

Wasit University
جامعة واسط



First Cycle

Bachelor of Science in Agriculture – Animal production

بكالوريوس علوم في الزراعة – الإنتاج الحيواني





Academic Program Description

University Name: Wasit University

Faculty / Institute College of Agriculture

Scientific Department of Animal Production

Academic or Professional Program Name : Animal Production
Department

Final Certificate Name : Bachelor of Sciences in Agriculture – Animal
Production

Academic System Semester

Description Preparation Date : 2/11/2025

File Completion Date : 10/3/2026

Signature : Ghassan Mohammed Hassan

Head of Department Name

Date : 10/3/2026

The file is checked by : Hebatallah A. Husain

Department of Quality Assurance and University Performance

Director of the Quality Assurance and University Performance
Department

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Date : 10/3/2026

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Scientific Associate Name

Date : 10/3/2026

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Signature

Date: / /

Table of Contents | جدول المحتويات

1. Mission & Vision Statement
2. Program Specification
3. Program (Objectives) Goals
4. Program Student learning outcomes
5. Academic Staff
6. Credits, Grading and GPA
7. Modules
8. Contact

1. Mission & Vision Statement

Vision Statement

The **Department of Animal Production** strives to acquire the necessary material resources and advanced modern technologies that contribute to serving Iraqi society through its role in solid scientific development and in shaping high academic traditions that reflect the advancement of the academic environment. The department plays a vital role in developing plans to improve animal production projects such as egg production, broiler chicken farming, milk production, lamb production, and in updating and modernizing management and production methods. This is achieved by adopting applied scientific research approaches aimed at enhancing the economic level of society and ensuring sustainable development of the local economy.

Mission Statement

- Provide high-quality education that equips students with the scientific knowledge and practical skills necessary for careers in animal production, research, and public service.
- Advance scientific research in food safety, processing, preservation, nutrition, and biotechnology to meet current and future challenges in food systems.
- Promote collaboration with industry, government, and communities to ensure the development of safe, nutritious, and sustainable animal and food products.
- Foster innovation, critical thinking, and lifelong learning among students and professionals in the field of animal production.

2. Program Specification

Program code:	BSc-AP	ECTS	240
Duration:	4 levels, 8 Semesters	Method of Attendance:	Full Time

Animal production is an important and multidisciplinary field that integrates various sciences. The applied program of the Department of Animal Production focuses on delivering knowledge and skills to students through hands-on learning in fields and laboratories. Students are trained in daily activities within animal facilities, such as feeding, milking, health care, and artificial insemination. The training also includes work in specialized laboratories such as animal anatomy, nutrition physiology, and genetics, where students conduct experiments using modern scientific tools and equipment.

Visual teaching aids such as presentations, videos, and illustrative images are used to support theoretical lessons with practical demonstrations. Field visits to actual animal production projects are organized to connect students with the professional reality. Activities also include completing individual or group practical projects, in addition to mandatory summer training in farms or production institutions. Students are encouraged to give classroom presentations and participate in educational discussions to exchange experiences. The program emphasizes continuous experiential learning and field follow-up to gradually and effectively develop students' practical skills.

3. Program Objectives

First: Enhancing Education and Training:

1. Provide modern scientific curricula that meet the needs of the labor market.
2. Offer practical training in animal production farms and modern laboratories.

Second: Promoting Scientific Research:

1. Conduct applied research that contributes to improving the efficiency of animal production.
2. Develop new technologies in animal nutrition, breeding, and health.

Third: Serving the Community and Developing the Agricultural Sector:

1. Provide technical consultations and training courses for farmers and agricultural project owners.
2. Promote the concept of sustainable animal production through awareness and guidance.

Fourth: Achieving Food Security and Sustainability:

1. Develop strategies to improve the production of meat, milk, and eggs.
2. Enhance the efficient use of natural resources and reduce environmental waste.

Fifth: Supporting Entrepreneurship and Innovation:

1. Encourage students and graduates to establish their own animal production projects.
2. Collaborate with the private sector to develop innovative and vital projects.

4. Student Learning Outcomes

Learning Outcomes of the Animal Production Department – College of Agriculture

The learning outcomes of the Animal Production Department focus on equipping students with the knowledge and skills necessary to understand and apply animal production concepts, and to analyze and assess the quality and safety of food products. These outcomes are achieved through the following:

First: Knowledge and Understanding

1. Mastery of the fundamentals of animal sciences such as anatomy, physiology, genetics, nutrition, and health care.
2. Understanding environmental and economic factors affecting animal production.
3. Familiarity with methods of breeding and improving local and international animal breeds.
4. Comprehension of various animal production systems (cattle, sheep, poultry, fish, etc.).
5. Knowledge of the laws and regulations related to the production and handling of animal products.

Second: Cognitive Skills

1. Ability to analyze production problems and propose appropriate solutions.
2. Linking scientific knowledge to practical applications in animal production.
3. Critical thinking to evaluate breeding, feeding, and animal care techniques.

Third: Practical and Professional Skills

1. Using modern technologies in animal breeding and productivity improvement.
2. Performing laboratory analyses related to animal health and product quality.
3. Applying basic veterinary care practices.
4. Designing nutrition programs tailored to species and needs.
5. Practicing breeding and artificial reproduction methods such as artificial insemination.

Fourth: General (Transferable) Skills

1. Teamwork and effective communication within research or field teams.
2. Using computers and digital technologies in production management and data analysis.
3. Time management and decision-making skills.
4. Commitment to ethical and professional values in dealing with animals and colleagues.
5. Ability to prepare technical and scientific reports and deliver presentations.

These learning outcomes prepare students for various careers in animal production, animal science, research and development, and regulatory agencies.

5. Academic Staff

N o.	Name	Degree	General Specialization	Specific Specialization	Academic Title	Email	Phone No.
1	Mohammed Ali Maki Jasim Naji Al-Jallawi	Ph.D. in Agricultural Sciences	Animal Production	Poultry Nutrition	Professor	momaki@uowasit.edu.iq	7800989417
2	Abbas Washial Salman Mohammed Al-Fadhli	Ph.D. in Sciences	Chemistry	Inorganic Chemistry	Professor	aalhamdani@uowasit.edu.iq	7725653210
3	Mohammed Abdul Ameer Rasheed Kadhadh Al-Sarray	Ph.D. in Agricultural Sciences	Animal Production	Reproductive Physiology	Assistant Professor	mohabd@uowasit.edu.iq	7825557175
4	Mohammed Abdullah Khamis Sameen Al-Uqabi	Ph.D. in Agricultural Sciences	Animal Production	Reproductive Physiology	Assistant Professor	moabdalah@uowasit.edu.iq	7721120784
5	Ghassan Mohammed Hassan Jaafar Al-Saadi	Ph.D. in Genetic Engineering	Animal Production	Genetic Engineering and Biotechnology	Lecturer	gmhassan@uowasit.edu.iq	7816154949
6	Ali Iyad Hussein Dawood Al-Sabea	Ph.D. in Agricultural Sciences	Animal Production	Meat Science and Technology	Lecturer	aliayaad@uowasit.edu.iq	7821469154
7	Ahmed Sadiq Shael Sabit Al-Maksoosi	M.Sc. in Veterinary Medical Sciences	Veterinary Medicine	Internal and Preventive Medicine	Lecturer	ahmed_almosoy@uowasit.edu.iq	7709404965
8	Sarah Kadhim Fayyadh Taher Al-Umayri	M.Sc. in Biology	Biology	Animal Ecology	Assistant Lecturer	sarahal@uowasit.edu.iq	7812829781
9	Zeina Abdullah Khamis Sameen Al-Uqabi	M.A. in Arabic Language Education	Literature	Literature	Assistant Lecturer	zenak@uowasit.edu.iq	7725133654
10	Maytham Saad Saleh Hussein Al-Kaki	M.Sc. in Agricultural Sciences	Animal Production	Poultry Physiology	Assistant Lecturer	m.saad@uowasit.edu.iq	7706906168
11	Murtadha Kareem Ali Suher	M.Sc. in Agricultural Sciences	Animal Production	Genetics	Assistant Lecturer	malzrkani@uowasit.edu.iq	7725046385
12	Marwa Kareem Qasim	M.Sc. in Biology	Biology	Animal Physiology	Assistant Lecturer	marwahka@uowasit.edu.iq	7714303972
13	Rasool Hassan Khallati	M.Sc. in Agricultural Sciences	Animal Production	Poultry Physiology	Assistant Lecturer	rahassan@uowasit.edu.iq	7712008260
14	Saja Intisar Abd	M.Sc. in Agricultural Sciences	Animal Production	Animal Nutrition	Assistant Lecturer	saantesar@uowasit.edu.iq	7730661816

15	Muhaymen Abbas Abd	M.Sc. in Agricultural Sciences	Animal Production	Dairy Cattle Management	Assistant Lecturer	mohabbass@uowasit.edu.iq	7722376300
16	Safa Jabbar Muthar	M.Sc. in Veterinary Medical Sciences	Veterinary Medicine	General Health	Assistant Lecturer	sajabbar@uowasit.edu.iq	7726786919
17	Hussein Najm Hameed	M.Sc. in Agricultural Sciences	Animal Production	Fish Nutrition	Assistant Lecturer	husain@uowasit.edu.iq	7841143011
18	Mohammed Saad Akaal	M.Sc. in Agricultural Sciences	Animal Production	Poultry Nutrition	Assistant Lecturer	mohamedalzirgani@uowasit.edu.iq	٠٧٨٢٧٧٤٣٧٦ ٢
19	Sami Rasheed Salh	M.Sc. in Agricultural Sciences	Animal Production	Animal Breeding	Assistant Lecturer	samialmagsosi@uowasit.edu.iq	٠٧٧٣٥٢٨٤٠٩ ٩

6. Credits, Grading and GPA

Credits

Wasit University is following the Bologna Process with the European Credit Transfer System (ECTS) credit system. The total degree program number of ECTS is 240, 30 ECTS per semester. 1 ECTS is equivalent to 25 hrs. student workload, including structured and unstructured workload.

Grading

Before the evaluation, the results are divided into two subgroups: pass and fail. Therefore, the results are independent of the students who failed a course. The grading system is defined as follows:

GRADING SCHEME مخطط الدرجات				
Group	Grade	التقدير	Marks (%)	Definition
Success Group (50 - 100)	A - Excellent	امتياز	90 - 100	Outstanding Performance
	B - Very Good	جيد جدا	80 - 89	Above average with some errors
	C - Good	جيد	70 - 79	Sound work with notable errors
	D - Satisfactory	متوسط	60 - 69	Fair but with major shortcomings
	E - Sufficient	مقبول	50 - 59	Work meets minimum criteria
Fail Group (0 - 49)	FX – Fail	راسب - قيد المعالجة	(45-49)	More work required but credit awarded
	F – Fail	راسب	(0-44)	Considerable amount of work required

Note:

Number Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.

Calculation of the Cumulative Grade Point Average (CGPA)

- The CGPA is calculated by the summation of each module score multiplied by its ECTS, all are divided by the program total ECTS.

CGPA of a 4-year B.Sc. degree:

$$\text{CGPA} = [(1^{\text{st}} \text{ module score} \times \text{ECTS}) + (2^{\text{nd}} \text{ module score} \times \text{ECTS}) + \dots] / 240$$

7. Curriculum/Modules

Semester 1 | 30 ECTS | 1 ECTS = 25 hrs

الفصل الربيعي					الفصل الخريفي				
Module Type	ECTS	اسم المادة الدراسية	Module Name in English	No. Semester	Module Type	ECTS	اسم المادة الدراسية	Module Name in English	No. Semester
B	3.00	مهارات حاسوب ١	Computer Skilis 1	1	S	5.00	الإحصاء	Agricultural Statistics	1
C	5.00	مبادئ علم الحيوان	General Zoology	2	B	2.00	ديمقراطية وحقوق انسان	Democracy and human rights	2
C	5.00	مبادئ طيور داجنة	Principles of Poultry	3	B	2.00	لغة انكليزية ١	English language 1	3
C	5.00	بيئة وسلوك حيواني	Ecology and Animal behavior	4	S	5.00	اساسيات الكيمياء العامة	Fundamentals of General Chemistry	4
B	2.00	لغة عربية ١	Arabic Language 1	5	C	6.00	مبادئ انتاج حيواني	Principles of Animal Production	5
C	5.00	ادارة المخلفات الحيوانية	Animal waste Management	6	S	5.00	اقتصاديات الانتاج الحيواني	Animal production economics	6
C	5.00	صحة الحيوان الزراعي	Agricultural Animal Health	7	S	5.00	المحاصيل العلفية وإدارة المراعي	Forage Crops and pastures manegmt	7
	30.00	مجموع الوحدات الدراسية				30.00	مجموع الوحدات الدراسية		

Semester 2 | 30 ECTS | 1 ECTS = 25 hrs

الفصل الربيعي					الفصل الخريفي				
Module Type	ECTS	اسم المادة الدراسية	Module Name in English	No. Semester	Module Type	ECTS	اسم المادة الدراسية	Module Name in English	No. Semester
B	3.00	مهارات حاسوب ٢	Computer Skilis 2	1	C	5.00	تربية وإنتاج الأبل	Husbandry and Production of Camel	1
C	5.00	تربية وإنتاج اسماك	Husbandry and Production of Fish	2	B	2.00	جرائم نظام البعث في العراق	The crimes of the Ba'ath regime in Iraq	2
C	5.00	ادارة مزارع حيوانية ذكية	Smart livestock Farm Management	3	S	5.00	مكتنة انتاج زراعي	Agricultural Production Mechanization	3
C	5.00	وراثة	Genetics	4	B	2.00	لغة عربية ٢	Arabic Language 2	4
B	2.00	لغة انكليزية ٢	English Language 2	5	C	5.00	صحة منتجات حيوانية	Animal Product Hygene	5
S	5.00	النتاج وتصنيع الالبان	Dairy Production and Processing	6	C	6.00	مبادئ علم الاسماك	Principles of Ichthyology	6
S	5.00	الكيمياء الحيوية	Biochemistry	7	S	5.00	علم الاحياء المجهرية	Microbiology	7
	30.00	مجموع الوحدات الدراسية				30.00	مجموع الوحدات الدراسية		

8. Contact

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First Cycle

Bachelor of Science in Agriculture – Animal production

بكالوريوس علوم في الزراعة – الإنتاج الحيواني



Table of Contents

1. Overview
 2. Undergraduate Modules 2024-2025
 3. Contact
-

1. Overview

This catalogue is about the courses (modules) given by the program of animal production to gain the Bachelor of Science degree. The program delivers (48) Modules with (6000) total student workload hours and 240 total ECTS. The module delivery is based on the Bologna Process.

2. Undergraduate Courses 2025-2026

Module 1

Code	Course/Module Title	ECTS	Semester
S	Principles of Statistics	5	1
Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)
5	Lecture + Practical	78	5
Description			
This course introduces first-year students in Colleges of Agriculture to the fundamental concepts of statistics, including data collection, classification, and analysis. It covers descriptive statistics, probability distributions, and hypothesis testing, as well as correlation and simple linear regression. The course emphasizes practical applications in agriculture, such as analyzing crop and livestock data to support decision-making and improve productivity.			

Module2

Code	Course/Module Title	ECTS	Semester
WU04	Democracy and human rights	2	1
Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)
2	0	33	17
Description			
This course introduces students to the core concepts, principles, and practices of democracy and human rights at the national and international levels. It explores the development of democratic systems , the rule of law , citizenship , civil liberties , political participation , and the protection of individual and collective rights . Students will study major human rights declarations and conventions, such as the Universal Declaration of Human Rights , and the roles of international organizations in promoting justice and equality. Through discussions, case studies, and interactive activities, the course aims to strengthen students' awareness of their rights and responsibilities as citizens and to encourage active participation in democratic processes.			

Module 3

Code	Course/Module Title	ECTS	Semester
WU02	Academic English Language 1	2	1
Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)
2	0	33	17
Description			
This course is designed to develop students' English language skills, with a focus on enhancing their reading, writing, listening, and speaking abilities in an academic context. Emphasis is placed on vocabulary development, grammar accuracy, sentence and paragraph structure, and basic academic writing techniques. Students will engage with a variety of texts and practice language skills through structured activities that build confidence in understanding and using English in university and professional settings. The course prepares students for future academic success by strengthening their ability to comprehend lectures, write assignments, participate in discussions, and read academic materials effectively.			

Module 4

Code	Course/Module Title	ECTS	Semester
AGR-112	general chemistry	8	1
Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)
2	3	79	121
Description			
The General Chemistry course aims to provide students with the fundamental principles and key concepts of chemistry, which form the foundation for understanding chemical reactions and the physical properties of matter. The course includes the study of atoms, elements, compounds, molecular structures, various chemical reactions, as well as gas laws, acids and bases, and chemical bonding.			

Module 5

Code	Course/Module Title	ECTS	Semester
C	Principles of Animal Production	6	1
Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)
3	Lecture/ Lab/ Practical	79	5
Description			
This course introduces the fundamental scientific and practical concepts of animal production. It aims to familiarize students with the economic importance of livestock and its role in ensuring food security and agricultural development. The course covers the identification and classification of major farm animal breeds (cattle, buffalo, sheep, and goats) according to their production types, as well as the basic principles of ruminant nutrition, reproduction, and health management. It also emphasizes practical aspects such as livestock housing management, daily and seasonal husbandry operations, and calf rearing. In addition, students are introduced to milk production systems and the factors affecting productivity. Practical training includes the use of farm records to analyze production performance and improve herd management efficiency. Overall, the course integrates theoretical knowledge with practical skills to provide students with a comprehensive understanding of the fundamentals of animal production and their applications in the field.			

Module 6

Code	Course/Module Title	ECTS	Semester
S	Animal production Economics	5	Autumn
Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)
5	Theory +Practice	75	5
Description			
This course focuses on the economic principles related to animal production, including production cost analysis, economic returns, resource use efficiency, and feasibility studies of livestock enterprises. It also covers agricultural marketing and livestock farm management, enabling students to make sound economic decisions that improve production efficiency and ensure sustainability.			

Module 7

Code	Course/Module Title	ECTS	Semester
S	Foragecrops and Range Management	5	Autumn
Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)
5	Theory +Practice	75	5
Description			
This course covers the study of forage crops, including their economic importance, classification, cultivation, management, and production. It also addresses natural rangelands, their types, characteristics, sustainable management, improvement methods, conservation practices, and productivity evaluation. Practical training is provided to develop students' skills in forage crop identification and rangeland management to support livestock production.			

Module 8

Code	Course/Module Title	ECTS	Semester
WOU3	Computer 1	3	1
Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)
0	3	74	1
Description			
This course introduces students to the fundamentals of computer programming, with a focus on developing skills using a program such as Office. It covers basic concepts including data types, variables, input/output operations, control structures (such as loops and conditionals), functions, arrays, and simple data structures. Students will learn to design, write, test, and debug computer programs. The course aims to build computational thinking skills and demonstrate how programming can be used to solve real-world problems, including applications in agriculture, science, data analysis, and automation.			

Module 9

Code	Course/Module Title	ECTS	Semester
C	Zoology	5	Spring
Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)
5	Theory +Practice	75	5
Description			
This course covers the study of zoology in terms of its basic concepts and significance, animal classification, and the anatomical and physiological characteristics of living organisms. It also includes nutrition, reproduction, and growth, as well as animal adaptation and behavior. In addition, it addresses biodiversity and the importance of animals in ecosystems, agricultural production, and public health. The course includes practical training to develop students' skills in understanding and studying animal organisms and applying the principles of zoology.			

