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

2025

Introduction:

The educational program is a well-planned set of courses that include procedures and experiences arranged in the form of an academic syllabus. Its main goal is to improve and build graduates' skills so they are ready for the job market. The program is reviewed and evaluated every year through internal or external audit procedures and programs like the External Examiner Program.

The academic program description is a short summary of the main features of the program and its courses. It shows what skills students are working to develop based on the program's goals. This description is very important because it is the main part of getting the program accredited, and it is written by the teaching staff together under the supervision of scientific committees in the scientific departments.

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

In this regard, we can only emphasize the importance of writing an academic programs and course description to ensure the proper functioning of the educational process.

Concepts and terminology:

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

Course Description: Provides a brief summary of the most important characteristics of the course and the learning outcomes expected of the students to achieve, proving whether they have made the most of the available learning opportunities. It is derived from the program description.

Program Vision: An ambitious picture for the future of the academic program to be sophisticated, inspiring, stimulating, realistic and applicable.

Program Mission: Briefly outlines the objectives and activities necessary to achieve them and defines the program's development paths and directions.

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

Curriculum Structure: All courses / subjects included in the academic program according to the approved learning system (quarterly, annual, Bologna Process) whether it is a requirement (ministry, university, college and scientific department) with the number of credit hours.

Learning Outcomes: A compatible set of knowledge, skills and values acquired by students after the successful completion of the academic program and must determine the learning outcomes of each course in a way that achieves the objectives of the program.

Teaching and learning strategies: They are the strategies used by the faculty members to develop students' teaching and learning, and they are plans that are followed to reach the learning goals. They describe all classroom and extra-curricular activities to achieve the learning outcomes of the program.

1. Program Vision
Preparing and qualifying trained technical cadres capable of providing the private sector and relevant government institutions (faculties of agriculture - Ministry of Agriculture and its affiliated departments - specialized institutions and research centers) with scientific competencies and distinguished technical expertise in animal production that help improve and increase the domestic product of the food basket to achieve an economic return and make a qualitative leap in performance commensurate with the population increase and the requirements of the labor market and keep pace with development and global development. The Department of Animal Production, through the College of Agriculture, aspires to be a
2. Program Mission
Encouraging young graduates of preparatory schools and agricultural institutes to engage in agricultural academic training for Iraqi colleges of agriculture to ensure that they obtain future job opportunities that serve the labor market and develop the foundations of sustainable development in Iraq to enhance food security. Commitment to prepare agricultural engineers who keep pace with the needs of the labor market capable of competing and contributing to the development of the fields of animal production and following the latest advanced educational systems, and applying systems to preserve the environment and serve the community:
3. Program Objectives

1 -Investing the energy of the youth in the government agricultural program and withdrawing them from focusing on some of the bloated specializations.
2 -The use of modern scientific techniques in achieving the highest economic returns in light of the increasing production cost changes as a result of the pressure of climate change and competition with major global producers, and the development of work methods through electronic governance.
3 -Increasing the domestic product of food by local hands and efficiency and reducing dependence on foreign imports.
4 -Supporting investment and research funding for applied pioneering projects in the field of animal production sciences for the public and private sectors.
5 -Qualifying and developing scientific cadres of teachers, technicians and distinguished students through training courses and workshops that simulate the labor market and sustainable development, and supporting fellowships and scholarships to achieve leadership and excellence in animal production sciences.
6 -Supporting and marketing applied research in the field of animal production.
7 -Activating relations with universities, research centers and advanced international scientific institutions in the field of animal production.
8 -Developing a culture of voluntary community service and cooperation with the private sector in the field of animal production to contribute to raising awareness, applying modern experiences and stabilizing the market.
9 -Effective contribution to enhancing the university's position and classification internationally through distinguished studies and research in animal production and publishing in sober scientific journals.
10 -Periodic review of the curricula of the Department of Animal Production / Colleges of Agriculture in Iraq in preliminary and postgraduate studies in accordance with the standards

4. Program Accreditation
Seeking accreditation

5. Other External Influences
Opportunities for support

6. Program Structure				
Program Structure	**Number of Courses**	**Credit Hours**	**Percentage**	**Reviews***
Institution Requirements	8	16	9.76%	Basic Course
College Requirements	10	22	13.41%	Basic Course
Department Requirements	35	126	76.83%	Basic Course
Summer Training	1			Basic Course
Others			100%	

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

7. Program Description				
Year/Level	**Course Code**	**Course Name**	**Credit Hours**	
			Theoretical	**Practical**
First Stage First course	ANCH121	Analytical chemistry	2	3
	SOIL114	Soil Science	2	3
	PLPR122	Plant Protection	2	3
	ANPR123	Animal Production	2	3
	PLSU118	Plane Surveying	1	3
	COMP101	Computer/ 1	2	-
	ENGL106	English Language/1	2	-
	ARAL104	Arabic Language/1	2	-
	DEHR105	Democracy and Human Rights	2	-
First Stage Second course	ORCH125	Organic Chemistry	2	3
	FICR115	Field Crops	2	3
	STAT124	Statistics	2	3
	DOBR112	Domestic Bird	2	3
	MATH111	Mathematics	3	-

	ZOOL126	Zoology	2	3
Second Stage First course	ENGL206	English Language/2	2	-
	ARAL204	Arabic Language	2	-
	BICH230	Biochemistry	2	3
	BACR205	AL Baath Crimes	2	-
	ANPH212	Animal Product Health	2	3
	ICTH245	Ichthyology	2	3
	HORT216	Horticulture	2	3
	AGEX213	Agriculture Extension	2	-
	MICB218	Microbiology	2	3
	ANME239	Animal Production Mechanization	2	3
Second Stage Second course	GENE235	Genetics	2	3
	FOCR214	Forage Crops and Pastures	2	3
	FIBR215	Fish Breeding and production	2	3
	DAIR240	Dairy Science	2	3
	AGEC229	Agricultural Economy	2	-
	COMP203	Computer/ 2	2	-
Third Stage First course	ANPH312	Animal Physiology	2	3
	HAMA313	Hatching and Hatches Management	2	3
	ANNU314	Animal Nutrition	2	3
	ANEC315	Animal Production Economics	3	-
	ANBE316	Environment and Animal Behavior	2	-

	DAEX327	Design and Analysis of Experiments	2	3
	MEIN343	Medical and Veterinary Insects	2	3
Third Stage Second course	POPH317	Poultry Physiology	2	3
	POTE318	Poultry Products Technology	2	3
	FERA319	Feed and Rations	2	3
	ANPA320	Animal Pathology	2	3
	ANBR321	Animal Breeding	2	3
	REPH322	Reproductive Physiology	2	3
Fourth Stage First course	PONU412	Poultry Nutrition	2	3
	POBR413	Poultry Breeding	2	3
	SHPR419	Sheep and Goats Production	2	3
	MPRO415	Meat Production	2	3
	POPR416	Poultry Management and Production	2	3
	PAMA417	Pasture Managements	2	3
	GRPR421	Graduation Project/1	-	3
Fourth Stage Second course	POPA418	Poultry Pathology	2	3
	MOBI414	Molecular Biology	2	3
	CAPR420	Dairy Cattle Production	2	3
	MESC424	Meat Science	2	3
	BUPR425	Buffalo Production	2	-
	SEMN423	Seminar	1	-
	GRPR422	Graduation Project/2	-	3

8. Expected Learning Outcomes of Program	
Knowledge	
A/1: Knowing the most important animals that can contribute to increasing a certain type of animal production. A/2: Knowing the most important types of animals prevalent in the region and thus finding a program to breed them and increase their production. A/3: Finding a balance between growing crops to feed humans and fodder crops used in feeding animals.	A/4: Identifying the most important compounds and elements needed by animals. A/5: Harvesting plants at appropriate times that can benefit the producer and then the animal. A/6:Trying to raise the product from field crops and animal production alike.
Skills	
B/1: Recognize and learn about different animals and the most famous breeds worldwide.	1: Enable the student to communicate with modern sciences related to his specialty and other agricultural specialties.
B/2: Knowing the requirements necessary for any type of production and the ideal conditions that suit these animals. B/3: The field operations necessary for farm animals. B/4: Enable students to solve problems related to diseases.	2:Lectures, seminars, and discussion sessions. 3: Field practice and scientific laboratories. 4: Scientific trips
Ethics	

C/1: Gather sources and verify the solutions followed in solving problems related to the topic. C/2: Interpret the results by reviewing research, sources, and direct inquiry from specialists. C/3: Find integrated programs related to animal production and try to apply and disseminate them to improve the reality of production. 4. C4: Find integrated programs related to animal production and try to apply and disseminate them to improve the reality of production.	1. Ask questions and answer them inside the study hall. 2. Raise environmental and scientific problems and try to find solutions. 3. Establish the correct foundations for scientific thinking. 4. Develop research project plans to solve a specific problem.

9. Teaching and Learning Strategies
This is done through theoretical and practical lectures related to the curriculum, as well as the scientific application of lessons that require it. It is achieved through methods of discussion and debate, directing questions to students, using modern presentation tools, organizing festivals, and employing modern methods and techniques in teaching methods. 1. Lecture 2. Discussion and dialogue 3. Enrichment questions 4. Direct questioning

10. Evaluation Methods

- Periodic, monthly, and daily exams.
- • Field practice.
- • Discussion of graduation projects.
- • Extracurricular activities.
- • Various homework assignments and writing scientific reports on practical
- laboratory experiments.
- Graduation research discussion tests Graduation Research Discussion Tests

11. Faculty						
Faculty Members						
Academic Rank	**Specialization**		**Special Requirements/ Skills (If Applicable)**		**Number of Teaching Staff**	
	General	**Special**			**Staff**	**Lecturer**
Prof.	Animal production	Meat Scince			1	0
Prof.	Animal production	Breeding and improving animals			1	0
Prof.	Animal production	Sheep production			1	0
Prof.	Animal production	Poultry Nutrition			1	0
Prof.	Animal production	Animal feeding technologies			1	0
Prof.	Animal production	Poultry technology			1	0
Prof.	Animal production	Animal physiology			1	0
Prof.	Animal production	Reproductive physiology techniques			1	0
Prof.	Animal production	Avian physiology			1	0
Assist. Prof.	Animal production	Biotechnology			2	0

Assist. Prof.	Animal production	Milk cattle production			1	0
Assist. Prof.	Animal production	Poultry breeding improvement			1	0
Assist. Prof.	Animal production	Poultry production			1	0
Assist. Prof.	Animal production	Avian physiology			1	0
Assist. Prof.	Animal production	Poultry management			2	0
Assist. Prof.	Animal production	Meat technology			3	0
Assist. Prof.	Animal production	Animal Nutrition			1	0
Assist. Prof.	Animal production	Milk cattle			1	0
Assist. Prof.	Animal production	Physiology and reproduction			1	0
Assist. Prof.	Animal production	Breeding genetics improvement of poultry			1	0
Assist. Prof.	Animal production	Molecular genetics			2	0
Lecturer	Animal production	Breeding and improving animals			2	0
Lecturer	Animal production	Meat science			1	0
Lecturer	Animal production	Poultry technology			1	0
Lecturer	Animal production	Biotechnology			1	0
Lecturer	Animal production	Avian physiology			1	0
Lecturer	Animal production	Animal Nutrition			1	0
Assist. Lecturer	Animal production	Avian physiology			1	0
Assist. Lecturer	Mathematics	Mathematics			1	0

Prof.	Fisheries and Marine Resources	Fisheries management			0	1
Prof.	Economic Sciences	Economic Development			0	1
Prof.	Soil Science and Water Resources	Soil Fertility Water			0	1
Assist. Prof.	Chemistry	Organic Chemistry			0	1
Assist. Prof.	Food Science	Dairy Chemistry			0	1
Lecturer	Agricultural machinery and machinery	Agricultural machinery and machinery			0	1
Lecturer	Horticulture and Garden	Engineering Fruit Physiology			0	2
Lecturer	Plant protection	plant diseases			0	1

Professional Development

Monitoring New Faculty Members

- ✓ Guiding new faculty members into academic work.
- ✓ Working on diversifying classroom management methods and involving them in
- ✓ practical lectures and presentations.
- ✓ Conducting personal interviews to assess the teaching competence and skills of the
- ✓ faculty member.
- ✓ Involving them in publishing research in internationally recognized journals with
- ✓ impact factors, writing books, and participating in workshops and conferences.

Professional Development for Faculty Members

1- Communicating newly acquired knowledge, information, and research findings to the faculty and linking them to daily work experiences.
2- Providing educational opportunities for faculty members to access and gain new information, knowledge, and modern experiences for professional growth.
3- Establishing integration between continuing education programs and production, health, and professional institutions.
4- Achieving integration between formal education and continuing education through the

12. Acceptance Criterion

(1- Admission requirements for the college:
The admission process follows the guidelines and procedures set by the Ministry of Higher Education and Scientific Research - Central Admission Department. Graduates of the preparatory stage (scientific branch) are nominated for admission to the college based on their graduation averages.
2- Admission requirements for the scientific department:
Students are allowed to select their preferred department from among multiple options based on priority.
The student's GPA in the desired department is taken into consideration.
The capacity and enrollment limit of the scientific department are considered during the admission process.

13. The Most Important Sources of Information About The Program

State briefly the sources of information about the program.

14. Program Development Plan

- ✓ Regular evaluation and review of the program, based on recommendations or
- ✓ proposals resulting from the annual reports of the programs and course reports.
- ✓ Developments that have occurred in the field of the program in terms of scientific
- ✓ and technological aspects, as well as research recommendations and studies.
- ✓ Market variables, available job opportunities, and their requirements.
- ✓ Recommendations from the university or external institutions for the development
- ✓ of existing programs.
- ✓ Results of surveys conducted among the beneficiaries of the graduates.
- ✓ Passage of five years or more since the implementation of the curriculum and
- ✓ completion of the feedback loop.

Program Skills outline															
				Required Program Learning Outcomes											
Year/Level	**Course Code**	**Course Name**	**Basic or Optional**	**Knowledge**				**Skills**				**Ethics**			
First Year				**A1**	**A2**	**A3**	**A4**	**B1**	**B2**	**B3**	**B4**	**C1**	**C2**	**C3**	**C4**
	ANCH121	Analytical chemistry	Basic		√			√			√				
	SOIL114	Soil Science	Basic			√			√					√	
	PLPR122	Plant Protection	Basic			√		√						√	
	ANPR123	Animal Production	Basic	√				√				√			
	PLSU118	Plane Surveying	Basic	√				√				√			
	COMP101	Computer/ 1	Basic		√			√							√

	ENGL106	English Language/1	Basic			√			√					√	
	ARAL104	Arabic Language/1	Basic			√			√					√	
	DEHR105	Democracy and Human Rights	Basic			√		√						√	
	ORCH125	Organic Chemistry	Basic	√				√				√			
	FICR115	Field Crops	Basic	√				√				√			
	STAT124	Statistics	Basic	√				√				√			
	DOBR112	Domestic Bird	Basic	√				√				√			
	MATH111	Mathematics	Basic	√				√				√			
	ZOOL126	Zoology	Basic			√			√				√		
Second Year	ENGL206	English Language/2	Basic				√				√				√
	ARAL204	Arabic Language/2	Basic				√				√				√

	BICH230	Biochemistry	Basic	√				√				√			
	BACR205	AL Baath Crimes	Basic			√		√						√	
	ANPH212	Animal Product Health	Basic	√				√				√			
	ICTH245	Ichthyology	Basic	√				√				√			
	HORT216	Horticulture	Basic	√				√				√			
	AGEX213	Agriculture Extension	Basic		√			√							√
	MICB218	Microbiology	Basic			√			√					√	
	ANME239	Animal Production Mechanization	Basic			√		√						√	
	GENE235	Genetics	Basic			√		√						√	
	FOCR214	Forage Crops and Pastures	Basic	√				√				√			

	FIBR215	Fish Breeding and production	Basic	√				√				√			
	DAIR240	Dairy Science	Basic	√				√				√			
	AGEC229	Agricultural Economy	Basic	√						√		√			
	COMP203	Computer/ 2	Basic	√				√				√			
Third Year	ANPH312	Animal Physiology	Basic		√			√							√
	HAMA313	Hatching and Hatches Management	Basic	√							√	√			
	ANNU314	Animal Nutrition	Basic			√		√						√	
	ANEC315	Animal Production Economics	Basic	√				√				√			

	ANBE316	Environment and Animal Behavior	Basic	√				√				√			
	DAEX327	Design and Analysis of	Basic	√				√				√			
	MEIN343	Medical and Veterinary Insects	Basic			√		√						√	
	POPH317	Poultry Physiology	Basic	√				√				√			
	POTE318	Poultry Products Technology	Basic	√				√				√			
	FERA319	Feed and Rations	Basic	√				√				√			
	ANPA320	Animal Pathology	Basic	√				√				√			
	ANBR321	Animal Breeding	Basic	√				√				√			
	REPH322	Reproductive Physiology	Basic		√			√						√	

Fourth Year	PONU412	Poultry Nutrition	Basic	√				√				√			
	POBR413	Poultry Breeding	Basic	√				√				√			
	SHPR419	Sheep and Goats Production	Basic	√				√				√			
	MPRO415	Meat Production	Basic	√				√				√			
	POPR416	Poultry Management and Production	Basic	√				√				√			
	PAMA417	Pasture Managements	Basic	√				√				√			√
	GRPR421	Graduation Project/1	Basic		√			√						√	
	POPA418	Poultry Pathology	Basic			√		√						√	
	MOBI414	Molecular Biology	Basic	√				√				√			

	CAPR420	Dairy Cattle Production	Basic	√				√				√			
	MESC424	Meat Science	Basic	√				√				√			
	BUPR425	Buffalo Production	Basic	√						√		√			
	SEMN423	Seminar	Basic	√				√				√			
	GRPR422	Graduation Project/2	Basic	√				√				√			

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

The second stage

Course Description Form

1. Course Name:	
Ichthyology	
2. Course Code:	
ICTH245	
3. Semester / Year:	
Second semester/ Second	
4. Description Preparation Date:	
14-3-2025	
5. Available Attendance Forms:	
Attending	
6. Number of Credit Hours (Total) / Number of Units (Total)	
5 hours per week for 14 weeks/ 3.5 units	
7. Course Administrator's Name (Mention All, If More Than One Name)	
Name: Jassim M. Abed jassim.abd@uobasrah.edu.iq	
8. Course Objectives	
Course Objectives: Graduating students who are able to:	• Work in the field of fish have theoretical and applied knowledge of a subject in fish farming • Submission of external examinations by local / regional / international Organization. • Thinking and analytical skills that enable him to
9. Teaching and Learning Strategies	
Strategy	• Enable students to obtain knowledge and understanding of the types of ponds for culture. • Enable students to obtain knowledge and understanding of the types of fish used in aquaculture. • Enabling students to obtain knowledge and understanding of the methods used in fish collection methods.
10. Course Structure	

Week	**Hours**	**Required learning outcomes**	**Unit or Subject Name**	**Learning Method**	**Evaluation Method**
1	**5**	Introduce students to general information about fish farming.	General introduction to fish farming	Theoretical and practical lectures + presentation methods + dialogue and discussion	Daily, monthly and final exams and daily reports
2	**5**	Introduce students to different farming systems	fish farming systems	Theoretical and practical lectures + presentation methods + dialogue and discussion	Daily, monthly and final exams and daily reports
3	**5**	Continuous to explain and clarify the different farming systems	fish farming systems	Theoretical and practical lectures + presentation methods + dialogue and discussion	Daily, monthly and final exams and daily reports
4	**5**	Explanation and illustration of carp culture	Carp farming in closed water systems	Theoretical and practical lectures + presentation methods + dialogue and discussion	Daily, monthly and final exams and daily reports

5	**5**	Clarification and explanation of the water sources used in fish farming	water resources	Theoretical and practical lectures + presentation methods + dialogue and discussion	Daily, monthly and final exams and daily reports
6	**5**		First examination		
7	**5**	Explanation and clarification of chemical and physical properties	water quality	Theoretical and practical lectures + presentation methods + dialogue and discussion	Daily, monthly and final exams and daily reports
8	**5**	Clarification and explanation of the control of aquatic plants	Fish ponds management	Theoretical and practical lectures + presentation methods + dialogue and discussion	Daily, monthly and final exams and daily reports
9	**5**	Explanation of the methods used to harvest fish	Harvest the fish	Theoretical and practical lectures + presentation methods + dialogue and discussion	Daily, monthly and final exams and daily reports

10	**5**	Explanation and clarification of the types of fertilizers in fish ponds	fertilizing ponds	Theoretical and practical lectures + presentation methods + dialogue and discussion	Daily, monthly and final exams and daily reports
11	**5**	Clarification and explanation of natural foods in aquariums and additional	Fish food and feeding	Theoretical and practical lectures + presentation methods + dialogue and discussion	Daily, monthly and final exams and daily reports
12	**5**		**Second examination**		
13	**5**	Clarification and explanation of the types of proteins and amino acids and their importance for fish	Proteins and amino acids	Theoretical and practical lectures + presentation methods + dialogue and discussion	Daily, monthly and final exams and daily reports
14	**5**	Illustration and explanation of fatty acids and types of carbohydrates and their importance for fish	Fatty acids and carbohydrates	Theoretical and practical lectures + presentation methods + dialogue and discussion	Daily, monthly and final exams and daily reports

15		Exame			

11. Course Evaluation
Distribution of the score out of 100 according to the tasks assigned to the student, such as daily preparation, daily oral, monthly, or written exams, reports, etc.

12. Learning and Teaching Sources	
Required Textbooks (Curricular Books, If Any)	Mahfouz Hussain Muhammad Al-Salman (2000) Principles of Fish Breeding and Production.
Main References (Sources)	N.K. Al-Daham (1990). Fish culture
Recommended Books and References (Scientific Journals, Reports...)	Many research papers have been published on fish classification
Electronic References, Websites	www.fishbase.org

Course Description Form

1. Course Name:	
Horticulture	
2. Course Code:	
HORT216	
3. Semester / Year:	
First semester / Second	
4. Description Preparation Date:	
21-3-2025	
5. Available Attendance Forms:	
Attending	
6. Number of Credit Hours (Total) / Number of Units (Total)	
5 hours (2 hours theoretical 3 hours practical) Number of Units (3.5)	
7. Course Administrator's Name (Mention All, If More Than One Name)	
Name: Lecture. Omar Amer Ibrahim Email: omar.ibrahem@uobasrah.edu.iq	
8. Course Objectives	
Course Objectives	Graduating students capable of: -What is horticulture science and what are the economically productive horticultural plants? -Introducing the student to the most important sections of horticulture that can be benefited from . -Helping students understand the syllabuses and vocabulary of the Principles of Horticulture science lesson and curriculum. - Introducing modern scientific foundations in horticultural project management.

9. Teaching and Learning Strategies	
Strategy	**1**- Enabling students to think and analyze topics related to the intellectual framework of the Principles of horticulture science course. 2-Enabling students to think and analyze topics related to measuring productivity. 3-Enabling students to think and analyze how to identify Productive horticultural plants . 4- Enabling students to think and analyze to learn about Orchard production projects

10. Course Structure

Week	Hours	Required learning	Unit or Subject	Learning Method	Evaluation Method
1	2	Introducing students to general information about	Introduction to horticulture science	Teaching method	the exams Daily and monthly
2	2	Introducing students Introducing to vegetable science	Vegetable science and the importance of vegetable	Lectures Theoretical. + Display methods +Dialogue and	the exams Daily and monthly And final reports
3	2	Introducing students to methods of dividing vegetable crops	vegetable sections	Lectures Theoretical. + Display methods +Dialogue and discussion	the exams Daily and monthly And final reports daily
4	2	Introducing students to the factors affecting the growth of vegetable crops	Weather, Climate factors.	Lectures Theoretical. + Display methods +Dialogue and discussion	the exams Daily and monthly And final reports daily

5	2	Introducing students to the factors affecting the growth of vegetable crops	Ground factors	Lectures Theoretical. + Display methods +Dialogue and discussion	the exams Daily and monthly And final reports daily
6	2	Introducing students to the factors affecting the growth of	Internal factors	Lectures Theoretical. + Display methods +Dialogue and	the exams Daily and monthly And final reports
7	2	Introducing students to fruit crops.	Fruit crops and their importance	Lectures Theoretical. + Display methods +Dialogue and discussion	the exams Daily and monthly And final reports daily
8	2	Introducing students to methods of dividing fruit crops	Fruit sections.	Lectures Theoretical. + Display methods +Dialogue and discussion	the exams Daily and monthly And final reports daily
9	2	Introducing students to the factors affecting the growth of fruit crops	Temperatures.	Lectures Theoretical. + Display methods +Dialogue and discussion	the exams Daily and monthly And final reports daily
10	2	Introducing students to the factors affecting the growth of fruit	Air humidity and rain.	Lectures Theoretical. + Display methods +Dialogue and	the exams Daily and monthly And final reports
11	2	Introducing students to the factors affecting the growth of fruit	Wind effects.	Lectures Theoretical. + Display methods +Dialogue and	the exams Daily and monthly And final reports
12	2	Introducing students to ornamental plants.	Ornamental plants.	Lectures Theoretical. + Display methods +Dialogue and	the exams Daily and monthly And final reports

13	2	Introducing students to methods of dividing	Ornamental plants sections.	Lectures Theoretical. + Display methods +Dialogue and	the exams Daily and monthly And final reports
14	2	Introducing students to the factors affecting ornamental plants.	Factors affecting ornamental plants.	Lectures Theoretical. + Display methods +Dialogue and discussion	the exams Daily and monthly And final reports daily
15		**Exame**			

11. Course Evaluation

- Daily exams with multiple-choice questions that require scientific skills.
- Daily exams with scientific questions.
- Participation grades for competition questions for academic subjects.
- Marking homework and reports
- - Grades for the student's activity during the lecture and the extent of his commitment to regular attendance and absence.

12. Learning and Teaching Sources

Required Textbooks (Curricular Books, If Any)	Methodical books: Principles of horticulture science.
Main References (Sources)	Principles of horticulture science. Assist. Prof. Dr. Karim Saleh Abdul and Prof. Dr. Saad Zaghloul Al-Najjar, 1984.
Recommended Books and References (Scientific Journals, Reports...)	Magazines, periodicals, websites, etc

Course Description Form

1. Course Name:
Horticultural / Practical
2. Course Code:
HORT216
3. Semester / Year:
First semester / Second
4. Description Preparation Date:
12-3-2025
5. Available Attendance Forms:
Attending
6. Number of Credit Hours (Total) / Number of Units (Total)
3 hours per week Number of Units (3.5)
7. Course Administrator's Name (Mention All, If More Than One Name)
Name: Lecture. Neven Anwer Abdullah Email: neven.abdulla@uobasrah.edu.iq
8. Course Objectives

Course Objectives	Graduating students capable of: What is horticulture science and what are the economically productive horticultural plants? - Introducing the student to the most important sections of horticulture that can be benefited from . - Helping students understand the syllabuses and vocabulary of the Principles of Horticulture science lesson and curriculum. - - Introducing modern scientific foundations in horticultural project management.

