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

Academic Program and Course Description Guide in Animal production department

2025

Introduction:

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

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

This guide, in its second edition, includes a description of the academic program after updating the vocabulary and paragraphs of the previous guide in light of the latest developments in the educational system in Iraq, which included a description of the academic program in its traditional form (annual, quarterly), in addition to adopting the description of the academic program circulated according to the book of the Department of Studies 3/2906. On 5/3/2023 with regard to programs that adopt the Bologna Process as a basis for their work. In this area, we can only emphasize the importance of writing descriptions of academic programs and courses to ensure the smooth conduct of the educational process concepts and terminology:

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

Course Description: Provides a necessary summary of the most important characteristics of the course and the learning outcomes that the student is expected to achieve, demonstrating whether he or she has made the most of the available learning opportunities. It is derived from the program description.

Program Vision: An ambitious picture for the future of the academic program to be a developed, inspiring, motivating, realistic and applicable programme.

The program's mission: It briefly explains the goals and activities necessary to achieve them, and also defines the program's development paths and directions.

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

Curriculum structure: All courses/study subjects included in the academic program according to the approved learning system (semester, annual, Bologna track), whether it is

a requirement (ministry, university, college, or scientific department), along with the number of study units.

Learning outcomes: A consistent set of knowledge, skills, and values that the student has acquired after the successful completion of the academic program. The learning outcomes for each course must be determined in a way that achieves the program objectives.

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

Concepts and terminology:

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

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

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

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

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

Curriculum Structure: All courses / subjects included in the academic program according to the approved learning system (semester, yearly, Bologna track) whether it is a requirement (ministry, university, college and scientific department) with the number of study units.

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

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

Academic Program Description Form

University Name: Diyala

Faculty/Institute: Agriculture

Scientific Department: Animal production

Academic or Vocational Program Name: Animal production

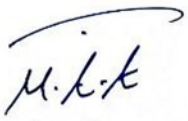
Final Certificate Name: Bachelor of Agricultural Sciences/animal production

Academic System: Semester

Date of preparation description: 2 / 1 / 2025

File filling date: 15 / 1 / 2025

Signature:
Head of department Name:
Asst. Prof. Salah Mahdi Abd
Date: 15 / 1 / 2025



Signature:
Scientific Associate Name:
Prof. Dr. Mohammed Ali Abood
Date :15 / 1 / 2025

The file is checked by:
Department of Quality Assurance and University Performance
Director of the Quality Assurance and University Performance Department:
Prof. Dr. Basim Rahim Badr
Date : 15 / 1 / 2025

Signature :

Approval of the Dean
Prof. Dr. Raaed Ibrahim Khalil

1. **Program Vision**

The Department of Animal Production seeks to develop material capabilities and apply modern technologies and distance education that contribute to serving the Iraqi society and humanity, and to play its role in solid scientific construction and formulating the lofty university traditions in the college that confirm the advancement of the university environment as it represents a beacon and a role model for society, and for the department, through the College of Agriculture, to be a high-level scientific center that enhances the path of scientific and technical progress and provides scientific and practical advice for investment projects, and contributes to economic development through the development and development of animal wealth in Iraq according to the concept of sustainable development, achieving a prominent position among the leading scientific departments in animal productions sciences in the field of education and scientific research. Planting the seeds of ambition, perseverance and creativity in the souls of graduates and qualifying them to overcome competition and challenges in the fields of science and production alike, requires that the pursuit of knowledge and modernization be a method in life.

2. **Program Mission**

The department's message represents an extension of the college's message to which it belongs, to be a pure and abundant tributary of original and noble values and lofty goals. The department is keen on preparing agricultural engineers who are in line with the labor market's needs, capable of competing and contributing to the development of animal production fields, by following the latest advanced educational systems. The department is concerned with developing its teaching staff in line with the significant scientific and technological leaps in regional and global universities, and the use of e-learning and distance education, achieving vital extension and integration with the needs of society, so that science plays a role in leading and serving society according to the concept of sustainable development

3. **Program aims**

1. Preparing and graduating agricultural engineers in the field of animal production who are qualified to manage, develop and modernize livestock projects by adopting curricula that keep pace with scientific and technical developments in advanced universities, and focusing efforts to provide students with the opportunity for practical training in implementing and managing field operations according to international quality standards in various axes.
2. Conducting applied scientific research in animal production specializations that aim to solve problems facing the production process and develop the means of production used.
3. Providing society with advanced cadres by planning to open postgraduate studies in the department according to the perspective of the actual need of society for the specialization and the emergence of new scientific specializations.