Module 10

Code	Course/Module Title	ECTS	Semester
C	Domestic Bird	5	Two
Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)
2 Lecture + 3 Practical	Lecture + Practical	75 hr/sem	5 hr/w
Description			
This course introduces students to the basic principles of poultry production, including types and breeds of domestic birds, management systems, nutrition, and health care. It also covers meat and egg production, environmental requirements for poultry housing, and common diseases with their prevention methods, aiming to improve productivity in the poultry sector.			

Module 11

Code	Course/Module Title	ECTS	Semester
WU01	Arabic language1	2	2
Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)
2	0	33	17
Description			
This course aims to enhance students' Arabic language skills, focusing on improving their reading, writing, grammar, and comprehension abilities. It provides a foundation in Classical and Modern Standard Arabic, with attention to sentence structure, correct usage, punctuation, and writing techniques. The course also introduces students to selected texts from Arabic literature, culture, and heritage, fostering an appreciation for the richness and depth of the Arabic language. Through this course, students practice essay writing, text analysis, and the precise application of grammatical rules, enabling them to communicate effectively in academic and professional contexts.			

Module 12

Code	Course/Module Title	ECTS	Semester
C	Animal Waste Management	5	Two
Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)
100	Lecture + Practical	75 hr/sem	5 hr/w
Description			
This course introduces students to the principles of animal waste management, including types, sources, and environmental impacts. It covers methods of collection, transportation, storage, and treatment such as composting and biogas production. The course also highlights modern technologies, environmental regulations, and sustainable practices for effective utilization of			

Module 13

Code	Course/Module Title	ECTS	Semester
C	Agricultural animal health	5	Spring
Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)
5	Theory +Practice	75	5
Description			
This course covers the study of farm animal health and welfare in terms of its fundamental concepts and importance, as well as the principles of health management of farm animals and their requirements for nutrition, housing, and suitable environmental conditions. It also includes the study of factors affecting animal health and productivity, methods of disease, parasite, and stress prevention, and the concepts of animal welfare and proper handling practices. In addition, the course addresses the role of animal health care in improving livestock production, enhancing the quality of animal products, and supporting food security. Practical training is included to develop students' skills in applying the principles of health and managerial care of animals in different agricultural environments.			

Module 14

Code	Course/Module Title	ECTS	Semester
C	Camel Husbandry and Production	5	Fall Semester
Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)
5	Lecture + Practical	75	5
Description			
This course covers the study of camel husbandry and production, including economic importance, breeds, anatomical and physiological characteristics, husbandry and management systems, nutrition, milk and meat production, reproduction, and common diseases with their prevention methods. It also includes practical training to develop students' skills in managing camel herds and improving their productivity.			

Module 15

Code	Course/Module Title	ECTS	Semester
B	Crimes of the Ba'ath Regime in Iraq	2	1
Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)
2	0	33	17
Description			
This course examines the Ba'ath regime in Iraq from historical and political perspectives, with a focus on the crimes and human rights violations committed during its rule and their social, economic, and humanitarian impacts. It also aims to familiarize students with the concepts of human rights and transitional justice, while documenting events related to the violations suffered by Iraqi society. The course contributes to enhancing national awareness and promoting the values of democracy and respect for human rights.			

Module 16

Code	Course/Module Title	ECTS	Semester
WU01	Arabic language2	2	1
Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)
2	0	33	17
Description			
This course aims to enhance students' Arabic language skills, focusing on improving their reading, writing, grammar, and comprehension abilities. It provides a foundation in Classical and Modern Standard Arabic, with attention to sentence structure, correct usage, punctuation, and writing techniques. Through this course, students practice essay writing, text analysis, and the precise application of grammatical rules, enabling them to communicate effectively in academic and professional			

Module 17

Code	Course/Module Title	ECTS	Semester
C	Animal Product Health	5	Autumn
Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)
5	Theory +Practice	75	5
Description			
This course covers the study of animal product health in terms of its basic concepts and its importance in ensuring the safety and quality of products intended for human consumption. It also includes the study of the sources of contamination of animal products (microbial, chemical, and physical) and the factors affecting their quality throughout the stages of production, handling, processing, and storage. The course further addresses the health and veterinary principles required for producing safe and wholesome animal products, as well as methods of health inspection and veterinary control of meat and meat products, and quality assessment standards according to approved specifications. It also includes the study of hygiene and sanitation procedures in slaughterhouses and animal product processing facilities, preservation and storage methods to reduce spoilage and extend shelf life, as well as diseases transmitted through animal products and their impact on human health. In addition, the course highlights the role of animal product health in achieving food security and protecting consumer health. Practical training is included to develop students' skills in applying principles of health.			

Module 18

Code	Course/Module Title	ECTS	Semester
ANP215	Principles of Ichthyology	6	Spring
Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)
2	3	78	72
Description			
"Principles of Ichthyology" is a fundamental and core course in the majors of Biological Sciences, Marine Sciences, Fisheries, Aquaculture, and Environmental Conservation. It equips students with robust scientific knowledge about the world of fish, ranging from their taxonomy and biodiversity to their anatomy, physiological functions, and interactions with their surrounding environment. The course covers a variety of key topics, including: • Introduction to Ichthyology: The history, definition, and significance of the discipline, along with the geographical distribution of fish in both freshwater and marine environments. • Taxonomy and Biodiversity: This section examines the major fish groups, such as cartilaginous fishes, bony fishes, and jawless fishes, as well as the principles of scientific nomenclature. • External Morphology and Internal Anatomy: This part focuses on the study of fins, scales, the lateral line system, the skeletal system, and the digestive, respiratory, circulatory, nervous, and excretory systems, highlighting how these systems are adapted to aquatic life. • Physiology of Vital Functions: This covers respiratory mechanisms, osmoregulation, feeding and digestion, growth, and reproduction. It also encompasses fish ecology and behavior, including environmental interactions, feeding habits, defense mechanisms, and migration patterns. • Economic and Applied Importance: The role of fish in commercial fisheries and aquaculture, their use as indicators of environmental quality, as well as the challenges associated with the conservation of endangered species.			

Module 19

Code	Course/Module Title	ECTS	Semester
B	Computers ²	3	2
Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USSWL (hr/w)
3	0	48	27
Description			
This course aims to introduce students to basic and applied computer skills, focusing on word processing software (Microsoft Word) and spreadsheets (Microsoft Excel). The course covers creating and formatting documents in Word, inserting tables, images, and references, and using styles and templates. The course also includes the basics of Excel, such as data entry, basic formulas and functions, creating charts, and analyzing data using pivot tables.			

Module 20

Code	Course/Module Title	ECTS	Semester
ANN221	Husbandry and Production of Fish	○	Autumn
Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)
2	3	78	47
Description			
The course " Husbandry and Production of Fish" is a fundamental and applied course in the disciplines of Fisheries Science, Marine Science, Agriculture, and Biological Sciences. It equips students with the theoretical knowledge and practical skills required to establish, manage, and operate fish farms with high efficiency. The course covers the entire production cycle, from site selection and farm design to hatchery operations, feeding, and water quality management, culminating in harvesting and marketing, while consistently emphasizing economic feasibility and environmental sustainability. The topics covered by the course include: ✓ Introduction to Aquaculture: The history of fish farming, types of production systems (extensive, semi-intensive, and intensive), and modern forms of aquaculture (earthen ponds, floating cages, and closed water systems). ✓ Fish Farm Planning and Design: Criteria for selecting suitable sites (for both freshwater and marine environments), pond engineering, water supply systems, drainage, and ✓ Broodstock Management and Hatchery Operations: Selection and rearing of broodstock, methods of induced spawning, care of eggs and larvae, and hatchery management to ensure the production of high-quality, resilient fry. ✓ Fish Nutrition and Feed Management: Nutritional requirements of fish at different growth stages, ingredients of commercial and local feeds, manufacturing and storage methods, and effective feeding strategies to improve the feed conversion ratio and reduce ✓ Water Quality Management: Monitoring and controlling the physical, chemical, and biological parameters of water, such as dissolved oxygen, ammonia, nitrite, temperature, and pH levels, and understanding their direct impact on fish. ✓ Fish Health and Disease Control: Principles of disease prevention, preliminary diagnosis of common diseases (bacterial, viral, fungal, and parasitic), quarantine protocols, and principles of environmentally safe treatments. ✓ Harvesting and Post-Harvest Operations: Safe harvesting techniques to minimize stress, live transportation, and primary processing to maintain the quality and market value of the fishery product. ✓ Sustainability and Aquaculture Economics: Assessing the economic feasibility of aquaculture projects, evaluating the environmental footprint of fish farms, and implementing best management practices to ensure sustainable production and minimize negative impacts on the surrounding environment.			

Module 21

Code	Course/Module Title	ECTS	Semester
C	Genetic	5	First
Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)
5	3	150	3
Description			
The course aims to introduce students to the fundamental principles of genetics, ranging from Mendelian and classical genetics to modern molecular genetics. The course covers the structure of genetic material (DNA and RNA), mechanisms of gene expression, genetic mutations and genetic engineering, as well as their practical applications in the fields of animal production and biotechnology through laboratory experiments.			

Module 22

Code	Course/Module Title	ECTS	Semester
B	Academic English Language 2	2	1
Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)
2	0	33	17
Description			
This course is designed to develop students' English language skills, with a focus on enhancing their reading, writing, listening, and speaking abilities in an academic context. Emphasis is placed on vocabulary development, grammar accuracy, sentence and paragraph structure, and basic academic writing techniques. Students will engage with a variety of texts and practice language skills through structured activities that build confidence in understanding and using English in university and professional settings. The course prepares students for future academic success by strengthening their ability to comprehend lectures, write assignments, participate in discussions, and read academic materials effectively.			

Contact

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MODULES DESCRIPTION

وصف المواد الدراسية
قسم الانتاج الحيواني

MODULE DESCRIPTION FORM

Module Information				
Module Title	Principles of Statistics		Module Delivery	
Module Type	Basic	☒ Theory ☒ Lecture ☐ Lab ☐ Tutorial ☒ Practical ☒ Seminar		
Module Code	S			
ECTS Credits	5			
SWL (hr/sem)	125			
Module Level	1			Semester of Delivery
Administering Department	Animal Production Department	College	College of Agriculture	
Module Leader	Hakeem Sultan Abd		e-mail	hsultan@uowasit.edu.iq
Module Leader's Acad. Title	Assist. Professor		Module Leader's Qualification	PhD
Module Tutor	Lecturer. Dr. Rasool Hassn Khalati		e-mail	rahassan@uowasit.edu.iq
Peer Reviewer Name	Name	e-mail	E-mail	
Scientific Committee Approval Date	2025/10/14		Version Number	1.0

Relation with other Modules			
Prerequisite module	None	Semester	
Co-requisites module	None	Semester	

Module Aims, Learning Outcomes and Indicative Contents	
Module Objectives	1 . Providing students with theoretical and practical scientific knowledge in the field of statistics.

	2. The ability to collect and classify data. 3. The ability to measure the degree of relationship between variables 4. Providing students with the skills required in field management and its impact on field work.
Module Learning Outcomes	Learning outcomes for teaching the principles of statistics to first-year students in colleges of agriculture include: 1. Basic Concepts: * Definition of statistics and its importance in agriculture. * Understanding data types (quantitative, qualitative) and their sources. 2. Data Analysis: * Organizing and presenting data using tables and graphs. * Calculating statistical measures such as mean, median, and standard deviation. 3. Probability Distributions: * Understanding normal distributions and statistical inference. * Applying probability in analyzing agricultural data. 4. Statistical Inference: * Understanding statistical hypotheses and their tests (such as the t-test, chi-square test). * Interpreting statistical results and making decisions based on them. 5. Agricultural Applications: * Using statistics to analyze crop and livestock experiments. * Applying statistical methods to improve agricultural production.
Indicative Contents	The syllabus for the Principles of Statistics course for students in colleges of agriculture includes the following topics: 1. Introduction to Statistics: • Definition of statistics and its importance in agriculture. • Types of data (quantitative, qualitative) and their sources. • Levels of measurement (nominal, ordinal, interval, relative).

	2. Data Presentation and Analysis: • Organizing data in frequency tables. • Representing data graphically (histograms, columns, circles, lines). • Calculating descriptive measures (mean, median, mode, range, variance, standard deviation). 3. Probability: • Introduction to probability theory. • Probability distributions (normal distribution, binomial distribution). • Applications of probability in agriculture. 4. Statistical Distributions :The normal distribution and its properties. • Other distributions relevant to agriculture (such as the Poisson distribution). 5. Statistical inference: • Estimating parameters (point estimate, confidence intervals). • Statistical hypothesis testing (t-test, Z-test, chi-square test). • Analysis of variance (ANOVA). 6. Correlation and regression: • Analyzing the correlation between variables. •The simple linear regression model and its applications in agriculture
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Learning and Teaching Strategies	
Strategies	1. Scaffolded Learning: • Breaking down statistical concepts into small, sequential steps. • Starting with basic concepts (such as mean and variance) and progressing to more complex concepts (such as regression and analysis of variance).

- Presenting simple examples initially and gradually increasing complexity.

2. Intensive Hands-On Practice:

- Allocating a significant portion of lecture time to solving statistical exercises step-by-step.
- Assigning students to complete large sets of homework exercises to reinforce understanding.
- Using real or quasi-real data from the agricultural field to apply concepts.

3. Problem-Based Learning:

- Presenting realistic statistical problems that require the application of mathematical and statistical concepts.
- Encouraging students to work individually or in groups to find solutions.
- Discussing solutions in class and pointing out common mistakes.

4. Visual and Graphical Learning:

- Use graphs and charts to illustrate abstract concepts (such as normal distribution and correlation).
- Teach students how to create graphs manually and using software.
- Demonstrate how to interpret graphs in an agricultural context.

5. Repetition and Practice:

- Repeat key concepts periodically to ensure they are consolidated.
- Provide a wide variety of exercises (theoretical and practical).
- Encourage students to complete additional exercises outside of class.

6. Example-Based Learning:

- Provide detailed practical examples of each statistical concept.
- Demonstrate how each concept is applied in an agricultural context (such as crop or livestock data analysis).
- Encourage students to analyze additional examples on their own.

7. Collaborative Learning:

- Divide students into small groups to complete complex exercises.
- Encourage students to explain concepts to each other.

	• Organize group study sessions outside of class. 8. Continuous Formative Assessment: • Periodic quizzes to assess students' understanding of concepts. • Weekly assignments that include solving statistical exercises. • Progress reports on student progress. 9. Real-Data Learning: • Use real data from agricultural experiments or scientific research. • Teach students how to clean and analyze data. • Demonstrate how to interpret results in an agricultural context.
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Student Workload (SWL)			
Structured SWL (h/sem)	78	Structured SWL (h/w)	5
Unstructured SWL (h/sem)	٤٧	Unstructured SWL (h/w)	٣
Total SWL (h/sem)	125		

Module Evaluation					
		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	١	10% (10)	15	LO #1 - #14
	Assignments	1	10% (10)	6	LO #1 - #5
	Projects / Lab.	1	10% (10)	7	LO #1 - #6
	Report	1	10%	١٤	LO #1 - #14
Summative assessment	Midterm Exam	2hr	10% (10)	8	LO #1 - #7
	Final Exam	3hr	50% (50)	16	All

Total assessment	100% (100 Marks)		
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Delivery Plan (Weekly Syllabus)	
	Material Covered
Week 1	Introduction to Statistics
Week 2	Statistical Symbols
Week 3	Data Presentation and Summarization
Week 4	Frequency Distribution of Tables and Data
Week 5	Measures of Centering
Week 6	Measures of Dispersion
Week 7	Hypothesis Testing
Week 8	Normal Distribution
Week 9	t-Test
Week 10	Z-Test
Week 11	F-Test
Week 12	Simple Linear Correlation
Week 13	Simple Linear Regression
Week 14	Probability Theory
Week 15	Midterm Exam
Week 16	Final Exam

Delivery Plan (Weekly Lab. Syllabus)

	Material Covered
Week 1	Applications of descriptive and quantitative measures
Week 2	Applications of statistical symbols
Week 3	Exercises of frequency tables and graphic representation
Week 4	Exercises of measures of centering
Week 5	Exercises of dispersion
Week 6	Applications of normal graphic distributions
Week 7	Exercises of t-tests
Week 8	Exercises of z-tests
Week 9	Exercises of the F-test
Week 10	Exercises of correlation
Week 11	Exercises of linear regression
Week 12	Exercises of probability
Week 13	Data collection and analysis
Week 14	ANOVA test
Week 15	Interval test

Learning and Teaching Resources

	Text	Available in the Library?
Required Texts	Introduction to Statistics, written by Dr. Khashe Mahmoud Al-Rawi, College of Agriculture and Forestry, University of Mosul, 1989	Yes

Recommended Texts	)Reliable scientific journals, scientific reports.(	No
Websites		

Grading Scheme				
Group	Grade	التقدير	Marks %	Definition
Success Group (50 - 100)	A – Excellent	امتياز	90 - 100	Outstanding Performance
	B - Very Good	جيد جدا	80 - 89	Above average with some errors
	C – Good	جيد	70 - 79	Sound work with notable errors
	D – Satisfactory	متوسط	60 - 69	Fair but with major shortcomings
	E – Sufficient	مقبول	50 - 59	Work meets minimum criteria
Fail Group (0 – 49)	FX – Fail	راسب (قيد المعالجة)	(45-49)	More work required but credit awarded
	F – Fail	راسب	(0-44)	Considerable amount of work required
Note: Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.				

MODULE DESCRIPTION FORM

Module Information					
Module Title	Democracy and human rights			Module Delivery	
Module Type	Compulsory			☒ Theory ☒ Lecture ☐ Lab ☐ Tutorial ☒ Practical ☐ Seminar	
Module Code	B				
ECTS Credits	2				
SWL (hr/sem)	50				
Module Level	1	Semester of Delivery			
Administering Department	Animal production Dept.		College	College of Agriculture	
Module Leader	Hiba Sadiq Halil		e-mail	ahadhal@uowasit.edu.iq	
Module Leader's Acad. Title	Assist. Professor		Module Leader's Qualification		
Module Tutor			e-mail		
Peer Reviewer Name			e-mail		
Scientific Committee Approval Date	2025/10/14		Version Number	1.0	

Relation with other Modules			
Prerequisite module	None	Semester	
Co-requisites module	None	Semester	

Module Aims, Learning Outcomes and Indicative Contents	
Module Objectives	1. • Introduce students to the economic importance of livestock and its products. 2. • Identify the different breeds of cattle, buffalo, sheep, and goats, and their classifications according to production. 3. • Gain a basic understanding of the basics of reproduction and reproduction in ruminants. 4. • Provide students with practical skills in calf care and basic ruminant nutrition. 5. • Identify milk production methods and the factors affecting it. 6. • Understand the daily, weekly, and seasonal field operations necessary to manage livestock production pens. 7. • Introduce students to the importance of field records and how to use them to improve production efficiency.