9. Teaching and Learning Strategies	
Strategy	**1**- Enabling students to think and analyze topics related to the intellectual framework of the Principles of horticulture science course. 2-Enabling students to think and analyze topics related to measuring productivity. 3-Enabling students to think and analyze how to identify Productive horticultural plants . 4- Enabling students to think and analyze to learn about Orchard production projects

10. Course Structure

Week	Hours	Required learning outcomes	Unit or Subject Name	Learning Method	Evaluation Method
1	3	Introducing students to the nursery facilities	Houses of all kinds	Al-Nadhari's lectures + field observation +	the exams Daily and monthly And final reports
2	3	Introducing students to some ornamental plants	The science of decoration and its importance	Theoretical lectures + field work + dialogue and discussion	the exams Daily and monthly And final reports daily
3	3	Introducing students to some vegetable plants	Greens sections	Theoretical lectures + field work + dialogue and discussion	the exams Daily and monthly And final reports daily
4	3	Introducing students to some types of fruits	Fruit and its importance.	Al-Nadhari's lectures + field observation + dialogue and discussion	the exams Daily and monthly And final reports daily
5	3	Introducing students through multiplication methods	Sexual and vegetative	Theoretical lectures + field work + dialogue and discussion	the exams Daily and monthly And final reports daily

6	3	Introducing students to the advantages and purposes of reproduction of all	Sexual and vegetative	Theoretical lectures + field work + dialogue and discussion	the exams Daily and monthly And final reports daily
7	3	. Introducing students to methods of planting seeds	Types of roads	Theoretical lectures + field work + dialogue and discussion	the exams Daily and monthly And final reports daily
8	3	Introducing students to methods of planting seeds	Types of roads	Theoretical lectures + field work + dialogue and discussion	the exams Daily and monthly And final reports daily
9	3	Introducing students to the description of ornamental plants	Trees and shrubs.	Al-Nadhari's lectures + field observation + dialogue and	the exams Daily and monthly And final reports daily
10	3	Introducing students to the factors affecting the growth of fruit crops	Introducing students to the factors affecting the growth of	Lectures Theoretical. + Display methods +Dialogue and	the exams Daily and monthly And final reports daily
11	3	Introducing students to the Attending of medicinal and aromatic plants	. Examples of plants	Al-Nadhari's lectures + field observation + dialogue and	the exams Daily and monthly And final reports daily
12	3	. Introducing students to the Attending of volatile oils in plants	. Medicinal and aromatic plants	Lectures Theoretical. + Display methods +Dialogue and	the exams Daily and monthly And final reports daily
13	3	Introducing students to the advantages and disadvantages of enrollment	Enrollment methods	Theoretical lectures + field work + dialogue and discussion	the exams Daily and monthly And final reports daily

14	3	Definition of the factors affecting plants	Factors affecting vegetable and fruit plants	Lectures Theoretical. + Display methods +Dialogue and discussion	the exams Daily and monthly And final reports daily
15		**Exame**			

11. Course Evaluation

- Daily exams with multiple-choice questions that require scientific skills.
- Daily exams with scientific questions.
- Participation grades for competition questions for academic subjects.
- Marking homework and reports
- - Grades for the student's activity during the lecture and the extent of his commitment to regular attendance and absence.

12. Learning and Teaching Sources

Required Textbooks (Curricular Books, If Any)	Methodical books: Principles of horticulture science.
Main References (Sources)	Principles of horticulture science. Assist. Prof. Dr. Karim Saleh Abdul and Prof. Dr. Saad Zaghloul Al-Najjar, 1984.
Recommended Books and References (Scientific Journals, Reports...)	Magazines, periodicals, websites, etc

Course Description Form

1. Course Name:					
Arabic Language/2					
2. Course Code:					
ARAL204					
3. Semester / Year:					
Second semester / First					
4. Description Preparation Date:					
2-2-2025					
5. Available Attendance Forms:					
Attending					
6. Number of Credit Hours (Total) / Number of Units (Total)					
2 hours (2 Theoretical) 2 units					
7. Course Administrator's Name (Mention All, If More Than One Name)					
Name: Dr. Widad Salim Muhamad Email wedad22@gmail.com					
8. Course Objectives					
Course Objectives					
9. Teaching and Learning Strategies					
Strategy	In-person lectures for 15 weeks, including two monthly exams.				
10. Course Structure					
Week	**Hours**	**Required learning**	**Unit or Subject Name**	**Learning Method**	**Evaluation Method**

1	2		The importance of the Arabic language for scientific disciplines, and its distinction among living languages	An explanatory lecture with explanations and examples using display screen with a blackboard	Surprise tests and assigning students to manage the lecture under supervision and guidance from us, including tests atthe end of each. course and monthly
2	2		Surah Al-Kahf: Reasons for revelation	An explanatory lecture with explanations and examples using display screen with a blackboard	Surprise tests and assigning students to manage the lecture under supervision and guidance from us, including tests atthe end of each.
3	2		Interpretation of twenty verses with memorization	An explanatory lecture with explanations and examples using display screen with a blackboard	Surprise tests and assigning students to manage the lecture under supervision and guidance from us, including tests atthe end of each.
4	2		Grammar of the Arabic Language / Grammar in Syntax	An explanatory lecture with explanations and examples using display screen with a blackboard	Surprise tests and assigning students to manage the lecture under supervision and guidance from us, including tests atthe end of each.
5	2		beginner and news	An explanatory lecture with explanations and examples using display screen with a blackboard	Surprise tests and assigning students to manage the lecture under supervision and guidance from us, including tests atthe end of each.
6	2		suspicious characters already	An explanatory lecture with explanations and examples using display screen with a blackboard	Surprise tests and assigning students to manage the lecture under supervision and guidance from us, including tests atthe end of each.

7	2		imperfect verbs	An explanatory lecture with explanations and examples using display screen with a blackboard	Surprise tests and assigning students to manage the lecture under supervision and guidance from us, including tests atthe end of each. course and monthly
8	2		effects	An explanatory lecture with explanations and examples using display screen with a blackboard	Surprise tests and assigning students to manage the lecture under supervision and guidance from us, including tests atthe end of each. course and monthly
9	2		numbers	An explanatory lecture with explanations and examples using display screen with a blackboard	Surprise tests and assigning students to manage the lecture under supervision and guidance from us, including tests
10	2		Spelling/Rules of Writing Hamza	An explanatory lecture with explanations and examples using display screen with a blackboard	Surprise tests and assigning students to manage the lecture under supervision and guidance from us, including tests atthe end of each.
11	2		rules of writing	An explanatory lecture with explanations and examples using display screen with a blackboard	Surprise tests and assigning students to manage the lecture under supervision and guidance from us, including tests
12	2		Arabic literature / Introduction to the eras of Arabic literature and the characteristics of each era and its artistic origins	An explanatory lecture with explanations and examples using display screen with a blackboard	Surprise tests and assigning students to manage the lecture under supervision and guidance from us, including tests atthe end of each.

13	2		Study and criticism of an ancient poetic text / the poem of the mourning dove by Abu Firas Al-Hamdani	An explanatory lecture with explanations and examples using display screen with a blackboard	Surprise tests and assigning students to manage the lecture under supervision and guidance from us, including tests
14	2		Arabic prose and its arts	An explanatory lecture with explanations and examples using display screen with a blackboard	Surprise tests and assigning students to manage the lecture under supervision and guidance from us, including tests atthe end of each.
15			Common Writing Mistakes		

11. Course Evaluation

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

12. Learning and Teaching Sources

Required Textbooks (Curricular Books, If Any)	A systematic book
Main References (Sources)	
Recommended Books and References (Scientific Journals, Reports...)	
Electronic References, Websites	

Course Description Form

1. Course Name:
Animal Production Mechanization\ the Theoretical part
2. Course Code:
ANME239
3. Semester / Year: first \ three
first Semester \ third
4. Description Preparation Date: 1\2\2024
17-2-2025
5. Available Attendance Forms: males & females in classroom
Attending
6. Number of Credit Hours (Total) / Number of Units (Total)
5 hours (2 hours theoretical 3 hours practical) Number of Units (3.5)
7. Course Administrator's Name (Mention All, If More Than One Name)
Name: Abbas Abdul Hussein Mishaal Al-dirawi Email: abbas.mishall@uobasrah.edu.iq
8. Course Objectives

Course Objectives	• **Knowing the purpose of using the equipment, its working methods and its components**
9. Teaching and Learning Strategies	
Strategy	**The topic of mechanization of animal production has a specificity with regard to providing food and maintaining the health and production of animals on the farm and deals with the study of equipment related to all**

10. Course Structure

Week	Hours	Required learning outcomes	Unit or Subject Name	Learning Method	Evaluation Method

1	**2**	• Knowing the purpose of using the	Control of environmental conditions inside	Paper and video lectures,	Exams, assignments, and activities
2	**2**	Knowing the purpose of using the equipment, its	The psychometric map and its uses	Paper and video lectures,	Exams, assignments, and activities
3	**2**	Knowing the purpose of using the equipment, its	Thermal equilibrium and heating and	Paper and video lectures,	Exams, assignments, and activities
4	**2**	Knowing the purpose of using the equipment, its	Feed equipment (mowers)	Paper and video lectures,	Exams, assignments, and activities
5	**2**	Knowing the purpose of using the equipment, its	Harvest handling and preparation equipment, hay,	Paper and video lectures,	Exams, assignments, and activities
6	**2**	Knowing the purpose of using the equipment, its	Ball equipment	Paper and video lectures,	Exams, assignments, and activities
7	**2**	Knowing the purpose of using the equipment, its	Equipment and methods of working Silage	Paper and video lectures,	Exams, assignments, and activities
8	**2**	Knowing the purpose of using the equipment, its	Dry Feed Processing Equipment	Paper and video lectures,	Exams, assignments, and activities
9	**2**	Knowing the purpose of using the equipment, its	Compressed Feed Processing Equipment(	Paper and video lectures,	Exams, assignments, and activities
10	**2**	Knowing the purpose of using the equipment, its	Wool cutting techniques and equipment	Paper and video lectures,	Exams, assignments, and activities
11	**2**	Knowing the purpose of using the equipment, its	Chick Hatching Machines (brooding	Paper and video lectures,	Exams, assignments, and activities
12	**2**	Knowing the purpose of using the equipment, its	Chick Hatching Machines (Hatching	Paper and video lectures,	Exams, assignments, and activities

13	**2**	Knowing the purpose of using the equipment, its	Slaughterhouse equipment and meat preparation	Paper and video lectures,	Exams, assignments, and activities
14	**2**	Knowing the purpose of using the equipment, its	Waste disposal equipment and building	Paper and video lectures,	Exams, assignments, and activities
15	**2**	Knowing the purpose of using the equipment, its	*Mid Exam*	Paper and video lectures,	Exams, assignments, and activities

11. Course Evaluation
Distribution of the score out of 60 (30An annual quest and 30 final exams according to the tasks assigned to the student, such as daily preparation, daily oral, monthly, or written exams,

12. Learning and Teaching Sources	
Required Textbooks (Curricular Books, If Any)	**- Equipment for the mechanization of animal** production (1984) written by Lotfi Hussein and Tawfiq Fahmy. University of Baghdad - Equipment for the mechanization of animal production (1984) written by Lotfi Hussein and Tawfiq Fahmy. University of Baghdad
Main References (Sources)	[1] Mylo A. H and Jone N.W(1983). Ventilation of agricultural structures. ASAE.USA. [2] - Geoffrey C. M., Lawrence O. G. , Hakgamalang J. Ch. And Januarius O. A. (2011). Rural structures in the tropics: design and development.FAO
Recommended Books and References (Scientific Journals, Reports...)	Ajit K. S. , Carroll E. G. , Roger P. R. and Dennis R. B.(2006) Engineering Principles of Agricultural Machines. ASAE ,USA.
Electronic References, Websites	Agricultural engineering

Course Description Form

1. Course Name:
Animal Production Mechanization\ practical part
2. Course Code:
ANME239
3. Semester / Year:
first Semester \ Second
4. Description Preparation Date:
17-2-2025
5. Available Attendance Forms:
Attending
6. Number of Credit Hours (Total) / Number of Units (Total)
5 hours (2 hours theoretical 3 hours practical) Number of Units (3.5)
7. Course Administrator's Name (Mention All, If More Than One Name)
Name: Abbas Abdul Hussein Mishaal Al-dirawi Email: abbas.mishall@uobasrah.edu.iq
8. Course Objectives

Course Objectives	• Knowing the purpose of using the equipment, its working methods and its components
9. Teaching and Learning Strategies	
Strategy	The topic of mechanization of animal production has a specificity with regard to providing food and maintaining the health and production of animals on the farm and deals with the study of equipment related to all areas of animal production

10. Course Structure					
Week	**Hours**	**Required learning outcomes**	**Unit or Subject Name**	**Learning Method**	**Evaluation Method**
1	**3**	• Knowing the purpose of using the equipment, its working methods and	Training on Control of environmental conditions inside animal premises, ventilation,	Field practical trainingand assignment and assignment of	Exams, assignments, and activities
2	**3**	Knowing the purpose of using the equipment, its working methods and its components	Training on The psychometric map and its uses	Field practical trainingand assignment of assignments	Exams, assignments, and activities
3	**3**	Knowing the purpose of using the equipment, its working methods and its components	Training on Thermal equilibrium and heating and cooling load calculations	Field practical trainingand assignment	Exams, assignments, and activities
4	**3**	Knowing the purpose of using the equipment, its working methods and its components	Feed equipment (mowers)	Field practical trainingand assignment	Exams, assignments, and activities
5	**3**	Knowing the purpose of using the equipment, its working methods and its components	Training on Harvest handling and preparation equipment, hay,	Field practical trainingand assignment	Exams, assignments, and activities

6	**3**	Knowing the purpose of using the equipment, its working methods and its components	Training on Ball equipment	Field practical trainingand assignment	Exams, assignments, and activities
7	**3**	Knowing the purpose of using the equipment, its working methods and its components	Training on Equipment and methods of working Silage and silage stores	Field practical trainingand assignment	Exams, assignments, and activities
8	**3**	Knowing the purpose of using the equipment, its working methods and its components	Training on Dry Feed Processing Equipment	Field practical trainingand assignment	Exams, assignments, and activities
9	**3**	Knowing the purpose of using the equipment, its working methods and its components	Training on Compressed Feed Processing Equipment(Pellets)	Field practical trainingand assignment	Exams, assignments, and activities
10	**3**	Knowing the purpose of using the equipment, its working methods and its components	Training on Wool cutting techniques and equipment	Field practical trainingand assignment	Exams, assignments, and activities
11	**3**	Knowing the purpose of using the equipment, its working methods and its components	Training on Chick Hatching Machines (brooding equipment)	Field practical trainingand assignment	Exams, assignments, and activities

12	**3**	Knowing the purpose of using the equipment, its working methods and its components	Training on Chick Hatching Machines (Hatching Equipment)	Field practical trainingand assignment	Exams, assignments, and activities
13	**3**	Knowing the purpose of using the equipment, its working methods and its components	Training on Slaughterhouse equipment and meat preparation equipment	Field practical trainingand assignment	Exams, assignments, and activities
14	**3**	Knowing the purpose of using the equipment, its working methods and its components	Training on Waste disposal equipment and building electricity and water supply	Field practical trainingand assignment	Exams, assignments, and activities
15	**3**	Knowing the purpose of using the equipment, its working methods and its components	*Mid Exam*	Field practical trainingand assignment	Exams, assignments, and activities

11. Course Evaluation

Distribution of the score out of40 (20 An annual quest and 20 final exams) according to the tasks assigned to the student, such as daily preparation, daily oral, monthly, or written exams, reports, etc.

12. Learning and Teaching Sources

Required Textbooks (Curricular Books, If Any)	

Main References (Sources)	[1] Mylo A. H and Jone N.W(1983). Ventilation of agricultural structures. ASAE.USA. [2] - Geoffrey C. M., Lawrence O. G. , Hakgamalang J. Ch. And Januarius O. A. (2011). Rural structures in the tropics: design and development.FAO
Recommended Books and References (Scientific Journals, Reports...)	Ajit K. S. , Carroll E. G. , Roger P. R. and Dennis R. B.(2006) Engineering Principles of Agricultural Machines. ASAE ,USA.
Electronic References, Websites	Agricultural engineering

Course Description Form

1. Course Name:
Dairy Science
2. Course Code
DAIR240
3. Semester/Year
Second Semester/ Second
4. Date of preparation of this description :
24-2-2025
5. Available attendance forms : Attending
Attending
6. Number of credit hours (total) / number of units (total):
5 hours (2 hours theoretical 3 hours practical) Number of Units (3.5)
7. Course administrator's name (if more than one name is mentioned)
Name: Lina Samir Muhammad Email: **Lina.Mohamed@ uobasrah.edu.iq**
8. Course Objectives

• Student Definition Definitions Important in M. Alban Lesson • Milk composition (milk composition , variability of milk composition and	Course Objectives

9. Teaching and learning strategies

The dairy principles curriculum is one of the basic lessons in the Department of Food Science that aims to prepare qualified agricultural engineers in the field of dairy technology who keep pace with the needs of the labor market and are able to compete in the development of the dairy industry in the country Milk is considered a liquid food that is secreted by the milk glands and for the purpose of feeding young newborns and milk contains water, fat, proteins and milk sugar in addition to minerals is used in the manufacture of many dairy products such as leukurt, cheese, butter, ice cream and others	Strategy

10. Course Structure					
Evaluation method	**Learning method**	**Unit or subject name**	**Required Learning Outcomes**	**Hours**	**Week**
	Attendance	**M. Alban**	**Bourpont, my Attending**	**5**	**16**

11. Course Evaluation
Distributing the score out of 100 according to the tasks assigned to the student such as daily preparation 5, daily exams 5, oral 5, monthly 35, written 50, reports ... Etc.

12. Learning and Teaching Resources	
Dairy Principles	Required textbooks (methodology, if any)
Dairy Principles	Key references (sources)
Al-Shabibi, Mohsen Muhammad Ali and Shukri, Nizar Ahmed and Tohme, Sadiq Jawad and Ali, Helan Hammadi (1980). General Dairy Principles, Dar Al-Hikma Foundation for Printing and Publishing, University of Mosul, Mosul, Iraq. Mahmoud, Ibrahim Ahmed & Mansour, Kadhimiya Wali (1992). Practical principles of dairy. Dar Al-Hikma Printing, University of Basra, Basra, Iraq	Recommended supporting books and references (scientific journals, reports...)
	Electronic references, websites

Course Description Form

1. Course Name:
Agricultural extension
2. Course Code: No
AGEX213
3. Semester / Year:
Second Semester / Second
4. Description Preparation Date:
23-2-2025
5. Available Attendance Forms: Attending college within practical microbiology laboratories
Attending
6. Number of Credit Hours (Total) / Number of Units (Total): 2
2 hours per week -2units
7. Course Administrator's Name (Mention All, If More Than One Name)
Name: Dr. Abdulameer Raheem Obaid Email:: abdulameer.obaid@uobasrah.edu.iq
8. Course Objectives

Course Objectives	•
9. Teaching and Learning Strategies	
Strategy	The lesson includes (2) theoretical hours and (3) practical hours - the number of weekly hours approved distributed over 15 weeks.

10. Course Structure

Week	Hours	Required learning outcomes	Unit or Subject Name	Learning Method	Evaluation Method

1	**2**		Agricultural extension and its impact on the development of rural communities	Lecture with explanation in presentation	Display
2	**2**		The role of agricultural extension in development and combating underdevelopment	Lecture with explanation in presentation	Display
3	**2**		Agricultural extension – phylsophy and objoctive	Lecture with explanation in presentation	Display
4	**2**		General principles of agricultural extension	Lecture with explanation in presentation	Display
5	**2**		The different factors watch effect of Agricultural extension	Lecture with explanation in presentation	Display + Blackboard
6	**2**		Agricultural extension activity and its development	Lecture with explanation in presentation	Display

7	**2**		Agricultural Extension Systems and Organizations	Lecture with explanation in presentation	Display
8	**2**		Types of Agricultural extension	Lecture with explanation in presentation	Display
9	**2**		Characteristics of an agricultural guide	Lecture with explanation in presentation	Display
10		**Exame**			
11	**2**		agricultural advisor qualifications	Lecture with explanation in presentation	Display
12	**2**		Duties and duties of an agricultural guide	Lecture with explanation in presentation	Display

13	**2**		Program planning and evaluation	Lecture with explanation in presentation	Display
14	**2**		Principles of planning guidance programs	Lecture with explanation in presentation	Display
15		**Exame**			

11. Course Evaluation
Distribution of the score out of 100 according to the tasks assigned to the student, such as daily preparation, daily oral, monthly, or written exams, reports, etc.

12. Learning and Teaching Sources	
Required Textbooks (Curricular Books, If Any)	Agricultural extension, part 2 Dr . Abbas Abdul Mohsen
Main References (Sources)	
Recommended Books and References (Scientific Journals, Reports...)	
Electronic References, Websites	

Course Description Form

1. Course Name:
Biochemistry
2. Course Code:
BICH230
3. Semester / Year:
First semester / 2024-2025
4. Description Preparation Date:
21-3-2025
5. Available Attendance Forms:
Attending
6. Number of Credit Hours (Total)/Number of Units (Total)
5 hours (2 hours theoretical 3 hours practical) Number of Units (3.5)
7. Course Administrator's Name (Mention All, If More Than One Name)
Name: Assist. Prof. Raghdan Hashim Mohsin Email: Raghdan.Mohsin@uobasrah.edu.iq
8. Course Objectives

Course Objectives	Graduating capable studentson me: Work in the field of biochemistry - Introducing the student to the biochemistry curriculum - Helping students understand the syllabuses and vocabulary of the study and curriculum on sugars, proteins, and the cell - Identify the most important factors affecting enzymes inside the cell

9. Teaching and Learning Strategies	
Strategy	Enabling students to think and analyze topics related to the intellectual framework of biochemistry Enabling students to think and analyze topics related to enzymes and vitamins within the body Enabling students to think and analyze how laboratory tests work -Enabling students to think and analyze to identify the best biochemistry projects

10. Course Structure

Week	Hours	Required learning outcomes	Unit or Subject Name	Learning Method	Evaluation Method
1	5	Introduction to the science of biochemistry - the components of the	Introducing students to general information about science of biochemistry	Teaching method	the exams Daily and monthly And final
2	5	Carbohydrates: their definition, types, and explanations, along with the structures of sugars and their	Introducing students to the Carbohydrates	Lectures Theoretical and practical + Display methods	the exams Daily and monthly And final reports
3	5	- stereosynthesis -Monosaccharides - Similarities in monosaccharides - monosaccharides - Derivatives of sugars	Introducing students to the- stereosynthesis -Monosaccharides	Lectures Theoretical and practical + Display methods +Dialogue	the exams Daily and monthly And final reports daily
4	5	monosaccharides - Derivatives of Visual effectiveness	Introducing students to monosaccharides - Derivatives of the	Lectures Theoretical and practical	the exams Daily and monthly

5	5	Polysaccharides - homogeneous and heterogeneous types	. Introducing students to muscle fibers	Lectures Theoretical and practical + Display	the exams Daily and monthly And final
6	5	Cyclopolysaccharides	Introducing students to general information about Cyclopolysaccharides	Lectures Theoretical and practical + Display methods +Dialogue and discussion	the exams Daily and monthly And final reports daily
7	5	Fats - their definition - their importance - fatty acids - their sections - their structures - their interactions - geometr	Management and care of Bones and cartilage .	Lectures Theoretical and practical + Display methods +Dialogue	the exams Daily and monthly And final reports daily
8	5	Sections of fats, simple fats, their types (oils, fats and waxes), their compositions, fat constants	Management and care of Chemical composition of meat	Lectures Theoretical and practical + Display methods +Dialogue and discussion	the exams Daily and monthly And final reports daily
9	5	Complex and derived fats - their types and compositions Amino acids - their types	Forced mowing.	Lectures Theoretical and practical + Display methods	the exams Daily and monthly And final reports
10	5	structures, properties of amino acids and their interactions	Management and Throwing stiffness.	Lectures Theoretical and practical + Display	the exams Daily and monthly And final

11	5	Peptides - proteins, their definition - their subdivisions - levels of protein synthesis - denaturation	Feed mill management.	Lectures Theoretical and practical + Display methods +Dialogue	the exams Daily and monthly And final reports daily
12	5	Nucleic acids and their functions are types of amino acids	Quality characteristics management.	Lectures Theoretical and practical + Display	the exams Daily and monthly And final
13	5	Vitamins	Cooking meat management	Lectures Theoretical and practical + Display methods +Dialogue and discussion	the exams Daily and monthly And final reports daily
14	5	Enzymes - their definition, classification, and factors affecting the speed of the enzymatic reaction	Meat preservation	Lectures Theoretical and practical + Display methods +Dialogue and discussion	the exams Daily and monthly And final reports daily
15		Exame			
11. Course Evaluation					

- Daily exams with multiple-choice questions that require scientific skills.
- Daily exams with scientific questions.
- Participation grades for competition questions for academic subjects.
- Marking homework and reports
- - Grades for the student's activity during the lecture and the extent of his commitment to regular attendance and absence.

12. Learning and Teaching Sources	
Required Textbooks (Curricular Books, If Any)	Hassan, Ali Muhammad and Shihab, Saad Khalil. (1979) Agricultural Biochemistry, Part One, Baghdad University Press and the Ministry of Higher Education and Scientific Research.
Main References (Sources)	Stryer,L.(1995).Biochemistry .4th edition .freeman (USA)
Recommended Books and References (Scientific Journals, Reports...)	https://nu.edu.om/medicine/biochemistry/?lang=ar
Electronic References, Websites	https://www.neelwafurat.com/itempage.aspx?id=egb70759-5070740&search=books https://www.rwaq.org/courses/introduction-to-

Course Description Form

1. Course Name:
Genetics
2. Course Code:
GENE235
3. Semester / Year:
First semester / Second
4. Description Preparation Date:
2-2-2025
5. Available Attendance Forms:
Attending
6. Number of Credit Hours (Total) / Number of Units (Total)
5 hours (2 hours theoretical 3 hours practical) Number of Units (3.5)
7. Course Administrator's Name (Mention All, If More Than One Name)
Name: Assist. Prof. Falih Hasan Hmad Email: *falih.hamad@uobasrah.edu.iq*
8. Course Objectives

Course Objectives	Graduating students who are able to: Work in the field of genetic characterization of farm animals Work on the study of breeds of farm animals and the possibility of preserving and enhancing their economic traits Helping students understand the courses and vocabulary of the animal genetics lesson and curriculum Introducing livestock projects and focusing on the genetic aspects in the country. Practical practice of the most important animal inheritance projects

9. Teaching and Learning Strategies	
Strategy	This course is designed to suit the students of the second stage in the Department of Animal Production. In order to achieve the desired goal of studying this course, genetics examines the study of biodiversity in farm animals and the effect of genetic factors on different animals, where it examines how similarities and differences between animal species

10. Course Structure

Week	Hours	Required learning	Unit or Subject Name	Learning Method	Evaluation Method
1	5	.Introduce students to general information	General introduction to genetics	Teaching method	the exams Daily and monthly And final
2	5	Introducing students to the basic components and principles	Mandlin genetic	Lectures Theoretical and practical + Display methods	the exams Daily and monthly And final reports
3	5	Explain and clarify the environmental factors affecting animal	Gene association.	Lectures Theoretical and practical + Display methods +Dialogue and	the exams Daily and monthly And final reports daily
4	5	. Introducing students to the phenotypic characteristics of the animal	Types of sovereignty	Lectures Theoretical and practical + Display methods +Dialogue and	the exams Daily and monthly And final reports daily

5	5	Introducing students to the characteristics of the generation when conducting taxation cases	Test multipiication	Lectures Theoretical and practical + Display methods +Dialogue and discussion	the exams Daily and monthly And final reports daily
6	5	Introduce students to diversity in animal traits	Genetic mutations	Lectures Theoretical and practical + Display methods +Dialogue and discussion	the exams Daily and monthly And final reports daily
7	5	Explain and explain the effect of a gene on a phenotypic trait,	Multiple alleles	Lectures Theoretical and practical + Display methods +Dialogue and	the exams Daily and monthly And final reports daily
8	5	Explain and clarify the productive traits when the genetic material changes	Chromosomal mutations	Lectures Theoretical and practical + Display methods +Dialogue and discussion	the exams Daily and monthly And final reports daily

9	5	Introducing the importance of inheriting genetic material	Genetic association	Lectures Theoretical and practical + Display methods +Dialogue and discussion	the exams Daily and monthly And final reports daily
10	5	For the purpose of clarification and knowledge of the effect of the genetic aspect of a particular trait	.inverse multiplication	Lectures Theoretical and practical + Display methods +Dialogue and discussion	the exams Daily and monthly And final reports daily
11	5	Definition of the characteristics of genetic material at the time of division	Complete connection.	Lectures Theoretical and practical + Display methods +Dialogue and discussion	the exams Daily and monthly And final reports daily
12	5	Detailed explanation of the replication of genetic material	Replication of genetic material	Lectures Theoretical and practical + Display methods +Dialogue and discussion	the exams Daily and monthly And final reports daily

13	5	.Introducing students to some of the traits affected by the sex of the organism	Sex-specific traits	Lectures Theoretical and practical + Display methods +Dialogue and discussion	the exams Daily and monthly And final reports daily
14	5	Introducing students to the state of transit during growth	Genetic crossing over	Lectures Theoretical and practical + Display methods +Dialogue and discussion	the exams Daily and monthly And final reports daily
15		Exame			

11. Course Evaluation

- Daily exams with multiple-choice questions that require scientific skills.
- Daily exams with scientific questions.
- Participation grades for competition questions for academic subjects.
- Marking homework and reports
- - Grades for the student's activity during the lecture and the extent of his commitment to regular attendance and absence.