4. Participating in the department in formulating the policy of livestock projects in the governorate and Iraq, based on the scientific method in making decisions and planning to establish and develop projects in a way that ensures the achievement of sustainable development goals.
5. Following a policy of continuous development of the teaching staff through their participation in training courses, seminars and conferences inside and outside Iraq and benefiting from electronic platforms in disseminating scientific knowledge and continuing education to ensure human interaction and keep pace with regional and global development in the global field according to the perspective of sustainable development.
6. Organizing continuing education programs to disseminate scientific knowledge and ensure the development of the expertise of workers in the field of animal wealth.
7. Opening up to Arab and international colleges of agriculture to exchange expertise in the field of updating curricula and using modern teaching methods, conducting joint research, and exchanging visiting professors.

4. Program Accreditation

The department seeks to obtain programmatic accreditation.

5. Other external influences

1- Policies of the Ministry of Higher Education and Scientific Research.
2- Technological advancements may influence the academic program, such as the use of e-learning management systems and multimedia in distance education.
3- Economic changes may impact the funding of the academic program and the availability of job opportunities for graduates. Likewise, shifts in labor market needs and required skills may influence the design of the academic program and the selection of courses.
4- The evolution of social and cultural needs and expectations may affect the selection of courses, teaching methodologies, and the design of the academic program.

6. Program Structure

Reviews*	Percentage	Unit of study	Number of Courses	Program Structure
fundamental	18.33	10	11	**Requirements of the institution**
fundamental	31.66	35	19	**College Requirements**
fundamental	50.00	126	30	**Department Requirements**
Without Modules	-	-	1	**Summer Training**
-	-	-	-	**Other**

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

7. **Program Description**				
Year/Level	**Course or Course Code**	**Course Name**	**Credit Hours**	
			theoretical	**practical**
First Year First Semester	UD11	English Language 1	2	-
	UD14	Human Rights and Democracy	2	-
	APD-1101	Fundamentals of Poultry Science	2	3
	COA-1102	Organic Chemistry	2	3
	APD-1103	Statistics	2	3
	COA-1104	Plane Surveying	2	3
First Year Second Semester	UD12	Arabic Language 1	2	-
	UD13	Computer Science 1	1	2
	APD-1201	Fundamentals of Animal Production	2	3
	APD-1202	Fundamentals of Plant Protection	2	3
	APD-1204	Analytical Chemistry	2	3
	APD-1203	General Zoology	2	3
Second Year First Semester	BIOC205	Biochemistry	2	3
	APHY206	Animal Product Health	2	3
	PRIM209	Basics of Microbiology	2	3
	PRAE211	Fundamentals of Agricultural Extension	2	-
	PRFI207	Fundamentals of Fisheries	2	3
	CBRI204	Crimes of the Ba'ath Regime in Iraq	2	-
	APPC202	Computer Applications 2	-	3
Second Year Second Semester	GENE212	Fundamentals of Genetics	2	3
	FOCR213	Forage Crops and Pastures	2	3
	PRGA214	Fundamentals of Horticulture	2	3
	PAGE215	Fundamentals of Agricultural Economics	2	-
	PFIP208	Fish Breeding and Production	2	3
	ANPM216	Animal Production Mechanization	2	3
	PRDS217	Fundamentals of Dairy Science	2	3
	ENGL201	English language 2	2	-
Third Year First Semester	APHY 303	Animal Physiology	2	3
	EXDA302	Experimental Design and Analysis	2	3
	ADIS304	Animal Diseases	2	3
	FEFE305	Feeds and Rations	2	3
	POPT306	Poultry Product Technology	2	3
	ECAB307	Animal Behavior and Environment	2	-
	APEC308	Economics of Animal Production	3	-

Third Year Second Semester	ABRE309	Animal Breeding and Improvement	2	3
	PPHY310	Poultry Physiology	2	3
	ANUT311	Animal Nutrition	2	3
	RPHY312	Reproductive Physiology	2	3
	HATM313	Incubation and Hatchery Management	2	3
	MVIN314	Medical and Veterinary Entomology	2	3
	ENGL301	English language 3	2	-
Fourth Year First Semester	PNUT402	Poultry Nutrition	2	3
	PBRE415	Poultry Breeding and Improvement	2	3
	MEPR404	Beef Cattle Production	2	3
	SGPR405	Sheep and Goat Production	3	3
	POPM406	Poultry Management and Production	2	3
	BUPR410	Buffalo Production	2	-
	SEMN407	Seminar	1	-
	GRPP408	Graduation Research Project	1.5	-
Fourth Year Second Semester	PDIS411	Poultry Diseases	2	3
	DACP412	Dairy Cattle Production	2	3
	MESI413	Meat Science	2	3
	MBIO414	Molecular Biology	2	3
	PAMA403	Rangeland Management	2	3
	ENGL401	English language 4	2	-
	GRPP409	Graduation Research Project	1.5	-

8. Expected learning outcomes of the program

Knowledge

1- The student should be able to elucidate the fundamental principles of university culture and its core values, including transparency, equality, cooperation, belonging, and citizenship.