Module Learning Outcomes	• A- Cognitive Objectives 1 - Introduce the student to the economic importance of livestock and its role in food security. 2 - Identify the different breeds of cattle, buffalo, sheep, and goats, and classify them according to their production type. 3 - Clarify the basic concepts of ruminant animal nutrition. 4 - Explain the basics of reproduction in cattle and other ruminants. 5 - Identify the principles and types of animal housing design. 6 - Explain the field operations and production records used in herd management. • B - Course Skill Objectives 1 - Distinguish between different breeds based on morphological and production characteristics. 2 - Be able to assess the needs of young calves and provide appropriate care for them. 3 - Analyze production data using field records. 4 - Apply theoretical concepts to real-life or environmental situations, such as analyzing an animal housing system or feeding plan.
Indicative Contents	1- Explain the economic and productive importance of livestock in supporting food security and agricultural development. 2- Classify major animal breeds according to their production purpose and identify their general characteristics. 3- Explain the basic concepts of reproduction, health care, and nutrition for ruminants. 4- Explain the general principles of animal nutrition, milk production, and the factors affecting it. 5- Describe daily, weekly, and seasonal field operations and the use of production records. 6- Identify animal housing types and requirements, and identify the environmental and production characteristics of various animals, such as buffalo, sheep, and goats.
Learning and Teaching Strategies	
Strategies	Savious thinking Gohden storm

Student Workload (SWL)			
Structured SWL (h/sem)	33	Structured SWL (h/w)	2
Unstructured SWL (h/sem)	17	Unstructured SWL (h/w)	1
Total SWL (h/sem)	50		

Module Evaluation					
		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Tests	1	10% (10)	8	LO #1 - #7
	Projects	1	10% (10)	6	LO #1 -#5
	Lab	1	10% (10)	9	LO #1 - #8
	Reports	1	10% (10)	15	LO #1 - #14
Summative assessment	Mid Exam	2hr	10% (10)	7	LO #1 - #6
	Final Exam	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)	
	Material Covered
Week 1	Types of Rights
Week 2	Mesopotamian Civilization
Week 3	Tel Valley Civilization
Week 4	Roman Civilization
Week 5	Ancient Civilizations
Week 6	Rights in Islamic Religions
Week 7	Hammurabi's Code
Week 8	Economic Rights
Week 9	Women's Rights in Islam
Week 10	Renaissance Thinkers
Week 11	Freedom in the Eyes of Modern Thinkers
Week 12	Citizenship
Week 13	Final Exam
Week 14	Types of Rights
Week 15	Mesopotamian Civilization

Learning and Teaching Resources		
	Text	Available in the Library?

Required Texts	Human rights book	Yes
Recommended Texts	External lectures	Yes
Websites	https://www.fao.org/animal-production/ar	

Grading Scheme				
Group	Grade	التقدير	Marks %	Definition
Success Group (50 - 100)	A - Excellent	امتياز	90 - 100	Outstanding Performance
	B - Very Good	جيد جدا	80 - 89	Above average with some errors
	C – Good	جيد	70 - 79	Sound work with notable errors
	D - Satisfactory	متوسط	60 - 69	Fair but with major shortcomings
	E - Sufficient	مقبول	50 - 59	Work meets minimum criteria
Fail Group (0 – 49)	FX – Fail	راسب (قيد المعالجة)	(45-49)	More work required but credit awarded
	F – Fail	راسب	(0-44)	Considerable amount of work required
Note: Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.				

MODULE DESCRIPTION FORM

Module Information				
Module Title	English1		Module Delivery	
Module Type	U		☐ L Theory ☒ Lecture ☐ Lab ☐ Tutorial ☐ L Practical ☐ Seminar	
Module Code	WUO2			
ECTS Credits	2			
SWL (hr/sem)	50			
Module Level	1	Semester of Delivery		1
Administering Department	Animal production Dept.		College	College of Agriculture
Module Leader	Dr. Abbas Washeel Salman		e-mail	aalhamdani@uowasit.edu.iq
Module Leader's Acad. Title	Professor		Module Leader's Qualification	Ph.D.
Module Tutor	Dr. Abbas Washeel Salman		e-mail	aalhamdani@uowasit.edu.iq
Peer Reviewer Name	Dr. Abbas W. Salman		e-mail	aalhamdani@uowasit.edu.iq
Scientific Committee Approval Date	2025/10/14		Version Number	1.0

Relation with other Modules			
Prerequisite module	None	Semester	
Co-requisites module	None	Semester	

Module Aims, Learning Outcomes and Indicative Contents	
Module Objectives	1. Develop students' understanding of key grammatical structures, including the passive voice, negative forms, and conditional (if-clause) sentences. 2. Familiarize students with different types of sentence structures (simple, compound, and complex) and their appropriate usage. 3. Enhance the students' ability to use correct prepositions in various sentence contexts. 4. Improve comprehension and correct usage of singular and plural forms in both spoken and written English. 5. Strengthen students' practical communication skills through the use of everyday sentences and expressions. 6. Develop students' understanding of the family relationships (Family tree), and the words related.

	7. Enable students to recognize and properly use “so” and “neither” in affirmative and negative agreements. 8. Provide clear understanding of English question forms and effective strategies to answer them. 9. Teach students the correct formation and use of numbers, including Roman numerals, in writing. 10. Reinforce the correct use of the verb “to be” in different tenses and sentence structures. 11. Enable students to use and apply the skills in different situations.
Module Learning Outcomes	1- Identify and correctly use common English prepositions in written and spoken communication. 2- Form and apply the passive voice appropriately in various sentence structures. 3- Construct grammatically correct negative sentences across different tenses. 4- Understand and accurately use conditional sentences (if-clauses) in real-life contexts. 5- Distinguish between simple, compound, and complex sentence types and apply them effectively. 6- Use expressions with “so” and “neither” to express agreement in affirmative and negative statements. 7- Differentiate between singular and plural forms and apply the correct usage in grammar and vocabulary. 8- Answer different types of questions clearly and grammatically, both orally and in writing. 9- Recognize and use numbers and Roman numerals correctly in written English. 10- Apply everyday English expressions to communicate effectively in daily situations. 11- Use the verb “to be” accurately in various forms and tenses.
Indicative Contents	Prepositions: Types and usage in everyday sentences. 1- The Passive Voice: Formation and application in different tenses. 2- Negative Sentences: Creating negative forms in present, past, and future tenses. 3- Conditional Sentences (If-Clauses): Zero, first, second, and third conditionals. 4- Types of Sentences: <i>Simple Tense Sentences</i> <i>Compound Tense Sentences</i> <i>Complex Tense Sentences</i> 5-Agreement Using “So” and “Neither”: Rules and usage in conversations. 6- Singular and Plural Nouns: Regular and irregular forms. 7- Question Forms and Responses: How to answer different types of questions (yes/no and WH- questions). 8- Numbers and Roman Numerals: Writing and reading both forms correctly.

	9- Everyday English Sentences: Common phrases and expressions used in daily life. 10- The Verb “To Be”: Usage in present, past, and future contexts.
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Learning and Teaching Strategies	
Strategies	1-Interactive Lectures: Explanation of grammar rules and sentence structures using real-life examples. 2-Class Discussions: Encouraging student participation to practice speaking and apply language rules in conversation. 3-Guided Practice: Step-by-step exercises conducted in class to reinforce understanding of topics such as prepositions, passive voice, and conditional sentences. 4-Pair and Group Work: Cooperative learning activities to enhance communication and peer learning. 5-Use of Visual Aids: Charts, flashcards, and multimedia presentations to support visual learners. 6-Worksheets and Quizzes: Frequent short assessments to review and reinforce grammatical concepts. 7-Homework Assignments: Practice tasks to promote independent learning and language reinforcement outside the classroom. 8-Role-play and Dialogue Practice: To simulate real-life situations and improve spoken fluency. 9-Corrective Feedback: Ongoing feedback from the instructor to help students correct mistakes and improve language accuracy.

Student Workload (SWL)			
Structured SWL (h/sem)	33	Structured SWL (h/w)	2
Unstructured SWL (h/sem)	17	Unstructured SWL (h/w)	1
Total SWL (h/sem)	50		

Module Evaluation					
		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Tests	1	10% (10)	8	LO #1 - #7
	Projects	1	10% (10)	6	LO #1 -#5
	Online assignments	1	10% (10)	9	LO #1 - #8
	Reports	1	10% (10)	15	LO #1 - #14
Summative assessment	Mid Exam	2hr	10% (10)	7	LO #1 - #6
	Final Exam	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)	
	Material Covered
Week 1	English preposition
Week 2	Passive voice
Week 3	Negative
Week 4	If clause (conditional) sentences
Week 5	Kinds of sentences
Week 6	A- Simple tense
Week 7	B-compound tense, and c- complex tense
Week 8	Family tree
Week 9	The use of so 'and neither'
Week 10	Singular
Week 11	Plural
Week 12	How to answer causations
Week 13	Number + Roman Numerals
Week 14	Every day sentences
Week 15	The verb to be

Learning and Teaching Resources		
	Text	Available in the Library?
Required Texts	English Language Curriculum Book (New Headway-Beginner)	Yes
Recommended Texts	Writing Academic English, Level 1 by Alice Oshima	Yes
Websites	BBC Learning English	

Grading Scheme				
Group	Grade	التقدير	Marks %	Definition
Success Group (50 - 100)	A – Excellent	امتياز	90 - 100	Outstanding Performance
	B - Very Good	جيد جدا	80 - 89	Above average with some errors
	C – Good	جيد	70 - 79	Sound work with notable errors
	D - Satisfactory	متوسط	60 - 69	Fair but with major shortcomings
	E – Sufficient	مقبول	50 - 59	Work meets minimum criteria
Fail Group (0 – 49)	FX – Fail	راسب (قيد المعالجة)	(45-49)	More work required but credit awarded
	F – Fail	راسب	(0-44)	Considerable amount of work required
Note: Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.				

MODULE DESCRIPTION FORM

Module Information				
Module Title	Fundamentals of general chemistry		Module Delivery	
Module Type	S		☒ Theory ☒ Lecture ☐ Lab ☐ Tutorial ☒ Practical ☐ Seminar	
Module Code	AGR-112			
ECTS Credits	8			
SWL (hr/sem)	200			
Module Level	1	Semester of Delivery		1
Administering Department	Animal production Dept.	College	College of Agriculture	
Module Leader	Abbas washel Salman		e-mail	aalhamdani@uowasit.edu.iq
Module Leader's Acad. Title	Professor	Module Leader's Qualification	Ph.D.	
Module Tutor	Hamed wafi-q Ibrahim		e-mail	hamidwafeeq@uowasit.edu.iq
Peer Reviewer Name	Abbas washel Salman		e-mail	aalhamdani@uowasit.edu.iq
Scientific Committee Approval Date	2025/10/14		Version Number	1.0

Relation with other Modules			
Prerequisite module	None	Semester	
Co-requisites module	None	Semester	

Module Aims, Learning Outcomes and Indicative Contents	
Module Objectives	1. concept of the atom. 2. Familiarizing students with the branches of chemistry, with a focus on analytical and organic chemistry. 3. Teaching students how to use methods of expressing concentrations and their applications. 4. Introducing students to acids and bases according to various classifications, as well as salts, their types, and electrolytic solutions. 5. Introducing students to organic chemistry, its origin and development, in addition to its classification based on functional groups and types of organic reactions. 6. Reviewing various classes of organic compounds in terms of structure, nomenclature, important reactions, methods of preparation, and significance.
Module Learning	cognitive Learning Outcomes for Teaching General Chemistry to

Outcomes	First-Year Students in Colleges of Agriculture: 1. The student identifies the fundamental principles of chemistry. 2. The student becomes familiar with basic laboratory techniques in chemistry. 3. The student is able to apply mathematical laws used in preparing various types of concentrations. 4. The student understands certain properties of solutions, particularly those related to pH and its calculation methods. 5. The student learns how to distinguish between different classes of organic compounds based on their functional groups. 6. The student realizes the importance of organic compounds, especially regarding their applications.
Indicative Contents	The guided contents of the General Chemistry course for Agriculture College students include the following topics: 1. Explanation of the basic concepts of the atom and atomic structure. 2. Introduction to the branches of chemistry and their various applications. 3. Introduction to analytical chemistry and its importance. 4. Clarification of the significance of analytical chemistry for other disciplines. 5. Introduction to methods of preparing solutions and studying their properties. 6. Introduction to organic chemistry and the types of organic compounds.

Learning and Teaching Strategies	
Strategies	1. Lectures and Presentations The lecture, which includes the fundamental theoretical knowledge, is delivered through a multimedia presentation, accompanied by explanations and examples. 2. Practical Laboratory Students are initially introduced to laboratory equipment and safety rules. They are then practically trained on methods for preparing solutions at different concentrations, in addition to conducting some experiments. 3. Student Reports Each student, or groups of students, are assigned to prepare reports on specific topics closely related to the course material.

Student Workload (SWL)			
Structured SWL (h/sem)	79	Structured SWL (h/w)	5
Unstructured SWL (h/sem)	121	Unstructured SWL (h/w)	8
Total SWL (h/sem)	200		

Module Evaluation					
		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Tests	1	10% (10)	8	LO #1 - #7
	Projects	1	10% (10)	6	LO #1 -#5
	Lab	1	10% (10)	9	LO #1 - #7
	Reports	1	10% (10)	15	LO #1 - #4
Summative assessment	Mid Exam	2hr	10% (10)	7	LO #1 - #6
	Final Exam	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)	
	Material Covered
Week 1	General Introduction to the Subject and Atomic Structure
Week 2	Introduction to Analytical Chemistry
Week 3	Volumetric Analysis and Standard Solutions
Week 4	Methods of Expressing Concentrations – Part 1
Week 5	Methods of Expressing Concentrations – Part 2
Week 6	Acids, Bases, Salts, and the pH Scale
Week 7	Precipitation Titrations
Week 8	Gravimetric Analysis – Part 1
Week 9	Gravimetric Analysis – Part 2
Week 10	Introduction to Spectroscopic Analysis
Week 11	Introduction to Organic Chemistry and Types of Organic Reactions
Week 12	Alkanes
Week 13	Alkenes
Week 14	Alkynes
Week 15	Alcohols and Phenols

Delivery Plan (Weekly Lab. Syllabus)

	Material Covered
Week 1	General Introduction to Laboratory Tools, Equipment, Glassware, and Chemicals
Week 2	Volumetric Analysis
Week 3	Standard Solutions and Preparation of a Standard Solution from Sodium Carbonate (Na_2CO_3)
Week 4	Preparation of a Non-Standard Hydrochloric Acid (HCl) Solution and Its Titration with Sodium Carbonate
Week 5	Preparation of a Non-Standard Sodium Hydroxide (NaOH) Solution and Its Titration with Hydrochloric Acid
Week 6	Determination of the Normality of Sodium Carbonate and Sodium Hydroxide in a Mixture
Week 7	Determination of the Normality of Sodium Carbonate and Sodium Bicarbonate in a Mixture
Week 8	Determination of the Melting Point of Chemical Compounds
Week 9	Sublimation
Week 10	Boiling Point
Week 11	Solubility
Week 12	Detection of Single Bonds (Alkanes)
Week 13	Detection of Double Bonds (Alkenes)
Week 14	Detection of the Carboxyl Group (COOH)
Week 15	Detection of the Hydroxyl Group (OH)

Learning and Teaching Resources

	Text	Available in the Library?
Required Texts	General Chemistry for Agriculture Students <i>Dr. Sami Abdul Ali, Dr. Salem Hamed, Dr. Moath Abdullah Al-Hijjar</i>	Yes
Recommended Texts	Fundamentals of Analytical Chemistry <i>Dr. Thabet Saeed Al-Ghabsha, Dr. Moayad Al-Obaiji</i>	Yes
Websites	https://www.khanacademy.org/science/chemistry	

Grading Scheme				
Group	Grade	التقدير	Marks %	Definition
Success Group (50 - 100)	A – Excellent	امتياز	90 - 100	Outstanding Performance
	B - Very Good	جيد جدا	80 - 89	Above average with some errors
	C – Good	جيد	70 - 79	Sound work with notable errors
	D - Satisfactory	متوسط	60 - 69	Fair but with major shortcomings
	E – Sufficient	مقبول	50 - 59	Work meets minimum criteria
Fail Group (0 – 49)	FX – Fail	راسب (قيد المعالجة)	(45-49)	More work required but credit awarded
	F – Fail	راسب	(0-44)	Considerable amount of work required
Note: Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.				

MODULE DESCRIPTION FORM

Module Information				
Module Title	Principles of Animal Production		Module Delivery	
Module Type	Essentials		☒ Theory ☒ Lecture ☒ Lab ☐ Tutorial ☒ Practical ☐ Seminar	
Module Code	C			
ECTS Credits	6			
SWL (hr/sem)	79			
Module Level	1	Semester of Delivery		1
Administering Department	Animal production Dept.		College	College of Agriculture
Module Leader	Dr. Mohammed Abdullah Khamees		e-mail	moabdalah@uowasit.edu.iq
Module Leader's Acad. Title	Assist. Professor		Module Leader's Qualification	Ph.D.
Module Tutor	Mohaimen abbas abed Enas Yahya Radi		e-mail	moabbas@uowasit.edu.iq enyehya@uowasit.edu.iq
Peer Reviewer Name	Dr. Mohammed Abdullah Khamees		e-mail	moabdalah@uowasit.edu.iq
Scientific Committee Approval Date	2025/10/14		Version Number	1.0

Relation with other Modules			
Prerequisite module	None	Semester	
Co-requisites module	None	Semester	

Module Aims, Learning Outcomes and Indicative Contents	
	1. • Introduce students to the economic importance of livestock and its products. 2. • Identify the different breeds of cattle, buffalo, sheep, and goats, and their classifications according to production. 3. • Gain a basic understanding of the basics of reproduction and reproduction in ruminants.

Module Objectives	4. • Provide students with practical skills in calf care and basic ruminant nutrition. 5. • Identify milk production methods and the factors affecting it. 6. • Understand the daily, weekly, and seasonal field operations necessary to manage livestock production pens. 7. • Introduce students to the importance of field records and how to use them to improve production efficiency.
Module Learning Outcomes	• A- Cognitive Objectives 1 - Introduce the student to the economic importance of livestock and its role in food security. 2 - Identify the different breeds of cattle, buffalo, sheep, and goats, and classify them according to their production type. 3 - Clarify the basic concepts of ruminant animal nutrition. 4 - Explain the basics of reproduction in cattle and other ruminants. 5 - Identify the principles and types of animal housing design. 6 - Explain the field operations and production records used in herd management. - B - Course Skill Objectives 1 - Distinguish between different breeds based on morphological and production characteristics. 2 - Be able to assess the needs of young calves and provide appropriate care for them. 3 - Analyze production data using field records. 4 - Apply theoretical concepts to real-life or environmental situations, such as analyzing an animal housing system or feeding plan.
Indicative Contents	1- Explain the economic and productive importance of livestock in supporting food security and agricultural development. 2- Classify major animal breeds according to their production purpose and identify their general characteristics. 3- Explain the basic concepts of reproduction, health care, and nutrition for ruminants. 4- Explain the general principles of animal nutrition, milk production, and the factors affecting it. 5- Describe daily, weekly, and seasonal field operations and the use of production records. 6- Identify animal housing types and requirements, and identify the environmental and production characteristics of various animals, such as buffalo, sheep, and goats.