12. Learning and Teaching Sources

Required Textbooks (Curricular Books, If Any)	**.Genetics and applications in animal improvement - Dr. Maysar Yahya Al-**
Main References (Sources)	**. General Genetics - Dr. Abdul Hussein Al-Faisal - 1999**
Recommended Books and References (Scientific Journals, Reports...)	**Molecular Genetics Dr. Abdulhussain Al-Faisal - 2000**
Electronic References, Websites	**https://almerja.com/archive.php?fid=1518 https://almerja.com/archive.php?fid=1520**

Course Description Form

1. Course Name:	
Fish Breeding and production	
2. Course Code:	
FIBR215	
3. Semester / Year:	
First Semester Second	
4. Description Preparation Date:	
20-4-2025	
5. Available Attendance Forms:	
Attending	
6. Number of Credit Hours (Total) / Number of Units (Total)	
5 hours (2 hours theoretical 3 hours practical) Number of Units (3.5)	
7. Course Administrator's Name (Mention All, If More Than One Name)	
Name: Jassim M. Abed	Email:jassim1961abed@gmail.com
8. Course Objectives	
Course Objectives Graduating students who are able to:	• Work in the field of fish sciences have theoretical and applied knowledge in the subject of Ichthyology. • Submission of external examinations by local / regional / international bodies. • Providing students with skills to work in scientific and research laboratories, and to study Ichthyology and its relationship to fisheries.
9. Teaching and Learning Strategies	

Strategy	*Learn the basics of fish classification, their morphological and anatomical characteristics, and their vital activities. *Learn the basics of collecting samples of eggs, larvae and adults of fish for the purpose of studying them. *The student acquires initial theoretical and practical experience to work on fish and methods of reproduction, breeding and fishing

10. Course Structure

Week	Hours	Required learning	Unit or Subject Name	Learning Method	Evaluation Method
1	**5**	Learn about the great diversity of fish according to body shape and fins	Basic structural characteristics of fish	Theoretical lectures + presentation methods + dialogue	Daily, monthly and final exams and daily
2	**5**	Dividing fish into the main groups and identifying Chondrichthyes	The first group Chondrichthyes	Theoretical lectures + presentation methods + dialogue and discussion	Daily, monthly and final exams and daily reports
3	**5**	Identify the main groups and families of marine fishes	The second group marine bony fish	Theoretical lectures + presentation methods + dialogue and discussion	Daily, monthly and final exams and daily reports

4	**5**	Identify the main groups and families of freshwater fishes	The third group bony freshwater fish	Theoretical lectures + presentation methods + dialogue and discussion	Daily, monthly and final exams and daily reports
5	**5**	Get knowledge different life stage of fishes from egg to adulthood	Eggs and early life history stages	Theoretical lectures + presentation methods + dialogue and discussion	Daily, monthly and final exams and daily reports
6	**5**		First examination		
7	**5**	Illustrate the various practical methods for collecting fishes in river	Methods of collecting and examining samples	Theoretical lectures + presentation methods + dialogue and discussion	Daily, monthly and final exams and daily reports
8	**5**	Identify the various practical methods for collecting fishes of lakes	Methods of collecting and examining samples	Theoretical lectures + presentation methods + dialogue and discussion	Daily, monthly and final exams and daily reports

9	**5**	Ricognization the differences in the structure of digestive tract of different fishes in their feeding habits	Digestion, food, nutrition and excretion	Theoretical lectures + presentation methods + dialogue and discussion	Daily, monthly and final exams and daily reports
10	**5**	Learn about the types of reproduction in fishes	Reproductive system in fishes and propagation	Theoretical lectures + presentation methods + dialogue and discussion	Daily, monthly and final exams and daily reports
11	**5**	How to estimate age & growth in fishes	Age & growth in fishes	Theoretical lectures + presentation methods + dialogue and discussion	Daily, monthly and final exams and daily reports
12	**5**		Second examination		
13	**5**	Identifying the structure & functions of gas bladder in fishes	Floating & gas bladder	Theoretical lectures + presentation methods + dialogue and discussion	Daily, monthly and final exams and daily reports

14	**5**	Illustrate the various parts of the circulatory system in fishes	Blood & circulatory system	Theoretical lectures + presentation methods + dialogue and discussion	Daily, monthly and final exams and daily reports
15		Exame			

11. Course Evaluation	
Distribution of the score out of 100 according to the tasks assigned to the student, such as daily preparation, daily oral, monthly, or written exams, reports, etc.	
12. Learning and Teaching Sources	
Required Textbooks (Curricular Books, If Any)	Ahmed, H. A. (1991). Ichthyology. University of Basrah Press.
Main References (Sources)	Carpenter, K.E., Krupp, F., Jones, D.A. and Zajonz, U. (1997).Living marine resources of Kuwait, Eastern Saudi Arabia, Bahrain, Qatar, and the United Arab Emirates. FAO Speciesidentification field guide for fishery purposes, FAO, Rome. 293 pp., XVII pls.
Recommended Books and References (Scientific Journals, Reports...)	
Electronic References, Websites	www.fishbase.org

Course Description Form

1. Course Name
Computer /2
2. Course Code
COMP203
3. Semester/Year
Second Semester/ Second
Date of preparation of this description .4
10-2-2025
5. Available attendance forms
Attending
6. Number of credit hours (total) / number of units (total)
2 hours per week 2 unit
7. Course administrator's name (if more than one name is mentioned)
Name: Assoc. Prof. Adnan Jabbar Jadoua **Email:** adnan.jadwa@yubasra.adu.aq
8. Course Objectives

- Teaching the student to be familiar with the basic rules of dealing with the computer and managing it to help him in completing projects, printing matters, preparing statistics and graphs, creating presentations, engineering plans designs, etc., and the emergence of the Internet as a means of communication available to everyone, it has become very necessary for the student to learn to use the computer due to the role of the Internet in many areas, including education, scientific research, trade and marketing through electronic correspondence, web pages and electronic speaking	Course Objectives

9. Teaching and learning strategies	
General and qualifying skills transferred (other skills related to employability and personal development). D-1 Urge the student to write simple research in the direction of previous lectures to create a state of balance between methodological information and source information D-2 Encourage the student to make practical projects on the computer and to hold seminars among students on the methodology of the subject D-3 Encourage the student to evaluate the answer of a fellowship of other students to develop self-development	Strategy

10. Course Structure

Evaluation method	Learning method	Unit or subject name	Required Learning Outcomes	Hours	Week
auditions Daily & Monthly Final and Reports Daily	Lectures Practical + Views +Dialogue and discussion	word	Chapter One Running Word ,File Tab 2010 Program Interfaces and Police	5	1
auditions Daily & Monthly Final and Reports Daily	Lectures Practical + Views +Dialogue and discussion	word	,Home Tab Group		2
auditions Daily & Monthly Final and Reports Daily	Lectures Practical + Views +Dialogue and discussion	word	Style set and edit set Tab and page layout		3
auditions Daily & Monthly Final and Reports Daily	Lectures Practical + Views +Dialogue and discussion	word	Group theme and page setup and background the page		4

auditions Daily & Monthly Final and Reports Daily	Lectures Practical + Views +Dialogue and discussion	word	Paragraph group and arrangement group and the View tab, Document		5
		Exame			6
auditions Daily & Monthly Final and Reports Daily	Lectures Practical + Views +Dialogue and discussion	word	,Show set , Zoom zoom group and window, help instructions		7
auditions Daily & Monthly Final and Reports Daily	Lectures Practical + Views +Dialogue and discussion	word	Chapter Two/Insertion Tab, Page Set and Table Set		8
auditions Daily & Monthly Final and Reports Daily	Lectures Practical + Views +Dialogue and discussion	word	Table Tools tab, Table Design tab, and Layout tab		9
auditions Daily & Monthly Final and Reports Daily	Lectures Practical + Views +Dialogue and discussion	word	,Graphics Set ,Image Tools Links Group		10
auditions Daily & Monthly Final and Reports Daily	Lectures Practical + Views +Dialogue and discussion	word	Group theme and page setup and background		11
auditions Daily & Monthly Final and Reports Daily	Lectures Practical + Views +Dialogue and discussion	word	Header and ,footer group text group, and symbol group		12

auditions Daily & Monthly Final and Reports Daily	Lectures Practical + Views +Dialogue and discussion	word	For Microsoft Word, References tab Tables of contents and footnote collection		13
auditions Daily & Monthly Final and Reports Daily	Lectures Practical + Views +Dialogue and discussion	word	Collection of references and quotations Captions and index set Sources Table Group, Tab		14
auditions Daily & Monthly Final and Reports Daily	Lectures Practical + Views +Dialogue and discussion	**Exame**	Paragraph group and arrangement group Correspondence and group creation,		15

11. Course Evaluation

Daily exams with multiple-choice questions that require scientific skills.
- Daily exams with scientific questions.
- Participation grades for competition questions for academic subjects.
- Grade homework and reports
- Grades of the student's activity during the lecture and the extent of his commitment to attendance and non-absence.

12. Learning and Teaching Resources

.1Microsoft PowerPoint 2010 Step by Step(448 pages; Print	,Required textbooks (methodology (if any
Explanation of the PowerPoint 2010 program The book in Arabic A full explanation of the program in the	Key references (sources)
	Recommended supporting books and references (scientific journals,
http://download-internet-pdf-ebooks.com/12082-free-book	Electronic references, websites

Course Description Form

1. Course Name:	
English Language /2	
2. Course Code:	
ENGL206	
3. Semester / Year:	
First semester / Second	
4. Description Preparation Date:	
7-3-2025	
5. Available Attendance Forms:	
Attending	
6. Number of Credit Hours (Total) / Number of Units (Total)	
2 hours per week 2 umit	
7. Course Administrator's Name (Mention All, If More Than One Name)	
Name: Assist. Prof. Dr. Hassan Nima Habib Email hassan.nima@uobasrah.edu.iq	
8. Course Objectives	
Course Objectives	• The aim of teaching English is to help students gain practical mastery of the English language, i.e. students should be able to understand spoken English, speak English, read English and write English..
9. Teaching and Learning Strategies	

Strategy	Enable students to recognize: 1 - Enabling students to communicate effectively and appropriately in real-life situations. 2 - Enabling students to use the English language effectively for the purpose of study across the curriculum. 3 - Enabling students to develop and integrate the use of the four language skills: reading, listening, speaking and writing. 4 - Enabling students to develop interest in and learn about literature. 5- Enable students to review and reinforce the structure that has already been learned

10. Course Structure

Week	Hours	Required learning outcomes	Unit or Subject Name	Learning Method	Evaluation Method
1	1	Structure of English sentence	General introduction about structure of English sentences.	Theoretical lectures + listing, writing, and reading skills	Daily, monthly, and final exams and presentation
2	1	Present simple tense.	Identified the present tense.	Theoretical lectures + listing, writing, and reading skills	Daily, monthly and final exams and presentation
3	1	Past simple tense.	Identified past tense.	Theoretical lectures + listing, writing, and reading skills	Daily, monthly, and final exams and presentation
4	1	Present and past continuous tenses	Difference between present and past continuous tenses	Theoretical lectures + listing, writing, and reading skills	Daily, monthly, and final exams and presentation

5	1	Future tense	Identified the future tense.	Theoretical lectures + listing, writing, and reading skills	Daily, monthly, and final exams and presentation for each
6	5	Possessive Adjectives	Identified Possessive Adjectives.	Theoretical lectures + listing, writing, and	Daily, monthly and final exams and
7	1	Pronoun personal	Importance of pronoun in English grammar.	Theoretical lectures + listing, writing, and reading skills	Daily, monthly and final exams and presentation for each
8	1	Preposition.	Identified the uses of preposition types.	Theoretical lectures + listing, writing, and reading skills	Daily, monthly, and final exams and presentation for each
9	1	Intransitive and transitive verbs	Difference between of intransitive and transitive verbs	Theoretical lectures + listing, writing, and reading skills	Daily, monthly, and final exams and presentation for each
10	1	Adverbs forms	Importance of adverbs form	Theoretical lectures + listing, writing, and reading skills	Daily, monthly, and final exams and presentation for each
11	1	Performative verbs	Identified of Performative verbs	Theoretical lectures + listing, writing, and reading skills	Daily, monthly, and final exams and presentation for each
12	1	Possessive	Details of the possessive.	Theoretical lectures + listing, writing, and reading skills	Daily, monthly, and final exams and presentation for each

13	1	The plural of nouns and A singular noun	Difference between The plural of nouns and A singular noun	Theoretical lectures + listing, writing, and reading skills	Daily, monthly and final exams and presentation for each
14	1	The adjectives	What are the important of adjectives	Theoretical lectures + listing, writing, and reading skills	Daily, monthly, and final exams and presentation for each
15		Exame			

11. Course Evaluation

- Daily exams with multiple-choice questions that require scientific skills.
- Daily exams with scientific questions.
- Participation grades for competition questions for academic subjects.
- Marking homework and reports
- - Grades for the student's activity during the lecture and the extent of his commitment to regular attendance and absence.

12. Learning and Teaching Sources

Main References (Sources)	Yule, G. (2015). Oxford practice grammar advanced. Oxford University Press. Alexander, L. G. (2019). Longman English grammar practice. Addison wesley.- ا(2017
Recommended Books and References (Scientific Journals, Reports...)	Various university research and dissertations in the English language related to animal
Electronic References, Websites	https://agendaweb.org/listening/dictations.html

Course Description Form

Course name .1
Animal Product Health
Course code .2
ANPH212
Semester/year .2
First semester /Second
The date this description was prepared .4
2025-2-10
Available attendance forms .5
Attending
Number of study hours (total)/number of units (total) .6
5 5 hours (2 hours theoretical 3 hours practical) Number of Units (3.5)
7.Name of the course administrator (if more than one name is mentioned)
:Name Qutaiba Jassim Ghani . : Email qutiba.gheni@uobasrah.edu.iq
8.Course objectives

:Graduating students capable of • Working in the field of poultry breeding and production. They have theoretical and applied knowledge regarding the subject of poultry management and production. Obtaining the skills required for the post-graduation .plan (postgraduate studies) • Applying for external tests by .local/regional/international bodies • Thinking and analysis skills that enable one to achieve knowledge of how to establish, prepare and supervise poultry .farming projects • Providing students with work skills in scientific and research fields and studying poultry and its relationship to	Objectives of the study subject

9.Teaching and learning strategies	
Enabling students to think and analyze topics related to the intellectual framework of the course Poultry Production and Management. Enabling students to think and analyze topics related to measuring productivity. Enabling students to think and analyze how to provide environmental conditions that affect poultry birds and their relationship to their production and health status. Enabling students to think and analyze to identify the best prevailing -4 poultry projects and their relationship to animal production.	The strategy

10. Course structure

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

the exams Daily and monthly And final reports Daily	Lectures Theoretical and practical Display + methods Dialogue + and discussion	General introduction to animal health	Introducing students to general information about animal health	5	1
the exams Daily and monthly And final reports Daily	Lectures Theoretical and practical Display + methods Dialogue + and discussion	Animal health science	Introducing students to product health vocabulary	5	2
the exams Daily and monthly And final reports Daily	Lectures Theoretical and practical Display + methods Dialogue + and discussion	Factors associated with the production .of health products	Explain and clarify the factors affecting the production of healthy carcasses	5	3
the exams Daily and monthly And final reports Daily	Lectures Theoretical and practical Display + methods Dialogue + and discussion	Poultry slaughterhouses	Introducing students to animal , slaughterhouses their types and .characteristics	5	4
the exams Daily and monthly And final reports Daily	Lectures Theoretical and practical Display + methods	. supplies	Introducing students to all the requirements used in animal production	5	5

	Dialogue + and discussion				
the exams Daily and monthly And final reports Daily	Lectures Theoretical and practical Display + methods Dialogue + and discussion	Management and .care of broilers	Introducing students to the requirements for ,raising broilers their needs, and measuring their . production	5	6
the exams Daily and monthly And final reports Daily	Lectures Theoretical and practical Display + methods Dialogue + and discussion	Types of pollutants	Meat contamination and its harmful effects Health	5	7
the exams Daily and monthly And final reports Daily	Lectures Theoretical and practical Display + methods Dialogue + and discussion	Sanitary conditions for slaughtered animals	Types of carcasses and methods of evaluating them	5	8
the exams Daily and monthly And final reports Daily	Lectures Theoretical and practical Display + methods Dialogue + and discussion	Bleeding	Introducing the importance of bleeding, methods , of conducting it its benefits, and its relationship to productivity	5	9

the exams Daily and monthly And final reports Daily	Lectures Theoretical and practical Display + methods Dialogue + and discussion	Sanitary conditions for handling animal products	Explaining and clarifying healthy methods for handling animal products	5	10
the exams Daily and monthly And final reports Daily	Lectures Theoretical and practical Display + methods Dialogue + and discussion	Abnormal changes in products	Introducing the characteristics of food products	5	11
the exams Daily and monthly And final reports Daily	Lectures Theoretical and practical Display + methods Dialogue + and discussion	Poultry slaughterhouse . management	A detailed explanation of bird ,slaughterhouses ,how they work and the steps followed in preparing and dealing with bird products	5	12
the exams Daily And monthly And final reports Daily	Lectures Theoretical And practical Display + methods Dialogue + and discussion	Poultry management in hot .climates	Introducing students to the relationship of hot weather to bird productivity, its impact on the health and well-being of birds, and the procedures necessary to reduce . its effects	5	13

the exams Daily and monthly And final reports Daily	Lectures Theoretical and practical Display + methods Dialogue + and discussion	Poultry droppings .and waste	Introducing students to how to deal with bird droppings and benefit from them as a secondary resource for poultry projects	5	14
			Exame		15

11. Course evaluation
.exams with multiple-choice questions that require scientific skills .Daily exams with scientific questions - .Participation grades for competition questions for academic subjects - Setting grades for homework and reports - Grades for the student's activity during the lecture and the extent of his commitment to - .regular attendance and absence

Learning and teaching resources .12	
Meat health	Required textbooks (methodology, if any)
Health of meat products	Main references (sources)
Various taxonomic research and dissertations on animal products	Recommended supporting books and references (scientific journals, reports...)
https://almerja.com/archive.php?fid=1518 https://almerja.com/archive.php?fid=1520	Electronic references, websites

Course Description Form

1. Course Name:
Microbiology
2. Course Code:
MICB218
3. Semester / Year:
First semester / Second
4. Description Preparation Date:
2025-3-24
5. Available Attendance Forms:
Attending
6. Number of Credit Hours (Total) / Number of Units (Total)
5 hours (2 hours theoretical 3 hours practical) Number of Units (3.5)
7. Course Administrator's Name (Mention All, If More Than One Name)
Name: Prof. Hanaa Ali Jabar Al-Galbi Email: hanaa.jabar@uobasrah.edu.iq
8. Course Objectives

Course Objectives	Graduating students are capable with: • Working in the department of animal production. They have theoretical and applied knowledge regarding the microbiology and management. • Obtaining the skills required for a post-graduation plan (postgraduates). • Applying for external examinations by local / regional / international bodies. • Thinking and analysis skills that enable arriving at knowledge. How to establish, prepare and supervise in animal hygiene and farming projects. • Providing students with work skills in the Fields Scientific, research and study microbiology and its relationship to animal performance.

9. Teaching and Learning Strategies	
Strategy	Enabling students to think and analyse topics related to the intellectual framework of the subject administration and animal nutrition. Enabling students to think and analyse topics related to measuring productivity. Enabling students to think and analyse how to provide environmental conditions that affect animal feed and their relationship to their production and health status. Enabling students to think and analyse to identify the best prevailing animal projects and their relationship to animal production.

10. Course Structure

Week	Hours	Required learning outcomes	Unit or Subject Name	Learning Method	Evaluation Method
1	5	Definition of microbiology	• Identification • Division of microbiology • Branches of microbiology • Autopoietic theory	Teaching method	the exams Daily and monthly And final reports daily
2	5	An overview of the achievements of the most important microbiologists	An overview of the achievements of the most important microbiologists • Dyeing and its types • Dyeing mechanism • Gram staining • Differentiate between negative and positive bacteria for this dye	Lectures Theoretical and practical + Display methods +Dialogue and discussion	the exams Daily and monthly And final reports daily

3	5	Bacteria	• Division of bacteria • External structures of bacteria • Internal structures of bacteria • Bacteria shapes and sizes • Agricultural media, their types and construction	Lectures Theoretical and practical + Display methods +Dialogue and discussion	the exams Daily and monthly And final reports daily
4	5	Reproduction	• Budding • Fragmentation • Dichotomy • Sexual reproduction (conjugation)	Lectures Theoretical and practical + Display methods +Dialogue and discussion	the exams Daily and monthly And final reports daily
5	5	Generation Interval	• Growth curve and its stages • Continuous farms	Lectures Theoretical and practical + Display methods +Dialogue and discussion	the exams Daily and monthly And final reports daily
6	5	Physical factors affecting bacteria growth	• temperature • Oxygen • pH • Humidity • Drought • Water activity • Optical radiation	Lectures Theoretical and practical + Display methods +Dialogue and discussion	the exams Daily and monthly And final reports daily

7	5	Bacterial development and their needs for nutrients	Nutrients Requirements	Lectures Theoretical and practical + Display methods +Dialogue and discussion	the exams Daily and monthly And final reports daily
8	5	Chemical factors affecting bacterial growth	• * Phenols • Bases and acids • Saponin • Heavy metal elements • Aldehydes and ketones	Lectures Theoretical and practical + Display methods +Dialogue and discussion	the exams Daily and monthly And final reports daily
9	5	*Fungi*	• Mold • Morphological characteristics • Body composition • Its reproduction • Some examples	Lectures Theoretical and practical + Display methods +Dialogue and discussion	the exams Daily and monthly And final reports daily
10	5	Fungi	• Yeasts • Morphological and physiological characteristics • Body structures	Lectures Theoretical and practical + Display methods +Dialogue and discussion	the exams Daily and monthly And final reports daily
11	5	Yeasts and molds	• Sexual and asexual reproduction • Types	Lectures Theoretical and practical + Display methods +Dialogue and discussion	the exams Daily and monthly And final reports daily

12	5	Algae	• Its characteristics • Reproduction • Some examples	Lectures Theoretical and practical + Display methods +Dialogue and discussion	the exams Daily and monthly And final reports daily
13	5	Protozoa	• Definition • Some of its rows • Reproduction	Lectures Theoretical and practical + Display methods +Dialogue and discussion	the exams Daily and monthly And final reports daily
14	5	*Viruses*	• structure • Methods of cultivation • Some families • Its characteristics • Its effect on humans and animals	Lectures Theoretical and practical + Display methods +Dialogue and discussion	the exams Daily and monthly And final reports daily

11. Course Evaluation

- Daily exams with multiple-choice questions that require scientific skills.
- Daily exams with scientific questions.
- Participation grades for competition questions for academic subjects.
- Marking homework and reports
- - Grades for the student's activity during the lecture and the extent of his commitment to regular attendance and absence.

