preparation, daily, oral, monthly and written exams, reports, posters, etc.

12- Learning and teaching resources			
Required textbooks (methodology if any)	Books related to freedom, democracy and human rights by a group of authors		
Main References (Sources)	From textbooks, auxiliary books, the Internet and scientific research.		
Recommended supporting books and references (scientific journals, reports)	Scientific journals in basic disciplines		
Electronic references, websites	found on web pages		