Learning and Teaching Strategies	
	1-Lectures and Presentations

Strategies	Core theoretical knowledge will be delivered through interactive lectures supported by multimedia presentations, diagrams, and real-life examples from the animal production sector. 2-Field Visits and Practical Demonstrations Students will participate in scheduled visits to the animal farm (first and second visits), where they will observe and engage in basic field operations, animal handling, housing systems, and feeding practices. 3-Hands-on Training Direct involvement in animal care tasks such as calf rearing, feed preparation, identifying animal breeds, reproductive health checks, and poultry housing setup to develop applied skills. 4-Group Discussions and Case Studies Group-based learning through analysis of production scenarios, reproductive case studies, and comparative evaluations of different breeds and production systems. 5-Visual Aids and Models Use of anatomical models, charts, and digital simulations to explain complex biological and physiological concepts such as reproduction, pregnancy, and growth stages. 6-Farm Records and Data Analysis Students will learn how to record, interpret, and analyze farm data to assess productivity and improve management practices. 7-Student Presentations and Reports Each student will be encouraged to present short reports or reflections based on field experiences, breed comparisons, or nutrition plans for different species.
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Student Workload (SWL)			
Structured SWL (h/sem)	79	Structured SWL (h/w)	5
Unstructured SWL (h/sem)	121	Unstructured SWL (h/w)	8
Total SWL (h/sem)	200		

Module Evaluation					
		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Tests	1	10% (10)	8	LO #1 - #7
	Projects	1	10% (10)	6	LO #1 -#5
	Lab	1	10% (10)	9	LO #1 - #8
	Reports	1	10% (10)	15	LO #1 - #14
Summative assessment	Mid Exam	2hr	10% (10)	7	LO #1 - #6
	Final Exam	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)	
	Material Covered
Week 1	Economic Importance of Animal Products
Week 2	Breeds of Cattle and Buffalo
Week 3	Types and Breeds of Cattle
Week 4	Introduction to Reproduction in Cattle
Week 5	Calf Rearing and Care
Week 6	Concept of Nutrition in Ruminant Animals
Week 7	Milk Production from Cattle and Buffalo
Week 8	Basic Daily, Weekly, and Seasonal Farm Operations
Week 9	Farm Records and Identification of Productive Information
Week 10	Animal Housing and Its Types
Week 11	The Buffalo
Week 12	Sheep and Goat Rearing
Week 13	Economic Importance of Sheep and Goat Products
Week 14	Classification and Methods of Classification
Week 15	Reproduction in Ruminant Animals

Delivery Plan (Weekly Lab. Syllabus)	
	Material Covered

Week 1	Field Operations 1
Week 2	Field Operations 2
Week 3	Field Operations 3
Week 4	First Visit to the Animal Farm
Week 5	Basic Field Operations on Animals
Week 6	Cattle Breeds – Dairy Type
Week 7	Cattle Breeds – Beef Type
Week 8	Cattle Breeds – Dual Purpose Type
Week 9	Animal Housing
Week 10	Reproduction and Sexual Maturity
Week 11	Pregnancy and Parturition
Week 12	Feeding of Newborns
Week 13	Milking, Mammary System, and Types of Milking Machines
Week 14	Sheep and Goat Breeds
Week 15	Field Visit

Learning and Teaching Resources		
	Text	Available in the Library?
Required Texts	Basics of Sheep and Goat Production by Dr. Jalal Elia Al-Qas	Yes
Recommended Texts	Principles of Animal Production. Najeeb Tawfiq Ghazal and others 1979 University of Mosul	Yes
Websites	https://www.fao.org/animal-production/ar	

Grading Scheme				
Group	Grade	التقدير	Marks %	Definition
Success Group (50 - 100)	A - Excellent	امتياز	90 – 100	Outstanding Performance
	B - Very Good	جيد جدا	80 – 89	Above average with some errors
	C - Good	جيد	70 – 79	Sound work with notable errors
	D - Satisfactory	متوسط	60 – 69	Fair but with major shortcomings
	E - Sufficient	مقبول	50 – 59	Work meets minimum criteria
Fail Group (0 – 49)	FX – Fail	راسب (قيد المعالجة)	(45-49)	More work required but credit awarded
	F – Fail	راسب	(0-44)	Considerable amount of work required
Note: Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.				

MODULE DESCRIPTION FORM

Module Information			
Module Title	Animal Production Economics		Module Delivery
Module Type	Core		
Module Code	S		
ECTS Credits	5		
SWL (hr/sem)	75		
Module Level	1	Semester of Delivery	
Administering Department		College	Agriculture
Module Leader	Esra shuhip	e-mail	esraashuhipalkmase@gmail .com
Module Leader's Acad. Title		Module Leader's Qualification	
Module Tutor	Sami rasheed salh	e-mail	samialmagsosi@uowasit.edu.iq
Peer Reviewer Name		e-mail	
Scientific Committee Approval Date		2025/10/14	Version Number 1

Relation with other Modules			
Prerequisite module		Semester	
Co-requisites module		Semester	

Module Aims, Learning Outcomes and Indicative Contents	
Module Objectives	Introduce students to the fundamental concepts of agricultural and animal production economics. Develop students' ability to analyze costs and returns in animal production enterprises. Enable students to prepare simple economic feasibility studies for livestock projects. Understand the factors affecting productivity and economic efficiency in animal production systems.
Module Learning Outcomes	Cost Analysis in Livestock Enterprises Revenue and Profit Determination

	Economic Efficiency and Productivity Break-even Analysis Feasibility Studies Economics of Poultry Production Economics of Dairy and Beef Cattle Production Economics of Sheep and Goat Production Marketing of Animal Products Learning and Teaching Strategies : Explain the basic principles of agricultural and animal production economics. Distinguish between fixed and variable costs in livestock enterprises. Calculate revenues, profits, and economic returns. Conduct economic analyses of poultry, cattle, sheep, and goat production projects. Prepare basic feasibility studies for animal production enterprises. Evaluate the economic performance of livestock farms. Indicative Contents Introduction to Agricultural Economics Importance of Economics in Animal Production Factors of Agricultural Production Fixed and Variable Costs
Indicative Contents	

Learning and Teaching Strategies	
Strategies	Lectures
	Classroom Discussions
	Problem-Solving Exercises
	Case Studies
	Individual Assignments
	Group Activities
	Topics Covered

Student Workload (SWL)			
Structured SWL (h/sem)		Structured SWL (h/w)	5
Unstructured SWL (h/sem)		Unstructured SWL (h/w)	6
Total SWL (h/sem)	175		

Module Evaluation					
		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Tests	1	10% (10)	8	LO #1 - #7
	Projects	1	10% (10)	6	LO #1 - #5
	Lab	1	10% (10)	9	LO #1 - #8
	Reports	1	10% (10)	15	LO #1 - #14
Summative assessment	Mid Exam	2hr	10% (10)	7	LO #1 - #6
	Final Exam	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)	
	Material Covered
Week 1	Introduction to Animal Production Economics

Week 2	Supply and Demand Concepts
Week 3	Factors of Agricultural Production
Week 4	Fixed and Variable Costs
Week 5	Cost Calculation Methods
Week 6	Revenue and Farm Income
Week 7	Profit and Loss Analysis
Week 8	Midterm Examination
Week 9	Economic Efficiency in Livestock Production
Week 10	Break-even Analysis
Week 11	Economics of Poultry Production
Week 12	Economics of Cattle Production
Week 13	Economics of Sheep and Goat Production
Week 14	Marketing of Animal Products
Week 15	Course Review and Revision

Learning and Teaching Resources		
	Text	Available in the Library?
Required Texts	Learning and Teaching Resources Required Textbooks Principles of Agricultural Economics. Animal Production Economics. Farm Management and Agricultural Economics. Recommended References ☐	
Recommended Texts	Farm Management by Ronald D. Kay. Agricultural Economics by John B. Penson. Introduction to Agricultural Economics by John B. Doll.s	
Websites	fao.org aoad.org	

Grading Scheme				
Group	Grade	التقدير	Marks %	Definition
Success Group (50 - 100)	A – Excellent	امتياز	90 - 100	Outstanding Performance
	B - Very Good	جيد جدا	80 - 89	Above average with some errors
	C – Good	جيد	70 - 79	Sound work with notable errors
	D - Satisfactory	متوسط	60 - 69	Fair but with major shortcomings
	E – Sufficient	مقبول	50 - 59	Work meets minimum criteria
Fail Group (0 – 49)	FX – Fail	راسب (قيد المعالجة)	(45-49)	More work required but credit awarded
	F – Fail	راسب	(0-44)	Considerable amount of work required

Note: Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.

MODULE DESCRIPTION FORM

Module Information			
Module Title	Foragecrops and Range Management		Module Delivery
Module Type	Core		
Module Code	S		
ECTS Credits	5		
SWL (hr/sem)	75		
Module Level	1	Semester of Delivery	1
Administering Department		College	
Module Leader	Esraa shuhp	e-mail	esraashuhpalkmase@gmail .com
Module Leader's Acad. Title		Module Leader's Qualification	
Module Tutor	Sami rasheed salh	e-mail	samialmagsosi@uowasit.edu.iq
Peer Reviewer Name		e-mail	
Scientific Committee Approval Date	2025/10/14	Version Number	1

Relation with other Modules			
Prerequisite module		Semester	
Co-requisites module		Semester	

Module Aims, Learning Outcomes and Indicative Contents	
Module Objectives	- Identify the major forage crops and understand their economic importance. - Study the production and management of green and dry forages. - Understand the principles of natural rangeland management and improvement. - Apply sustainable grazing practices and conserve natural resources
Module Learning Outcomes	- Identify and classify forage crops. - Evaluate the productivity of natural rangelands. - Develop rangeland management programs. - Propose solutions to rangeland degradation problems. - Relate forage production to animal production systems
	- Winter forage crops. - Summer forage crops. - Forage seed production.

Indicative Contents	• Nutritional value of forages. • Natural rangelands. • Grazing systems and practices. • Rangeland improvement techniques. • Desertification control. • Sustainable management of rangeland resources
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Learning and Teaching Strategies	
Strategies	

Student Workload (SWL)			
Structured SWL (h/sem)		Structured SWL (h/w)	5
Unstructured SWL (h/sem)		Unstructured SWL (h/w)	6
Total SWL (h/sem)	175		

Module Evaluation					
		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Tests	1	10% (10)	8	LO #1 - #7
	Projects	1	10% (10)	6	LO #1 -#5
	Lab	1	10% (10)	9	LO #1 - #8
	Reports	1	10% (10)	15	LO #1 - #14
Summative assessment	Mid Exam	2hr	10% (10)	7	LO #1 - #6
	Final Exam	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)	
	Material Covered
Week 1	Relate forage production to animal production systems.
Week 2	Winter forage crops

Week 3	Summer forage crops
Week 4	Forage seed production
Week 5	Nutritional value of forages
Week 6	Natural rangelands.
Week 7	Grazing systems and practices
Week 8	Rangeland improvement techniques.
Week 9	Desertification control
Week 10	Sustainable management of rangeland resources
Week 11	Identify the major forage crops and understand their economic importance
Week 12	Study the production and management of green and dry forages
Week 13	Understand the principles of natural rangeland management and improvement
Week 14	Apply sustainable grazing practices and conserve natural resources
Week 15	Identify and classify forage crops.

Delivery Plan (Weekly Lab. Syllabus)	
	Material Covered
Week 1	
Week 2	
Week 3	
Week 4	
Week 5	
Week 6	
Week 7	
Week 8	

Week 9	
Week 10	
Week 11	
Week 12	
Week 13	
Week 14	
Week 15	

Learning and Teaching Resources		
	Text	Available in the Library?
Required Texts		
Recommended Texts	Forage Crop Ecology and Management. Principles of Range Management. Pasture and Grazing Management. Sustainable Rangeland Management.	
Websites	fao.org□ internationalgrasslands.org□ nrcs.usda.gov□	

Grading Scheme				
Group	Grade	التقدير	Marks %	Definition
Success Group (50 - 100)	A – Excellent	امتياز	90 - 100	Outstanding Performance
	B - Very Good	جيد جدا	80 - 89	Above average with some errors
	C – Good	جيد	70 - 79	Sound work with notable errors
	D - Satisfactory	متوسط	60 - 69	Fair but with major shortcomings
	E – Sufficient	مقبول	50 - 59	Work meets minimum criteria
Fail Group (0 – 49)	FX – Fail	راسب (فيد المعالجة)	(45-49)	More work required but credit awarded
	F – Fail	راسب	(0-44)	Considerable amount of work required

Note: Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.

MODULE DESCRIPTION FORM

Module Information			
Module Title	Computer1		Module Delivery
Module Type	Compulsory		☒ Theory ☒ Lecture ☒ Lab ☐ Tutorial ☐ Practical ☐ Seminar
Module Code	B		
ECTS Credits	3		
SWL (hr/sem)	74		
Module Level	1	Semester of Delivery	
Administering Department	Type Dept. Code	College	Type College Code
Module Leader	Aqab Rashid hamed		e-mail
Module Leader's Acad. Title	Assist. Professor	Module Leader's Qualification	
Module Tutor		e-mail	
Peer Reviewer Name		e-mail	
Scientific Committee Approval Date	2026/3/3	Version Number	1

Relation with other Modules			
Prerequisite module	None	Semester	
Co-requisites module	None	Semester	

Module Aims, Learning Outcomes and Indicative Contents	
Module Objectives	Identify the parts of the computer and the function of each part, and identify computer technologies, programs, and applications necessary to work on it and complete work.
Module Learning Outcomes	Delivering theoretical lectures to deliver information to students through the following methods: (whiteboard, data projector, interactive lecture, educational video presentation). Implementing practical lectures through observations and interaction with field or laboratory aspects.
Indicative Contents	Conducting daily quick exams. Evaluating students through the submission of academic reports and oral presentations.

	Conducting monthly exams. Conducting practical exams. Conducting final exams.
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Learning and Teaching Strategies	
Strategies	Delivering theoretical lectures to deliver information to students through the following methods: (whiteboard, data projector, interactive lecture, educational video presentation). Implementing practical lectures through observations and interaction with field or laboratory aspects.

Student Workload (SWL)			
Structured SWL (h/sem)	74	Structured SWL (h/w)	3
Unstructured SWL (h/sem)	1	Unstructured SWL (h/w)	1
Total SWL (h/sem)	75		

Module Evaluation					
		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
	Assignments	1	10% (10)	Continuous	1,2,3,4,5,6
	Projects / Lab.	15	10% (10)	Continuous	1,2,3,4,5,6
	Report	1	15% (15)	Continuous	1,2,3,4,5,6,7,8,9,10,11,12,13,14,
	Seminars	1	5% (5)	Continuous	1,2,3,4,5,6
Summative assessment	Midterm Exam	2hr	10% (10)	14	1,2,3,4,5,6
	Final Exam	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Lab. Syllabus)	
	Material Covered
Week 1	What is a computer? / Computer features / Computer components / Types of computers
Week 2	Main parts of a personal computer

Week 3	Operating systems and their types
Week 4	Information Network
Week 5	Telephone networks and the computer world
Week 6	Internet
Week 7	Computers in our daily life
Week 8	Insurance, Copyright, and Law
Week 9	Dealing with menus and icons
Week 10	Desktop Quick Menu
Week 11	Windows Explorer
Week 12	Using some add-on programs with Windows
Week 13	How to improve the appearance of screen lines when using flat panel LCD displays or laptops
Week 13	What is the Firewall available in Windows XP and how do I activate it?
Week 14	Dynamic Disk

Learning and Teaching Resources		
	Text	Available in the Library?
Required Texts	Required textbooks: Computer Science textbook ☐ Main references (sources): Office software user guide	Yes
Recommended Texts	☐ Recommended books and references (scientific journals, reports).	Yes
Websites	No	

Grading Scheme				
Group	Grade	التقدير	Marks %	Definition
Success Group (50 - 100)	A - Excellent	امتياز	90 - 100	Outstanding Performance
	B - Very Good	جيد جدا	80 - 89	Above average with some errors
	C - Good	جيد	70 - 79	Sound work with notable errors
	D - Satisfactory	متوسط	60 - 69	Fair but with major shortcomings
	E - Sufficient	مقبول	50 - 59	Work meets minimum criteria
Fail Group (0 - 49)	FX – Fail	راسب (قيد المعالجة)	(45-49)	More work required but credit awarded
	F – Fail	راسب	(0-44)	Considerable amount of work required
Note: Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.				

MODULE DESCRIPTION FORM

Module Information			
Module Title	Zoology		Module Delivery
Module Type	Basic		☒ Theory ☒ Lecture ☒ Lab ☐ Tutorial ☐ Practical ☐ Seminar
Module Code	C		
ECTS Credits	5		
SWL (hr/sem)	75		
Module Level	First stage	Semester of Delivery	
Administering Department	Animal Production Department	College	College of Agriculture
Module Leader	Marwah Kareem Qasim	e-mail	marwahkq@uowasit.edu.iq
Module Leader's Acad. Title	Lecturer	Module Leader's Qualification	Ph.D.
Module Tutor	Sarah Gatea Fayyadh	e-mail	sarahal@uowasit.edu.iq
Peer Reviewer Name		e-mail	
Scientific Committee Approval Date	2026/3/3	Version Number	1

Relation with other Modules			
Prerequisite module	No	Semester	
Co-requisites module	No	Semester	

Module Aims, Learning Outcomes and Indicative Contents	
Module Objectives	- Introducing students to the basic concepts of Zoology, its importance, and its relationship with agricultural and life sciences. - Introducing students to the principles of animal classification, characteristics of different animal groups, and methods of scientific study. - Enabling students to understand the basic anatomical structures of animals and the physiological functions of their different systems. - Introducing students to the mechanisms of animal adaptation to different environments and the factors affecting their growth, survival, and reproduction. - Introducing students to the principles of biodiversity and the importance of animals in ecosystems and agricultural production, while clarifying the relationship between structure and function and the importance of conserving

	animal resources and sustainability.
Module Learning Outcomes	1. Explains the concept of Zoology and its objectives. 2. Distinguishes between different animal phyla. 3. Identifies the anatomical and physiological characteristics of animals. 4. Applies the principles of animal classification and scientific nomenclature. 5. Explains animal adaptation to different environments. 6. Evaluates the ecological, economic, and health importance of animals.
Indicative Contents	• Introduction to Zoology and its importance • Animal cell • Animal tissues • Principles of classification and scientific nomenclature • Invertebrates • Vertebrates • Animal anatomy and physiology • Nutrition and reproduction • Animal adaptation and behavior • Ecological, economic, and health importance of animals

Learning and Teaching Strategies	
Strategies	• Theoretical lectures • Practical training • Classroom discussions • Scientific reports • Field visits

Student Workload (SWL)			
Structured SWL (h/sem)	35	Structured SWL (h/w)	2
Unstructured SWL (h/sem)	90	Unstructured SWL (h/w)	5
Total SWL (h/sem)	125		

Module Evaluation				
	Time/Number	Weight (Marks)	Week Due	Relevant Learning

					Outcome
Formative assessment	Tests	1	10% (10)	8	LO #1 - #7
	Projects	1	10% (10)	6	LO #1 -#5
	Lab	1	10% (10)	9	LO #1 - #8
	Reports	1	10% (10)	15	LO #1 - #14
Summative assessment	Mid Exam	2hr	10% (10)	7	LO #1 - #6
	Final Exam	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)

	Material Covered
Week 1	General introduction to Zoology and its relationship with other sciences.
Week 2	Scientific research methods in Zoology.
Week 3	Principles of classification and scientific nomenclature.
Week 4	Protoplasm and cytoplasm.
Week 5	Cell division and its causes.
Week 6	Examination.
Week 7	Chemical coordination in living organisms and how the nervous system functions.
Week 8	Organic evolution.
Week 9	Conservation of biological diversity.
Week 10	Ecology.
Week 11	Environment and its role in the life of living organisms.
Week 12	Nutrition and sources of nutrition.
Week 13	Characteristics of life.
Week 14	Animal histology.
Week 15	Midterm examination.