12. Learning and Teaching Sources

Required Textbooks (Curricular Books, If Any)	Principles of microbiology Dr. Fayez Aziz Al-Ani and Dr. Amin Suleiman Al-Badawi

Main References (Sources)	General microbiology. Prof. Dr. Sameh Fahim Faraj Allah and Dr. Ali Abdul Muttalib Abdul Azim
Recommended Books and References (Scientific Journals, Reports...)	Taxonomic research and various university theses in microbiology
Electronic References, Websites	https://almerja.com/archive.php?fid=1518 https://almerja.com/archive.php?fid=1520

week	subject
1	Auticlave Oven Incubator Balance Water Bath Colony Counter Blender Needle Water -bath microscope and its parts how to use a microscope
2	general characteristics of bacteria Monotrichous : Iophotrichous: Amphitrichous: Eritrichous: Morphology of the bacterial cell CoccusCocci Rod Shaped Bacteria: 3Spiral: Actinomycetes: Bacteria Staining Dyes Neutral Dye Acidic Dyes:

	Basic Dyes: Prepartion of Smar
3	Method of Staining Simple Stains Differential Stains gram dyeing steps mechanism of gramStaining
4	Staining of bacterial cell parts Spores Stainning : CapsualStagining : Flagella Staining : Negative Stainin Acid Fast Staining: :examination Yeasts andMolds Yeast : Mold :
5	Chemical Requirment PhysialRequirments

6	Culture Media Natural Media OR Chemical Media Synthetic MediaSyntheticSemi Selctive Media Differential Media Number Media Enriched Media Maintenance Media : preparation of the culturemedia Characterization Media : Isolation Media
7	Inoculation and Isolation of Bacteria Streak Method Spread Method Slant Method Pour Method characteristics of bacterial colonies in culture media
8	Enumeration of Bacteria Cel Direct Method Direct Microscope Count Counting Chamber Indirect Method
9	movement of bacteria Bacterial Flagella
10	Viruses Viruses Replication Viruses characteristics of

Course Description Form

1. Course Name
AL Baath Crimes
2.Course Code
BACR205
3. Semester/Year
First semester / Second
4.Date of preparation of this description .
2025-2-20
5. Available attendance forms
Attending
6. Number of credit hours (total) / number of units (total)
2 hours Number of Units 2 Units
7. Course administrator's name (if more than one name is mentioned)
Name: M. Majid Hassan Abd al-Azira **Email: Majid.Hassan@Upesra.ed.ik**
8. Course Objectives

Identifying the crimes of the defunct Baath	Course Objectives: Graduation of students capable of working in:

9. Teaching and learning strategies	
*Explanation and clarification Lecture method Student Groups	Strategy

10. Course Structure

Evaluation method	Learning method	Unit or subject name	Required Learning Outcomes	Hours	Week
Exam	Explanation and presentation of the form	Baath Party Crimes	To familiarize the student with the concept of crimes and their divisions	**2**	**1**

Exam	Explanation and presentation of the form and the lecturer	Baath Party Crimes	To familiarize the student with the sections of crimes and crimes The Baath system according to the documentation of the	2	**2**
Exam	Explanation and presentation of the form and the lecturer	Baath Party Crimes	To familiarize the student with the types of international crimes And the letters issued by the Supreme Criminal Court	2	**3**
Exam	Explanation and presentation of the form and the lecturer	Baath Party Crimes	To familiarize the student with psychological crimes and mechanisms Mental Crimes	2	**4**
Exam	Explanation and presentation of the form and the lecturer	Baath Party Crimes	The student should know the effects of psychological crimes Social crimes	2	**5**
Exam	Explanation and presentation of the form and the lecturer	Baath Party Crimes	To familiarize the student with the militarization of society and the position of Baathist system of religion	2	**6**
Exam	Explanation and presentation of the form and the lecturer	Baath Party Crimes	The student should recognize the violations of Iraqi laws	2	**7**
Exam	Explanation and presentation of the form and the lecturer	Baath Party Crimes	To recognize the student with images of rights violations Man andthe crimes of power	2	**8**

Exam	Explanation and presentation of the form and the lecturer	Baath Party Crimes	The student should recognize some violation decisions Political and military of the Baath regime and prison locations and detention of the	2	**9**
Exam	Explanation and presentation of the form and the lecturer	Baath Party Crimes	The student should be introduced to democracy, criticism, democracy and separation of powers. Democracy and elections	2	**10**
Exam	Explanation and presentation of the form and the lecturer	Baath Party Crimes	The student should be familiar with military and radioactive pollution and mine explosions	2	**11**
Exam	Explanation and presentation of the form and the lecturer	Baath Party Crimes	The student should learn about the destruction of cities and villages (scorched earth policy)	2	**12**
Exam	Explanation and presentation of the form and the lecturer	Baath Party Crimes	The student should know the drying of the marshes and the dredging. Palm groves, trees and plantings	2	**13**
Exam	Explanation and presentation of the form and the lecturer	Baath Party Crimes	To familiarize the student with the crimes of mass graves and Genocide Graves Events Committed by the Regime Baathist in the world	2	**14**
Exam	Explanation and presentation of the form and the lecturer	Baath Party Crimes	The student should know the chronological classification of cemeteries Collective in Iraq for the duration 1963-2003	2	**15**

11. Course Evaluation	
Distributing the score out of 100 according to the tasks assigned to the student such as daily preparation, daily, oral, monthly, written exams, reports ... Etc.	
12. Learning and Teaching Resources	
	Required textbooks (methodology, if any)
Iraqi academic scientific journals	Key references (sources)
	Recommended supporting books and references (scientific journals, reports...)
	Electronic references, websites

Course Description Form

1. Course Name:
Agricultural Economy
2. Course Code:
AGEC229
3. Semester / Year:
Second semester / Second
4. Description Preparation Date:
17-01-2025
5. Available Attendance Forms:
Attending
6. Number of Credit Hours (Total) / Number of Units (Total):
2 hours per week" (2 units)
7. Course Administrator's Name (Mention All, If More Than One Name)
Name: Khawla Rashige Hassan/khawla.hassan@uobasrah.edu.iq
8. Course Objectives

Course Objectives	**Introducing the principles and basics of agricultural production economics and economic principles related to production**
9. Teaching and Learning Strategies	
Strategy	**The lesson includes (2) theoretical hours, a number of weekly credit hours distributed over 15 weeks.**
10. Course Structure	

Week	Hours	Required learning	Unit or Subject Name	Learning Method	Evaluation Method

1	3	Knowledge and understanding, brainstorming and mental skills, professional	Introduction to economics and consumer	Lecture with explanation and presentation.	Display Screen
2	3		The role of agricultural activity in the	Lecture with explanation and presentation	Display Screen
3	3		Economics of agricultural	Lecture with explanation and presentation	Display Screen
4	3		Production costs	Lecture with explanation and presentation	Display Screen
5	3		the first exam	Lecture with explanation and presentation	Display Screen
6	3		Agricultural prices	Lecture with explanation and presentation	Display Screen
7	3		Markets and their types	Lecture with explanation and presentation	Display Screen
8	3		Agricultural policy	Lecture with explanation and presentation	Display Screen
9	3		Farm management	Lecture with explanation and presentation	Display Screen
10	3		Agricultural development	Lecture with explanation and presentation	Display Screen
11	3		Second exam	Lecture with explanation and presentation	Display Screen

12	**3**		**Agricultural marketing**	**Lecture with explanation and presentation**	**Display Screen**
13	**3**		**Agricultural finance**	**Lecture with explanation and presentation**	**Display Screen**

11. Course Evaluation	
Distribution of the score out of 100 according to the tasks assigned to the student, such as daily preparation, daily oral, monthly, or written exams, reports, etc.	
12. Learning and Teaching Sources	
Required Textbooks (Curricular Books, If Any)	
Main References (Sources)	Agricultural Economics / Dr. Abdul Wahab Matar Al-Dahri / Ministry of Higher Education and Scientific Research / 1980
Recommended Books and References (Scientific Journals, Reports...)	Principles of Agricultural Economics / Dr. Ahmed Abu Al-YazidPrinciples
Electronic References, Websites	Biography of the Editor of the Economy - Mahmoud Salim | Fur

Course Description Form

1. Course Name:					
Forage Crops and Pastures					
2. Course Code:					
FOCR214					
3. Semester / Year:					
Second Semester / Second Stage					
4. Description Preparation Date:					
12-01-2025					
5. Available Attendance Forms:					
Attending					
6. Number of Credit Hours (Total) / Number of Units (Total)					
2 hours and 3 hours practical per week for 15 weeks, the number of units is 3.5 units					
7. Course Administrator's Name (Mention All, If More Than One Name)					
Name: Mohammed abd alradah Email: mohameed.abdl_wahed@uobasrah.edu.iq					
8. Course Objectives					
Course Objectives		• 1- definition of fiber crops ,and whatis their importance in industries • 2-division of fiber crops and their importance to humans • 3- classification of fiber crops			
9. Teaching and Learning Strategies					
Strategy	The lesson includes (2) hours of theory and (3) hours of practical - the number of weekly hours is approved, and distributed over 15 weeks.				
10. Course Structure					
Week	**Hours**	**Required learning outcomes**	**Unit or Subject**	**Learning Method**	**Evaluation Method**

1	**5**	The importance of forage crops in agricultural cycles and soil maintenance		Lecture	display screen + a blackboa
2	**5**	The importance of legume forage crops		Lecture	Lecture
3	**5**	Alfalfa crops		Lecture	Lecture
4	**5**	Berseem Egyptian crops		Lecture	Lecture
5	**5**	Sweet clover crops and soybean crops		Lecture	Lecture
6	**5**	Exam		Lecture	Lecture
7	**5**	The importance of grass orage crops Barley crop		Lecture	Lecture
8	**5**	Oat crop		Lecture	Lecture
9	**5**	Corn and sorghum crops		Lecture	Lecture
10	**5**	Sudan grass and millets crop		Lecture	Lecture
11	**5**	Forage mixtures		Lecture	Lecture

12	**5**	Pastures and their types		Lecture	Lecture
13	**5**	Range Condition Estimation methods		Lecture	Lecture
14	**5**	Terms and definitions		Lecture	Lecture
15	**5**	Exam		Lecture	Lecture

11. Course Evaluation
Distribution of the score out of 100 according to the tasks assigned to the student, such as daily preparation, daily oral, monthly, or written exams, reports, etc.

12. Learning and Teaching Sources	
Required Textbooks (Curricular Books, If Any)	**Fiber crops, written by Dr. hikmat abdel ali**
Main References (Sources)	**Fiber crops ,written by Dr. ayad talaat shaker**
Recommended Books and References (Scientific Journals, Reports...)	**Scientific journals with field of fiber crops**
Electronic References, Websites	**Some research and articles on fiber crops**

The third stage

Course Description Form

1. Course Name	
Medical and Veterinary Insects	
2. Course Code	
MEIN343	
3. Semester/Year	
First semester / Third	
2.Date of preparation of this description	
16-2-2025	
5. Available attendance forms	
Attending	
6. Number of credit hours (total) / number of units (total)	
2 hours and 3 hours practical per week for 14 weeks, the number of units is 3.5 units	
7. Course administrator's name (if more than one name is mentioned)	
Name: Doctor Bassem Hassan Abdul redha **Email:** **basim.abdal_arza@uobasrah.edu.iq**	
8. Course Objectives	
Definition of insects and parasites that transmit pathogens	Course Objectives: Graduation of students capable of working in:
9. Teaching and learning strategies	
*Explanation and clarification Lecture method. Student Groups Practical lessons in agricultural fields	Strategy
10. Course Structure	

Evaluation method	Learning method	Unit or subject name	Required Learning Outcomes	Hours	Week
auditions Daily & Monthly Final and	Lectures Theoretical + Views +Dialogue	Medical and veterinary insects	The student should recognize the medical and veterinary importance of insects	**5**	**1**
auditions Daily & Monthly Final and	Lectures Theoretical + Views +Dialogue	Medical and veterinary insects	The student should identify the insects that transmit pathogens	**5**	**2**
auditions Daily & Monthly Final and	Lectures Theoretical + Views +Dialogue	Medical and veterinary insects	The student should be introduced to external parasites	**5**	**3**
auditions Daily & Monthly Final and	Lectures Theoretical + Views +Dialogue	Medical and veterinary insects	The student should be introduced to external parasites: lice, rodent	**5**	**4**
auditions Daily & Monthly Final and	Lectures Theoretical + Views +Dialogue	Medical and veterinary insects	The student should know the medical and veterinary importance of fleas	**5**	**5**
		Medical and veterinary insects	To familiarize the student with the medical and veterinary importance of flies		**6**
auditions Daily & Monthly Final and	Lectures Theoretical + Views +Dialogue	Medical and veterinary insects	To recognize the medical and veterinary importance of blood-sucking flies	**5**	**7**
auditions Daily & Monthly Final and	Lectures Theoretical + Views +Dialogue	Medical and veterinary insects	The student should be introduced to internal parasites	**5**	**8**
auditions Daily & Monthly Final and	Lectures Theoretical + Views +Dialogue	Medical and veterinary insects	The student should recognize the medical and veterinary importance of ticks	**5**	**9**
auditions Daily & Monthly Final and	Lectures Theoretical + Views +Dialogue	Medical and veterinary insects	The student should recognize the tick that transmits the pathogen	**5**	**10**
auditions Daily & Monthly Final and	Lectures Theoretical + Views +Dialogue	Medical and veterinary insects	To get to know Babesia	**5**	**11**

auditions Daily & Monthly Final and	Lectures Theoretical Views + Dialogue+	Medical and veterinary insects	To recognize the medical and veterinary importance of dream parasites		**12**
auditions Daily & Monthly Final and	Lectures Theoretical + Views +Dialogue	Medical and veterinary insects	To introduce the student to insects that transmit diseases	**5**	**13**
auditions Daily & Monthly Final and	Lectures Theoretical + Views +Dialogue	Medical and veterinary insects Mac	The student should get to know Theileria	**5**	**14**
auditions Daily & Monthly Final and	Lectures Theoretical + Views +Dialogue	Medical and veterinary insects Mac	The student should get to know Trypanosoma	**5**	**15**

11. Course Evaluation

Distributing the score out of 100 according to the tasks assigned to the student such as daily preparation, daily, oral, monthly, written exams, reports ... Etc.

12. Learning and Teaching Resources

	Required textbooks (methodology, if any)
Iraqi academic scientific journals	Key references (sources)
	Recommended supporting books and references (scientific journals, reports...)
	Electronic references, websites

Course Description Form

1. Course Name:	
Environment and Animal Behavior	
2. Course Code:	
ANBE316	
3. Semester / Year:	
First semester / Third	
4. Description Preparation Date:	
18-1-2025	
5. Available Attendance Forms:	
Attending	
6. Number of Credit Hours (Total) / Number of Units (Total)	
2 hours per week 2 unit	
7. Course Administrator's Name (Mention All, If More Than One Name)	
Name: Prof.Dr. Khalid Chillab Kridie Email: khalid.chillab@uobasrah.edu.iq	
8. Course Objectives	
Course Objectives	• The student learns the definition of ecology and the divisions of ecology. • The student learns the most important factors affecting the distribution of animal life. • The student learns about the influence of the environment and its factors on the behavior of agricultural animals. • The student learns about the relationship between the endocrine and the nervous system in behavior. • The student learns about the ways in which animals adapt to environmental conditions. • The student learns about the types of animal behavior and the characteristics of each type. • The student learns about the ways of

9. Teaching and Learning Strategies	
Strategy	Enabling students to think and analyze topics related to the intellectual framework of the subject administration of animal behaviour. Enabling students to think and analyze topics related to measuring productivity. Enabling students to think and analyze how to provide environmental conditions that affect animal behaviour and their relationship to their production and health status.

10. Course Structure

Week	Hours	Required learning	Unit or Subject	Learning Method	Evaluation Method
1	2	The concept of ecology and its divisions. The	The concept of ecology	Teaching method	the exams Daily and monthly And final reports
2	2	The role of the environment in animal life.	The role of the environme	Lectures Theoretical + Display	the exams Daily and monthly And final reports
3	2	Mechanisms of regulating body temperature.	Mechanisms of regulating	Lectures Theoretical + Display	the exams Daily and monthly And final reports
4	2	Definition of animal behavior . Scientific	Definition of animal behavior .	Lectures Theoretical + Display	the exams Daily and monthly And final reports
5	2	Farm animal behavior. The stimulus and	Farm animal behavior.	Lectures Theoretical + Display	the exams Daily and monthly And final reports
6	2	The relationship of the endocrine system and the	The relationship of the	Lectures Theoretical + Display	the exams Daily and monthly And final reports

7	2	Regulating intelligence and behavior in	Regulating intelligence and	Lectures Theoretical + Display	the exams Daily and monthly And final reports
8	2	Aggressive behavior and theories	Aggressive behavior and	Lectures Theoretical + Display	the exams Daily and monthly And final reports
9	2	Definition of motivation, Drives,	Definition of motivation,	Lectures Theoretical + Display	the exams Daily and monthly And final reports
10	2	Physiology of feed and water intake and	Physiology of feed and water	Lectures Theoretical + Display	the exams Daily and monthly And final reports
11	2	Heat loss methods	Heat loss methods	Lectures Theoretical + Display	the exams Daily and monthly And final reports
12	2	Animals' ways of communicating	Animals' ways of communica	Lectures Theoretical + Display	the exams Daily and monthly And final reports
13	2	Heredity and its effect on behavior**. Part**	Heredity and its effect on	Lectures Theoretical + Display	the exams Daily and monthly And final reports
14	2	Heredity and its effect on behavior**. Part 2**	Heredity and its effect on behavior.	Lectures Theoretical + Display methods	the exams Daily and monthly And final reports daily
15			Exame		
11. Course Evaluation					

- Daily exams with multiple-choice questions that require scientific skills.
- Daily exams with scientific questions.
- Participation grades for competition questions for academic subjects.
- Marking homework and reports
- - Grades for the student's activity during the lecture and the extent of his commitment to regular attendance and absence.

12. Learning and Teaching Sources	
Required Textbooks (Curricular Books, If Any)	**Al-Hussini, A.H.(2020). Animal behavior. Book.**
Recommended Books and References (Scientific	Various classification research and university theses animal behaviour.
Electronic References, Websites	**https://www.sciencedirect.com/topics/agricultural-and-biological-sciences/animal-behavior**

Course Description Form

1. Course Name: Principles of field crops	
	Animal Production Economic
	2. Course Code:
	ANEC315
	3. Semester / Year:2024- 2025
	First Semester Third
	4. Description Preparation Date:2024
	14-1-2025
	5. Available Attendance Forms:
	Attending
	6. Number of Credit Hours (Total) / Number of Units (Total): 3 / 3.5
	3 hours Number of Units (3)
	7. Course Administrator's Name (Mention All, If More Than One Name)
	D.Khawla Rashige Hassan/khawla.hassan@uobasrah.edu.iq
	8. Course Objectives
Course Objectives	Introducing the economic principles and theories that are used in managing agricultural projects and organizing records with the aim of increasing the efficiency of the product and the project.
9. Teaching and Learning Strategies	
Strategy	3) hours of theory and (3) hours of practical - the number of distributed over 15 weeks.
10. Course Structure	

Week	Hours	Required learning outcomes	Unit or Subject Name	Learning Method	Evaluation Method
1	3	Knowledge and understanding, brainstorming and mental skills, professional and scientific skills, and general skills	Introduction to the economics of agricultural production	Lecture with explanation and presentation.	Display Screen
2	3		The economics of animal production and its importance	Lecture with explanation and presentation	Display Screen
3	3		Productive resources and their nature	Lecture with explanation and presentation	Display Screen
4	3		Productive function and its types	Lecture with explanation and presentation	Display Screen .
5	3		Exam	Lecture with explanation and presentation	Display Screen
6	3		Forms of the production function	Lecture with explanation and presentation	Display Screen
7	3		Production costs Production stages and	Lecture with explanation and presentation	Display Screen
8			Exame		

9	**3**		Production stages and diminishing returns	Lecture with explanation and presentation	Display Screen
10	**3**		Optimal project size	Lecture with explanation and presentation	Display Screen
11	**3**		Economic evaluation of projects	Lecture with explanation and presentation	Display Screen
12	**3**		Exam	Lecture with explanation and presentation	Display Screen
13	**3**		Farm records	Lecture with explanation and presentation	Display Screen
14	**3**		Unusual losses on the farm	Lecture with explanation and presentation	Display Screen
15		**Exame**			

	11. Course Evaluation
	Distribution of the score out of 100 according to the tasks assigned to the student, such as daily preparation, daily oral, monthly, or written exams, reports, etc.
	12. Learning and Teaching Sources

Required Textbooks (Curricular Books, If Any)		
Main References (Sources)		
Recommended Books and References (Scientific Journals, Reports...)		
Electronic References, Websites		agro-lib.site/2021/04/blog-post_332.html

Course Description Form

1. Course Name:	
Animal Breeding	
2. Course Code:	
ANBR321	
3. Semester / Year:	
Second semester / Third	
4. Description Preparation Date:	
2-01-2025	
5. Available Attendance Forms:	
Attending	
6. Number of Credit Hours (Total) / Number of Units (Total)	
5 hours (2 hours theoretical 3 hours practical) Number of Units (3.5)	
7. Course Administrator's Name (Mention All, If More Than One Name)	
Name: Prof. Asaad yheia Ayied Email: asaad.yheia@uobasrah.edu.iq Teacher. Bashar Falih Zaqeer Email: bashar.zageer@uobasrah,edu.iq	
8. Course Objectives	
Course Objectives	Graduating capable studentson me: • Graduating students capable of: • • Working in the field of animal husbandry and improvement. They have theoretical and applied knowledge regarding the subject of animal husbandry and improvement • • Obtaining the skills required for the post-graduation plan (graduate studies). • • Improving the productive qualities of the animal. • • How genetic material works and its effect on the characteristics of an organism and its generations. • • How variation is distributed in the clan and the influence of environmental factors • • Using modern methods and genetic programs that contribute to increasing the genetic improvement of the

9. Teaching and Learning Strategies	
Strategy	1- Enabling students to think and analyse topics related to the intellectual framework of the subject of animal husbandry and improvement. 2- Enabling students to think and analyse topics related to ways of genetic improvement of animals related to increasing productivity. 3- Enabling students to think and analyse how to link genetic factors with environmental conditions that affect animals and their relationship to their production and health status. 4- Enabling students to think and analyse to identify the best methods used in the field of animal breeding and improvement and their relationship to animal production in terms of increasing the amount of production for the studied traits while keeping the number constant.

10. Course Structure

Week	Hours	Required learning	Unit or Subject Name	Learning Method	Evaluation Method
1	5	Introducing students to general	Introduction, Gene effect,	Teaching method	the exams Daily and monthly
2	5	Introducing students to the basic	Law of segregation, Law of independent	Lectures Theoretical and practical	the exams Daily and monthly
3	5	Explain some genetic	Genotype, Phenotype	Lectures Theoretical and practical	the exams Daily and monthly
4	5	Introducing students to how to	Genotypic frequency, Gene frequency	Lectures Theoretical and practical	the exams Daily and monthly
5	5	Introducing students to the	Factors Affecting gene frequency, Migration	Lectures Theoretical and practical	the exams Daily and monthly
6	5	Introducing students to the	Mutation, Selection	Lectures Theoretical and practical	the exams Daily and monthly

7	5	Explain and explain the	Impact of the selection change the gene	Lectures Theoretical and practical	the exams Daily and monthly
8	5	A detailed explanatio n of how to	Means and genetic values	Lectures Theoretical and practical	the exams Daily and monthly
9	5	Introducin g the importance	Average gene effect	Lectures Theoretical and practical	the exams Daily and monthly
10	5	Explaining and clarifying	Breeding value	Lectures Theoretical and practical	the exams Daily and monthly
11	5	Definition of sovereignt	Dominance deviation	Lectures Theoretical and practical	the exams Daily and monthly
12	5	A detailed explanatio n of the	In breeding ،Line breeding ، Out breeding	Lectures Theoretical and practical	the exams Daily and monthly
13	5	Introducin g students to genetic	Heritability	Lectures Theoretical and practical	the exams Daily and monthly
14	5	Introducin g students to how to	Heritability calculation Methods	Lectures Theoretical and practical	the exams Daily and monthly
15		Exame			
11. Course Evaluation					

- Daily exams with multiple-choice questions that require scientific skills.
- Daily exams with scientific questions.
- Participation grades for competition questions for academic subjects.
- Marking homework and reports
- Grades for the student's activity during the lecture and the extent of his commitment to regular attendance and absence.

12. Learning and Teaching Sources	
Required Textbooks (Curricular Books, If Any)	Salah Jalal and Hassan Karam (2003). Animal Breeding - Anglo-Egyptian Library - Arab Republic of Egypt.
Main References (Sources)	-Victor Thar Rice and others, translated by Naguib Tawfiq Ghazal.Animal Breeding in farm animals - University of Mosul – Iraq - Khaled Hamed Hassan (2011). poultry Breeding - Ministry of Higher Education and Scientific Research
Recommended Books and References (Scientific Journals, Reports...)	Various classification research and university thesesdomestic in Animal breeding
Electronic References, Websites	https://agr.mu.edu.iq/wp-content/uploads/2021/02/%D8%A7%D8%B3%D8%B3-%D9%88%D8%B1%D8%A7%D8%AB%D8%A9-%D9%88%D8%AA%D8%B1%D8%A8%D9%8A%D8%A9-%D8%A7%D9%84%D8%AD%D9%8A%D9%88%D8%A

Course Description Form

1. Course Name:	
Design and Analysis of Experiments	
2. Course Code:	
DAEX327	
3. Semester / Year:	
First semester / Third	
4. Description Preparation Date:	
3-2-2025	
5. Available Attendance Forms:	
Attending	
6. Number of Credit Hours (Total) / Number of Units (Total)	
5 hours 3.5 unite	
7. Course Administrator's Name (Mention All, If More Than One Name)	
Name: Prof. Asaad yheia Ayied Email: asaad.yheia@uobasrah.edu.iq Teacher. Bashar Falih Zaqeer Email: bashar.zageer@uobasrah,edu.iq	
8. Course Objectives	
Course Objectives	Graduating capable studentson me: • Working in the field of designing agricultural experiments, they have theoretical and applied knowledge regarding the design subject. • Obtaining the skills required for the post-graduation plan (graduate studies). • Collecting, tabulating and summarizing data. • Conduct statistical tests. • Discussing and interpreting results and making decisions. • Using modern methods and statistical programs that contribute to the design of agricultural experiments and that are reflected in its various production characteristics

9. Teaching and Learning Strategies	
Strategy	1-Enabling students to think and analyze topics related to the intellectual framework of the design and analysis of experiments subject. 2- Enabling students to think and analyze topics related to ways to design successful experiments related to increasing productivity. 3- The design and analysis of experiments is a branch of statistics that is interested in applying the statistical method, and is an important topic in the research planning of managing and conducting a particular experiment to obtain data that can be analyzed and reach a specific conclusion through which it includes collecting, arranging and reducing data and then conducting certain statistical tests used to make decisions regarding the objectives that the experiment is designed to study.

10. Course Structure

Week	Hours	Required learning	Unit or Subject Name	Learning Method	Evaluation Method
1	5	Introducing students to general	Introduction, Central Tendency Measurements,	Teaching method	the exams Daily and monthly
2	5	Introducing students to some general	Mean properties, Median, Mode	Lectures Theoretical and practical	the exams Daily and monthly
3	5	Introducing students to some	Dispersion Measurements Range, Variance,	Lectures Theoretical and practical	the exams Daily and monthly
4	5	Introducing students to how to	Coefficient of Variation, Standardized	Lectures Theoretical and practical	the exams Daily and monthly
5	5	Introducing students to the basic	Analysis of Variance, Linear Model	Lectures Theoretical and practical	the exams Daily and monthly
6	5	Introducing students to the most	Analysis of Variance table,	Lectures Theoretical and practical	the exams Daily and monthly

7	5	Explain and explain the completely	Complete Randomized Design (CRD)	Lectures Theoretical and practical	the exams Daily and monthly
8	5	A detailed explanation of how to calculate the	Various examples of completely randomized design	Lectures Theoretical and practical + Display methods	the exams Daily and monthly And final
9	5	Introducing the importance of	Least Significant Difference (LSD)	Lectures Theoretical and practical	the exams Daily and monthly
10	5	Explain and clarify the variance and standard	Variance of the difference between two	Lectures Theoretical and practical + Display methods	the exams Daily and monthly And final
11	5	Introduction to Duncan tests and how	Duncan's Multiple Range, Lest Significant Range	Lectures Theoretical and practical	the exams Daily and monthly
12	5	A detailed explanation of the completely	Randomized Complete Block Design (RCBD)	Lectures Theoretical and practical + Display methods	the exams Daily and monthly And final
13	5	Introducing students to methods for	Missing Value, Relative Efficiency	Lectures Theoretical and practical	the exams Daily and monthly
14	5	Reminding students of the topics that have been studied and	General review	Lectures Theoretical and practical + Display methods +Dialogue and	the exams Daily and monthly And final reports
15			Exame		
11. Course Evaluation					

- Daily exams with multiple-choice questions that require scientific skills.
- Daily exams with scientific questions.
- Participation grades for competition questions for academic subjects.
- Marking homework and reports
- Grades for the student's activity during the lecture and the extent of his commitment to regular attendance and absence.