2- The student should be able to explain the principles of human rights and democracy and their role in fostering effective partnerships with all segments of society.

3- The student should be able to demonstrate a sound knowledge and understanding of both the Arabic and English languages, their instruction, dissemination, development, and utilization for scientific and educational purposes across various fields of knowledge.

4- The student should be able to interpret biodiversity, its significance, and the methods of preserving natural resources within the environment based on the

principles of sustainable development.

5- The student should be able to identify the fundamentals of applied and basic sciences, as well as modern technologies related to agriculture and food production, along with the principles of planning and executing agricultural operations.

6- The student should be able to clarify the role of various living organisms in food production, the methods for controlling their growth, and the impact of environmental factors, in addition to addressing the health aspects of food establishments.

7- The student should be able to articulate the fundamental and applied concepts, as well as modern technologies, related to agriculture and their connection to the nutrition of animals, poultry, and fish.

8- Striving to enhance the productive efficiency of animals to strengthen food security for both present and future generations.

9- The student should be able to explain healthcare methods, the effects of interactions between animals and the environment, and demonstrate proficiency in laboratory skills while adhering to quality and safety standards in the fields of agriculture and food production.

10- Enabling students to acquire knowledge and comprehension of the intellectual and practical framework of agricultural sciences in general and animal production sciences in particular, in accordance with modern international standards.

11- Familiarizing students with contemporary livestock breeding systems through presentations and modern scientific research.

12- Developing problem-solving skills for scientific challenges encountered by professionals in the agricultural sector in general, and the animal production sector in particular.

13- The student should be able to explain the principles of planning and executing agricultural operations in a manner that serves livestock wealth in both productive and economic aspects across different agricultural communities, while considering its relation to sustainable development.

14- The student should be able to discuss the fundamental principles of various animal production sciences.

Skills

1. The student should be able to systematically and positively apply various thinking skills in diagnosing problems and issues encountered during work and propose appropriate solutions for them.
2. The student should be able to express their thoughts clearly and objectively, engaging in positive dialogue with colleagues, superiors, and subordinates in the workplace.
3. The student should be able to discuss and evaluate studies and research related to societal issues in a methodical and objective manner.
4. The student should be able to propose commercial production plans for plant, animal, and food crops in accordance with market systems by evaluating the economic situation of the market and understanding its needs.
5. The student should be able to propose solutions to problems related to systems, processes, and machinery interacting with humans, plants, animals, microorganisms, and biological materials.
6. The student should be able to distinguish the composition of living organisms in terms of cells, tissues, organs, their functions, and the interactions occurring within them.
7. The student should be able to analyze data and information, according to the scientific method, related to agricultural problems, nutrition, and animal and fish production to find the most suitable solutions.
8. The student should be able to propose commercial production plans for plant, animal, and food crops in accordance with market systems and evaluate their environmental impact.
9. The student should be able to analyze problems and issues related to animal and fish production and innovate solutions for each problem.
10. The student should be able to diagnose major diseases in animals and fish and take appropriate actions to prevent their spread and protect the environment.
11. The student should be able to design scientific experiments to solve agricultural problems by applying modern technologies related to agricultural processes and food production.
12. The student should be able to diagnose the causes of plant diseases and pests, their symptoms, and practice proper agricultural treatments for integrated pest management to maximize agricultural productivity and produce safe food.
13. The student should be able to prepare scientific research and studies in their field of specialization in both Arabic and English.
14. The student should be able to prepare feasibility studies for agricultural projects using multiple software programs.
15. The student should be able to practice their national and cultural role through the culture of peaceful coexistence.
16. The student should be able to practice good agricultural practices that maximize agricultural productivity, livestock and fishery resources, and produce safe food while addressing fertility issues and low production.