Delivery Plan (Weekly Lab. Syllabus)

	Material Covered
Week 1	Cell: types and causes of cell division

Week 2	Protoplasm and cytoplasm
Week 3	Eggs in living organisms and their classification
Week 4	Enzymes and their role in living organisms
Week 5	Microscope use and identification
Week 6	Chemical coordination in living organisms
Week 7	Biological chains – general introduction
Week 8	Biodiversity conservation
Week 9	Organic evolution
Week 10	Environment and its role in living organisms
Week 11	Nutrition – sources of nutrition
Week 12	Frog dissection
Week 13	Field visits
Week 14	Report discussions
Week 15	Practical assessment

Learning and Teaching Resources		
	Text	Available in the Library?
Required Texts	General Zoology – Dr. Mohammed Ammar Al-Rawi Dr. Fathi Al-Rawi & Dr. Murad Baba Murad Histology – Dr. Kawakib Al-Mukhtar	
Recommended Texts	Recent Scientific Research and Theses	
Websites	Animal production sites	

Grading Scheme				
Group	Grade	التقدير	Marks %	Definition
Success Group (50 - 100)	A – Excellent	امتياز	90 - 100	Outstanding Performance
	B - Very Good	جيد جدا	80 - 89	Above average with some errors
	C – Good	جيد	70 - 79	Sound work with notable errors
	D - Satisfactory	متوسط	60 - 69	Fair but with major shortcomings
	E – Sufficient	مقبول	50 - 59	Work meets minimum criteria
Fail Group (0 – 49)	FX – Fail	راسب (قيد المعالجة)	(45-49)	More work required but credit awarded
	F – Fail	راسب	(0-44)	Considerable amount of work required
Note: Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.				

MODULE DESCRIPTION FORM

Module Information			
Module Title	Domestic Bird		Module Delivery
Module Type	Core		☒ Theory ☐ Lecture ☒ Lab ☐ Tutorial ☐ Practical ☐ Seminar
Module Code	C		
ECTS Credits	5		
SWL (hr/sem)	100		
Module Level	1	Semester of Delivery	
Administering Department	Animal Production	College	Agriculture
Module Leader		e-mail	
Module Leader's Acad. Title	Lecturer	Module Leader's Qualification	Ph.D.
Module Tutor	Lecturer. Dr. Rasool Hassn Khalati	e-mail	rahassan@uowasit.edu.iq
Peer Reviewer Name	Mathiem Saad Salah	e-mail	masaad@uowasit.edu.iq
Scientific Committee Approval Date	2026/3/3	Version Number	1

Relation with other Modules			
Prerequisite module	None	Semester	
Co-requisites module	None	Semester	

Module Aims, Learning Outcomes and Indicative Contents	
Module Objectives	Enables the student to gain knowledge of: 1. The importance of the principles of poultry science, which deals in detail with the importance and types of poultry birds, their classification, and their location in the animal kingdom. 2. The nutritional and economic importance of poultry products and their role in preparing animal protein of high biological value.

	3. Identify the diets and feed materials for poultry birds. 4. Knowing the most important diseases that affect them and ways to prevent them.
Module Learning Outcomes	1. Introducing students to modern techniques used in poultry production. 2. Introducing students to the types of poultry, their classification, and how to domesticate them?. 3. Explaining and clarifying the sciences related to poultry science. 4. Defining the economic importance of poultry production projects. 5. Defining the nutritional importance of poultry and its role in providing animal protein. 6. Introducing students to the structure and functions of the various body systems, with a drawing of these systems and an explanation of their parts. 7. Introducing students to genetic improvement of birds and how to increase the quantitative traits responsible for high production of meat and eggs. 8. Introducing students to the importance of the poultry hatching process, the types of hatcheries, and how to complete the hatching process and manage the hatcheries. 9. Introducing students to the factors affecting the hatching process. 10. Explaining and clarifying the design of poultry housing, and how to control environmental conditions inside the housing. 11. Explanation and clarification of the types of feed ingredients used in feeding poultry birds and their nutritional needs. 12. A detailed explanation of broiler slaughterhouses, how they work, the steps followed in preparing the carcasses, and how to preserve them. 13. Introducing students to modern slaughterhouses, slaughtering steps, automatic cutting of carcasses, and preparing the various cuts. 14. A detailed explanation of the most important infectious diseases to which birds may be exposed, and the health programs used to prevent them.
Indicative Contents	Indicative content includes the following. 1- Emphasizing the importance of poultry production in the agricultural field and its economic impact on the country. 2- Teaching students about the crucial role of effective management, whether it be

	the human factor or the breeder themselves, in different types of poultry farms. 3. Promoting the practice of locally raising poultry. 4. Recognizing various poultry types and the key projects associated with their breeding. 5. Identifying administrative challenges in poultry farms and working towards their resolution.
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Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	A) This course aims to develop students' critical thinking skills and analytical abilities about the intellectual framework of the subject of Principles of Domestic Birds. B) This course aims to enable students to examine and analyse various topics related to the breeding of poultry birds, including the different types of birds and the most important projects related to their breeding. C) This course aims to help students identify administrative problems that may be encountered in poultry fields and develop strategies to address them. D) This course aims to encourage students to think critically and analyse the successful management role of various stakeholders in poultry fields, such as human workers and educators.

Student Workload (SWL)			
Structured SWL (h/sem)	78	Structured SWL (h/w)	5
Unstructured SWL (h/sem)	٧٢	Unstructured SWL (h/w)	٥
Total SWL (h/sem)	١٥٠		

Module Evaluation					
		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	2	10% (10)	5 and 10	LO #1, #2 and #10, #11
	Assignments	2	10% (10)	2 and 12	LO #3, #4 and #6, #7
	Projects / Lab.	1	10% (10)	Continuous	All
	Report	1	10% (10)	13	LO #5, #8 and #10
Summative assessment	Midterm Exam	2hr	10% (10)	7	LO #1 - #7
	Final Exam	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)	
	Material Covered
Week 1	A general introduction on modern Poultry Industry.
Week 2	Types of domestic birds, a historical view of their origin, domestication, methods of classification, and their location in the Animal Kingdom.
Week 3	Poultry Science and related Sciences.
Week 4	The economic importance of poultry breeding projects and their comparison with the rest of the animal production projects.
Week 5	The nutritional importance of poultry products (Eggs and Meat), their composition and nutritional value.
Week 6	Anatomical structure of the most important organs and their main functions – different body parts, Skin, Skeleton, Muscular system, Respiratory system, Nervous system, Urinary system, Endocrine system, Circulatory system, Immune system.
Week 7	Genetic foundations of poultry breeding, chromosomes, genes, sex determination, quantitative traits, Heterosis, genetic improvement systems, type, Strain, crossing.

Week 8	Hatching and hatchery management - A historical view on the development of hatching and a comparison of natural and artificial hatching, hatching eggs.
Week 9	Factors influencing the hatching process (temperature, humidity, ventilation and turning), embryonic development.
Week 10	Poultry houses and equipment - housing design, and types, ventilation devices, lighting, feeding and drinking water.
Week 11	Nutrition and feed ingredients - nutritional needs of laying hens, Broilers, Breeder, feed materials and ration formation.
Week 12	Slaughtering, preparing and carcasses storage development.
Week 13	Slaughter house characteristics.
Week 14	Poultry diseases and their Protections.
Week 15	Marketing of egg and meat products.
Week 16	End of Semester Exam.

Delivery Plan (Weekly Lab. Syllabus)

	Material Covered
Week 1	Lab 1: Visiting the college's poultry farms.
Week 2	Lab 2: Field operations in poultry housing.
Week 3	Lab 3: Bird anatomy and internal organs.
Week 4	Lab 4: Poultry hatching process.
Week 5	Lab 5: Formulating poultry feed.
Week 6	Lab 6: Visiting the feed poultry factory.
Week 7	Lab 7: Preparing poultry housing.
Week 8	Lab 8: Stages of manufacturing in poultry slaughterhouses.

Week 9	Lab 9: Health care for poultry.
Week 10	Lab 10: Organizing and maintaining records.
Week 11	Lab 11: Poultry waste.
Week 12	Lab 12: Visiting a modern slaughterhouse.

Learning and Teaching Resources		
	Text	Available in the Library?
Required Texts	Principles of Poultry Production written by Dr. Ali Mahmoud Amer Al-Kassar (2010).	No
Recommended Texts	1- Al-Zubaidi, Suhaib Saeed Alwan (1986). Poultry management. Basrah University Press. 2- Poultry production translated by Dr. Musleh Hussein. 3- Al-Fayadh, H. A. A., Naji, S. A. H., & Al-Hajo, N. N.(1989). Poultry Products Technology. First edition,. Higher Education Press, University of Baghdad.	Yes
Websites	https://nicehatchincubators.com/the-principles-of-poultry-husbandry/ https://www.britannica.com/topic/poultry-farming	

Grading Scheme				
مخطط الدرجات				
Group	Grade	التقدير	Marks %	Definition
Success Group (50 - 100)	A – Excellent	امتياز	90 - 100	Outstanding Performance
	B - Very Good	جيد جدا	80 - 89	Above average with some errors
	C – Good	جيد	70 - 79	Sound work with notable errors
	D – Satisfactory	متوسط	60 - 69	Fair but with major shortcomings
	E – Sufficient	مقبول	50 - 59	Work meets minimum criteria
Fail Group (0 – 49)	FX – Fail	راسب (قيد المعالجة)	(45-49)	More work required but credit awarded
	F – Fail	راسب	(0-44)	Considerable amount of work required
Note: Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.				

MODULE DESCRIPTION FORM

Module Information			
Module Title	Arabic language 1	Module Delivery	
Module Type	U		
Module Code	WU01		
ECTS Credits	2		
SWL (hr/sem)	50		
Module Level	1	Semester of Delivery	2
Administering Department	Animal production Dept.	College	College of Agriculture
Module Leader	Zena Abdullah Khamees	e-mail	zenak@uowasit.edu.iq
Module Leader's Acad. Title	Teacher	Module Leader's Qualification	Dr.
Module Tutor	Zena Abdullah Khamees	e-mail	zenak@uowasit.edu.iq
Peer Reviewer Name	Zena Abdullah Khamees	e-mail	zenak@uowasit.edu.iq
Scientific Committee Approval Date	2026/3/3	Version Number	1.0

Relation with other Modules			
Prerequisite module	None	Semester	
Co-requisites module	None	Semester	

Module Aims, Learning Outcomes and Indicative Contents	
	1. Introduce students to the historical development of the Arabic language 2. Develop students' understanding of Arabic grammar, 3. Enable students to identify and apply grammatical concepts such as subjects, predicates, verbs. 4. Improve students' command of complex grammatical structures including exceptions, vocatives, appositives, and numerals.

Module Objectives	5. Strengthen students' morphological skills by exploring verb patterns, root and augmented forms, and verb conjugation. 6. Equip students with spelling and punctuation rules, including the correct usage of hamza, ta marbuta, and punctuation marks, to enhance academic writing. 7. Encourage student participation through practical exercises, question-based learning, and collaborative group work to reinforce grammatical concepts.
Module Learning Outcomes	1. Describe the historical development and branches of the Arabic language. 2. Identify and correctly apply major grammatical rules, including nominatives (subjects, predicates), and accusatives (objects, adverbials, and exceptions). 3. Analyze and construct grammatically correct sentences using structures such as the vocative, specification, and appositives (adjective, emphasis, substitution, and coordination). 4. Demonstrate understanding of prepositional phrases and genitive constructions in written and spoken Arabic. 5. Apply morphological analysis using the standard Arabic morphological scale (al-mizān al-ṣarfī). 6. Differentiate between sound and weak verbs, and correctly conjugate verbs in different forms (root and augmented). 7. Use punctuation marks appropriately in formal writing and apply accurate spelling rules for hamza and final ta'. 8. Communicate using correct grammatical and orthographic forms in both academic and everyday contexts. 9.
	1. The Holy Quran • Exploring aspects of Quranic eloquence in terms of style, structure, artistic imagery, phonetic harmony, precision of expression, and the connection between rhetorical aspects and the Quran's message of faith. 2. Arabic Literature • Memorizing and analyzing selected pre-Islamic poetry.

Indicative Contents	3. Morphology • Applying morphological analysis using the standard Arabic morphological scale (the morphological balance). • Introduction to morphological structure and the Arabic root. • Plurals in Arabic. • Verb conjugation with pronouns. • Sound and weak verbs (sound and weak, simple and derived forms). 4. Language Skills • The Arabic alphabet (solar and lunar letters). • Arabic punctuation rules and their importance in academic writing. • Spelling rules for the hamza. 5. Arabic Dictionaries • Lexicographical Schools 6. Practical Application through Exercises and Written Assignments
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Learning and Teaching Strategies	
	□ Lectures and Presentations • Structured lectures supported by visual aids to introduce key grammatical, morphological, and orthographic concepts. • Use of real-life and academic examples to enhance contextual understanding. □ Interactive Discussions • Encouraging student participation through guided questions and open-ended discussions to reinforce grammatical analysis and reasoning. • Promoting peer-to-peer learning and collaborative exploration of language structures.

Strategies	□ Practical Exercises and Drills • Application of rules through written exercises, sentence construction, and correction activities. • Group and individual practice sessions focused on applying grammar and morphology in writing and speech. □ Problem-Based Learning • Engaging students in solving grammar and morphology problems to develop critical thinking and application skills. • Analyzing authentic Arabic texts to identify and explain language patterns. □ Use of Educational Technology • Utilizing digital resources such as language learning apps, interactive quizzes, and online grammar tools to enhance learning outside the classroom. □ Feedback and Revision Sessions • Providing continuous formative feedback on exercises and assignments. • Organizing review sessions before assessments to consolidate understanding. □ Role-play and Daily Language Use • Incorporating real-life scenarios and conversational Arabic to practice correct grammar usage in communication. • Encouraging the use of correct spelling and punctuation in academic writing.
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Student Workload (SWL)			
Structured SWL (h/sem)	33	Structured SWL (h/w)	2
Unstructured SWL (h/sem)	17	Unstructured SWL (h/w)	1
Total SWL (h/sem)	50		

Module Evaluation					
		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Tests	1	10% (10)	8	LO #1 - #7
	Projects	1	10% (10)	6	LO #1 - #5
	Online assignments	1	10% (10)	9	LO #1 - #8
	Reports	1	10% (10)	15	LO #1 - #14
Summative assessment	Mid Exam	2hr	10% (10)	7	LO #1 - #6
	Final Exam	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)	
	Material Covered
Week 1	First: The Holy Quran: Memorize verses from Surah Al-Baqarah, verses 260-263.
Week 2	- Memorize a Prophetic Hadith.
Week 3	Second: Arabic Literature: Memorize selected poems from the pre-Islamic era (the Mu'allaqat).
Week 4	Poem by Antarah ibn Shaddad.
Week 5	Third: Morphology: Morphological scales.
Week 6	First month exam.
Week 7	Plurals in Arabic.

Week 8	Attributing verbs to pronouns.
Week 9	Verb conjugation in terms of (sound and weak, root and augmented, derivatives).
Week 10	Fourth: Language Skills: The Arabic alphabet (solar and lunar).
Week 11	Rules for writing punctuation marks.
Week 12	Second month exam.
Week 13	Rules for writing the hamza (first, medial, final, and hamzat al-wasl and hamzat al-qat').
Week 14	Fifth: Arabic Dictionaries: Lexicographical Schools.
Week 15	Meanings of unfamiliar words in the Holy Quran. The curriculum of the Al-Ain and Al-Asas schools, and practicing extracting words.

Learning and Teaching Resources		
	Text	Available in the Library?
Required Texts	Arabic Language Book: Dr. Rafid Sabah Al-Tamimi, Taghreed Fadel Abbas	Yes
Recommended Texts	Explanations of Arabic language Book	Yes
Websites	https://www.istartarabic.com/ar/	

Grading Scheme				
Group	Grade	التقدير	Marks %	Definition
Success Group (50 - 100)	A – Excellent	امتياز	90 - 100	Outstanding Performance
	B - Very Good	جيد جدا	80 - 89	Above average with some errors
	C – Good	جيد	70 - 79	Sound work with notable errors
	D – Satisfactory	متوسط	60 - 69	Fair but with major shortcomings
	E – Sufficient	مقبول	50 - 59	Work meets minimum criteria
Fail Group (0 – 49)	FX – Fail	راسب (قيد المعالجة)	(45-49)	More work required but credit awarded
	F – Fail	راسب	(0-44)	Considerable amount of work required
Note: Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.				

MODULE DESCRIPTION FORM

Module Information معلومات المادة الدراسية			
Module Title	Animal Waste Management		Module Delivery
Module Type	Core		☒ Theory ☐ Lecture ☒ Lab ☐ Tutorial ☐ Practical ☐ Seminar
Module Code	C		
ECTS Credits	٥		
SWL (hr/sem)	١٥٠		
Module Level	1	Semester of Delivery	
Administering Department	Animal Production	College	Agriculture
Module Leader			e-mail
Module Leader's Acad. Title	Lecturer	Module Leader's Qualification	Ph.D.
Module Tutor	Lecturer. Dr. Rasool Hassn Khalati	e-mail	rahassan@uowasit.edu.iq
Peer Reviewer Name	Safa JabbarMudheher	e-mail	sajabbar@uowasit.edu.iq
Scientific Committee Approval Date	2026/3/3	Version Number	1

Relation with other Modules			
Prerequisite module	None	Semester	
Co-requisites module	None	Semester	

Module Aims, Learning Outcomes and Indicative Contents	
Module Objectives	Enables the student to gain knowledge of:

	1. Understanding the types of animal waste (solid and liquid) and their various sources. 2. Identifying the environmental and health risks . 3. Acquiring skills for the safe collection, transportation, and storage of animal waste. 4. Studying different treatment methods such as fermentation, biodegradation, and compost production. 5. Learning about technologies for converting waste into energy, such as biogas production.
Module Learning Outcomes	1. Introducing students to modern technologies used in waste management. 2. Familiarizing students with types of waste and their classification. 3. Introducing students to modern technologies used in waste management. 4. Identifying the economic importance of waste management projects. 5. Analyzing the environmental, health, and economic impacts such as soil and water pollution and the spread of diseases. 6. Applying safe and effective methods and techniques for the collection, transportation, and storage of animal waste in accordance with environmental standards. 7. Evaluating different treatment methods (biodegradation, fermentation, composting) and comparing them in terms of efficiency, cost, and sustainability. 8. Designing or proposing practical solutions for managing animal waste in farms to achieve optimal utilization. 9. Explaining the mechanisms for converting animal waste into useful products such as organic fertilizers and energy (biogas). 10. Complying with environmental laws and regulations related to animal waste management and applying them in practical situations. 11. Developing critical thinking and teamwork skills to solve problems related to animal waste management.
Indicative Contents	Indicative content includes the following. 1. Emphasizing the importance of waste management in the agricultural sector and its economic impact on the country. 2. Educating students about the critical role of effective management, whether by human workers or farmers, in handling different types of animal waste. 3. Encouraging the practice of local waste management. 4. Identifying the different types of animal waste and the main related projects. 5. Studying methods for reducing pollution caused by animal waste and achieving environmental sustainability.