12. Learning and Teaching Sources	
Required Textbooks (Curricular Books, If Any)	Khashi Mahmoud Al-Rawi and Abdul Aziz Muhammad Khalaf Allah (1980). Design and analysis of agricultural experiments - Ministry of Higher Education and Scientific Research -
Main References (Sources)	1- Ahmed Obada Sarhan (1983). Design and analysis of experiments - University Books House - Cairo - Arab Republic of Egypt. 2- Naeem Thani Al-Muhammad, Khashi Mahmoud Al-Rawi, Moayad Ahmed Younis and Walid Khudair Al-Marani (1989). Principles of Statistics - Dar Al-Kutub Foundation for Printing and Publishing - University of Mosul - Iraq. 3- Mohamed Abdel Moneim's wealth (2004). Design and analysis of experiments - Anglo-Egyptian Library - Arab Republic of Egypt.
Recommended Books and References (Scientific Journals, Reports...)	Various classification research and university thesesdomestic in Experimental design and statistical analysis
Electronic References, Websites	https://agr.mu.edu.iq/wp-content/uploads/2021/10/%D8%AA%D8%B5%D9%85%D9%8A%D9%85-%D9%83%D8%A7%D9%85%D9%84-%D8%AF-%D8%B1%D8%A7%D8%BA%D8%A8.pdf

Course Description Form

1. Course Name:
Hatching and Hatches Management
2. Course Code:
HAMA313
3. Semester / Year:
First semester Third
4. Description Preparation Date:
1-4-2025
5. Available Attendance Forms:
Attending
6. Number of Credit Hours (Total) / Number of Units (Total)
5 hours 3.5 unit
7. Course Administrator's Name (Mention All, If More Than One Name)
Name: Assist. Prof. Alfred solaka karomy Email: alfred.karomy@uobasrah.edu.iq
8. Course Objectives

Course Objectives	Graduating students capable of: - Working in the field of hatchery management and related conditions - Introducing the student to the successful management curriculum for hatchery projects - Helping students understand the syllabuses and vocabulary of the lesson and curriculum for the subject of hatching and hatchery management. - Introducing the modern scientific foundations of hatchery management Practical practice of the most important hatchery projects.

9. Teaching and Learning Strategies

Strategy	**1 -Enabling students to think and analyze topics related to the intellectual framework of the subject of hatching and hatchery management** **2-Enabling students to think and analyze topics related to measuring productivity.** **3-Enabling students to think and analyze how to provide appropriate conditions of temperature, humidity, and ventilation** **4- Enabling students to think and analyze to learn about hatching projects**

10. Course Structure

Week	Hours	Required learning	Unit or Subject Name	Learning Method	Evaluation Method
1	5	Introducing students to general information about	History of hatching	Teaching method	the exams Daily and monthly

2	5	Introducing students to the female	male reproductive system	Lectures Theoretical and practical	the exams Daily and monthly
3	5	**Introducing students to the male reproductive**	The female reproductive system	Lectures Theoretical and practical	the exams Daily and monthly
4	5	**Introducing students to ways to collect and**	hatching eggs treatment	Lectures Theoretical and practical	the exams Daily and monthly
5	5	**Introducing students to the appropriate**	Hatching requirements	Lectures Theoretical and practical	the exams Daily and monthly
6	5	**Introducing students to the development of the**	stages of embryonic development	Lectures Theoretical and practical	the exams Daily and monthly
7	5	**Introducing students to ways to monitor eggs**	Vital monitoring during hatching	Lectures Theoretical and practical	the exams Daily and monthly
8	5	**A detailed explanation of hatcheries and**	Hatching methods and types of hatchers	Lectures Theoretical and practical	the exams Daily and monthly
9	5	**Introducing hatcheries and methods of**	hatcheries	Lectures Theoretical and practical	the exams Daily and monthly
10	5	**Explaining and clarifying the nutritional**	Nutrition and its relationship to spawning	Lectures Theoretical and practical	the exams Daily and monthly
11	5	**Introducing the quality of good chicks suitable for**	Identifying and evaluating the quality of	Lectures Theoretical and practical	the exams Daily and monthly
12	5	**Introducing modern methods of managing**	Intelligent management of hatcheries	Lectures Theoretical and practical	the exams Daily and monthly
13	5	**Introducing students to the basic methods of**	Hatchery management	Lectures Theoretical and practical	the exams Daily and monthly

14	5	**Introducing students to how to deal with bird droppings and benefit from them as**	Elimination of waste	Lectures Theoretical and practical	the exams Daily and monthly
15		**Exame**			

11. Course Evaluation

- Daily exams with multiple-choice questions that require scientific skills.
- Daily exams with scientific questions.
- Participation grades for competition questions for academic subjects.
- Marking homework and reports
- - Grades for the student's activity during the lecture and the extent of his commitment to regular attendance and absence.

12. Learning and Teaching Sources

Required Textbooks (Curricular Books, If Any)	Methodical books: Hatching and hatchery management - Dr. Saad Abdel Hussein
Main References (Sources)	**Hatching in poultry – Dr. Tariq Amin Obaid - 2010**
Recommended Books and References (Scientific Journals, Reports ...)	**Magazines, periodicals, websites, etc**
Electronic References, Websites	**https://www.noor-book.com/book/review/926609**

Course Description Form

1. Course Name:	
Animal Physiology	
2. Course Code:	
ANPH312	
3. Semester / Year:	
First semester / Third	
4. Description Preparation Date:	
13-2-2025	
5. Available Attendance Forms:	
Attending	
6. Number of Credit Hours (Total) / Number of Units (Total)	
5 hours per week 3.5 unit	
7. Course Administrator's Name (Mention All, If More Than One Name)	
Name: Prof. Waleed Yosief Kassim Email: waleed.yosief@uobasrah.edu.iq	
8. Course Objectives	
Course Objectives	Graduating capable studentson me: • Work in the field of organ functions so that students have theoretical and applied knowledge regarding the functions of the animal body and their relationship to animal production. Obtaining the skills required for the post-graduation plan (graduate studies). • Applying for external tests by local/regional/international bodies. • Thinking and analysis skills that enable one to arrive at knowledge of how to deal with agricultural animals in Faslja. • Providing students with work skills in the scientific and research fields related to animal

9. Teaching and Learning Strategies	
Strategy	1-Enabling students to think and analyze topics related to the intellectual framework of the animal physiology subject. 2-Enabling students to think and analyze topics related to measuring productivity. 3- Enabling students to think and analyze how to provide the necessary information in dealing with agricultural animals physiologically, and to know the optimal health efficiency to obtain the maximum production capacity of the animal.

10. Course Structure	
	– Obtaining the skills required for a post-graduation plan(Studiesupper). – Applying for external examinations by local / regional / international bodies. Thinking and analysis skills that enable arriving at knowledgeHow to establish, prepare and supervise poultry farming projects.
	– Providing students with work skills in theFieldsScientific, research and studypoultryAnd its relationship to wealthanimal.

Week	Hours	Required learning outcomes	Unit or Subject Name	Learning Method	Evaluation Method
1	5	Introducing students to general	A general introduc	Teaching method	the exams Daily and monthly

2	5	Introducing students to the nature	Animal cell structure	Lectures Theoretical and practical + Display methods	the exams Daily and monthly
3	5	Explanation of the nerve cell,	. The nerve cell	Lectures Theoretical and practical + Display methods	the exams Daily and monthly
4	5	Explaining the component	the nervous system	Lectures Theoretical and practical + Display methods	the exams Daily and monthly
5	5	Introducing students to the physiological function of the	the digestive system	Lectures Theoretical and practical + Display methods +Dialogue and discussion	the exams Daily and monthly And final reports daily
6	5	Introducing students to how animals	metabolism	Lectures Theoretical and practical + Display methods +Dialogue and discussion	the exams Daily and monthly And final
7	5	Introducing students to the general physiology	Blood	Lectures Theoretical and practical + Display methods +Dialogue and discussion	the exams Daily and monthly And final
8	5	A detailed explanation of blood circulation,	blood circulation	Lectures Theoretical and practical + Display methods +Dialogue and discussion	the exams Daily and monthly And final
9	5	Introducing students to the parts of the excretory	The excretory system	Lectures Theoretical and practical + Display methods +Dialogue and discussion	the exams Daily and monthly And final reports

10	5	Explanation and clarification of the respiratory	The respiratory system	Lectures Theoretical and practical + Display methods +Dialogue and discussion	the exams Daily and monthly And final reports
11	5	The environmental feelings and	the environmental behavior	Lectures Theoretical and practical + Display methods +Dialogue and discussion	the exams Daily and monthly And final reports
13	5	Introducing students to the endocrine system	Endocrine glands	Lectures Theoretical and practical + Display methods +Dialogue and discussion	the exams Daily and monthly And final reports
14	5	A detailed explanation of the male and female reproductive systems	The reproductive system	Lectures Theoretical and practical + Display methods +Dialogue and discussion	the exams Daily and monthly And final reports daily
15	5	Exame			

11. Course Evaluation

- Daily exams with multiple-choice questions that require scientific skills.
- Daily exams with scientific questions.
- Participation grades for competition questions for academic subjects.
- Marking homework and reports
- - Grades for the student's activity during the lecture and the extent of his commitment to regular attendance and absence.

12. Learning and Teaching Sources

Required Textbooks (Curricular Books, If Any)	Animal Physioligy - Dhia Hassan Al-Hassani and Sadiq Muhammad Amin Al-Hiti - 1990
Main References (Sources)	Textbook of Anatomy and Physiology for Agricultural Animals / Written by Rowen D. Frandson W. Lee Wilke Anna Dee Fails –
Recommended Books and References (Scientific Journals, Reports...)	**Taxonomic research and various university theses on animal physiology**
Electronic References, Websites	1- https://www.noor-book.com/tag/%D9%81%D8%B3%D9%84%D8%AC%D8%A9-%D8%A7%D9%84%D8%AD%D9%8A%D9%88%D8%A7%D9%86 2

Course Description Form

1. Course Name:
Poultry Products Technology
2. Course Code:
POTE318
3. Semester / Year:
second semester / Third
4. Description Preparation Date:
2-1-2025
5. Available Attendance Forms:
Attending
6. Number of Credit Hours (Total) / Number of Units (Total)
5 hours per week 3.5 unit
7. Course Administrator's Name (Mention All, If More Than One Name)
Name:. Prof. majid Hassan alasadi Email: majid.hassan@uobasrah.edu.iq
8. Course Objectives

Course Objectives	Graduating capable studentson me: • Working in the field of manufacturing poultry products and having theoretical and applied knowledge regarding the technology of poultry products. Obtaining the skills required for the post-graduation plan (graduate studies).t. • Obtaining the skills required for a post-graduation plan(Studiesupper). • Applying for external examinations by local / regional / international bodies. • Thinking and analysis skills that enable arriving at knowledgeHow to establish, prepare and supervise poultry farming projects. • Providing students with work skills in theFieldsScientific, research and studypoultryAnd its relationship to wealthanimal.
9. Teaching and Learning Strategies	
Strategy	Enabling students to think and analyze topics related to the intellectual framework of the subject Poultry products technology. Enabling students to think and analyze topics related to measuring productivity. Enabling students to think and analyze how to provide environmental conditions that affect poultry birds and their relationship to their production and health status. Enabling students to think and analyze to identify the best prevailing poultry projects and their relationship to animal production.
10. Course Structure	

Week	Hours	Required learning outcomes	Unit or Subject Name	Learning Method	Evaluation Method
1	5	Introducing students to general	General introduction to Poultry products	Teaching method	the exams Daily and monthly
2	5	Introducing students to the components of	Hybrid breeds of laying hens.	Lectures Theoretical and practical	the exams Daily and monthly
3	5	Explain and clarify the environmental	Environmental factors that affect poultry	Lectures Theoretical and practical	the exams Daily and monthly
4	5	Introducing students to Egg production	Egg production	Lectures Theoretical and practical	the exams Daily and monthly
5	5	Introducing students to all the requirements	Qualitative measurements of eggs	Lectures Theoretical and practical	the exams Daily and monthly
6	5	Introducing students to Management	Management and care of laying hens.	Lectures Theoretical and practical	the exams Daily and monthly
7	5	Explaining and clarifying the requirements	Chemical and nutritional properties of	Lectures Theoretical and practical	the exams Daily and monthly
8	5	A detailed explanation Processes for	Processes for preparing poultry meat for	Lectures Theoretical and practical	the exams Daily and monthly
9	5	ntroducing the importance of preparing poultry meat for	Processes for preparing poultry meat for consumption 2	Lectures Theoretical and practical + Display methods	the exams Daily and monthly And final
10	5	Explaining and clarifying the Quality of poultry meat and methods	Quality of poultry meat and methods of preserving it	Lectures Theoretical and practical	the exams Daily and monthly
11	5	Introducing the characteristics and Storing	Storing poultry meat.	Lectures Theoretical and practical	the exams Daily and monthly

12	5	A detailed explanation of bird	Poultry slaughterhouse management.	Lectures Theoretical and practical	the exams Daily and monthly
13	5	Introducing students to Microbiology of	Microbiology of poultry meat	Lectures Theoretical and practical	the exams Daily and monthly
14	5	Introducing students to how to deal with bird	Poultry droppings and offal.	Lectures Theoretical and practical	the exams Daily and monthly
15		Exame			

11. Course Evaluation

- Daily exams with multiple-choice questions that require scientific skills.
- Daily exams with scientific questions.
- Participation grades for competition questions for academic subjects.
- Marking homework and reports
- - Grades for the student's activity during the lecture and the extent of his commitment to regular attendance and absence.

12. Learning and Teaching Sources

Poultry Products Technology Book	Al-faikh, saad (2011). Poultry Products Technology Book. Bagdad University Press.
Main References (Sources)	Naji, Saad Abdel-Hussein (2017). IntaCcommercial for eggs. Nour Press. Naji, Saad Abdel-Hussein (2017)productionPoultry business. Nour
Recommended Books and References (Scientific Journals, Reports ...)	Various classification research and university thesesdomestic birds
Electronic References, Websites	https://almerja.com/archive.php?fid=1518 https://almerja.com/archive.php?fid=1520

Course Description Form

1. Course Name:
Feed and Rations
2. Course Code:
FERA319
3. Semester / Year:
Second semester / Third
4. Description Preparation Date:
3-3-2025
5. Available Attendance Forms:
Attending
6. Number of Credit Hours (Total) / Number of Units (Total)
5 hours per week 3.5 unit
7. Course Administrator's Name (Mention All, If More Than One Name)
Name: Prof. Hanaa Ali Jabar Al-Galbi Email: hanaa.jabar@uobasrah.edu.iq
8. Course Objectives

Course Objectives	Graduating students are capable with: • Working in the feeds and feeding of animals. They have theoretical and applied knowledge regarding the feeds and nutrition and management. • Obtaining the skills required for a post-graduation plan (postgraduates). • Applying for external examinations by local / regional / international bodies. • Thinking and analysis skills that enable arriving at knowledge. How to establish, prepare and supervise in animal nutrition and farming projects. • Providing students with work skills in the Fields Scientific, research and study feeds and feeding and its relationship to animal performance.

9. Teaching and Learning Strategies

Strategy	Enabling students to think and analyse topics related to the intellectual framework of the subject administration and animal nutrition. Enabling students to think and analyse topics related to measuring productivity. Enabling students to think and analyse how to provide environmental conditions that affect animal feed and their relationship to their production and health status. Enabling students to think and analyse to identify the best prevailing animal projects and their relationship to animal production.

10. Course Structure

Week	Hours	Required learning outcomes	Unit or Subject Name	Learning Method	Evaluation Method

1	5	Cassification of feedstuffs	• Definitions • Rationale for classifying feedstuffs • Why classify feedstuffs Classifications with	Teaching method	the exams Daily and monthly And final reports
2	5	Water content in feeds	• Determining dry matter (DM) content of feeds • Estimation of feed intake of livestock basing on DM • Different methods of expressing nutrient composition	Lectures Theoretical and practical + Display methods +Dialogue and discussion	the exams Daily and monthly And final reports daily
3	5	Characteristics of common feedstuffs	• Cereal grains and their by-products • Legume grains and their by-products • Pastures • Roots and tubers	Lectures Theoretical and practical + Display methods +Dialogue and	the exams Daily and monthly And final reports daily
4	5	Antinutritional or Antiequality factors	• Definitions • Different antinutritional factors (ANF) • Effects of ANF on	Lectures Theoretical and practical + Display methods	the exams Daily and monthly And final reports
5	5	Nutrient requirements and Feeding standards	• Definitions • Safety Factor (SF) • Estimation of Nutrient requirements by Livestock	Lectures Theoretical and practical + Display methods	the exams Daily and monthly And final reports
6	5	Forage quality and factors affecting it	• Definitions • Forage quality factors • Voluntary intake (VI) Practical (field) work	Lectures Theoretical and practical + Display methods	the exams Daily and monthly And final reports

7	5	Feed preparation and processing	• Definitions • Reasons for processing feeds • Grain processing methods • Roughage processing	Lectures Theoretical and practical + Display methods +Dialogue and	the exams Daily and monthly And final reports daily

8, 9, 10, 11	5	Ration formulation and Feed mixing	• Basic information needed before embarking on ration formulation
			• Balancing rations by Hands
			  • Pearson's square method
			  • Double Pearson's square method
			  • Algebraic method (simultaneous equations)
			  • Slack method
			  • Illustrating examples (calculations)
			• Computer aided
				Lectures Theoretical and practical + Display methods +Dialogue and discussion	the exams Daily and monthly And final reports daily

9	5	Forage conservation	• Definitions
			• Why conserve forage
			• Ways of conservation
			• Silage
			  • Basic principles of making hay
			  • Silage microbiology
			  • Objective of making silage
			  • Factors affecting the ensiling process
				Lectures Theoretical and practical + Display methods +Dialogue and discussion	the exams Daily and monthly And final reports daily

10		Forage conservation	•		
11	5	Feed budgeting	• Definitions • Approaches of feed budgeting	Lectures Theoretical and practical	the exams Daily and monthly
12	5	2Water content in feeds	• Determining dry matter (DM) content of feeds	Lectures Theoretical and practical	the exams Daily and monthly
13	5	3. Characteristics of common	• Cereal grains and their by-products • Legume grains and	Lectures Theoretical and practical	the exams Daily and monthly
14	5	4. Antinutritional or	• Definitions • Different antinutritional factors	Lectures Theoretical and practical	the exams Daily and monthly
15	5	5. Nutrient requirements and Feeding standards	• Definitions • Safety Factor (SF) • Estimation of Nutrient requirements by Livestock	Lectures Theoretical and practical + Display methods	the exams Daily and monthly And final reports
11. Course Evaluation					

- Daily exams with multiple-choice questions that require scientific skills.
- Daily exams with scientific questions.
- Participation grades for competition questions for academic subjects.
- Marking homework and reports
- - Grades for the student's activity during the lecture and the extent of his commitment to regular attendance and absence.

12. Learning and Teaching Sources	
Required Textbooks (Curricular Books, If Any)	McDonald, P., Edwards, R.A. and Greenhalgh, J.F.D., 1987. **Animal Nutrition**. 4th edn. Longman group (FE) Ltd. Essex CM20 2JE, England.
Main References (Sources)	Pond, W.G., Church D.C. and Pond, K.R., 1995. **Basic Animal Nutrition and Feeding** (4th Ed.) John Wiley & Sons, New York.
Recommended Books and References (Scientific Journals, Reports...)	AFRC. 1993. **Energy and Protein Requirements of Ruminants**. An advisory manual prepared by AFRC Technical
Electronic References, Websites	**https://almerja.com/archive.php?fid=1518**

Course Description Form

1. Course Name:
Animal Nutrition
2. Course Code:
ANNU314
3. Semester / Year:
First semester / Third
4. Description Preparation Date:
26-1-2025
5. Available Attendance Forms:
Attending
6. Number of Credit Hours (Total) / Number of Units (Total)
5 hours per week for 14 weeks
7. Course Administrator's Name (Mention All, If More Than One Name)
Name: Prof. Hanaa Ali Jabar Al-Galbi Email: hanaa.jabar@uobasrah.edu.iq
8. Course Objectives

Course Objectives	Graduating students are capable with: • Working in animals nutrition. They have theoretical and applied knowledge regarding the feeds and nutrition and management. • Obtaining the skills required for a post-graduation plan (postgraduates). • Applying for external examinations by local / regional / international bodies. • Thinking and analysis skills that enable arriving at knowledge. How to establish, prepare and supervise in animal nutrition and farming projects. • Providing students with work skills in the Fields Scientific, research and study feeds and feeding and its relationship to animal performance.

9. Teaching and Learning Strategies	
Strategy	Enabling students to think and analyse topics related to the intellectual framework of the subject administration and animal nutrition. Enabling students to think and analyse topics related to measuring productivity. Enabling students to think and analyse how to provide environmental conditions that affect animal feed and their relationship to their production and health status. Enabling students to think and analyse to identify the best prevailing animal projects and their relationship to animal production.

10. Course Structure

Week	Hours	Required learning	Unit or Subject Name	Learning Method	Evaluation Method
1	5	General roles in nutrition	• Definitions • Animal and their feeds • Comparison between animal body and plants • Methods used to measure the nutritional content of an animal's body • Dry, organic and inorganic matter • Water and its role in the body	Teaching method	the exams Daily and monthly And final reports daily
2	5	Digestion in different animals	• Anatomy of the digestive system of agricultural animals • An idea about the types of digestion • Mechanical digestion • Microbial digestion • Enzymatic digestion	Lectures Theoretical and practical + Display methods +Dialogue and discussion	the exams Daily and monthly And final reports daily

3	5	Digestive system functions	• Oral function and saliva • The function of the rumen and its various components • Function of the gastrointestinal tract • Function of the liver, bile and spleen	Lectures Theoretical and practical + Display methods +Dialogue and discussion	the exams Daily and monthly And final reports daily
4	5	Factors affecting digestion	• Type of feed • Availability of water • Type of animal • Administrative factors	Lectures Theoretical and practical + Display methods +Dialogue and discussion	the exams Daily and monthly And final reports daily
5	5	Rumination	• Type of feed • Digestive system environment (especially the rumen) • Nutrition and management	Lectures Theoretical and practical + Display methods +Dialogue and discussion	the exams Daily and monthly And final reports daily
6	5	Eructation	•identification •nutrition • Digestion • Environmental factors	Lectures Theoretical and practical + Display methods +Dialogue and discussion	the exams Daily and monthly And final reports daily
7	5	Nutrients: carbohydrates	•Definition and classification • Digestion • Absorption •the metabolism	Lectures Theoretical and practical + Display methods +Dialogue and discussion	the exams Daily and monthly And final reports daily
8	5	Nutrients Fats	• Definition and classification • Digestion • Absorption • the acting • Fatty acids • The effect of using fats in animal nutrition	Lectures Theoretical and practical + Display methods +Dialogue and discussion	the exams Daily and monthly And final reports daily

9	5	Nutrients Protein	• Definition and classification • Protein synthesis • Essential and non-essential amino acids	Lectures Theoretical and practical + Display methods +Dialogue and discussion	the exams Daily and monthly And final reports daily
10	5	Nutrients Protein	• Nucleic acids • Non-protein nitrogenous compounds (NPN). • Physical and chemical treatments to improve the nutritional value of protein • Amino acids specific for production	Lectures Theoretical and practical + Display methods +Dialogue and discussion	the exams Daily and monthly And final reports daily
11	5	Nutrients Protein	• Protein digestion and absorption • Representation of proteins • Biological value of protein	Lectures Theoretical and practical + Display methods +Dialogue and discussion	the exams Daily and monthly And final reports daily
12	5	Nutrients Vitamins	• Definition and classification • Chemical composition • Sources of vitamins • General functions of vitamins • Deficiency symptoms	Lectures Theoretical and practical + Display methods +Dialogue and discussion	the exams Daily and monthly And final reports daily
13	5	Nutrients Minerals	• Definition and classification • General functions of metals • Needs • Deficiency symptoms	Lectures Theoretical and practical + Display methods +Dialogue and discussion	the exams Daily and monthly And final reports daily
14	5	The impact of nutrition on animal health and production	• Nutritional deficiency diseases • Digestive system disorders • Bloat • Acidity • Ketosis	Lectures Theoretical and practical + Display methods +Dialogue and discussion	the exams Daily and monthly And final reports daily
15			Exame		

11. Course Evaluation
• Daily exams with multiple-choice questions that require scientific skills. • Daily exams with scientific questions. • Participation grades for competition questions for academic subjects. • Marking homework and reports • - Grades for the student's activity during the lecture and the extent of his commitment to regular attendance and absence.

12. Learning and Teaching Sources	
Required Textbooks (Curricular Books, If Any)	McDonald, P., Edwards, R.A. and Greenhalgh, J.F.D., 1987. **Animal Nutrition**. 4th edn. Longman group (FE) Ltd. Essex CM20 2JE, England.
Main References (Sources)	Animal and poultry nutrition: Muhammad Abdel Moneim Al-Ashry Syed Abdul Rahman Ibrahim (2007)
Recommended Books and References (Scientific Journals,	AFRC. 1993. **Energy and Protein Requirements of Ruminants**. An advisory manual prepared by AFRC Technical
Electronic References, Websites	1- http://dx.doi.org/10.3390/agriculture13050943 2- https://eliasnutri.files.wordpress.com/2020/07/animal-nutrition-7th-edition.pdf

Course Description Form

1. Course Name:
Poultry Physiology
2. Course Code:
POPH317
3. Semester / Year:
Second semester / Third
4. Description Preparation Date:
13-2-2025
5. Available Attendance Forms:
Attending
6. Number of Credit Hours (Total) / Number of Units (Total)
5 hours per week 3.5 unit
7. Course Administrator's Name (Mention All, If More Than One Name)
Name: Prof.Dr. Khalid Chillab Kridie Email: khalid.chillab@uobasrah.edu.iq
8. Course Objectives

Course Objectives	• The student learns about the most important organs of the bird's body . • The student learns about the most important functions of the body systems of domestic birds. • The student learns about the most important differences between the body systems of birds and mammals. • The student learns about the most important factors affecting the functions of the various organs of the bird's body.

9. Teaching and Learning Strategies	
Strategy	Enabling students to think and analyze topics related to the intellectual framework of the subject administration of poultry physiology. Enabling students to think and analyze topics related to measuring productivity. Enabling students to think and analyze how to provide environmental conditions that affect poultry birds and their relationship to their production and health status. Enabling students to think and analyze to identify the best prevailing poultry projects and their relationship to animal production.

10. Course Structure

Week	Hours	Required learning	Unit or Subject Name	Learning Method	Evaluation Method
1	5	The respiratory system	The respiratory system	Teaching method	the exams Daily and monthly
2	5	The digestive system	The digestive system	Lectures Theoretical and practical	the exams Daily and monthly
3	5	Digestive, metabolism and	Digestive, metabolism and absorption	Lectures Theoretical and practical	the exams Daily and monthly
4	5	Blood physiology and its	Blood physiology and its importance	Lectures Theoretical and practical	the exams Daily and monthly
5	5	Description of blood cells and their	Description of blood cells and their functions	Lectures Theoretical and practical	the exams Daily and monthly
6	5	The male reproductive system	The male reproductive system	Lectures Theoretical and practical	the exams Daily and monthly
7	5	Differention between male	Differention between male reproductive	Lectures Theoretical and practical	the exams Daily and monthly

8	5	Chemical composition of bird semen	Chemical composition of bird semen	Lectures Theoretical and practical	the exams Daily and monthly
9	5	The female reproductive system	The female reproductive system	Lectures Theoretical and practical	the exams Daily and monthly
10	5	Hormones related to egg production	Hormones related to egg production	Lectures Theoretical and practical	the exams Daily and monthly
11	5	Endocrine – the first part	Endocrine – the first part	Lectures Theoretical and practical	the exams Daily and monthly
12	5	Endocrine - the second part	Endocrine - the second part	Lectures Theoretical and practical	the exams Daily and monthly
13	5	Endocrine – the third part	Endocrine – the third part	Lectures Theoretical and practical	the exams Daily and monthly
14	5	The urinary system	The urinary system	Lectures Theoretical and practical + Display	the exams Daily and monthly And final

11. Course Evaluation

- Daily exams with multiple-choice questions that require scientific skills.
- Daily exams with scientific questions.
- Participation grades for competition questions for academic subjects.
- Marking homework and reports
- - Grades for the student's activity during the lecture and the extent of his commitment to regular attendance and absence.