17. The student should be able to formulate balanced and economical rations and produce safe animal products for human consumption.
18. The student should be able to use agricultural resources optimally in the livestock and fishery sectors and benefit from investment projects to achieve sustainable agricultural development.
19. The student should be able to apply modern technology related to agricultural processes, food production, and animal and fish farming operations to conduct quality scientific research for genetic improvement, production, and conservation of genetic resources.
20. The student should be able to use computer software programs to analyze and present data and information in the agricultural field.
21. The student should be able to actively contribute to reinforcing the concepts of coexistence, tolerance, and pluralism through practice and application.
22. The student should be able to communicate fluently and effectively in both Arabic and English within their field of specialization.
23. The student should be able to independently develop their cognitive, professional, and research capabilities in their area of specialization.
24. The student should be able to demonstrate skills in planning, organizing, managing time, and leading teams in a satisfactory manner.
25. The student should be able to manage human resources and create a collaborative work environment.
26. The student should be able to work with colleagues in a spirit of teamwork and communicate effectively with others.
27. The student should be able to present information and explain phenomena, either verbally or in writing.
28. The student should be able to master self-learning, write reports, and work within an agricultural team.
29. The student should be able to demonstrate the ability for continuous self-learning, improving their knowledge and professional skills.
30. The student should be able to adopt problem-solving techniques and time management strategies in the agricultural and advisory fields.
31. The student should be able to utilize information technology to easily and swiftly obtain data and information, thereby enhancing professional practice and enabling them to present information in scientifically correct ways.
32. The student should be able to master continuous self-education and identify their educational and personal needs.
33. The student should be able to keep up with labor market requirements by being knowledgeable about the latest developments in food sciences and human nutrition.
34. The student should be able to work within a multicultural team and understand group behaviors.
35. The student should be able to efficiently handle appropriate audiovisual tools

to present environmental data and information.

Values

1. The student should be able to propose methods for preserving the environment and natural resources within the local community.
2. The student should be able to contribute to enhancing the understanding and awareness of professionalism in the workplace, along with assuming legal, ethical, and social responsibilities.
3. The student should be able to efficiently and effectively engage in the workplace to transfer knowledge and skills to farmers and the general public.
4. The student should be able to assume responsibility for completing tasks efficiently and uphold the ethical standards of the profession.
5. The student should be able to ensure analysis and critical thinking within Eastern and Arab cultural traditions.
6. The student should be able to evaluate ethical issues using critical thinking skills.
7. The student should be able to propose scientific problems and encourage students to find multiple solutions through various methods to stimulate their creative thinking.
8. The student should be able to form work teams, evaluate their outcomes, and periodically modify their structure to foster teamwork spirit and motivate students to exert all necessary efforts in different working conditions and with various individuals.
9. The student should be able to instill a sense of creativity among students and ensure their ability to find innovative solutions to different problems.
10. The student should be able to develop the ability of students to work in teams as effective groups that yield exceptional results.
11. The student should be able to cultivate a sense of responsibility in students and mentally prepare them to bear the burdens placed upon them.
12. The student should be able to nurture values of diligence and perseverance to accomplish work and achieve satisfactory results.

9. Teaching and Learning Strategies

1- Cooperative Learning
2- Project-Based Learning
3- Technology-Enhanced Learning
4- Interactive Lecture Strategy
5- Discussion Strategy
6- Brainstorming Strategy

This is achieved through theoretical and practical lectures specific to the courses, as

well as the scientific application of lessons that require it. This includes discussion and dialogue-based methods, directing questions to students, utilizing modern presentation tools, organizing academic festivals, and employing contemporary methodologies and techniques in the field of teaching strategies.

10. Evaluation methods

1-Daily, monthly, and semester-based theoretical and practical examinations.
2- Diverse homework assignments and the preparation of scientific reports on laboratory experiments.
3- Seminars.
4- Classroom and extracurricular activities.
5- Completion and discussion of graduation research projects.
6- Self-assessment.

11. Faculty

Faculty Members

Academic Rank	Specialization		Special Requirements/Skills (if any)	Faculty preparation	
	general	specific		Permanent Staff	Lecturer
Professor	Animal Resources	Aquatic Environment & Pollution		1	0
Professor	Animal Resources	Animal Physiology		1	0
Professor	Animal Resources	Mechanization of Animal Production		1	0
Professor	Animal Resources	Dairy Cattle Management		1	0
Professor	Animal Resources	Poultry Management		1	0
Professor	Animal Resources	Meat Production		1	0
Professor	Animal	Reproductive		1	0