Learning and Teaching Strategies	
Strategies	a) This course aims to develop students' critical thinking skills and their analytical abilities regarding the conceptual framework of animal waste management. b) This course aims to enable students to study and analyze various topics related to animal waste management, including different types of waste management systems and the main related projects. c) This course aims to help students identify administrative problems that may arise in animal waste management and develop strategies to address them. d) Practical and applied learning: conducting experiments or field visits to farms or waste treatment facilities.

Student Workload (SWL)			
Structured SWL (h/sem)	78	Structured SWL (h/w)	5
Unstructured SWL (h/sem)	22	Unstructured SWL (h/w)	0
Total SWL (h/sem)	100		

Module Evaluation					
		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	2	10% (10)	5 and 10	LO #1, #2 and #10, #11
	Assignments	2	10% (10)	2 and 12	LO #3, #4 and #6, #7
	Projects / Lab.	1	10% (10)	Continuous	All
	Report	1	10% (10)	13	LO #5, #8 and #10
Summative	Midterm Exam	2hr	10% (10)	7	LO #1 - #7

assessment	Final Exam	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)	
	Material Covered
Week 1	Introduction to animal waste management (concepts, sources, environmental and economic importance).
Week 2	Types of animal waste (solid, liquid, and semi-solid) and their characteristics.
Week 3	Chemical composition of animal waste (nitrogen, phosphorus, organic matter).
Week 4	Environmental impacts of animal waste on soil, water, and air.
Week 5	Health risks associated with animal waste.
Week 6	Methods of collecting and transporting waste within farms.
Week 7	Principles of proper waste storage.
Week 8	Biological treatment of waste (organic composting).
Week 9	Anaerobic digestion and biogas production.
Week 10	Use of animal waste as organic fertilizer and soil fertility improvement.
Week 11	Management of liquid waste and prevention of water pollution.
Week 12	Modern technologies in animal waste recycling.
Week 13	Environmental laws and regulations related to waste management.
Week 14	Integrated planning for waste management in sustainable farms.
Week 15	Comprehensive review and the role of waste management in sustainable agriculture.

Week 16	Final semester examination.
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Delivery Plan (Weekly Lab. Syllabus)	
	Material Covered
Week 1	An introductory tour of an animal facility or viewing a visual presentation to identify sources of waste.
Week 2	Collecting different waste samples and describing their physical properties.
Week 3	A laboratory experiment to measure moisture content or organic matter.
Week 4	A case study on environmental pollution and analysis of its causes.
Week 5	Applying biosafety procedures when handling animal waste.
Week 6	Identifying tools and equipment used for collecting and transporting waste.
Week 7	Designing a model storage system for a virtual farm.
Week 8	Preparing a compost pile and monitoring decomposition stages.
Week 9	Watching and explaining a biogas unit model and its working mechanism.
Week 10	A practical comparison between organic and chemical fertilizers and their effects on soil.
Week 11	Simulating a liquid waste treatment system and pollution prevention.
Week 12	Preparing and presenting a comprehensive student project on farm waste management.

Learning and Teaching Resources		
	Text	Available in the Library?
Required Texts	Book: <i>Animal Waste Management</i> – Author: Prof. Dr. Mohammed Ali Makki Jassim Al-Rubaie.	No
Recommended	Book: <i>Engineering of Agricultural Waste Treatment</i> –	No

Texts	Authors: Dr. Fahd Nasser Al-Kaik, Dr. Mohammed Abu Al-Hamad Rashwan.	
Websites	https://pmc.ncbi.nlm.nih.gov/articles/PMC12023990/	

Grading Scheme				
Group	Grade	التقدير	Marks %	Definition
Success Group (50 - 100)	A – Excellent	امتياز	90 - 100	Outstanding Performance
	B - Very Good	جيد جدا	80 - 89	Above average with some errors
	C – Good	جيد	70 - 79	Sound work with notable errors
	D – Satisfactory	متوسط	60 - 69	Fair but with major shortcomings
	E – Sufficient	مقبول	50 - 59	Work meets minimum criteria
Fail Group (0 – 49)	FX – Fail	راسب (قيد المعالجة)	(45-49)	More work required but credit awarded
	F – Fail	راسب	(0-44)	Considerable amount of work required
Note: Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.				

MODULE DESCRIPTION FORM

Module Information			
Module Title	Agricultural animal health		Module Delivery
Module Type	Basic		☒ Theory ☒ Lecture ☒ Lab ☐ Tutorial ☐ Practical ☐ Seminar
Module Code	C		
ECTS Credits	5		
SWL (hr/sem)	75		
Module Level	First stage	Semester of Delivery	
Administering Department	Animal Production Department	College	College of Agriculture
Module Leader	Safa jabbar mudheher	e-mail	sajabbar@uowasit.edu.iq
Module Leader's Acad. Title	Lecturer	Module Leader's Qualification	Ph.D.
Module Tutor	Saja antesar Abd	e-mail	saantesar@uowasit.edu.iq
Peer Reviewer Name		e-mail	
Scientific Committee Approval Date	2026/3/3	Version Number	1

Relation with other Modules			
Prerequisite module	No	Semester	
Co-requisites module	No	Semester	

Module Aims, Learning Outcomes and Indicative Contents	
Module Objectives	- Introduce students to the fundamental concepts of animal health and livestock care, their importance in improving animal production, maintaining animal welfare, and their relationship with other scientific disciplines. - Introduce students to the principles of health and managerial care of farm animals and their basic requirements in terms of nutrition, housing, and appropriate environmental conditions. - Enable students to understand the factors affecting animal health and the methods of disease prevention, stress reduction, and proper care of animals at different stages of production. - Introduce students to the principles of animal welfare and proper handling practices that ensure improved health and productivity while minimizing health and behavioral problems.

	Highlight the importance of animal health and care in achieving food security and sustainable agricultural development, while explaining the relationship between good management, animal health, and the quality of animal products
Module Learning Outcomes	- Explain the concept of farm animal health and welfare, its objectives, and its importance in animal production. - Differentiate between various methods of health care and management practices for farm animals. - Identify the basic requirements of animals in terms of nutrition, housing, and appropriate health care. - Explain the impact of environmental and managerial factors on animal health and productivity. - Evaluate the importance of animal health and welfare in improving livestock production and maintaining the quality and safety of animal products.
Indicative Contents	- Introduction to farm animal health and welfare and its importance - Basic requirements of farm animals - Animal nutrition and its impact on health and production - Animal housing and provision of appropriate environmental conditions - Health care and disease prevention - Hygiene, disinfection, and livestock housing management - Stress and factors affecting animal health - Animal welfare and proper handling practices - Care of animals at different production stages

Learning and Teaching Strategies	
Strategies	- Theoretical lectures - Practical training - Classroom discussions - Scientific reports - Field visits

Student Workload (SWL)			
Structured SWL (h/sem)	35	Structured SWL (h/w)	2
Unstructured SWL (h/sem)	90	Unstructured SWL (h/w)	5
Total SWL (h/sem)	125		

Module Evaluation					
		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Tests	1	10% (10)	8	LO #1 - #7
	Projects	1	10% (10)	6	LO #1 - #5
	Lab	1	10% (10)	9	LO #1 - #8
	Reports	1	10% (10)	15	LO #1 - #14
Summative assessment	Mid Exam	2hr	10% (10)	7	LO #1 - #6
	Final Exam	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)	
	Material Covered
Week 1	Introduction to animal husbandry science: importance, objectives, and its relationship with other sciences.
Week 2	Fundamentals of nutrition: the role of feed in metabolism and energy production.
Week 3	Water physiology: species-specific requirements and the effects of dehydration.
Week 4	Concepts of differentiation and growth: growth and individual development.
Week 5	Prenatal stage (1): fertilized egg and embryonic development.
Week 6	Prenatal stage (2): fetal growth and organ development.
Week 7	Postnatal growth: the "sigmoid (S-shaped)" growth curve and factors affecting birth weight.
Week 8	Body measurements: the relationship between morphometric traits and body weight.
Week 9	Endocrine system and growth: the role of hormones (growth hormone, thyroxine, insulin).
Week 10	Health management and disease prevention: control of parasites and zoonotic diseases.
Week 11	Reproductive management: signs of estrus, artificial insemination, and dry period.
Week 12	Identification and record keeping: the importance of documentation in managerial decision-making.
Week 13	Calf nutrition and health management.
Week 14	Transport and humane slaughter: shipping standards and technical procedures of slaughter.
Week 15	Waste management and drainage: environmental protection and waste recycling

Delivery Plan (Weekly Lab. Syllabus)	
	Material Covered
Week 1	Field visit: identifying farm sections and types of livestock animals.
Week 2	Practical: identifying types of feeds (roughage, concentrates, silage) and methods of preservation.
Week 3	Technical: inspecting watering systems, tanks, and methods of cleaning water troughs.
Week 4	Laboratory: studying the structure of cells and tissues under the microscope (growth tissue samples).
Week 5	Anatomical: examining preserved models of early embryonic stages.
Week 6	Numerical: practicing monthly fetal weight gain tables (cattle and sheep).
Week 7	Field: weighing newborn animals and comparing results with dam and breed records.
Week 8	Practical: using a weight tape to estimate cattle body weight (constant formula method).
Week 9	Laboratory: reading blood test results and the effects of hormonal deficiencies on animal morphology.
Week 10	Preventive: spraying, dipping, and safe use of pesticides.
Week 11	Technical: heat detection in practice and identification of artificial insemination tools.
Week 12	Practical: training on animal identification (tags, branding) and computerized data entry.
Week 13	Field visit: identifying farm sections and types of livestock animals.
Week 14	Practical: identifying types of feeds (roughage, concentrates, silage) and methods of preservation.
Week 15	Technical: inspecting watering systems, tanks, and methods of cleaning water troughs.

Learning and Teaching Resources		
	Text	Available in the Library?
Required Texts	Animal Health and Welfare Books	
Recommended Texts	Recent Scientific Research and Theses	
Websites	Animal production sites	

Grading Scheme				
Group	Grade	التقدير	Marks %	Definition
Success Group (50 - 100)	A – Excellent	امتياز	90 - 100	Outstanding Performance
	B - Very Good	جيد جدا	80 - 89	Above average with some errors
	C – Good	جيد	70 - 79	Sound work with notable errors
	D - Satisfactory	متوسط	60 - 69	Fair but with major shortcomings
	E – Sufficient	مقبول	50 - 59	Work meets minimum criteria
Fail Group (0 – 49)	FX – Fail	راسب (فيد المعالجة)	(45-49)	More work required but credit awarded
	F – Fail	راسب	(0-44)	Considerable amount of work required
Note: Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.				

MODULE DESCRIPTION FORM

Module Information			
Module Title	Camel Husbandry and Production		Module Delivery
Module Type	Essentials		Theory ☒ Lecture ☐ Lab ☐ Tutorial ☒ Practical ☐ Seminar
Module Code	C		
ECTS Credits	5		
SWL (hr/sem)	75		
Module Level	Second Year	Semester of Delivery	
Administering Department	Animal Production	College	Agriculture
Module Leader	Mohammed Abdul Ameer	e-mail	mohabd@uowasit.edu.iq
Module Leader's Acad. Title	Assistant Professor	Module Leader's Qualification	phD
Module Tutor	Sami rashed sallh	e-mail	samialmagsosi@uowasit.edu.iq
Peer Reviewer Name		e-mail	
Scientific Committee Approval Date	2025/10/14	Version Number	1

Relation with other Modules			
Prerequisite module	No	Semester	
Co-requisites module	No	Semester	

Module Aims, Learning Outcomes and Indicative Contents	
Module Objectives	- Recognize the importance of camels in desert environments. - Study camel breeds and their productive characteristics. - Understand camel husbandry and management systems. - Identify camel nutrition and their dietary requirements. - Study milk and meat production in camels. - Identify common diseases and methods of prevention
Module Learning Outcomes	1. Explain the importance of camels in animal production. 2. Differentiate between different camel breeds. 3. Identify the nutritional requirements of camels. 4. Apply modern management principles for camel herds. 5. Evaluate milk and meat production in camels. 6. Diagnose common diseases and methods of their prevention
	Introduction to camels and their importance

Indicative Contents	• Camel breeds • Anatomical and physiological characteristics • Camel husbandry systems • Camel nutrition • Milk production • Meat production • Reproduction in camels • Diseases and prevention • Camel project management
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Learning and Teaching Strategies	
Strategies	• Theoretical lectures • Practical training • Classroom discussions • Scientific reports • Field visits

Student Workload (SWL)			
Structured SWL (h/sem)	35	Structured SWL (h/w)	2
Unstructured SWL (h/sem)	90	Unstructured SWL (h/w)	5
Total SWL (h/sem)	125		

Module Evaluation					
		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Tests	1	10% (10)	8	LO #1 - #7
	Projects	1	10% (10)	6	LO #1 -#5
	Lab	1	10% (10)	9	LO #1 - #8
	Reports	1	10% (10)	15	LO #1 - #14
Summative assessment	Mid Exam	2hr	10% (10)	7	LO #1 - #6
	Final Exam	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)	
	Material Covered
Week 1	Introduction to camels
Week 2	Economic importance
Week 3	Breeds
Week 4	Anatomical characteristics
Week 5	Physiology
Week 6	Husbandry systems
Week 7	Camel nutrition
Week 8	Milk production
Week 9	Meat production
Week 10	Reproduction
Week 11	Diseases
Week 12	Health management
Week 13	Production improvement
Week 14	Camel projects
Week 15	Review

Delivery Plan (Weekly Lab. Syllabus)	
	Material Covered
Week 1	Identification of camels
Week 2	Breed differentiation
Week 3	Body condition scoring
Week 4	Feeding methods
Week 5	Milking
Week 6	Measurement of production
Week 7	Housing management
Week 8	Health examination
Week 9	Disease diagnosis

Week 10	Prevention
Week 11	Data recording
Week 12	Production analysis
Week 13	Field visits
Week 14	Report discussion
Week 15	Practical evaluation

Learning and Teaching Resources		
	Text	Available in the Library?
Required Texts	Camel production textbooks	
Recommended Texts	Recent scientific research and academic theses	
Websites	Animal production websites	

Grading Scheme				
Group	Grade	التقدير	Marks %	Definition
Success Group (50 - 100)	A – Excellent	امتياز	90 - 100	Outstanding Performance
	B - Very Good	جيد جدا	80 - 89	Above average with some errors
	C – Good	جيد	70 - 79	Sound work with notable errors
	D - Satisfactory	متوسط	60 - 69	Fair but with major shortcomings
	E – Sufficient	مقبول	50 - 59	Work meets minimum criteria
Fail Group (0 – 49)	FX – Fail	راسب (قيد المعالجة)	(45-49)	More work required but credit awarded
	F – Fail	راسب	(0-44)	Considerable amount of work required

Note: Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.

MODULE DESCRIPTION FORM

Module Information			
Module Title	Crimes of the Ba'ath regime in Iraq		Module Delivery
Module Type	Core		☒ Theory ☒ Lecture ☐ Lab ☐ Tutorial ☒ Practical ☒ Seminar
Module Code	B		
ECTS Credits	2		
SWL (hr/sem)	50		
Module Level	2	Semester of Delivery	
Administering Department	Animal Production Department	College	College of Agriculture
Module Leader	Dr. Farid Jasim Hassan	e-mail	ffryd725@gmail.com
Module Leader's Acad. Title	Teacher	Module Leader's Qualification	Doctorate
Module Tutor		e-mail	
Peer Reviewer Name	Name	e-mail	E-mail
Scientific Committee Approval Date	2025/10/14	Version Number	1.0

Relation with other Modules			
Prerequisite module	None	Semester	
Co-requisites module	None	Semester	

Module Aims, Learning Outcomes and Indicative Contents	
Module Objectives	Getting to know a time period that Iraq went through -\ during the rule of the banned Ba'ath regime from 1979-.2003

	۲- Highlighting a missing piece of knowledge in the field of scientific research related to 35 years during which the Ba'ath Party regime committed crimes against humanity, including genocide and forced displacement ۳- The necessity of teaching this subject and passing it on to future generations
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	Learning outcomes for teaching the crimes of the Baath regime in Iraq to second-year students in agriculture colleges include: familiarizing students with the crimes committed by the Baath regime in Iraq in order to document and analyze them, and to understand historical facts for future generations.
Indicative Contents المحتويات الإرشادية	The guidance contents for the Agricultural Economics Principles course for agriculture college students include: 1- Weekly, monthly, daily exams, and the end-of-year exam. 2- Daily attendance. 3- Behavior and discipline

Learning and Teaching Strategies	
Strategies	۱. Scaffolded Learning • Start with basic concepts and then gradually move to more complex ones • Provide simple examples at first and then gradually increase complexity ۲. Brainstorming ۳. Collaborative Learning • Divide students into small groups to tackle complex exercises • Encourage students to explain concepts to each other • Organize group study sessions outside of class ۴. Continuous Formative Assessment • Regular short quizzes to check students' understanding of concepts • Weekly assignments that include homework • Provide progress reports on students' development

Student Workload (SWL)			
Structured SWL (h/sem)	34	Structured SWL (h/w) ¹	2
Unstructured SWL (h/sem)	66	Unstructured SWL (h/w)	6
Total SWL (h/sem)	100		

Module Evaluation					
		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	1	10% (10)	6	LO #1 - #14
	Assignments	1	10% (10)	10	LO #1 - #5
	Projects /	1	10% (10)	7	LO #1 - #6
	Report	1	10%	10	LO #1 - #14
Summative assessment	Midterm Exam	2hr	10% (10)	16	LO #1 - #7
	Final Exam	3hr	50% (50)	-	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)	
	Material Covered
Week 1	An Introduction to the Crimes of the Ba'ath Regime
Week 2	The Concept of Crimes and Their Categories
Week 3	Crimes of the Baath regime according to the documentation of the High Iraqi Criminal Court law in 2005

Week 4	Types of international crimes
Week 5	Psychological Crimes – Their Concept – Mechanisms – Effects
Week 6	Social crimes - Militarization of society
Week 7	The Ba'ath regime's stance on religion
Week 8	Zero Uprising of 1977
Week 9	Violations of Iraqi laws
Week 10	The environmental crimes of the Ba'ath regime in Iraq
Week 11	Draining the marshes - clearing orchards, palm trees, and other trees
Week 12	Mass grave crimes
Week 13	The timeline of military coups
Week 14	The chronological classification of mass graves in Iraq 1963-2003
Week 15	The midterm exam
Week 16	The final exam

Learning and Teaching Resources		
	Text	Available in the Library?
Required Texts	١- Crimes of the Ba'ath regime in Iraq, Ministry of Higher Education and Scientific Research ٢- A lecture on my personal experience as a witness to the Ba'ath regime, as a political prisoner sentenced to life imprisonment and spent ten years in prison, without my family knowing my fate until the day I was released ٣- The Safar Uprising of 1977	نعم

	.The historical sequence of military coups -٤ Dr. Moayad Al-Saadi, Crimes of the Ba'ath Party - -٥ Crimes Against Humanity - A Reading of the Basic Concepts, 2nd edition, Al-Kafeel Publishing House, .2023	
Recommended Texts	.(Reliable scientific journals, scientific reports)	كس
Websites		

Grading Scheme مخطط الدرجات				
Group	Grade	Appreciation	Marks %	Definition
Success Group (50 - 100)	A – Excellent	Privilege	90 - 100	Outstanding Performance
	B - Very Good	Very good	80 - 89	Above average with some errors
	C – Good	Good	70 - 79	Sound work with notable errors
	D – Satisfactory	Average	60 - 69	Fair but with major shortcomings
	E – Sufficient	Accepted	50 - 59	Work meets minimum criteria
Fail Group (0 – 49)	FX – Fail	Failed (In Progress)	(45-49)	More work required but credit awarded
	F – Fail	Failed	(0-44)	Considerable amount of work required