12. Learning and Teaching Sources

Required Textbooks (Curricular Books, If Any)	Al-Hyssani, D. (2000). POULTRY PHYSIOLOGY. BOOK

Recommended Books and References (Scientific Journals, Reports...)	Various classification research and university thesesdomestic birds
Electronic References, Websites	https://shop.elsevier.com/books/sturkies-avian-physiology/scanes/978-0-12-819770-7

Course Description Form

1. Course Name:
poultry physiology/ Practical
2. Course Code:
POPH317
3. Semester / Year:
Second semester / Third
4. Description Preparation Date:
26-2-2025
5. Available Attendance Forms:
Attending
6. Number of Credit Hours (Total) / Number of Units (Total)
6 hours per week 3.5 Unit
7. Course Administrator's Name (Mention All, If More Than One Name)
Name: Assist. teach. Tarek Ibrahim Majed Email: tarik.majed@uobasrah.edu.iq
8. Course Objectives

Course Objectives	Graduating capable studentson me: • Understand the nutritional needs of different types To understand the anatomy and physiology of the poultry digestive system and how it affects the digestion and absorption of nutrients. • To learn about the nutrient requirements of different poultry species, breeds, and production stages, and how to formulate balanced and cost-effective diets. • To evaluate the nutritional quality, safety, and availability of various feedstuffs and feed additives for poultry, and how to use them efficiently and responsibly. • To explore the interactions between nutrition and other factors such as genetics, environment, health, welfare, and product quality, and how to optimize them for sustainable poultry production.

9. Teaching and Learning Strategies

Strategy	1. To investigate the effects of different environmental factors, such as temperature, humidity, lighting, and stress, on the physiological responses and welfare of poultry 2. To examine the mechanisms and regulation of various physiological processes, such as growth, reproduction, immunity, and metabolism, in poultry, and how they are influenced by genetic and nutritional factors. **3.** To develop and apply new technologies and methods, such as molecular biology, biotechnology, and bioinformatics, to enhance the understanding and improvement of poultry physiology. **4.** To integrate the knowledge of poultry physiology with other disciplines, such as poultry nutrition, health, behavior, and

10. Course Structure

Week	Hours	Required learning	Unit or Subject Name	Learning Method	Evaluation Method
1	6	Introducing students to general	general introduction to the physiology	Lectures Theoretical and practical	the exams Daily and monthly

2	6	clarification for students	light microscope	Lectures Theoretical and practical	the exams Daily and monthly
3	6	Explanation and clarification	Types of digestion in poultry	Lectures Theoretical and practical	the exams Daily and monthly
4	6	Clarifying the using of light	light microscope	Lectures Theoretical and practical	the exams Daily and monthly
5	6	Clarifying the Description	Description of bird blood cells.	Lectures Theoretical and practical	the exams Daily and monthly
6	6	Introducing students to how to	White blood cells	Lectures Theoretical and practical	the exams Daily and monthly
7	6	Clarifying the Differences	Differences between bird and mammal blood	Lectures Theoretical and practical	the exams Daily and monthly
8	6	Introducing students The process of	The process of drawing blood from birds	Lectures Theoretical and practical	the exams Daily and monthly
9	6	Clarifying the structure of the	The structure of the digestive system of birds	Lectures Theoretical and practical	the exams Daily and monthly
10	6	Introducing students Poultry	Poultry respiratory system	Lectures Theoretical and practical	the exams Daily and monthly
11	6	An explanation of the Male	Male reproductive system	Lectures Theoretical and practical	the exams Daily and monthly
12	6	An explanation of female	female reproductive system	Lectures Theoretical and practical	the exams Daily and monthly
13	6	Explaining to students Urinary	Urinary system in poultry	Lectures Theoretical and practical	the exams Daily and monthly

14	6	explanation about Endocrine	Endocrine glands	Lectures Theoretical and practical	the exams Daily and monthly
15			Exame		

11. Course Evaluation	
12. Learning and Teaching Sources	
,Required textbooks (methodology (if any	Al-Hassani, Diaa Hassan (2000). Chicken poultry physiology. Baghdad University Press.
Main references (sources)	Al-Daraji, Hazem Jabbar (2008). Poultry blood physiology. Baghdad University.
Recommended supporting books ,and references (scientific journals (...reports	Taxonomic research and various university theses on the physiology of poultry birds
Electronic references, websites	**https://www.almerja.com/reading.php?idm=105249** **https://www.scribd.com/document/534767323/**

Course description form

1. Course name
Reproductive Physiology
2. Course code
REPH322
3. Semester/year
Second Semester/ Third
4. The date this description was prepared
26-2-2025
5. Available attendance forms
Attending
6. Number of study hours (total)/number of units (total)
5 hours per week for 3.5 Unit
7. Name of the course administrator (if more than one name is mentioned)
the nameProfessor Falah Abdul Mohsen Abdullah (practical subject) Email: falah.abd_allah@uobasrah.edu.iq
8. Course objectives

Graduating students capable of: • Working in the fieldFarm animal husbandry AndThey haveinformation practicaland applied in relation toRaising farm animals.Through field lessons in the field of reproductive physiology and the most important physiological obstacles facing raising these animals. • Participating in scientific courses and workshops to acquire additional information to achieve scientific goals in the field of farm animal husbandry. • Studying the physiological problems that animals are exposed to from the beginning of puberty until the age of sexual maturity and the animal's beginning of fertilization, pregnancy and lactation at the female level, as well as studying physiological information for males and participating and taking an	Objectives of the study subject

9. Teaching and learning strategies	
Enabling students to think and analyze topics related to the intellectual and research framework of the subject Physiology of Farm Animal Reproduction and other sciences related to this specialty, such as animal nutrition and genetics. Enabling students to study and analyze topics related to measuring the reproductive efficiency of animals.	**The strategy**

10. Course structure

Evaluation method	**Learning method**	**Name of the unit or topic**	**Required learning outcomes**	**hours**	**the week**
the exams Daily and monthly And final reports	Lectures Practical +Display methods +Dialogue	Introduction to the estrus cycle in animals and the most important sex hormones	Introduction to female reproduction	3	1

the exams Daily and monthly And final reports	Lectures Practical +Display methods +Dialogue	.Anatomy of the female reproductive system in the laboratory.	Reproductive system samples in the laboratoryFor female animals		2
the exams Daily and monthly And final reports Daily	Lectures Practical +Display methods +Dialogue and	Anatomy of the male reproductive system in the laboratory.	Reproductive system samples in the laboratoryFor male animals		3
the exams Daily and monthly And final reports Daily	Lectures Practical +Display methods +Dialogue and	Collecting semen from animals inside the animal field.	Practice inside the animal field		4
the exams Daily and monthly And final reports Daily	Lectures Practical +Display methods +Dialogue and	Physical and microscopic examinations of semen in the laboratory.	In-lab practice		5
the exams Daily and monthly And final reports	Lectures Practical +Display methods +Dialogue	Evaluating semen in the laboratory and determining its suitability for insemination.	In-lab practice		6
the exams Daily and monthly And final reports	Lectures Practical +Display methods +Dialogue	Giving students a test inside the laboratory and examining some animal semen samples and considering it an exam for the first month.	First month exam		7

the exams Daily and monthly And final reports Daily	Lectures Practical +Display methods +Dialogue and	Artificial insemination of animals and the most important internal and external factors affecting it.	Practice inside the animal field		8
the exams Daily and monthly And final reports Daily	Lectures Practical +Display methods +Dialogue and	A field visit or scientific trip with students to animal husbandry fields to learn the most important factors affecting production and reproductive efficiency.	Scientific trip		9
the exams Daily and monthly And final reports Daily	Lectures Practical +Display methods +Dialogue and	The most important basic components for the success of the artificial insemination process and determining the specifications of insemination rams	Practice inside the animal field		10
the exams Daily and monthly And final reports Daily	Lectures Practical +Display methods +Dialogue and	Identifying the devices used in artificial insemination and diluting semen in the laboratory.	In-lab practice		11
the exams Daily and monthly And final reports Daily	Lectures Practical +Display methods +Dialogue and discussion	Field and laboratory study on pregnancy screeningFor animalsDetermine the duration of pregnancy.	Practice inside the animal field and laboratory		12
the exams Daily and monthly And final reports	Lectures Practical +Display methods +Dialogue	Studying the embryo transfer program and determining the sex of the fetus in the laboratory.	In-lab practice		13

the exams Daily and monthly And final reports Daily	Lectures Practical +Display methods +Dialogue and discussion	The technique of using the laparoscope and its most important features.	lecture inside the laboratory		14

11. Course evaluation

-Daily exams with multiple-choice questions that require scientific skills.

- Daily exams with scientific questions AndDutiesAnd preparing scientific reports..

- Participation grades for competition questions for academic subjects.

-BenefitOffice hours for the subject teacherTo answerOn student questions.

- Grades for student activity during the lectureOrganizing scientific trips with students to local flocks of sheep and goats, and conducting operations to collect and dilute male animal semen.

12. Learning and teaching resources

Methodical books:The reproductive system of farm animals / Dr. Muhammad	Required textbooks (methodology, if any)
Reproduction physiology, artificial insemination, and reproductive care / Dr.	Main references (sources)
Various classification research and university thesesSheep and goats	Recommended supporting books and references (scientific journals, reports...)
https://youtu.be/4vhLKDVr8ww?si=w6Rq7FUrMivcUcVj	Electronic references, websites

The fourth stage

Course Description Form

Course name .1
Poultry Pathology
Course code .2
POPA418
Semester/year .3
Second /Fourth
The date this description was prepared .4
2025-1-13
Available attendance forms .5
Attending
Number of study hours (total)/number of units (total) .6
(5)hours per week 3.5 unit
Name of the course administrator (if more than one name is mentioned) .7
:Name A.M.D. Qutiba Jassim Gheni : Email qutiba.gheni@uobasrah.edu.iq
Course objectives .8

:Graduating students capable of • Working in the field of poultry breeding and production. They have theoretical and applied knowledge regarding the subject of poultry management and production. Obtaining the skills required for the post-graduation .plan (postgraduate studies) • Applying for external tests by .local/regional/international bodies • Thinking and analysis skills that enable one to achieve knowledge of how to establish, prepare and supervise poultry .farming projects • Providing students with work skills in scientific and research fields and studying poultry and its relationship to .livestock	Objectives of the study subject

Teaching and learning strategies .9	
Enabling students to think and analyze topics related to the intellectual . framework of diseases of poultry birds Enabling students to think and analyze topics related to measuring .productivity Enabling students to think and analyze how to provide environmental conditions that affect poultry birds and their relationship to their .production and health status Enabling students to think and analyze to identify the best prevailing -4 .poultry projects and their relationship to animal production	The strategy

Course structure .10

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

the exams Daily and monthly And final reports Daily	Lectures Theoretical and practical Display + methods Dialogue + and discussion	General introduction to poultry diseases	Introducing students to general information about poultry diseases	5	1
the exams Daily and monthly And final reports Daily	Lectures Theoretical and practical Display + methods Dialogue + and discussion	Pathology of poultry birds	Introducing students to the vocabulary of poultry diseases	5	2
the exams Daily and monthly And final reports Daily	Lectures Theoretical and practical Display + methods Dialogue + and discussion	Factors associated with the spread of diseases	Explain and clarify the factors affecting the injury With various diseases	5	3
the exams Daily and monthly And final reports Daily	Lectures Theoretical and practical Display + methods Dialogue + and discussion	Pathogenic causes and their types	Introducing students to the most important pathogens	5	4
the exams Daily and monthly And final reports Daily	Lectures Theoretical and practical Display + methods Dialogue + and discussion	Clinical signs	Introducing students to all signs of illness	5	5
the exams Daily and monthly And final reports	Lectures Theoretical and practical	_ Clinical diagnosis	Introducing students to the requirements for diagnosing various diseases	5	6

Daily	Display + methods Dialogue + and discussion				
the exams Daily and monthly And final reports Daily	Lectures Theoretical and practical Display + methods Dialogue + and discussion	Species Veterinary medicines	Veterinary treatments	5	7
the exams Daily and monthly And final reports Daily	Lectures Theoretical and practical Display + methods Dialogue + and discussion	Bacterial diseases in poultry	Disease -causing bacteria	5	8
the exams Daily and monthly And final reports Daily	Lectures Theoretical and practical Display + methods Dialogue + and discussion	Diseases Virus in birds	Viruses and diseases	5	9
the exams Daily and monthly And final reports Daily	Lectures Theoretical and practical Display + methods Dialogue + and discussion	Sanitary conditions for raising poultry	Explaining and clarifying healthy methods to control diseases	5	10
the exams Daily and monthly And final reports Daily	Lectures Theoretical and practical Display + methods Dialogue + and discussion	Veterinary vaccines	Explaining vaccination methods in poultry	5	11

the exams Daily and monthly And final reports Daily	Lectures Theoretical and practical Display + methods Dialogue + and discussion	Malnutrition diseases	Detailed explanation of the diseases Nutritional	5	12
the exams Daily And monthly And final reports Daily	Lectures Theoretical And practical Display + methods Dialogue + and discussion	Disease control	Disease prevention	5	13
the exams Daily and monthly And final reports Daily	Lectures Theoretical and practical Display + methods Dialogue + and discussion	Biosecurity in poultry farms	Introducing students to how to deal with procedures _ Biosecurity	5	14
			Exame		15

Course evaluation .11
.exams with multiple-choice questions that require scientific skills .Daily exams with scientific questions - .Participation grades for competition questions for academic subjects - Setting grades for homework and reports - Grades for the student's activity during the lecture and the extent of his commitment to - .regular attendance and absence

Learning and teaching resources .12	
Poultry and animal diseases	Required textbooks (methodology, if any)
Poultry diseases	Main references (sources)
Various taxonomic research and dissertations on animal products	Recommended supporting books and references (scientific journals, reports...)
https://almerja.com/archive.php?fid=1518 https://almerja.com/archive.php?fid=1520	Electronic references, websites

Course Description Form

1. Course Name:	
Poultry Pathology/ practical	
2. Course Code:	
POPA418	
3. Semester / Year:	
Second semester / Fourth	
4. Description Preparation Date:	
16-3-2025	
5. Available Attendance Forms:	
Attending	
6. Number of Credit Hours (Total) / Number of Units (Total)	
5 hours per week 3.5 unit	
7. Course Administrator's Name (Mention All, If More Than One Name)	
Name: Assist. Prof.huda falih saad Email: huda.falih@uobasrah.edu.iq	
8. Course Objectives	
Course Objectives	Graduate students who are able to: • Working in the fields of poultry breeding and production and poultry health and safety as a veterinary supervisor, the owners of the fields have theoretical and applied knowledge regarding common poultry diseases and how to treat them. Obtaining the skills required for the post-graduate (postgraduate) plan. • The application for external tests by local, regional, or international bodies. • Knowledge of how to prepare poultry fields with excellent

9. Teaching and Learning Strategies	
Strategy	1. Enable students to think about and analyze topics related to the intellectual framework of poultry diseases. 2. enable students to think about and analyze topics related to the formation and preservation of vaccines and methods of giving them. 3. enabling students to think and analyze how to provide environmental conditions that affect the health of poultry birds and their relationship to the production situation. 4: Enable students to think and analyze to identify the symptoms of diseases and how to prescribe the appropriate treatment for them, whether the disease is nutritional or viral.

10. Course Structure

Week	Hours	Required learning	Unit or Subject Name	Learning Method	Evaluation Method
1	6	Introduce students to general information about diseases affecting	Introduction to Common Poultry Diseases	practical +Display methods +Dialogue and discussion	"The tests include daily and monthly assessments, as well as final reports."
2	6	Introducing students to the common diseases that affect chickens, whether broilers or laying hens	Diseases that affect broilers or laying hens .	Approach to Studying: Practical instruction Showcase procedures +A conversation and discussion	"The tests include daily and monthly assessments, as well as final reports."

3	6	Explain and clarify the most critical symptoms of food deficiency diseases.	"Diseases resulting from malnutrition."	Check out the circumstances of growing chickens by visiting the poultry field. conversation and debate	"The tests include daily and monthly assessments, as well as final reports."
4	6	Introducing students to the most critical symptoms of vitamin and mineral deficiency in detail	"Insufficient intake of essential vitamins and minerals can lead to several health issues."	View illustrations of malnourished hens Display operations +Discourse and dialogue	"The tests include daily and monthly assessments, as well as final reports."
5	6	Introducing students to the equipment used in conducting vaccination and vaccination	"Equipment and Supplies for Vaccination"	Performing a vitamin deficiency screening on a chicken as part of my Class	"The tests include daily and monthly assessments, as well as final reports."
6	6	Introduce students to the types of vaccines used according to the age and type of bird and the production	Types of vaccines	Possibility to gain entry to practical laboratories and microbiology + Methods for displaying +Conversation and debate +Dialogue and	"The tests include daily and monthly assessments, as well as final reports."

7	6	Introducing students to how to culture bacterial colonies in different environments	Bacterial colonies	Possibility to gain entry to practical laboratories and microbiology + Methods for displaying +Conversation and debate and	"The tests include daily and monthly assessments, as well as final reports."
8	6	A detailed explanation of the most critical vital organs that	Some of the body's most vulnerable systems to disease are the digestive, respiratory, and	Diseased bird anatomy and presentation techniques +Dialogue and	"The tests include daily and monthly assessments, as well as final reports."
9	6	Definition of medicines used in poultry wards and fields	"Medicines and therapeutics" refer to drugs and treatments that are used to cure or alleviate medical conditions. It encompasses a	practical +Display methods +Dialogue and discussion	"The tests include daily and monthly assessments, as well as final reports."
10	6	Explanation and clarification of infectious and common diseases between humans and birds	Common diseases between humans and poultry (fungal diseases and fungal poisoning)	practical +Display methods +Dialogue and discussion	"The tests include daily and monthly assessments, as well as final reports."

11	6	Definition of the most important diseases that are genetically transmitted from mothers to new offspring	Genetic diseases	practical +Display methods +Dialogue and discussion	"The tests include daily and monthly assessments, as well as final reports."
12	6	Detailed explanation of heat stress disease and how to take measures and measures to reduce the	Heat stress and breeding problems	practical +Display methods +Dialogue and discussion	"The tests include daily and monthly assessments, as well as final reports."
13	6	Definition of diseases that affect chicks during embryonic development, their causes,	Diseases affecting the hatching rate and diseases of the reproductive system	practical +Display methods +Dialogue and discussion	"The tests include daily and monthly assessments, as well as final reports."

14	6	Introduce students to how to deal with dying birds, how to disinfect and sterilize fields and halls dedicated to breeding bird droppings, and how to use them as one of the secondary resources for	Sterilization of poultry halls is essential, and ways to do it.	Showcase procedures conversation and debate Stop by the Animal Production Department's poultry halls for some useful information.	"The tests include daily and monthly assessments, as well as final reports."
15	6	Definition and explanation of immunity and the immune system and the most important tests performed by a breeder or veterinarian to detect the level of immunity to a break	Immunity, methods of disease resistance, and types of immunity + Exame	Check out the immunological tests performed in veterinary clinics.	"The tests include daily and monthly assessments, as well as final reports."
11. Course Evaluation					

• Daily exams with multiple-choice questions that require scientific skills. • Daily exams with scientific questions. • Carrying out activities within the laboratory • participation scores for competition questions for study subjects. • Set grades for homework assignments and reports • grades for the student's activity during the lecture and the extent of his commitment to attendance and non-absence.

12. Learning and Teaching Sources	
Required Textbooks (Curricular Books, If Any)	The book of poultry diseases / Dr. Sami Allam ninth edition-The Book of poultry diseases prepared and written by Dr. Mohamed Ali Al-Emadi and Dr. Mohamed Fadel / Egypt Cairo
Main References (Sources)	Hazem al-Daraji (2012). Poultry disease serology Noor press.Baghdad-Naji, Saad Abdul Hussein (2017) Commercial production of poultry meat. Noor press.
Recommended Books and References (Scientific	Taxonomic research and various university theses on diseases of poultry birds
Electronic References, Websites	http://mawdoo3.com/%D8%A3%D9%85%D8%B1%D8%A7%D8%B6_%D8%A7%D9%84%D8%AF%D9%88%D8%A7%D8%AC%D9%86_%D9%88%D8%B7%D8%B1%D9%82_%D8%B9%D9%?D8%A7%D8%AC%D9%87%D8%A7%84%.

Course Description Form

1. Course Name:	
pasture management	
2. Course Code:	
PAMA417	
3. Semester / Year:	
First semester / Fourth	
4. Description Preparation Date:	
1/2/2025	
5. Available Attendance Forms:	
Attending	
6. Number of Credit Hours (Total) / Number of Units (Total)	
5 hours per week 3.5 unit	
7. Course Administrator's Name (Mention All, If More Than One Name)	
Name:Dr. Prof. khalaf Abadalrazak Hassan Email: Khalaf.hassan@uobasrah.edu.iq	
8. Course Objectives	
Course Objectives	Graduating students capable of: 1 - Work in the field of natural pasture management from a theoretical and applied perspective in relation to the subject of management. 2- Obtaining the skills required for the post-graduation plan (postgraduate studies). 3 - Applying for external tests by local/regional/international bodies. 4 - Thinking and analysis skills that enable one to achieve knowledge of how to establish and prepare agricultural animal breeding projects 5 - Providing students with work skills in scientific and research fields and studying the available coarse fodder and its relationship to livestock.

9. Teaching and Learning Strategies	
Strategy	**- 1Enabling students to think and analyze topics related to the intellectual framework of the pasture management course** **- 2Enabling students to think and analyze topics related to measuring productivity.** **- 3Enabling students to think and analyze how to provide environmental conditions that affect plant growth and their relationship to the productive state.** **4- Enabling students to think and analyze to identify the best pasture management projects and their relationship to animal production.**

10. Course Structure

Week	Hours	Required learning	Unit or Subject Name	Learning Method	Evaluation Method
1	2	introducing students to general	Natural resources development	Teaching method	the exams Daily and monthly And final reports
2	2	Pasture science	Introducing students to the components of	Lectures Theoretical and practical	the exams Daily and monthly And final reports
3	2	Pasture science and its	Explain and clarify the environmental factors affecting	Lectures Theoretical and practical	the exams Daily and monthly And final reports
4	2	Rules and foundations of pastures	Introducing students to the foundations and	Lectures Theoretical and practical	the exams Daily and monthly And final reports
5	2	Types and sections of pastures	Introducing students to the types of pastures	Lectures Theoretical and practical	the exams Daily and monthly And final reports
6	2	Grazing at the right time	Introducing students to grazing requirements at	Lectures Theoretical and practical	the exams Daily and monthly And final reports

7	2	Grazing systems	Explain and clarify the requirements for the grazing	Lectures Theoretical and practical	the exams Daily and monthly And final reports
8	2	Modifying vegetation cover	A detailed explanation of how to utilize and	Lectures Theoretical and practical	the exams Daily and monthly And final reports
9	2	Behavior of animals in pasture	Introducing the importance of the behavior of	Lectures Theoretical and practical	the exams Daily and monthly And final reports
10	2	Additional nutrition for the animal	Explaining and clarifying the fodder materials	Lectures Theoretical and practical	the exams Daily and monthly And final reports
11	2	Distribution of animals	Scientific definition of the distribution of animals	Lectures Theoretical and practical	the exams Daily and monthly And final reports
12	2	Exploitation of pastures	A detailed explanation of scientific	Lectures Theoretical and practical	the exams Daily and monthly And final reports
13	2	Pastoral load	Introducing students to the relationship	Lectures Theoretical and practical	the exams Daily and monthly And final reports
14	2	Pasture herd driving system	Introducing students to how to deal with the	Lectures Theoretical and practical	the exams Daily and monthly And final reports
15		Exame			

11. Course Evaluation

- Daily exams with multiple-choice questions that require scientific skills.
- Daily exams with scientific questions.
- Participation grades for competition questions for academic subjects.
- Marking homework and reports
- - Grades for the student's activity during the lecture and the extent of his commitment to regular attendance and absence.

12. Learning and Teaching Sources	
Required Textbooks (Curricular Books, If Any)	Management, development and development of pastures 2020. Publishing International Publishing
Main References (Sources)	Natural pastures: their economy 2015. Amna Publishing
Recommended Books and References (Scientific Journals, Reports...)	Taxonomic research and various university theses on pasture management
Electronic References, Websites	**https://almerja.com/archive.php?fid=1518** **https://almerja.com/archive.php?fid=1520**

Course Description Form

1. Course Name:
Poultry Breeding
2. Course Code:
POBR413
3. Semester / Year:
First semester Fourth
4. Description Preparation Date:
1/2/2025
5. Available Attendance Forms:
Attending
6. Number of Credit Hours (Total) / Number of Units (Total)
3 hours per week 3.5 Unit
7. Course Administrator's Name (Mention All, If More Than One Name)
Name: Assist. Prof. Salah Mahdi Alsudany Email: salah.mohsen@uobasrah.edu.iq
8. Course Objectives

Course Objectives	Graduating students capable of: • Working in the field of raising and improving poultry. They have theoretical and applied knowledge regarding the subject of raising and improving poultry birds. Obtaining the skills required for the post-graduation plan (graduate studies). • Applying for external tests by local/regional/international bodies. • Thinking and analytical skills that enable one to arrive at knowledge of how to improve and develop poultry and supervise it. • Providing students with work skills in scientific and research fields and studying poultry improvement and its relationship to livestock

9. Teaching and Learning Strategies

Strategy	Enabling students to think and analyze topics related to the intellectual framework of the subject of raising and improving poultry birds. Enabling students to think and analyze topics related to developing productivity. Enabling students to think and analyze how to provide appropriate conditions and methods that improve poultry birds and their relationship to their production and health status. 4- Enabling students to think and analyze to identify the best methods used to improve poultry and their relationship to animal production.