MODULE DESCRIPTION FORM

Module Information			
Module Title	Arabic language 2	Module Delivery	
Module Type	U		
Module Code	WU01		
ECTS Credits	2		
SWL (hr/sem)	50		
Module Level	2	Semester of Delivery	1
Administering Department	Animal production Dept.	College	College of Agriculture
Module Leader	Zena Abdullah Khamees	e-mail	zenak@uowasit.edu.iq
Module Leader's Acad. Title	Teacher	Module Leader's Qualification	Dr.
Module Tutor	Zena Abdullah Khamees	e-mail	zenak@uowasit.edu.iq
Peer Reviewer Name	Zena Abdullah Khamees	e-mail	zenak@uowasit.edu.iq
Scientific Committee Approval Date	2025/10/14	Version Number	1.0

Relation with other Modules			
Prerequisite module	None	Semester	
Co-requisites module	None	Semester	

Module Aims, Learning Outcomes and Indicative Contents

Module Objectives	1. Introduce students to the historical development of the Arabic language 2. Develop students' understanding of Arabic grammar, 3. Enable students to identify and apply grammatical concepts such as subjects, predicates, verbs. 4. Improve students' command of complex grammatical structures including exceptions, vocatives, appositives, and numerals. 5. Strengthen students' morphological skills by exploring verb patterns, root and augmented forms, and verb conjugation. 6. Equip students with spelling and punctuation rules, including the correct usage of hamza, ta marbuta, and punctuation marks, to enhance academic writing. 7. Encourage student participation through practical exercises, question-based learning, and collaborative group work to reinforce grammatical concepts.
Module Learning Outcomes	1. Describe the historical development and branches of the Arabic language. 2. Identify and correctly apply major grammatical rules, including nominatives (subjects, predicates), and accusatives (objects, adverbials, and exceptions). 3. Analyze and construct grammatically correct sentences using structures such as the vocative, specification, and appositives (adjective, emphasis, substitution, and coordination). 4. Demonstrate understanding of prepositional phrases and genitive constructions in written and spoken Arabic. 5. Apply morphological analysis using the standard Arabic morphological scale (al-mīzān al-ṣarfī). 6. Differentiate between sound and weak verbs, and correctly conjugate verbs in different forms (root and augmented). 7. Use punctuation marks appropriately in formal writing and apply accurate spelling rules for hamza and final ta'. 8. Communicate using correct grammatical and orthographic forms in both academic and everyday contexts. 9.
	1. The Holy Quran

Indicative Contents	2. The Noble Prophetic Hadith • Exploring aspects of Quranic eloquence in terms of style, structure, artistic imagery, phonetic harmony, precision of expression, and the connection between rhetorical aspects and the message of faith in the Holy Quran. 2. Arabic Literature • Memorizing and analyzing selected poetic texts. 3. Prose Arts • Introduction to the prose arts in Arabic literature (short story, essay, oratory, and play). 4. Arabic Grammar • The present tense verb: its subjunctive and jussive moods • Genitive and accusative cases 5. Language Skills • The rules for writing the open and closed(ta') that are added to the end of some nouns. • The rules for writing the short and long (alif) at the end of a word. 6. Arabic Dictionaries • Lexicographical Schools Practical application through exercises and written assignments
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Learning and Teaching Strategies	
	• Lectures and Presentations • Structured lectures supported by visual aids to introduce key grammatical, morphological, and orthographic concepts. • Use of real-life and academic examples to enhance contextual understanding.

Strategies	• Interactive Discussions • Encouraging student participation through guided questions and open-ended discussions to reinforce grammatical analysis and reasoning. • Promoting peer-to-peer learning and collaborative exploration of language structures. • Practical Exercises and Drills • Application of rules through written exercises, sentence construction, and correction activities. • Group and individual practice sessions focused on applying grammar and morphology in writing and speech. • Problem-Based Learning • Engaging students in solving grammar and morphology problems to develop critical thinking and application skills. • Analyzing authentic Arabic texts to identify and explain language patterns. • Use of Educational Technology • Utilizing digital resources such as language learning apps, interactive quizzes, and online grammar tools to enhance learning outside the classroom. • Feedback and Revision Sessions • Providing continuous formative feedback on exercises and assignments. • Organizing review sessions before assessments to consolidate understanding. • Role-play and Daily Language Use • Incorporating real-life scenarios and conversational Arabic to practice correct grammar usage in communication. • Encouraging the use of correct spelling and punctuation in academic writing.
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Student Workload (SWL)			
Structured SWL (h/sem)	33	Structured SWL (h/w)	2
Unstructured SWL (h/sem)	17	Unstructured SWL (h/w)	1
Total SWL (h/sem)	50		

Module Evaluation					
		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Tests	1	10% (10)	8	LO #1 - #7
	Projects	1	10% (10)	6	LO #1 - #5
	Online assignments	1	10% (10)	9	LO #1 - #8
	Reports	1	10% (10)	15	LO #1 - #14
Summative assessment	Mid Exam	2hr	10% (10)	7	LO #1 - #6
	Final Exam	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)	
	Material Covered
Week 1	The Holy Quran and the Noble Prophetic Hadith
Week 2	Verses from a poem by Sharif al-Radi in mourning for his mother
Week 3	Memorizing verses from a poem by Abu al-Ala al-Ma'arri

Week 4	Memorizing verses from a poem by al-Jawahiri and verses from a poem by al-Sayyab
Week 5	First Monthly Exam
Week 6	Prose Arts
Week 7	The Present Tense Verb: Subjunctive and Jussive Cases
Week 8	Genitive Cases
Week 9	Accusative Cases
Week 10	Rules for Writing the Letter Taa (Open and Closed)
Week 11	Rules for Writing the Long Alif (Long and Short)
Week 12	Writing the Letters Dad and Dhaa
Week 13	Arabic Dictionaries
Week 14	Second Monthly Exam
Week 15	Common Linguistic Mistakes

Learning and Teaching Resources

	Text	Available in the Library?
Required Texts	Arabic Language Book: Dr. Rafid Sabah Al-Tamimi, Taghreed Fadel Abbas	Yes
Recommended Texts	Explanations of Arabic language Book	Yes
Websites	https://www.istartarabic.com/ar/	

Grading Scheme				
Group	Grade	التقدير	Marks %	Definition
Success Group (50 - 100)	A - Excellent	امتياز	90 - 100	Outstanding Performance
	B - Very Good	جيد جدا	80 - 89	Above average with some errors
	C - Good	جيد	70 - 79	Sound work with notable errors
	D - Satisfactory	متوسط	60 - 69	Fair but with major shortcomings
	E - Sufficient	مقبول	50 - 59	Work meets minimum criteria
Fail Group (0 – 49)	FX – Fail	راسب (قيد المعالجة)	(45-49)	More work required but credit awarded
	F – Fail	راسب	(0-44)	Considerable amount of work required
Note: Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.				

MODULE DESCRIPTION FORM

Module Information				
Module Title	Animal Product Health		Module Delivery	
Module Type	Basic		☒ Theory ☒ Lecture ☒ Lab ☐ Tutorial ☐ Practical ☐ Seminar	
Module Code	C			
ECTS Credits	5			
SWL (hr/sem)	75			
Module Level	Second stage	Semester of Delivery		Autumn season
Administering Department	Animal Production Department	College	College of Agriculture	
Module Leader	Safa jabbar mudheher	e-mail	sajabbar@uowasit.edu.iq	
Module Leader's Acad. Title	Lecturer	Module Leader's Qualification	Ph.D.	
Module Tutor	Marwah Karim Qasim Sarah Gatea Fayyadh	e-mail	marwahKq@uowasit.edu.iq sarahal@uowasit.edu.iq	
Peer Reviewer Name		e-mail		
Scientific Committee Approval Date	2025/10/14	Version Number	1	

Relation with other Modules			
Prerequisite module	No	Semester	
Co-requisites module	No	Semester	

Module Aims, Learning Outcomes and Indicative Contents	
Module Objectives	- Introducing students to the basic concepts of animal product health and its importance in maintaining the quality and safety of products intended for human consumption, as well as its relationship to animal production sciences and public health. - Familiarizing students with the sources of contamination of animal products and the factors affecting their quality during the stages of production, handling, processing, and storage. - Enabling students to understand the health and veterinary principles required for producing safe and wholesome animal products, and the methods used to detect defects and health-related problems that affect their quality.

	- Introducing students to the health procedures followed in the production, processing, and preservation of animal products to minimize microbial and chemical contamination and improve shelf life. - Familiarizing students with the principles of health control and veterinary inspection of animal products, as well as methods for evaluating their quality according to approved standards and specifications. - Introducing students to the importance of animal product health in protecting consumer health and achieving food security, while highlighting the role of proper health management in improving the quality of animal products and increasing their economic value.
Module Learning Outcomes	- Explains the concept of animal product health, its objectives, and its importance in maintaining the quality and safety of products intended for human consumption. - Distinguishes between different types of animal products and the factors affecting their quality and safety during the stages of production and handling. - Identifies the sources of microbial, chemical, and physical contamination of animal products and the methods used to control and reduce them. - Explains the effects of health and management practices, as well as preservation, storage, and processing operations, on the quality and suitability of animal products for consumption. - Evaluates the importance of animal product health in protecting consumer health, achieving food security, and maintaining the quality and safety of animal product
Indicative Contents	- Introduction to Animal Product Health and Its Importance. - Types of Animal Products and Their Health Characteristics. - Sources of Animal Product Contamination and Factors Affecting Their Quality. - Health Principles for the Production of Safe Animal Products. - Health Inspection and Veterinary Control of Animal Products. - Hygiene and Sanitation in the Handling and Processing of Animal Products. - Preservation and Storage of Animal Products and Methods for Preventing Spoilage. - Diseases Transmitted Through Animal Products and Their Impact on Human Health. - Quality and Food Safety Standards for Animal Products.

Learning and Teaching Strategies	
Strategies	- Theoretical lectures - Practical training - Classroom discussions

	• Scientific reports • Field visits
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Student Workload (SWL)			
Structured SWL (h/sem)	35	Structured SWL (h/w)	2
Unstructured SWL (h/sem)	90	Unstructured SWL (h/w)	5
Total SWL (h/sem)	125		

Module Evaluation					
		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Tests	1	10% (10)	8	LO #1 - #7
	Projects	1	10% (10)	6	LO #1 -#5
	Lab	1	10% (10)	9	LO #1 - #8
	Reports	1	10% (10)	15	LO #1 - #14
Summative assessment	Mid Exam	2hr	10% (10)	7	LO #1 - #6
	Final Exam	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)	
	Material Covered
Week 1	Introduction to the concepts of health and disease.
Week 2	Definition of meat health and the factors affecting it.
Week 3	Meat-producing animals and their types.
Week 4	Precautions that must be observed during the transportation of animals.
Week 5	Damages resulting from animal transportation and their relationship to meat quality and health.
Week 6	Slaughterhouses (abattoirs).

Week 7	Points to be considered when selecting the location of a slaughterhouse.
Week 8	Factors affecting meat production and animal handling before slaughter.
Week 9	Slaughtering and carcass inspection.
Week 10	Ante-mortem and post-mortem inspection of animals.
Week 11	Factors affecting the growth and activity of microorganisms in meat.
Week 12	Sources of microbial contamination in slaughterhouses.
Week 13	Inspection of canned meat and methods of preservation.
Week 14	Bleeding (exsanguination).
Week 15	Conditions required for complete bleeding.

Delivery Plan (Weekly Lab. Syllabus)	
	Material Covered
Week 1	The importance of health inspection and control of meat and meat products.
Week 2	Principles that must be adopted in producing carcasses fit for human consumption.
Week 3	Carcass inspection.
Week 4	Ante-mortem inspection of animals (inspection before slaughter).
Week 5	Post-mortem inspection of animals (inspection after slaughter).
Week 6	Meat and the characteristics of meat and fat from different animal species in livestock carcasses.
Week 7	Chemical methods for distinguishing the meat and fat of different animal species.
Week 8	Biological methods for determining the type of meat.
Week 9	Microbiology of meat.
Week 10	Sources of microbial contamination in slaughterhouses.
Week 11	Types of microorganisms that may be present in meat.
Week 12	Chemical residues in meat.
Week 13	Meat inspection to ensure freedom from diseases.
Week 14	Signs of poor bleeding (incomplete exsanguination) of carcasses during laboratory examination.

Week 15	Examination of the head, lungs, heart, liver, and abdominal organs.
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Learning and Teaching Resources		
	Text	Available in the Library?
Required Texts	Books on Animal Product Health and Food Safety	
Recommended Texts	Recent Scientific Research and Theses	
Websites	Animal production sites	

Grading Scheme				
Group	Grade	التقدير	Marks %	Definition
Success Group (50 - 100)	A – Excellent	امتياز	90 - 100	Outstanding Performance
	B - Very Good	جيد جدا	80 - 89	Above average with some errors
	C – Good	جيد	70 - 79	Sound work with notable errors
	D - Satisfactory	متوسط	60 - 69	Fair but with major shortcomings
	E – Sufficient	مقبول	50 - 59	Work meets minimum criteria
Fail Group (0 – 49)	FX – Fail	راسب (قيد المعالجة)	(45-49)	More work required but credit awarded
	F – Fail	راسب	(0-44)	Considerable amount of work required
Note: Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.				

MODULE DESCRIPTION FORM

Module Information			
Module Title	Principles of Ichthyology		Module Delivery
Module Type	C		☒ Theory ☒ Lecture ☒ Lab ☐ Tutorial ☒ Practical ☐ Seminar
Module Code	ANP215		
ECTS Credits	6		
SWL (hr/sem)	150		
Module Level	Two	Semester of Delivery	
Administering Department	Animal Production Dept.	College	College of Agriculture
Module Leader	Dr. Ali Ayad Hussein	e-mail	aliayaad@uowasit.edu.iq
Module Leader's Acad. Title	Lecturer Doctor	Module Leader's Qualification	Ph.D.
Module Tutor	Mr. Husain Najem Hameed	e-mail	husain@uowasit.edu.iq
Peer Reviewer Name		e-mail	
Scientific Committee Approval Date	2025/10/14	Version Number	1.0

Relation with other Modules			
Prerequisite module	None	Semester	
Co-requisites module	None	Semester	

Module Aims, Learning Outcomes and Indicative Contents	
Module Objectives	✓ To familiarize the student with the fundamental principles of fish biology and related sciences. ✓ To identify the internal organs of fish and their functions. ✓ To recognize fish species in different environments. ✓ To understand fish growth mechanisms, methods of age estimation, and their requirements. ✓ To familiarize the student with fish culture methods in various pond

	systems. ✓ To understand fish growth in ponds, feeding practices, and fish culture techniques.
Module Learning Outcomes	✓ Delivering theoretical lectures to convey information to students using the following methods: ✓ (Whiteboard, data projector, interactive lectures, and educational video presentations). ✓ Conducting practical sessions through observations and hands-on interaction with field or laboratory components.
Indicative Contents	✓ Practical Dissection: Examining fresh or preserved fish in the laboratory to identify internal organs (gills, heart, and swim bladder). ✓ Field Trips: Visiting fish hatcheries or aquariums to observe behavior and reproductive systems. ✓ Visual Thinking and Concept Maps: Mind maps help connect complex fish classifications (such as the differences between bony and cartilaginous fishes). ✓ Using high-definition videos and 3D models to illustrate life cycles and migration.

Learning and Teaching Strategies	
Strategies	✓ Conducting daily quick quizzes. ✓ Evaluating students through scientific reports and oral questioning. ✓ Conducting monthly exams.

	✓ Conducting practical exams. ✓ Conducting the final examination.
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Student Workload (SWL)			
Structured SWL (h/sem)	78	Structured SWL (h/w)	5
Unstructured SWL (h/sem)	72	Unstructured SWL (h/w)	10
Total SWL (h/sem)	150		

Module Evaluation					
As		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Tests	1	10% (10)	8	LO #1 - #7
	Projects	1	10% (10)	6	LO #1 - #5
	Lab	1	10% (10)	9	LO #1 - #8
	Reports	1	10% (10)	15	LO #1 - #14
Summative assessment	Mid Exam	2hr	10% (10)	7	LO #1 - #6
	Final Exam	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)	
Week	Material Covered
Week 1	Classification of Fishes
Week 2	External Morphology of Fishes
Week 3	Embryology of Fishes
Week 4	Post-hatching Life History Stages

Week 5	Food and Nutrition
Week 6	Age and Growth
Week 7	Fish Populations
Week 8	Fecundity in Fishes
Week 9	Water Pollution and Its Effects on Fishes
Week 10	Water as a Medium for Fish Life
Week 11	Natural Food of Fishes
Week 12	Natural Productivity of Fishes
Week 13	Ornamental Fishes
Week 14	Setting Up Ornamental Fish Aquariums
Week 15	Some Iraqi Fishes and Their Identification

Delivery Plan (Weekly Lab. Syllabus)	
Week	Material Covered
Week 1	Ichthyology and Related Sciences
Week 2	Definition of Fishes
Week 3	Classification of Fishes
Week 4	Types of Fishes
Week 5	External Morphology of Fishes
Week 6	Sensory Organs of Fishes
Week 7	Some Iraqi Fishes and Their Identification
Week 8	Age Determination in Fishes Using Scales and Bony Structures
Week 9	Growth Estimation in Fishes
Week 10	Measurement of Fish Lengths
Week 11	Ornamental Fish Culture
Week 12	Physical, Chemical, and Biological Properties of Water
Week 13	Methods for Estimating Phytoplankton and Zooplankton
Week 14	Establishment of Natural Food Ponds for Rearing Ponds
Week 15	Transport and Diseases of Fishes

Learning and Teaching Resources		
	Text	Available in the Library?
Required Texts	Principles of Ichthyology – by Dr. Sufian Al-Nasiri Fish Culture – by Dr. Najm Qamar Al-Daham	Yes
Recommended Texts	Books on Ichthyology – by Dr. Hashim Abdul-Razzaq	Yes
Websites	https://link.springer.com/journal/11489	

Grading Scheme				
Group	Grade	التقدير	Marks %	Definition
Success Group (50 - 100)	A – Excellent	امتياز	90 - 100	Outstanding Performance
	B - Very Good	جيد جدا	80 - 89	Above average with some errors
	C – Good	جيد	70 - 79	Sound work with notable errors
	D - Satisfactory	متوسط	60 - 69	Fair but with major shortcomings
	E – Sufficient	مقبول	50 - 59	Work meets minimum criteria
Fail Group (0 – 49)	FX – Fail	راسب (قيد المعالجة)	(45-49)	More work required but credit awarded
	F – Fail	راسب	(0-44)	Considerable amount of work required
Note: Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.				

MODULE DESCRIPTION FORM

Module Information			
Module Title	Computers2	Module Delivery	
Module Type	Compulsory		
Module Code	B		
ECTS Credits	3		
SWL (hr/sem)	74		
Module Level	2	Semester of Delivery	2
Administering Department	Animal Production Department	College	College of Agriculture
Module Leader	M.M. Laith Hussein Kadhim	e-mail	Ikadhim@uowasit.edu.iq
Module Leader's Acad. Title	Assistant Lecturer	Module Leader's Qualification	Master
Module Tutor	M.M. Laith Hussein Kadhim	e-mail	Ikadhim@uowasit.edu.iq
Peer Reviewer Name		e-mail	
Scientific Committee Approval Date	2026/3/3	Version Number	1

Relation with other Modules			
Prerequisite module	None	Semester	
Co-requisites module	None	Semester	

Module Aims, Learning Outcomes and Indicative Contents	
Module Objectives	To provide students with essential information according to the precise scientific specialization of the subject and how to generally deal with these programs
Module Learning Outcomes	Presenting theoretical lectures to deliver information to students using the following methods (whiteboard, data show projector). Implementing practical lectures through observation and interaction with field or laboratory aspects.
	Conducting quick daily exams.

Indicative Contents	Evaluating students through academic reports. Conducting monthly exams. Conducting practical exams. Conducting final exams.
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Learning and Teaching Strategies

Strategies	Presenting theoretical lectures to deliver information to students using the following methods (whiteboard, data show projector). Implementing practical lectures through observation and interaction with field or laboratory aspects.
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Student Workload (SWL)

Structured SWL (h/sem)	74	Structured SWL (h/w)	3
Unstructured SWL (h/sem)	1	Unstructured SWL (h/w)	1
Total SWL (h/sem)	75		

Module Evaluation

		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Tests	1	10% (10)	8	LO #1 - #7
	Projects	15	10% (10)	6	LO #1 -#5
	Lab	1	10% (10)	9	LO #1 - #8
	Reports	1	10% (10)	15	LO #1 - #14
Summative assessment	Mid Exam	2hr	10% (10)	7	LO #1 - #6
	Final Exam	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Lab. Syllabus)

Week	Material Covered
Week 1	Introduction to Word Program
Week 2	Word Interface
Week 3	File Tab
Week 4	Home Tab
Week 5	Continuation of Home Tab

Week 6	Insert Tab
Week 7	Design Tab
Week 8	Review Tab
Week 9	View Tab
Week 10	Introduction to Excel Program
Week 11	Excel Interface
Week 12	Home Tab
Week 13	Formula Tab
Week 14	Formula Tab (continued)
Week 15	Insert Tab

Learning and Teaching Resources		
	Text	Available in the Library?
Required Texts	Main references (sources): Office software user guide	Yes
Recommended Texts	Recommended books and references (scientific journals reports)	Yes
Websites		

Grading Scheme				
Group	Grade	التقدير	Marks %	Definition
Success Group (50 - 100)	A – Excellent	امتياز	90 - 100	Outstanding Performance
	B - Very Good	جيد جدا	80 - 89	Above average with some errors
	C – Good	جيد	70 - 79	Sound work with notable errors
	D - Satisfactory	متوسط	60 - 69	Fair but with major shortcomings
	E – Sufficient	مقبول	50 - 59	Work meets minimum criteria
Fail Group (0 – 49)	FX – Fail	راسب (قيد المعالجة)	(45-49)	More work required but credit awarded
	F – Fail	راسب	(0-44)	Considerable amount of work required

Note: Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.

MODULE DESCRIPTION FORM

Module Information			
Module Title	Husbandry and Production of Fish		Module Delivery
Module Type	C		☒ Theory ☒ Lecture ☒ Lab ☐ Tutorial ☒ Practical ☐ Seminar
Module Code	ANN221		
ECTS Credits	5		
SWL (hr/sem)	125		
Module Level	2	Semester of Delivery	
Administering Department	Animal Production Dept.	College	College of Agriculture
Module Leader	Dr. Ali Ayad Hussein	e-mail	aliayaad@uowasit.edu.iq
Module Leader's Acad. Title	Lecturer Doctor	Module Leader's Qualification	Ph.D.
Module Tutor	Mr. Husain Najem Hameed	e-mail	husain@uowasit.edu.iq
Peer Reviewer Name		e-mail	
Scientific Committee Approval Date	2026/3/3	Version Number	1.0

Relation with other Modules			
Prerequisite module	None	Semester	
Co-requisites module	None	Semester	

Module Aims, Learning Outcomes and Indicative Contents	
Module Objectives	✓ The aim is to familiarize students with fish-rearing methods in various ponds. ✓ To understand how fish grow in ponds, their feeding methods, and fish rearing techniques. ✓ To learn about rearing methods in closed-water ponds. ✓ The aim is to familiarize students with fish-rearing methods in various ponds.

Module Learning Outcomes	✓ Delivering theoretical lectures to convey information to students using the following methods: ✓ (Whiteboard, data projector, interactive lectures, and educational video presentations). ✓ Conducting practical sessions through observations and hands-on interaction with field or laboratory components.
Indicative Contents	✓ Fishbowl Strategy: Dividing students into two groups; an inner group discusses a topic (such as the impact of pollution on fish production), while an outer group observes and takes notes. ✓ Field Trips: Organizing regular visits to fish farms to observe pond facilities, fish density, and aeration systems. ✓ Interactive Multimedia Lectures: Utilizing instructional videos to demonstrate the fish life cycle, hatching, and feeding processes. ✓ Brainstorming: Posing open-ended questions on how to address sudden changes in water temperature or parasite outbreaks to foster critical thinking.

Learning and Teaching Strategies	
Strategies	✓ Conducting daily quick quizzes. ✓ Evaluating students through scientific reports and oral questioning. ✓ Conducting monthly exams. ✓ Conducting practical exams.

	✓ Conducting the final examination.
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Student Workload (SWL)			
Structured SWL (h/sem)	78	Structured SWL (h/w)	5
Unstructured SWL (h/sem)	47	Unstructured SWL (h/w)	6
Total SWL (h/sem)	125		

Module Evaluation					
As		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Tests	1	10% (10)	8	LO #1 - #7
	Projects	1	10% (10)	6	LO #1 - #5
	Lab	1	10% (10)	9	LO #1 - #8
	Reports	1	10% (10)	15	LO #1 - #14
Summative assessment	Mid Exam	2hr	10% (10)	7	LO #1 - #6
	Final Exam	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)	
Week	Material Covered
Week 1	Fish Farming Methods
Week 2	Fish Pond Construction
Week 3	Fish Pond Fertilization
Week 4	Artificial Fish Feeding
Week 5	Supplementary Feeding
Week 6	Natural Fish Breeding

Week 7	Artificial Fish Breeding
Week 8	Fish Pond Management
Week 9	Measures to Increase Fish Production
Week 10	Fish Harvesting and Pond Cleaning
Week 11	Environmental Factors Affecting Fish
Week 12	Fish Diseases
Week 13	Fish Predators and Pests
Week 14	Fish Rearing and Closed Systems
Week 15	Fish Ponds and Public Health

Delivery Plan (Weekly Lab. Syllabus)

Week	Material Covered
Week 1	Biological Characteristics of Rearing Pond Water: Inorganic Materials, Organic Matter, Phytoplankton and Zooplankton, Benthic Organisms
Week 2	Fish Nutrition and Feeding: Objectives and Precautions
Week 3	Classification of Fish Based on Feeding Habits
Week 4	Natural Food: Potential, Estimation, and Enhancement
Week 5	Supplementary Feed and Artificial Feed
Week 6	Feed Composition, Manufacturing, and Efficiency Evaluation
Week 7	Fish Requirements for Protein, Carbohydrates, Fats, Energy, Vitamins, and Minerals
Week 8	Factors Affecting Fish Nutrition and Feeding
Week 9	Relationship Between Nutrition and Growth
Week 10	Fertilization: Types and Conditions
Week 11	Objectives of Fertilization and Rearing Pond Requirements
Week 12	Effect of Fertilization on Fish Growth Rates
Week 13	Fish Breeding: Influencing Factors and Types
Week 14	Natural and Induced Artificial Breeding
Week 15	Characteristics of Broodstock Fish

Learning and Teaching Resources

	Text	Available in the Library?
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Required Texts	Fundamentals of Fish Rearing and Production - Authored by Dr. Mahfouz Hussein Mohamed	Yes
	Fish Rearing - Authored by Dr. Najm Qamar Al-Daham	yes
Recommended Texts	Books on Fish Food and Nutrition - By Dr. Tilfan Anad Ahmed	yes
Websites	https://link.springer.com/journal/11489	

Grading Scheme				
Group	Grade	التقدير	Marks %	Definition
Success Group (50 - 100)	A – Excellent	امتياز	90 - 100	Outstanding Performance
	B - Very Good	جيد جدا	80 - 89	Above average with some errors
	C – Good	جيد	70 - 79	Sound work with notable errors
	D - Satisfactory	متوسط	60 - 69	Fair but with major shortcomings
	E – Sufficient	مقبول	50 - 59	Work meets minimum criteria
Fail Group (0 – 49)	FX – Fail	راسب (قيد المعالجة)	(45-49)	More work required but credit awarded
	F – Fail	راسب	(0-44)	Considerable amount of work required

Note: Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.

MODULE DESCRIPTION FORM

Module Information				
Module Title	Genetic		Module Delivery	
Module Type	Essentials		☒ Theory ☒ Lecture ☒ Lab ☐ Tutorial ☒ Practical ☐ Seminar	
Module Code	C			
ECTS Credits	5			
SWL (hr/sem)	150			
Module Level	2	Semester of Delivery		2
Administering Department	Animal production		College	College of Agriculture
Module Leader	Dr . Ghassan Mohammed Hassan		e-mail	gmhassan@uowasit.edu.iq
Module Leader's Acad. Title	Assist. Professor		Module Leader's Qualification	PhD
Module Tutor	Murthada Kareen Saher		e-mail	malzrkani@uowasit.edu.iq
Peer Reviewer Name			e-mail	
Scientific Committee Approval Date	2026/3/3		Version Number	1

Relation with other Modules				
Prerequisite module	None		Semester	
Co-requisites module	No ne		Semester	

Module Aims, Learning Outcomes and Indicative Contents	
Module Objectives	١. (Knowledge-Based) ٢. (Practical Skills) ٣. (Analytical Goals)
Module Learning Outcomes	. (Conceptual Outcomes) (Practical & Applied Outcomes)

	(Critical Thinking Outcomes)
Indicative Contents	The syllabus/content guidelines serve as a roadmap detailing the academic topics to be covered during the module; they are designed to guide students through a progression of ideas from simple to complex.

Learning and Teaching Strategies	
Strategies	Teaching and learning strategies in the subject of genetics rely on combining complex theoretical concepts with precise practical application, to ensure that abstract molecular concepts are transformed into tangible skills.

Student Workload (SWL)			
Structured SWL (h/sem)	140	Structured SWL (h/w)	14
Unstructured SWL (h/sem)	10	Unstructured SWL (h/w)	1
Total SWL (h/sem)	150		

Module Evaluation					
		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Tests	1	10% (10)	8	LO #1 - #7
	Projects	1	10% (10)	6	LO #1 - #5
	Lab	1	10% (10)	9	LO #1 - #8
	Reports	1	10% (10)	15	LO #1 - #14
Summative assessment	Mid Exam	2hr	10% (10)	7	LO #1 - #6
	Final Exam	3hr	50% (50)	16	All

Total assessment	100% (100 Marks)		
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Delivery Plan (Weekly Syllabus)	
	Material Covered
Week 1	Genetics – Cellular Genetics – Cytoplasmic Inheritance
Week 2	Mendel's First Law – Mendel's Second Law
Week 3	Non-Mendelian Inheritance and Types of Dominance
Week 4	Genetic Interaction and Overlapping – Cases of Dominance
Week 5	Duplicate Genes and Their Types
Week 6	First Monthly Exam
Week 7	Lethal Genes and Multiple Alleles
Week 8	Quantitative inheritance
Week 9	Sexual inheritance and sex determination systems
Week 10	Linkage and crossing-over
Week 11	Structure of nucleic acids and nitrogenous bases
Week 12	Mutations and their types
Week 13	Genetic engineering
Week 14	Gene interaction and lethal factors
Week 15	Second monthly exam

Delivery Plan (Weekly Lab. Syllabus)	
	Material Covered
Week 1	General introduction to the cell and chromosomes (structure, number, synthesis)
Week 2	Cell division (meiosis and mitosis)
Week 3	The life cycle of Drosophila (preparing food, handling insects, conducting experiments, examining insects, mutations and wild-type forms)
Week 4	Mendel's first and second laws and modifications of Mendel's laws
Week 5	First practical examination
Week 6	Gene interaction and lethal factors

Week 7	Multiple alleles
Week 8	Linkage, crossing-over and chromosome mapping
Week 9	Sex-linked inheritance
Week 10	Probability and the chi-square test
Week 11	Genetic immunity
Week 12	Genetic recombination
Week 13	Chromosomal abnormalities
Week 14	Practical applications
Week 15	Second-month exam

Learning and Teaching Resources

	Text	Available in the Library?
Required Texts	Fundamentals of Genetics, by Prof. Khalid Hassan	Yes
Recommended Texts		
Websites		

Grading Scheme

Group	Grade	التقدير	Marks %	Definition
Success Group (50 - 100)	A – Excellent	امتياز	90 - 100	Outstanding Performance
	B - Very Good	جيد جدا	80 - 89	Above average with some errors
	C – Good	جيد	70 - 79	Sound work with notable errors
	D - Satisfactory	متوسط	60 - 69	Fair but with major shortcomings
	E – Sufficient	مقبول	50 - 59	Work meets minimum criteria
Fail Group (0 – 49)	FX – Fail	راسب (قيد المعالجة)	(45-49)	More work required but credit awarded
	F – Fail	راسب	(0-44)	Considerable amount of work required

Note: Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.

MODULE DESCRIPTION FORM

Module Information				
Module Title	English2		Module Delivery	
Module Type	Core		☐ L Theory ☒ Lecture ☐ Lab ☐ Tutorial ☐ L Practical ☐ Seminar	
Module Code	B			
ECTS Credits	2			
SWL (hr/sem)	50			
Module Level	2	Semester of Delivery		2
Administering Department	Animal production Dept.		College	College of Agriculture
Module Leader	Dr. Abbas Washeel Salman		e-mail	aalhamdani@uowasit.edu.iq
Module Leader's Acad. Title	Professor		Module Leader's Qualification	Ph.D.
Module Tutor	Dr. Abbas Washeel Salman		e-mail	aalhamdani@uowasit.edu.iq
Peer Reviewer Name	Dr. Abbas W. Salman		e-mail	aalhamdani@uowasit.edu.iq
Scientific Committee Approval Date	2026/3/3		Version Number	1

Relation with other Modules				
Prerequisite module	None		Semester	
Co-requisites module	None		Semester	

Module Aims, Learning Outcomes and Indicative Contents	
Module Objectives	12. 1. Introducing to the students the eight parts of speech, which are the basic structure of English sentences. 13. Develop students' understanding of tenses , which play a crucial role in academic English. 14. Familiarize students with different types of tenses (present, past, and future) and their appropriate applications. 15. Enhance the students' ability to use the suitable tenses in various sentence contexts. 16. Introducing students to the different Wh- question words and how to use each one in the appropriate situation, and answering questions that include the word used. 17. Strengthen students' practical communication skills through the use of

	everyday sentences and expressions. 18. Enable students to recognize the countable and uncountable nouns, and how to use the related quantifiers. 19. Teach students the basic, comparative, and superlative adjectives, how to derive them, and how to distinguish between them. 20. Reinforce the confidence of the student to use the different skills of the English language in different situations.
Module Learning Outcomes	1- Identify and correctly use common English in written and spoken communication. 2- Form and apply the part of speech appropriately in various sentence structures. 3- Construct grammatically correct sentences across different tenses. 4- Understand and accurately use different tenses in real-life contexts. 5- Distinguish between tenses types and apply them effectively. 6- Differentiate between countable and uncountable nouns and apply the correct usage in grammar and vocabulary. 7- Answer different types of questions clearly and grammatically, both orally and in writing. 8- Recognize and use the adjectives correctly in their different forms: basic, comparative, and superlative, correctly in both spoken and written English. 9- Apply everyday English expressions to communicate effectively in daily situations.
Indicative Contents	1- Part of speech: Noun, pronoun, verb, adverb... etc. 2- Tenses: Simple tenses Continuous tenses. Perfect tenses Perfect continuous. 3- Wh Questions: Creating questions using different Wh forms. Answering on the question involving Wh forms. 4- Quantity: Countable nouns Uncountable nouns Quantifiers. 5- Adjectives: Basic adjectives Comparative adjectives Superlative adjectives 6- Everyday English Sentences: Common phrases and expressions used in daily

Learning and Teaching Strategies

Strategies	1-Interactive Lectures: Explanation of grammar rules and sentence structures using real-life examples. 2-Class Discussions: Encouraging student participation to practice speaking and apply language rules in conversation. 3-Guided Practice: Step-by-step exercises conducted in class to reinforce understanding of topics such as prepositions, passive voice, and conditional sentences. 4-Pair and Group Work: Cooperative learning activities to enhance communication and peer learning. 5-Use of Visual Aids: Charts, flashcards, and multimedia presentations to support visual learners. 6-Worksheets and Quizzes: Frequent short assessments to review and reinforce grammatical concepts. 7-Homework Assignments: Practice tasks to promote independent learning and language reinforcement outside the classroom. 8-Role-play and Dialogue Practice: To simulate real-life situations and improve spoken fluency. 9-Corrective Feedback: Ongoing feedback from the instructor to help students correct mistakes and improve language accuracy.
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Student Workload (SWL)

Structured SWL (h/sem)	33	Structured SWL (h/w)	2
Unstructured SWL (h/sem)	17	Unstructured SWL (h/w)	1
Total SWL (h/sem)	50		

Module Evaluation

		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative	Tests	1	10% (10)	8	LO #1 - #7

assessment	Projects	1	10% (10)	6	LO #1 -#5
	Online assignments	1	10% (10)	9	LO #1 - #8
	Reports	1	10% (10)	15	LO #1 - #14
Summative assessment	Mid Exam	2hr	10% (10)	7	LO #1 - #6
	Final Exam	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)

	Material Covered
Week 1	Part of speech
Week 2	Tenses
Week 3	Simple tenses (present, past, and future)
Week 4	Skills
Week 5	Continuous tenses (present, past, and future)
Week 6	Perfect tenses (present, past, and future)
Week 7	Perfect continuous tenses ((present, past, and future)
Week 8	Wh- questions
Week 9	Answers on Wh-questions
Week 10	Skills
Week 11	Quantity 1 (some and any)
Week 12	Quantity 2 (much, many, few,.....)
Week 13	Basic adjectives
Week 14	Comparative and superlative adjectives
Week 15	Skills

Learning and Teaching Resources

	Text	Available in the Library?
Required Texts	English Language Curriculum Book (New Headway Plus- pre-intermediate)	Yes
Recommended Texts	Writing Academic English, Level 1 by Alice Oshima	Yes
Websites	BBC Learning English	

Grading Scheme				
Group	Grade	التقدير	Marks %	Definition
Success Group (50 - 100)	A – Excellent	امتياز	90 - 100	Outstanding Performance
	B - Very Good	جيد جدا	80 - 89	Above average with some errors
	C – Good	جيد	70 - 79	Sound work with notable errors
	D - Satisfactory	متوسط	60 - 69	Fair but with major shortcomings
	E – Sufficient	مقبول	50 - 59	Work meets minimum criteria
Fail Group (0 – 49)	FX – Fail	راسب (قيد المعالجة)	(45-49)	More work required but credit awarded
	F – Fail	راسب	(0-44)	Considerable amount of work required
Note: Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.				