10. Course Structure

Week	Hours	Required learning	Unit or Subject Name	Learning Method	Evaluation Method
1	3	Introducing students to general	Introduction to genetics and breeding of	Teaching method	the exams Daily and monthly

2	3	Introducing students to general	Reproductive systems and reproduction	Lectures practical + Display methods	the exams Daily and monthly
3	3	An explanation of the	Cell and divisions	Lectures practical + Display methods	the exams Daily and monthly
4	3	Introducing students to Mendelian	Mendelian inheritance	Lectures practical + Display methods	the exams Daily and monthly
5	3	Introducing students to the mutations	Modifications of Mendelian ratios	Lectures practical + Display methods	the exams Daily and monthly
6	3	Introducing students to the	Gene interaction	Lectures practical + Display methods	the exams Daily and monthly
7	3	Explanation and clarification	Sex-linked traits	Lectures practical + Display methods	the exams Daily and monthly
8	3	A detailed explanation of conditional	Deadly genes	Lectures practical + Display methods	the exams Daily and monthly
9	3	Introducing the importance of	Inheritance of skin color and feather traits	Lectures practical + Display methods	the exams Daily and monthly
10	3	Explain and explain how the crest	Inheritance of custom form	Lectures practical + Display methods	the exams Daily and monthly
11	3	Definition of the deformity occurring in	Inheritance of deformed legs	Lectures practical + Display methods	the exams Daily and monthly
12	3	An explanation of the modern	Genetic improvement using modern	Lectures practical + Display methods	the exams Daily and monthly
13	3	Introducing students to the	Genetic Engineering	Lectures practical + Display methods	the exams Daily and monthly

14	3	Introducing students to how to obtain	Applications for DNA extraction	Lectures practical + Display methods	the exams Daily and monthly
15		Exame			

11. Course Evaluation

- Daily tests with multiple-choice questions that require science skills.
- - Daily exams with scientific questions.
- - Participation grades for competition questions for academic subjects.
- - Setting grades for homework and reports
- - Grades for the student's activity during the lecture and the extent of his commitment to regular attendance and absence

12. Learning and Teaching Sources

Required Textbooks (Curricular Books, If Any)	Talal Hamid, Nahil Muhammad (1990). Poultry breeding and improvement. University of Al
Main References (Sources)	Khaled Hamed Hassan (2011). Breeding and improving poultry..
Recommended Books and References (Scientific Journals, Reports...)	Various classification research and university thesesdomestic birds
Electronic References, Websites	**https://faculty.uobasrah.edu.iq/portal/908a6f6a6c131a850ecb0e3f11b08189/teaching**

Course Description Form

1. Course Name:
Molecular Biology
2. Course Code:
MOBI414
3. Semester / Year:
Second semester / Fourth
4. Description Preparation Date:
3/2/2025
5. Available Attendance Forms:
Attending
6. Number of Credit Hours (Total) / Number of Units (Total)
5 hours per week 3.5 unit
7. Course Administrator's Name (Mention All, If More Than One Name)
Name: Assist. Prof. Sajida Abdulsemed Mejeed Email: Sajida.mejeed@uobasrah.edu.iq
8. Course Objectives

Course Objectives	The course aims to identify the structure of organisms at the molecular level and the synthesis of proteins and also to know the effect of genetic changes that our on the occurrence of mutations. It also highlights the nuclear structure and the structure of DNA and RNA nuleic acids and their role in the process of protein synthesis. .

9. Teaching and Learning Strategies	
Strategy	1-The course focuses on studying of biology at the molecular level 2-Understanding relationship between cellular systems in terms of nucleic acids and their relationship to protein synthesis in organisms. 3 Understanding the mechanisms of genetic mutations, their causes and their types. 4-Studying correcting of errors in nucleic acids and the most important enzymes involved in the processes of replication, transcription and translation. 5-Identification of nucleoproteins, histones and chromosomal structures.

10. Course Structure

Week	Hours	Required learning outcomes	Unit or Subject Name	Learning Method	Evaluation Method
1	5	Introduction to genetic, its branches, applications and cell	General introduction to the genetic science.	Teaching method	the exams Daily and monthly
2	5	Eukaryotes and Prokaryotes organisms and ..	Experiments of the genetic material discovering in	Lectures Theoretical and practical	the exams Daily and monthly
3	5	DNA structure in eukaryotes and prokaryotes	Wateson and Crick description of DNA structure.	Lectures Theoretical and practical	the exams Daily and monthly
4	5	RNA structure, types and functions in transcription and	RNA structure.	Lectures Theoretical and practical	the exams Daily and monthly
5	5	The process of DNA replication in eukaryotes and	DNA Replication	Lectures Theoretical and practical	the exams Daily and monthly

6	5	The process of transcription and involved enzymes..	RNA structure	Lectures Theoretical and practical	the exams Daily and monthly
7	5	The process of translation and protein synthesis in	The protein synthersis	Lectures Theoretical and practical	the exams Daily and monthly
8	5	Genetic mutations, their types and causes.	The genetic changes in genetic material	Lectures Theoretical and practical	the exams Daily and monthly
9	5	The process of repairing errors in DNA replication.	DNA repair.	Lectures Theoretical and practical	the exams Daily and monthly
10	5	Nuclear chromatin and the structure of histones and	The nucleosome structure	Lectures Theoretical and practical	the exams Daily and monthly
11	5	Types of histones and their role in eukaryotes and	The rules of histones in organisms	Lectures Theoretical and practical	the exams Daily and monthly
12	5	Chromosomes and their structure.	The chromosomes and its structures.	Lectures Theoretical and practical	the exams Daily and monthly
13	5	Centromeres and Telomeres.	The centromeres and its structures.	Lectures Theoretical and practical	the exams Daily and monthly
14	5	The most important techniques of molecular biology.	The advances in Molecular biology science	Lectures Theoretical and practical	the exams Daily and monthly
15		Exame			

11. Course Evaluation

- Daily exams with multiple-choice questions that require scientific skills.
- Daily exams with scientific questions.
- Participation grades for competition questions for academic subjects.
- Marking homework and reports
- - Grades for the student’s activity during the lecture and the extent of his commitment to regular attendance and absence.

12. Learning and Teaching Sources	
Required Textbooks (Curricular Books, If Any)	Principles of Genetics.1996.Robert H. Tamarin. Boston University
Main References (Sources)	Principles of Molecular Genetics.2012.Mohammed B.AL-Shuheeb. Ministry of Higher Education. Al-Qasim University .College of Biotechnology

Course Description Form

1. Course Name:
Buffalo production
2. Course Code:
BUPR425
3. Semester / Year:
Second semester / Fourth
4. Description Preparation Date:
2-3-2025
5. Available Attendance Forms:
Attending
6. Number of Credit Hours (Total)/Number of Units (Total)
2 hours per week for 14 weeks. 2 units
7. Course Administrator's Name (Mention All, If More Than One Name)
Name: Assist. Prof Jalal Okali Usur Sawad Alali Email: jalal.usur@uobasrah.edu.iq
8. Course Objectives

Course Objectives	Graduating capable students on me: - Understanding the obstacles in buffalo management in Iraq and ways to improve production - Understanding the physiology of milk secretion and the factors affecting milk production - Studying the characteristics of buffalo breeds and their spread. - Identifying reproduction in buffalo, pregnancy and childbirth - Introducing the student to buffalo and its production in Iraq and the world in a way that can be understood.

9. Teaching and Learning Strategies

Strategy	1- Enabling students to think and analyze topics related to the intellectual framework of the subject of buffalo production 2- Enabling students to think and analyze topics related to measuring productivity. 3- Enabling students to think and analyze how to provide environmental conditions that affect buffalo and their relationship to their production and health status.

10. Course Structure

Week	**Hours**	Required learning outcomes	Unit or Subject Name	**Learning Method**	**Evaluation Method**
1	5	An introduction to the buffalo and its position in the animal kingdom	A general introduction to buffalo	Teaching method	the exams Daily and monthly

2	5	Learn about all buffalo breeds in the world and the	Buffalo breeds in the world	Lectures Theoretical and practical	the exams Daily and monthly
3	5	Identify the most important general characteristics of	General characteristics of buffalo.	Lectures Theoretical and practical	the exams Daily and monthly
4	5	Identify the diets provided to buffaloes, their	Buffalo feeding	Lectures Theoretical and practical + Display	the exams Daily and monthly And final
5	5	An idea about buffalo reproduction and the most important	Reproduction in buffalo	Lectures Theoretical and practical + Display	the exams Daily and monthly And final
6	5	Learn how to inseminate buffalo wheels, learn about	Insemination, pregnancy and parturition in	Lectures Theoretical and practical	the exams Daily and monthly
7	5	Study the needs of buffalo breeding and how to care for calves	Raising and caring for buffalo calves	Lectures Theoretical and practical + Display methods	the exams Daily and monthly And final reports
8	5	Knowing the level of students in previous lectures	the first exam	Lectures Theoretical and practical + Display	the exams Daily and monthly And final
9	5	Know the differences between the rumen of buffalo and	Differences found in buffalo tripe	Lectures Theoretical and practical + Display	the exams Daily and monthly And final
10	5	Identify the factors affecting milk production	About cows	Lectures Theoretical and practical	the exams Daily and monthly

11	5	Identify the components of buffalo milk and know the factors affecting it	Buffalo milk production and influencing factors	Lectures Theoretical and practical + Display methods +Dialogue and discussion	the exams Daily and monthly And final reports daily
12	5	Identify the types of meat as well as the carcass parts of buffalo	on him	Lectures Theoretical and practical + Display methods +Dialogue and	the exams Daily and monthly And final reports daily
13	5	Identify the most important procedures that must be taken into account in fattening buffalo calves	Components of buffalo milk and factors affecting it	Lectures Theoretical and practical + Display methods +Dialogue and discussion	the exams Daily and monthly And final reports daily
14	5	Learn about modern health methods in caring for and treating buffaloes	Meat production in buffalo and carcass recipes	Lectures Theoretical and practical + Display methods +Dialogue and discussion	the exams Daily and monthly And final reports daily
15		Exame			
11. Course Evaluation					

- Daily exams with multiple-choice questions that require scientific skills.
- Daily exams with scientific questions.
- Participation grades for competition questions for academic subjects.
- Marking homework and reports
- - Grades for the student's activity during the lecture and the extent of his commitment to regular attendance and absence.

12. Learning and Teaching Sources	
Required Textbooks (Curricular Books, If Any)	Raising and caring for buffalo/Dr. Adel Sayed Ahmed Al-Barbari 2007
Main References (Sources)	Livestock production/Dr. Natiq Hameed and Dr. Ashwaq Abd and Al-
Recommended Books and References (Scientific Journals, Reports...)	Your guide to raising cows and buffalo/Dr. Mustafa Fay 201
Electronic References, Websites	Journal of Animal Science https://a-z-animals.com/animals/buffalo / http://www.federica.unina.it/agraria/animal-

Course Description Form

1. Course Name
Meat Production
2. Course Code
MPRO415
3. Semester/Year
First Semester/ Fourth
Date of preparation of this description .4
2-4-2025
5. Available attendance forms
Attending
6. Number of credit hours (total) / number of units (total)
5 hours per week.5 unit
7. Course administrator's name (if more than one name is mentioned)
Name: Assoc. Prof. Muntaha Yaqoub Youssef Email: @uobasrah.edu.iq muntaha.yousief
8. Course Objectives

Graduating students who are able to: • Work in the field of breeding and production Cattle Have theoretical and applied knowledge regarding the material management and production Meat cattle. Obtain the skills required for a post-graduate plan (postgraduate). • Submission of external exams by local/regional/international bodies. • Thinking and analysis skills that enable to reach knowledge of how to establish, prepare and supervise calf breeding projects . • Providing students with work skills in scientific and research fields and studying meat cattle and its relationship to livestock.	Course Objectives

9. Teaching and learning strategies	
Enable students to think and analyze topics related to the intellectual framework of cow production Enable students to think and analyze topics related to productivity measurement. Enable students to think and analyze how to provide environmental conditions that affect livestock production and their relationship to their productive and health status. 4- Enabling students to think and analyze to identify the best prevailing livestock projects and their relationship to animal production.	Strategy

10. Course Structure

Evaluation method	Learning method	Unit or subject name	Required Learning Outcomes	Hours	Week
auditions Daily & Monthly Final and	Lectures Theoretical and practical	General introduction to livestock production	Introduce students to general information about meat cattle.	5	1
auditions Daily & Monthly Final and	Lectures Theoretical and practical	Meat cattle breeds	Introduce students to the elements of meat production.		2
auditions Daily & Monthly Final and	Lectures Theoretical and practical	Environmental factors affecting meat production.	Explain and clarify the environmental factors affecting meat production.		3
auditions Daily & Monthly Final and	Lectures Theoretical and practical	dwellings	Introducing students to meat cow housing, types and features.		4
auditions Daily & Monthly Final and	Lectures Theoretical and practical	Livestock breeding supplies.	Introducing students to all the supplies used in raising livestock.		5
auditions Daily & Monthly Final and	Lectures Theoretical and practical	Management and care of meat production.	Introducing students to the requirements of meat breeding and production, its needs		6
auditions Daily & Monthly Final and	Lectures Theoretical and practical	Field operations in cattle	Explain and clarify field operations.		7

auditions Daily & Monthly Final and	Lectures Theoretical and practical	Slaughtering the animal and cutting the carcass	Accommodation of meat cattle		8
auditions Daily & Monthly Final and	Lectures Theoretical and practical	By-products in the meat industry	Growth and development of meat cattle		9
auditions Daily & Monthly Final and	Lectures Theoretical and practical	Diseases of meat cattle	Identification of diseases of meat cattle		10
auditions Daily & Monthly Final and	Lectures Theoretical and practical	Compensatory growth	Compensatory growth of meat cattle		11
auditions Daily & Monthly Final and	Lectures Theoretical and practical	The composition of diets for meat cattle	Feeding meat cows and forming diets		12
auditions Daily & Monthly Final and	Lectures Theoretical and practical	Calculation of reproductive competence	Reproductive efficiency of meat cows		13
auditions Daily & Monthly Final and	Lectures Theoretical and practical	Growth stimulants and their role in improving livestock	Growth stimulants and their role in improving livestock		14

11. Course Evaluation

Daily exams with multiple-choice questions that require scientific skills.
- Daily exams with scientific questions.
- Participation grades for competition questions for academic subjects.
- Grade homework and reports
- Grades of the student's activity during the lecture and the extent of his commitment to attendance and non-absence.

12. Learning and Teaching Resources

Abdul Majeed, Muhareb Abdul Hamid (1986). Production of meat animals. Basra	Required textbooks (methodology, if any)
Abdallah, Omar Yousry (2010) Production of meat animals Ain Shams University,	Key references (sources)
Abdullah, Omar Yousry & Anous Mohammad Reda (2007) Production of meat	Recommended supporting books and references (scientific journals, reports...)
https://books-library.net/free-1145550057-download	Electronic references, websites

Course Description Form

1. Course Name:
Meat sciences
2. Course Code:
MESC424
3. Semester / Year:
Second semester / Fourth
4. Description Preparation Date:
1-1-2025
5. Available Attendance Forms:
Attending
6. Number of Credit Hours (Total)/Number of Units (Total)
5 hours per week 3.5 unit
7. Course Administrator's Name (Mention All, If More Than One Name)
Name: Assist. Prof. ghaidda ali .makki Email: ghaidda.makki@uobasrah.edu.iq
8. Course Objectives

Course Objectives	Graduating capable studentson me: Working in the field of manufacturing meat products - Introducing the student to the meat science curriculum, meat animals, and the chemical composition of meat - Helping students understand the syllabuses and vocabulary of the science and meat products curriculum. - Identifying the most important meat products available in local markets Practical practice of the most important meat production projects

9. Teaching and Learning Strategies

Strategy	Enabling students to think and analyze topics related to the intellectual framework of the subjectadministration and productionDomestic birds. Enabling students to think and analyze topics related to measuring productivity. Enabling students to think and analyze how to provide environmental conditions that affect poultry birds and their relationship to their production and health status. Enabling students to think and analyze to identify the best prevailing poultry projects and their relationship to animal production.

10. Course Structure

Week	**Hours**	Required learning	Unit or Subject Name	**Learning Method**	**Evaluation Method**
1	5	. A general introduction to meat	Introducing students to general information about	Teaching method	the exams Daily and monthly

2	5	the origin of meat	Introducing students to the origin of animals	Lectures Theoretical and practical	the exams Daily and monthly
3	5	Quantitative traits.	Introducing students to the Quantitative traits	Lectures Theoretical and practical	the exams Daily and monthly
4	5	Components of carcasses	Introducing students to the carcasses	Lectures Theoretical and practical	the exams Daily and monthly
5	5	Myofibrils	. Introducing students to muscle fibers	Lectures Theoretical and practical	the exams Daily and monthly
6	5	Connective tissue	Introducing students to general information about	Lectures Theoretical and practical	the exams Daily and monthly
7	5	Bones and cartilage	Management and care of Bones and cartilage	Lectures Theoretical and practical	the exams Daily and monthly
8	5	Chemical composition of meat	Management and care of Chemical composition of	Lectures Theoretical and practical	the exams Daily and monthly
9	5	Post-slaughter changes	Forced mowing.	Lectures Theoretical and practical	the exams Daily and monthly
10	5	Throwing stiffness	Management and Throwing stiffness.	Lectures Theoretical and practical	the exams Daily and monthly
11	5	Throwing stiffness Quality	Feed mill management.	Lectures Theoretical and practical	the exams Daily and monthly
12	5	Quality characteristics of cooked	Quality characteristics management.	Lectures Theoretical and practical	the exams Daily and monthly
13	5	Cooking meat	Cooking meat management	Lectures Theoretical and practical	the exams Daily and monthly

14	5	Meat preservation	Meat preservation	Lectures Theoretical and practical	the exams Daily and monthly
15		Exame			

11. Course Evaluation

- Daily exams with multiple-choice questions that require scientific skills.
- Daily exams with scientific questions.
- Participation grades for competition questions for academic subjects.
- Marking homework and reports
- - Grades for the student's activity during the lecture and the extent of his commitment to regular attendance and absence.

12. Learning and Teaching Sources

Required Textbooks (Curricular Books, If Any)	Meat Science Warrior Taher Abdel Hamid 1990
Main References (Sources)	Meat Science and Technology Majid Bashir Al-Aswad 1980
Recommended Books and References (Scientific Journals, Reports...)	Basics of meat science, Warrior Taher Abdel Hamid
Electronic References, Websites	https://www.agro-lib.site/2022/04/blog-post_582.html

Course Description Form

1. Course Name:
Poultry Nutrition
2. Course Code:
PONU412
3. Semester / Year:
First semester Fourth
4. Description Preparation Date:
23-2-2025
5. Available Attendance Forms:
Attending
6. Number of Credit Hours (Total) / Number of Units (Total)
5. Hours per week 3.5 unit
7. Course Administrator's Name (Mention All, If More Than One Name)
Name: Prof. Dr. Rabia Jaddoa Abbas Email: rabia.jaddoa@uobasrah.edu.iq
8. Course Objectives

Course Objectives	Graduating students capable of 1-Work in poultry farming and production projects and feed factories, to have theoretical and applied knowledge regarding poultry feed material, and to obtain the skills required for the post-graduation plan (postgraduate studies.(2 -The student learns about the components of the raw feed materials commonly used in poultry diets, the percentage of use of each feed ingredient, the percentage of use of each nutritional element in the diet, and their importance in poultry nutrition. 3- Providing students with sufficient information on preparing, composing, and mixing feed ingredients to prepare balanced diets according to scientific and economic principles for various types of poultry birds at different
9. Teaching and Learning Strategies	
Strategy	Graduating capable students on me: A- The course aims to develop students' ability to think critically about poultry feeding concepts B- The course aims to enhance students' analytical skills in poultry diet formulation, with a focus on cost-effectiveness and profit maximization. C- The course aims to equip students with knowledge of economically viable feed materials and scientific techniques for preparing, storing, and maintaining feed quality.
10. Course Structure	

Week	**Hours**	**Required learning**	**Unit or Subject Name**	**Learning Method**	**Evaluation Method**
1	5	Students are introduced to general poultry nutrition information	The relationship between nutrition science and other sciences, nutritional terms, the composition of	Teaching method	the exams Daily and monthly And final reports daily

2	5	Introducing students to the concept of nutrients, focusing on energy.	Learn about energy, why birds need it, the energy efficiency of birds, the biological partitioning of energy.	Lectures Theoretical and practical + Display methods +Dialogue and	the exams Daily and monthly And final reports daily
3	5	Explaining and clarifying the types of energy and their importance for	Symptoms of a deficiency of energy in the diets - Symptoms of an increase in energy in	Lectures Theoretical and practical + Display methods	the exams Daily and monthly And final reports
4	5	Introducing students to the main energy sources in poultry feed -	Carbohydrates - their functions - division of carbohydrates - nutritional and chemical division of	Lectures Theoretical and practical + Display methods	the exams Daily and monthly And final reports
5	5	Introducing students to the main energy sources in poultry feed -	Fats as an energy source - fat classification - benefits of fats in poultry diets - harms	Lectures Theoretical and practical + Display methods	the exams Daily and monthly And final reports
6	5	Introducing students to the main sources of protein in poultry feed.	Proteins - reasons for not using protein as energy source in bird diets - classification of proteins - Types of	Lectures Theoretical and practical + Display methods	the exams Daily and monthly And final reports
7	5	Introducing students to the importance of proteins and evaluating the quality of proteins used	The importance of proteins in poultry nutrition - Plant proteins - Animal proteins - The biological value of protein.	Lectures Theoretical and practical + Display methods +Dialogue and discussion	the exams Daily and monthly And final reports daily

8	5	A detailed explanation of the importance of amino acids and the birds' needs for them.	Amino acids - Their importance and benefits in the body - The effect of increasing or decreasing the level of protein or amino acids on the bird -	Lectures Theoretical and practical + Display methods +Dialogue and discussion	the exams Daily and monthly And final reports daily
9	5	A detailed explanation of the importance of vitamins and the birds' needs for them.	Vitamins - Birds are very sensitive to the level of vitamins in the feed provided to them - Classification of vitamins - The difference between	Lectures Theoretical and practical + Display methods +Dialogue and discussion	the exams Daily and monthly And final reports daily
10	5	A detailed explanation of the importance of vitamins and the birds' needs for them.	Factors affecting the requirement of poultry birds for vitamins - natural sources of vitamins - industrial vitamins - symptoms of vitamin	Lectures Theoretical and practical + Display methods +Dialogue and discussion	the exams Daily and monthly And final reports daily
11	5	A detailed explanation of the importance of inorganic elements and the birds' requirements	Inorganic elements (minerals) - Main mineral elements - Trace mineral elements - Functions of inorganic elements	Lectures Theoretical and practical + Display methods +Dialogue and discussion	the exams Daily and monthly And final reports daily

12	5	A detailed explanation of the importance of inorganic elements and the birds' requirements for them, and a discussion of the mineral	Reasons that lead to a deficiency of nutrients in bird diets - calcium and phosphorus - functions of calcium in the body - sources of calcium - functions	Lectures Theoretical and practical + Display methods +Dialogue and discussion	the exams Daily and monthly And final reports daily
13	5	Introducing students to the digestive system of poultry birds, the functions of the parts, and the role of	The digestive system of poultry birds - the oral cavity - the salivary glands - the functions of the parts of the esophagus - the crop - the gizzard - the small and large	Lectures Theoretical and practical + Display methods +Dialogue and discussion	the exams Daily and monthly And final reports daily
14	5	Introducing students to digestive enzymes and the role of each	Identifying digestive enzymes, their secretory part, and endocrine secretions that are related to the	Lectures Theoretical and practical + Display methods	the exams Daily and monthly And final reports
15		Exame			

11. Course Evaluation

- Daily exams with multiple-choice questions that require scientific skills.
- Daily exams with scientific questions.
- Participation grades for competition questions for academic subjects.
- Marking homework and reports
- - Grades for the student's activity during the lecture and the extent of his commitment to regular attendance and absence.

12. Learning and Teaching Sources	
Required Textbooks (Curricular Books, If Any)	Al-Yassin, Ali Abdul Khaleq, and Abdul Abbas, Muhammad Hassan (2010), Nutrition of Poultry, University of Baghdad, College
Main References (Sources)	Ibrahim, Ismail Khalil (2013). Basics of poultry nutrition, Dar Al-Kutub Al-Ilmiyya - Beirut, first edition, 400 pages. Al-Kassar, Ali Mahmoud and Jawad, Ammar Hussein and Al-Kassar, Ali Saif. (2021).
Recommended Books and References (Scientific Journals, Reports...)	- Various classification research and university Theses for poultry nutrition. - Relevant information available on the Internet. - Information available in local, Arab, and International periodicals that are relevant to
Electronic References, Websites	https://www.mdpi.com/books/reprint/3284-poultry-nutrition https://vetbooks.ir/handbook-of-poultry-

Course Description Form

1. Course Name:
Poultry Nutrition /practical
2. Course Code:
PONU412
3. Semester / Year:
First semester / Fourth
4. Description Preparation Date:
1-2-2025
5. Available Attendance Forms:
Attending
6. Number of Credit Hours (Total) / Number of Units (Total)
5 hours per week for 3.5 unit
7. Course Administrator's Name (Mention All, If More Than One Name)
Name: Assist. teach. Tarek Ibrahim Majed Email: **tarik.majed@uobasrah.edu.iq**
8. Course Objectives

Course Objectives	Graduating capable studentson me: • Understand the nutritional needs of different types of poultry and how they vary depending on age, stage .of production, and environmental factors • To learn how to select, formulate and mix appropriate feed ingredients that are beneficial to the .growth, health and productivity of poultry • To evaluate the quality and availability of different .feed resources and how to reduce feed waste and cost • Apply feeding and management practices that improve performance, welfare and product quality of poultry.

9. Teaching and Learning Strategies

Strategy	5. Explains the importance of poultry nutrition and how it affects the health, well-being and productivity of birds. 6. Use examples and pictures to illustrate different types of poultry, their nutritional requirements, and common feed ingredients used in poultry diets. 7. Conduct a demonstration or practical activity where students can observe, measure and compare feed intake, weight gain and egg production of different groups of poultry fed different diets.

10. Course Structure

Week	Hours	Required learning outcomes	Unit or Subject Name	Learning Method	Evaluation Method

1	5	Introducing students to general information about poultry	General introduction to poultry nutrition	Teaching method	the exams Daily and monthly And final reports daily
2	5	clarification For students How the digestive system of poultry	Digestive system of poultry	Lectures Theoretical and practical + Display methods +Dialogue and discussion	the exams Daily and monthly And final reports daily
3	5	Explanation and clarification of the digestion process in	Types of digestion in poultry	Lectures Theoretical and practical + Display methods +Dialogue and discussion	the exams Daily and monthly And final reports daily
4	5	Clarifying the energy needs of broilers	Broilers and energy needs .	Lectures Theoretical and practical + Display methods +Dialogue and	the exams Daily and monthly And final reports
5	5	Clarifying the energy needs of laying hens	Laying hens and energy needs .	Lectures Theoretical and practical + Display methods +Dialogue and	the exams Daily and monthly And final reports

6	5	Introducing students to how to calculate the energy needs of poultry	Examples of energy needs .	Lectures Theoretical and practical + Display methods +Dialogue and discussion	the exams Daily and monthly And final reports daily
7	5	Clarifying the protein needs of broilers.	Protein needs of broilers.	Lectures Theoretical and practical + Display methods +Dialogue and	the exams Daily and monthly And final reports
8	5	**Exam**		Lectures Theoretical and practical + Display methods +Dialogue and	the exams Daily and monthly And final reports
9	5	Clarifying the protein needs of laying hens	Laying hens and their protein needs .	Lectures Theoretical and practical + Display methods +Dialogue and discussion	the exams Daily and monthly And final reports daily
10	5	Introducing students to how to calculate the protein needs of	Examples of protein needs for broilers and layers.	Lectures Theoretical and practical + Display methods +Dialogue and discussion	the exams Daily and monthly And final reports daily
11	5		Feed conversion efficiency .	Lectures Theoretical and practical + Display methods	the exams Daily and monthly And final

12	5	An explanation of the importance	Feed conversion efficiency .	Lectures Theoretical and practical + Display methods	the exams Daily and monthly And final
13	5	Explaining to students how to calculate the feed conversion	Examples of calculating feed conversion efficiency	Lectures Theoretical and practical + Display methods +Dialogue and discussion	the exams Daily and monthly And final reports daily
14	5	Most important explanation and clarification Material Fodder Common the use in feed Poultry	Material Fodder Common the use in feed Poultry	Lectures Theoretical and practical + Display methods +Dialogue and discussion	the exams Daily and monthly And final reports daily
15		Exame			

11. Course Evaluation

- Daily exams with multiple-choice questions that require scientific skills.
- Daily exams with scientific questions.
- Participation grades for competition questions for academic subjects.
- Marking homework and reports
- - Grades for the student's activity during the lecture and the extent of his commitment to regular attendance and absence.

12. Learning and Teaching Sources

Required textbooks (methodology, if (any	Yassin , Ali Abdel Khaleq, Mohamed Hassan Abdel Abbas S (2010). Feeding poultry birds . Basra
Main references (sources)	.Al-Rubaie , Muhammad Ali Makki (2020) .Breeder's guide to feeding poultry birds
Recommended supporting books and ,references (scientific journals (...reports	Taxonomic research and various university theses on the nutrition of poultry birds
Electronic references, websites	**https://www.almerja.com/reading.php?idm=45401** **https://mail.almerja.com/more.php?idm=172779**

Course Description Form

1. Course Name:
poultry management and production
2. Course Code:
POPR416
3. Semester / Year:
First semester Fourth
4. Description Preparation Date:
1/2/2025
5. Available Attendance Forms:
Attending
6. Number of Credit Hours (Total) / Number of Units (Total)
5 hours per week 3.5 unit
7. Course Administrator's Name (Mention All, If More Than One Name)
Name: Assist. Prof. Sabah Kadhum Marzooq Email: sabah.kadhum@uobasrah.edu.iq
8. Course Objectives

Course Objectives	Graduating capable studentson me: • Working in the fieldPoultry breeding and productionThey have theoretical and applied knowledge regarding the subjectPoultry production and management. • Obtaining the skills required for a post-graduation plan(Studiesupper). • Applying for external examinations by local / regional / international bodies. • Thinking and analysis skills that enable arriving at knowledge How to establish, prepare and supervise poultry farming projects. • Providing students with work skills in the Field Scientific, research and study poultry And its relationship to wealth animal.

9. Teaching and Learning Strategies

Strategy	Enabling students to think and analyze topics related to the intellectual framework of the subjectadministration and productionDomestic birds. Enabling students to think and analyze topics related to measuring productivity. Enabling students to think and analyze how to provide environmental conditions that affect poultry birds and their relationship to their production and health status. Enabling students to think and analyze to identify the best prevailing poultry projects and their relationship to animal production.

10. Course Structure

Week	Hours	Required learning	Unit or Subject Name	Learning Method	Evaluation Method
1	5	Introducing students to general	General introduction to poultry	Teaching method	the exams Daily and monthly

2	5	Introducing students to the components of	Hatchery management.	Lectures Theoretical and practical	the exams Daily and monthly
3	5	Explain and clarify the environmental	Environmental factors that affect poultry	Lectures Theoretical and practical	the exams Daily and monthly
4	5	Introducing students to bird habitats, their	Poultry housing.	Lectures Theoretical and practical	the exams Daily and monthly
5	5	Introducing students to all the requirements	Poultry farming supplies.	Lectures Theoretical and practical	the exams Daily and monthly
6	5	Introducing students to the requirements for	Management and care of broilers.	Lectures Theoretical and practical	the exams Daily and monthly
7	5	Explaining and clarifying the requirements	Management and care of laying hens.	Lectures Theoretical and practical	the exams Daily and monthly
8	5	A detailed explanation of the requirements	Management and care of brood hens.	Lectures Theoretical and practical	the exams Daily and monthly
9	5	Introducing the importance of forced mowing,	Forced mowing.	Lectures Theoretical and practical	the exams Daily and monthly
10	5	Explaining and clarifying the feed materials	Management and nutrition.	Lectures Theoretical and practical	the exams Daily and monthly
11	5	Introducing the characteristics and management	Feed mill management.	Lectures Theoretical and practical	the exams Daily and monthly
12	5	A detailed explanation of bird	Poultry slaughterhouse management.	Lectures Theoretical and practical	the exams Daily and monthly
13	5	Introducing students to the relationship of	Poultry management in hot climates.	Lectures Theoretical and practical	the exams Daily and monthly

14	5	Introducing students to how to deal with bird	Poultry droppings and offal.	Lectures Theoretical and practical	the exams Daily and monthly
15		Exame			

11. Course Evaluation

- Daily exams with multiple-choice questions that require scientific skills.
- Daily exams with scientific questions.
- Participation grades for competition questions for academic subjects.
- Marking homework and reports
- - Grades for the student's activity during the lecture and the extent of his commitment to regular attendance and absence.

12. Learning and Teaching Sources

Required Textbooks (Curricular Books, If Any)	Al-Zubaidi, Suhaib Saeed Alwan (1986). Poultry management. Basra University Press**.**
Main References (Sources)	Naji, Saad Abdel-Hussein (2017). IntaCcommercial for eggs. Nour Press. Naji, Saad Abdel-Hussein (2017)productionPoultry business. Nour
Recommended Books and References (Scientific Journals, Reports...)	Various classification research and university thesesdomestic birds
Electronic References, Websites	**https://almerja.com/archive.php?fid=1518** **https://almerja.com/archive.php?fid=1520**

Course Description Form

1. Course Name:	
Poultry Breeding	
2. Course Code:	
POBR413	
3. Semester / Year:	
first semester / Fourth	
4. Description Preparation Date:	
11-12-2024	
5. Available Attendance Forms:	
Attending	
6. Number of Credit Hours (Total) / Number of Units (Total)	
5 hours per week 3.5 unit	
7. Course Administrator's Name (Mention All, If More Than One Name)	
Name: Assist. Prof. Sajida Abdulsemed Mejeed Email: Sajida.mejeed@uobasrah.edu.iq	
8. Course Objectives	
Course Objectives	1-Presenting students to work in the genetic improving field. 2-Achieve skills after graduation. 3-Submission for local and international tests. 4-Achieve skills in the collection of genetic information and study its production ability and improving it by the genetic improving methods.
9. Teaching and Learning Strategies	

Strategy	1-Understanding methods of genetic improvement methods and the means 2-Understanding the genetic parameters and their mathematical calculation. 3-Enable the students to develop genetic improvement programs. 4-Developing skills related to the solutions of the dominance types and the gene action. 5-The possibility of applying what has been mentioned in the field work and in the establishment of the poultry projects.

10. Course Structure

Week	Hours	Required learning outcomes	Unit or Subject Name	Learning Method	Evaluation Method
1	5	Poultry breeding science. The theories of the chickens origion.	Introduction about Genetic science, and the poultry species classification.	Teaching method	the exams Daily and monthly And final
2	5	Emerging and distribution of poltry breeds in the world.	Ttpes of the poultry breeds.	Lectures Theoretical and practical + Display	the exams Daily and monthly And final
3	5	The mendels laws in genetics. Qualitative and quantitative traits.	The gene actions. The dominance types.	Lectures Theoretical and practical + Display	the exams Daily and monthly And final
4	5	Phenotype variation and its components.	Mathematical equations of the phenotype variation.	Lectures Theoretical and practical + Display	the exams Daily and monthly And final
5	5	Heritability, its importance, its application in poultry breeding.	Determination of Heritability by practical questions.	Lectures Theoretical and practical + Display	the exams Daily and monthly And final
6	5	Genetic selection, its importance, its types.	Calculation selection by practical questions.	Lectures Theoretical and practical + Display	the exams Daily and monthly And final
7	5	Inbreeding, coefficient of inbreeding,coefficient of relationship	Calculation of inbreeding coefficient and relationship coefficient.	Lectures Theoretical and practical + Display	the exams Daily and monthly And final

8	5	Outbreeding, calculation of heterosis.Advantages and disadvantages.	Calculation of the heterosis.	Lectures Theoretical and practical + Display	the exams Daily and monthly And final
9	5	Genetic improving of the broilers.	Characterization of the broiler chickens, genetic improving of it.	Lectures Theoretical and practical + Display	the exams Daily and monthly And final
10	5	Genetic improving of the layers.	Characterization of the layers, genetic improving of it.	Lectures Theoretical and practical + Display	the exams Daily and monthly And final
11	5	The genes responsible of quality and quantity traits.	Questions and resolves.	Lectures Theoretical and practical + Display	the exams Daily and monthly And final
12	5	The recent techniques in poultry improvement.	Molecular genetics application in poultry improvement.	Lectures Theoretical and practical + Display	the exams Daily and monthly And final
13	5	The inheritance of the lethal genes in the chickens.	The inheritance of the mutations in the chickens.	Lectures Theoretical and practical + Display	the exams Daily and monthly And final
14	5	Genetic engineering applications in the chickens.	Genetic modification in the chickens.	Lectures Theoretical and practical + Display	the exams Daily and monthly And final
15			Exame		

11. Course Evaluation

- Daily exams with multiple-choice questions that require scientific skills.
- Daily exams with scientific questions.
- Participation grades for competition questions for academic subjects.
- Marking homework and reports
- - Grades for the student's activity during the lecture and the extent of his commitment to regular attendance and absence.

12. Learning and Teaching Sources

Required Textbooks (Curricular Books, If Any)	Poultry breeding (2011). College of Agriculture. Diyala University. Khalid H.
Main References (Sources)	Understsnding Animal Breedin Richard M.Bourdon

Course description form

1. Course name
Production of sheep and goats
2. Course code
SHPR419
3. Semester/year
First semester/Fourth
4. The date this description was prepared
23-12-2024
5. Available attendance forms
Attending
6. Number of study hours (total)/number of units (total)
5 hours per week 3.5 unit
7. Name of the course administrator (if more than one name is mentioned)
the name: Prof. Imad Falah Hassan (theoretical subject) Prof. Dr. Falah Abdul Mohsen Abdullah (practical subject) **Email:amad.hassan@uobasrah.edu.iqAnd falah.abd_allah@uobasrah.edu.iq**
8. Course objectives

Graduating students capable of: • Working in the field of breeding and productionSheep AndThey haveinformationTheoretical and applied relatedBreeding and producing sheep and goats.Through field lessons in this field and obtaining the skills required for the post-graduation plan (postgraduate studies). • Participation in scientific courses and workshops to acquire additional information to achieve scientific goals in the field of breeding and production of sheep and goats. . • Participation and interest in establishing small projects in the field of sheep and goat breeding to gain experience andskillsWhich enables studentsTo gain knowledge of how to create and prepare projectsRaising sheep and goatsAnd supervising it. • Providing students with work skills in scientific, research and study fieldsFor sheep and goatsAnd his relationshipThe local and global economy.	**Objectives of the study subject**
9. Teaching and learning strategies	
Enabling students to think and analyze topics related to the intellectual and research framework of the subject of sheep and goat production Enabling students to think and analyze topics related to measuring education and production. Enabling students to think and analyze how to provide environmental conditions that affect sheep and goats and study the environmental and administrative conditions and their relationship to the productive and health status of these animals. 4- Enabling students to think and analyze to identify the most important points that must be followed regarding the success of sheep and goat breeding and production projects and their relationship to increasing and developing animal production.	**The strategy**
10. Course structure	

Evaluation method	**Learning method**	**Name of the unit or topic**	**Required learning outcomes**	**hours**	**the week**
the exams Daily and monthly And final reports Daily	Lectures Theoretical and practical +Display methods +Dialogue	A general introduction to sheep production and the most important local and international breeds	Introduction to sheep breeds	5	1
the exams Daily and monthly And final reports Daily	Lectures Theoretical and practical +Display methods +Dialogue	A general introduction to goat production and the most important local and international breeds	Introduction to goat breeds		2
the exams Daily and monthly And final reports Daily	Lectures Theoretical and practical +Display methods +Dialogue and	.Learn how to establish flocks of sheep and goats and discuss with students the practical and applied aspects of establishing projects for raising these animals.	Establishing a flock of sheep		3
the exams Daily and monthly And final reports Daily	Lectures Theoretical and practical +Display methods +Dialogue and discussion	Introducing students to how to establish sheep and goat barns in a way that suits the economic aspect and environmental conditions.	Sheep breeding pens		4
the exams Daily and monthly And final reports Daily	Lectures Theoretical and practical +Display methods +Dialogue and	A complete practical explanation of preparing for the pollination season and what are the most important things to take into consideration	Tests and preparation for the vaccination season		5

the exams Daily and monthly And final reports Daily	Lectures Theoretical and practical +Display methods +Dialogue	A detailed explanation of feeding sheep and goats and what are the problems facing their feeding from an economic standpoint.	Nutritional needs of sheep		6
the exams Daily and monthly And final reports Daily	Lectures Theoretical and practical +Display methods +Dialogue	Identify the most important things that must be taken into account during pregnancy and childbirth in sheep and goats.	Pregnancy and childbirth in sheep and goats		7
the exams Daily and monthly And final reports Daily	Lectures Theoretical and practical +Display methods +Dialogue and	A detailed explanation of the factors affecting the ovulation rate of sheep and goats, with some samples of the ovaries of these animals brought to the laboratory and examined by the	Ovulation rate and factors affecting it		8
the exams Daily and monthly And final reports Daily	Lectures Theoretical and practical +Display methods +Dialogue and	Studying the most important methods used to fatten sheep and goats, linking the economic feasibility.	Sheep and goat fattening projects		9
the exams Daily and monthly And final reports Daily	Lectures Theoretical and practical +Display methods +Dialogue and	Identifying the most important diseases that affect sheep and goats, preventing infection with these diseases, and methods of treating them	The most important diseases that affect sheep and ways to prevent them		10
the exams Daily and monthly And final reports Daily	Lectures Theoretical and practical +Display methods +Dialogue and	A detailed explanation of sheep and goat slaughter, along with watching some educational videos that explain the work inside modern slaughterhouses.	Characteristics of carcasses and main cuts in sheep		11

the exams Daily and monthly And final reports Daily	Lectures Theoretical and practical +Display methods +Dialogue and discussion	Identify the most important administrative and field operations that ensure the safety of sheep and goats and avoid many obstacles during the spring months.	Sheep breeding calendar (January-February). , March).		12
the exams Daily and monthly And final reports Daily	Lectures Theoretical and practical +Display methods +Dialogue	Identifying the most important administrative and field operations that ensure the safety of sheep and goats and avoiding many obstacles during the hot months,	Calendar Sheep raising (April, May, June).		13
the exams Daily and monthly And final reports Daily	Lectures Theoretical and practical +Display methods +Dialogue and discussion	Studying the effect of heat stress and the extent of its impact on raising sheep and goats.	Sheep breeding caler August, Septem		14
			Exame		15

11. Course evaluation

-Daily exams with multiple-choice questions that require scientific skills.
- Daily exams with scientific questions AndDutiesAnd preparing scientific reports..
- Participation grades for competition questions for academic subjects.
-BenefitOffice hours for the subject teacherTo answerOn student questions.
- Grades for student activity during the lectureAnd holding scientific trips with students to local sheep and goat herds.

12. Learning and teaching resources

Methodical books:Sheep and Goat Production Book / Prof. Dr. Muzaffar Nafi'	Required textbooks (methodology, if any)
Reproduction physiology, artificial insemination, and reproductive care / Dr.	Main references (sources)
Various classification research and university thesesSheep and goats	Recommended supporting books and references (scientific journals, reports...)
https://youtu.be/4vhLKDVr8ww?si=w6Rq7FUrMivcUcVi	Electronic references, websites

Course Description Form

1. Course Name:	
Dairy Cattle Production	
2. Course Code:	
CAPR420	
3. Semester / Year:	
Second Semester/ Fourth	
4. Description Preparation Date:	
2-12-2024	
5. Available Attendance Forms:	
Attending	
6. Number of Credit Hours (Total) / Number of Units (Total)	
5 hours per week 3.5 unit	
7. Course Administrator's Name (Mention All, If More Than One Name)	
Name: Assoc. Prof. Muntaha Yaqoub Youssef Email: muntaha.yousief@ uobasrah.edu.iq	
8. Course Objectives	
Course Objectives	Graduating students who are able to: • Work in the field of breeding and production Cattle Have theoretical and applied knowledge regarding the material management and production Milk cattle. Obtain the skills required for a post-graduate plan (postgraduate). • Submission of external exams by local/regional/international bodies. • Thinking and analysis skills that enable access to knowledge of how to establish, prepare and supervise cow breeding projects . • Providing students with work skills in scientific and research fields and the studyof cows and its relationship to livestock.
9. Teaching and Learning Strategies	

Strategy	Enable students to think and analyze topics related to the intellectual framework of cow production. Enable students to think and analyze topics related to productivity measurement. Enable students to think and analyze how to provide environmental conditions that affect livestock production and their relationship to their productive and health status. 4- Enabling students to think and analyze to identify the best prevailing livestock projects and their relationship to animal production.

10. Course Structure

Week	Hours	Required learning	Unit or Subject Name	Learning Method	Evaluation Method
1	5	CAPR420Poultry breeding science. The theories of the chickens origin.	General introduction to the production of milk cows	Lectures Theoretical and practical + Views +Dialogue and discussion	auditions Daily & Monthly Final and Reports Daily
2	5	Introduce students to the ingredients of milk production.	Breeds of milk cows	Lectures Theoretical and practical + Views +Dialogue and discussion	auditions Daily & Monthly Final and Reports Daily
3	5	Explain and clarify the environmental factors affecting milk production.	Environmental factors affecting milk production .	Lectures Theoretical and practical + Views +Dialogue and discussion	auditions Daily & Monthly Final and Reports Daily
4	5	Phenotype variation and its components.	Mathematical equations of the phenotype variation.	Lectures Theoretical and practical + Display	the exams Daily and monthly And final

5	5	Milk production curve and factors affecting it	Mechanical milking	Lectures Theoretical and practical + Views +Dialogue and discussion	auditions Daily & Monthly Final and Reports Daily
6	5	Perseverance and methods of measuring it	Calculation of perseverance	Lectures Theoretical and practical + Views +Dialogue and discussion	auditions Daily & Monthly Final and Reports Daily
7	5	Milk excretion physiologically	Body measurements	Lectures Theoretical and practical + Views +Dialogue and discussion	auditions Daily & Monthly Final and Reports Daily
8	5	Processing the udder with blood	Udder and nipple scales	Lectures Theoretical and practical + Views +Dialogue and discussion	auditions Daily & Monthly Final and Reports Daily
9	5	Udder components	Practical study of udder components	Lectures Theoretical and practical + Views +Dialogue and discussion	auditions Daily & Monthly Final and Reports Daily
10	5	Milk composition and raw materials for milk processing	Milk composition and raw materials for milk processing	Lectures Theoretical and practical + Views +Dialogue and discussion	auditions Daily & Monthly Final and Reports Daily

11	5	Hormones responsible for milk formation	The action of hormones	Lectures Theoretical and practical + Views +Dialogue and discussion	auditions Daily & Monthly Final and Reports Daily
12	5	Care for young calves	Care for young calves	Lectures Theoretical and practical + Views +Dialogue and discussion	auditions Daily & Monthly Final and Reports Daily
13	5	Reproductive efficiency of milk cows	Calculation of reproductive competence	Lectures Theoretical and practical + Views +Dialogue and discussion	auditions Daily & Monthly Final and Reports Daily
14	5	Milk cattle diets	The composition of milk cattle diets	Lectures Theoretical and practical + Views +Dialogue and discussion	auditions Daily & Monthly Final and Reports Daily
15			Exame		

11. Course Evaluation

- Daily exams with multiple-choice questions that require scientific skills.
- - Daily exams with scientific questions.
- - Participation grades for competition questions for academic subjects.
- - Grade homework and reports
- - Grades of the student's activity during the lecture and the extent of his commitment to attendance and non-absence

12. Learning and Teaching Sources

Required Textbooks (Curricular Books, If Any)	Abdellatif, Fouad (1986). Production of milk cattle. Basra University Press.
Main References (Sources)	Al-Qudsi, beautiful speaker 2020 Production of milk cattle Yaghdad University Press
Electronic references, websites	https://www.noor-book.com/%d9%83%d8%a%d8%a%a8%a8%d8%a8

Course Description Form

1. Course Name:	
Graduation Project /1	
2. Course Code:	
GRPR421	
3. Semester / Year:	
First semester/ Fourth	
4. Description Preparation Date:	
14-11-2024	
5. Available Attendance Forms:	
Attending	
6. Number of Credit Hours (Total) / Number of Units (Total)	
3 hours per week for 1 unit duration	
7. Course Administrator's Name (Mention All, If More Than One Name)	
Name: Assist. Prof. Dr. Sabah Kazem Marzouq Email : **sabah.kadhoom@uobasarah.edu.iq**	
8. Course Objectives	
Course Objectives: Graduating students who are able to:	Enables the student to reach knowledge: 1- One of the most important objectives of the program is to know the most important processes that take place on animal production. 2- Preparing all the requirements for establishing animal production projects by providing him with information related to the application of these projects and organizing them administratively, nutritionally, physiologically and economically.
9. Teaching and Learning Strategies	

Strategy	A- Enabling students to think and analyze topics related to the intellectual framework of the subject of a research project in animal production B- Searching for a problem and trying to solve it. C- Gathering sources and ensuring the validity of the solutions used in solving issues related to the subject. D- Interpret the results by reviewing research and sources and direct inquiry from specialists. Creating an integrated program related to animal production and trying to implement and disseminate it to improve the reality of animal production.

10. Course Structure

Week	Hours	Required learning outcomes	Unit or Subject Name	Learning Method	Evaluation Method
1	3	Graduation Research Project	Choosing a project theme	practical	Weekly and monthly tests
2	3	Graduation Research Project	Scientific Research Plan (Research Proposal)	practical	Weekly and monthly tests
3	3	Graduation Research Project	Data and information collection	practical	Weekly and monthly tests
4	3	Graduation Research Project	Sample selection and research tools	practical	Weekly and monthly tests
5	3	Graduation Research Project	Graduation Project Writing Procedures	practical	Weekly and monthly tests
6	3	Graduation Research Project	Formal controls in the graduation project	practical	Weekly and monthly tests

7	3	Graduation Research Project	Theoretical part	practical	Weekly and monthly tests
8	3	Graduation Research Project	Submission of previous studies	practical	Weekly and monthly tests
9	3	Graduation Research Project	Theories and economic analysis of a subject Search	practical	Weekly and monthly tests
10	3	Graduation Research Project	Practical part	practical	Weekly and monthly tests
11	3	Graduation Research Project	Statistical analysis	practical	Weekly and monthly tests
12	3	Graduation Research Project	Writing tables	practical	Weekly and monthly tests
13	3	Graduation Research Project	Findings & Conclusions	practical	Weekly and monthly tests
14	3	Graduation Research Project	Recommendations	practical	Weekly and monthly tests
15	3	Graduation Research Project	Writing Resources	practical	Weekly and monthly tests

11. Course Evaluation

1- Reports
2- Seminars
3- Utilization of office hours for department professors
4- Internet
5- Library

12. Learning and Teaching Sources	
Required Textbooks (Curricular Books, If Any)	Specialized books in animal production
Main References (Sources)	1 – Principles of Animal Production authored by Dr. Muzaffar Nafi Al-Sayegh - Dr. Taha Jassim Al-Taha - Dr. Suhaib Saeed Alwan Al-Zubaidi (1987) (Textbook). 2- Management of domestic birds authored by Dr. Suhaib Saeed Alwan (1986) - Basra University Press. 3- Poultry production translated by Dr. Musleh Hussein. 4- Poultry Products Technology authored by Dr. Hamdi Abdul Aziz Al-Fayyad, Dr. Saad Abdul Hussein Naji (1989), First Edition, Directorate of Higher Education Press - Baghdad - Iraq. 5- Sheep and Goat Production Dr. Muzaffar Nafi Al-Sayegh - Dr. Taha Jassim Al-Taha - (1987) 6- and other methodological references
Recommended Books and References (Scientific Journals, Reports...)	Various taxonomic research and theses Breeding and production of domestic birds - Information available on the relevant Internet. - Information available in local, Arab and international periodicals that are relevant to the article.
Electronic References, Websites	https://nicehatchincubators.com/the-principles-of-poultry-husbandry/ https://www.britannica.com/topic/poultry-farming

Course Description Form

1. Course Name:	
Seminars	
2. Course Code:	
SEMN423	
3. Semester / Year:	
Second semester/ Fourth	
4. Description Preparation Date:	
15-2-2025	
5. Available Attendance Forms:	
Attending	
6. Number of Credit Hours (Total) / Number of Units (Total)	
1 hours per week for 1 unit duration	
7. Course Administrator's Name (Mention All, If More Than One Name)	
Name: Assist. Prof. Dr. Sabah Kazem Marzouq Email : **sabah.kadhoom@uobasarah.edu.iq**	
8. Course Objectives	
Course Objectives: Graduating students who are able to:	Enables the student to reach knowledge: 1-Choose the sources you want to use in the seminar. 2-Know the order of the components of the seminar. 3-Knowledge of the recent programs used in the presentation of the seminar. 4-Student self-development. 5-Knowledge of managing dialogue and discussion.
9. Teaching and Learning Strategies	

Strategy	A- Enabling students to learn about the latest research related to animal production. B- Enable the student to search for sources and how to make the seminar using PowerPoint. C- Enabling the student to choose the appropriate method to meet the seminar in front of professors and students . D- Enabling the student to manage the themes of the seminar discussion . E- Self-development of the student to enable him to manage the dialogue. Access to modern means in the presentation of results and data such as audio and visual.

10. Course Structure

Week	Hours	Required learning	Unit or Subject Name	Learning Method	Evaluation Method
1	1 Theoretical	Seminars	Seminar concept	theoretical	,Exams Quiz
2	1 Theoretical	Seminars	Fundamentals of seminars	theoretical	Exams ,Quiz
3	1 Theoretical	Seminars	Scientific research and its objectives	theoretical	Exams ,Quiz
4	1 Theoretical	Seminars	The problem of scientific research, the importance of	theoretical	Exams ,Quiz
5	1 Theoretical	Seminars	Scientific research hypothesis	theoretical	Exams ,Quiz
6	1 Theoretical	Seminars	Scientific Research Methodology	theoretical	,Exams Quiz

7	1 Theoretical	Seminars	Types of scientific research	theoretical	Exams ,Quiz
8	1 Theoretical	Seminars	Data collection tools and methods	theoretical	Exams ,Quiz
9	1 Theoretical	Seminars	Specifications of a successful scientific researcher	theoretical	Exams ,Quiz
10	1 Theoretical	Seminars	Sample and population	theoretical	,Exams Quiz
11	1 Theoretical	Seminars	Sample selection steps	theoretical	,Exams Quiz
12	1 Theoretical	Seminars	Data classification	theoretical	,Exams Quiz
13	1 Theoretical	Seminars	Means of data classification and methods of tabulation	theoretical	,Exams Quiz
14	1 Theoretical	Seminars	Tables, figures and appendices	theoretical	,Exams Quiz
15	1 Theoretical	Seminars	How to write sources The student delivers a seminar	theoretical	Exams, Quiz

11. Course Evaluation	
1-Seminars 2-Discussions	
12. Learning and Teaching Sources	
Required Textbooks (Curricular Books, If Any)	Required textbooks (methodology, if any)

Main References (Sources)	Key references (sources)
Recommended Books and References (Scientific Journals, Reports...)	Recommended supporting books and references (scientific journals, reports...)
Electronic References, Websites	Electronic references, websites