	Resources	Physiology			
Professor	Animal Resources	Animal Breeding & Improvement		1	0
Assistant Professor	Animal Resources	Animal Breeding & Improvement		1	0
Assistant Professor	Animal Resources	Poultry Nutrition		1	0
Assistant Professor	Animal Resources	Avian Physiology		1	0
Lecturer (PhD)	Animal Resources	Poultry Nutrition		1	0
Lecturer (PhD)	Animal Resources	Reproductive Physiology		1	0
Lecturer (PhD)	Animal Resources	Poultry Products Technology		1	0
Lecturer	Animal Resources	Animal Breeding & Improvement		1	0
Assistant Lecturer	Animal Resources	Fish Production		3	0
Lecturer	Computer Science	Artificial Intelligence		1	0
Assistant Lecturer	Chemistry	Chemistry Sciences		2	0
Assistant Lecturer	Animal Resources	Poultry Products Technology		2	0
Assistant Lecturer	Arabic Language	Arabic Language		1	0
Assistant Lecturer	Agricultural Sciences	Agricultural Extension & Technology Transfer		1	0
Assistant Lecturer	Animal Resources	Avian Physiology		1	0
Assistant Lecturer	Animal Resources	Animal Nutrition		1	0

Assistant Lecturer	Animal Resources	Reproductive Physiology		1	0
Assistant Lecturer	Animal Resources	Sheep & Goat Production		1	0
Assistant Lecturer	Animal Resources	Animal Physiology		1	0
Assistant Lecturer	English Language	Linguistics		1	0
Assistant Lecturer	Life Sciences	Microbiology		1	0
Assistant Lecturer	Life Sciences	Genetics		1	0

Professional Development

Mentoring new faculty members

1. Encouraging newly appointed faculty members to participate in professional development courses offered by the university.
2. Guiding new faculty members in their transition to academic work.
3. Diversifying classroom management techniques and involving them in practical lectures and delivering theoretical lectures.
4. Conducting personal interviews to assess the teaching competence and skills of faculty members.
5. Engaging them in publishing research in high-impact international journals, authoring academic publications, and participating in workshops and conferences.

Professional development of faculty members

1- Directing faculty members to participate in conferences, workshops, and seminars particularly international ones while emphasizing their engagement in professional development courses offered by the university and the college to enhance their knowledge of modern teaching methodologies and keep pace with advancements.

2- Encouraging self-development through continuous engagement with reputable international publications, active participation in scientific activities, and the dissemination of newly acquired knowledge, information, and research findings to faculty members, integrating them with daily professional experiences.

3- Providing support and necessary facilitation for faculty members to engage in scientific and community-based activities.

4- Establishing synergy between continuing education programs and production, healthcare, and professional institutions.

5- Achieving integration between formal education and continuing education by developing innovative methods and frameworks that ensure this cohesion.

11. **Acceptance Criterion**

1- Admission Requirements for the College: The admission process follows the mechanism established by the Ministry of Higher Education and Scientific Research Central Admissions Department, whereby candidates are nominated for admission based on their graduation averages from either preparatory education or vocational education (agricultural preparatory schools).

2- Admission Requirements for the Academic Department: Students select their preferred department from multiple available options based on priority and preference, with final placement determined by the department's capacity and the student's chosen field of study.

12. **The most important sources of information about the program**

1- Curricular Textbooks and Supplementary Books available in the university and college libraries.
2- Books and References specific to the department’s library.
3- Scientific Research and Peer-Reviewed Journals of high academic standing.
4- Accumulated Scientific Expertise of the department’s faculty and staff.
5- Feedback from the Job Market and Scientific Reports.

13. Program Development Plan

1- Addressing any weaknesses that may emerge during the implementation of academic programs and formulating executive plans for development and improvement.
2- Conducting periodic evaluation and review of the program, considering any recommendations or proposals based on annual program reports and course reports.
3- Keeping abreast of scientific and technological advancements in the field of the program, as well as recommendations from research and studies.
4- Analyzing labor market dynamics, available job opportunities, and their requirements.
5- Recommending the university or external institutions to enhance existing

programs.
6- Utilizing feedback from graduate surveys to assess program effectiveness.

7-Reviewing and updating the curriculum after five years or more of implementation, incorporating comprehensive feedback.

Program Skills Outline															
				Learning outcomes required from the program											
Year/Level	Course Code	Course Name	Basic or optional	Knowledge				Skills				Values			
				A1	A2	A3	A4	B1	B2	B3	B4	C1	C2	C3	C4
First Year First Semester	UD11	English Language 1	B	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	UD14	Human Rights and Democracy	B	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	APD-1101	Fundamentals of Poultry Science	C	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	COA-1102	Organic Chemistry	S	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	APD-1103	Statistics	B	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	COA-1104	Plane Surveying	B	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
First Year Second Semester	UD12	Arabic Language	B	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	UD13	Computer Science 1	B	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	APD-1201	Fundamentals of Animal Production	C	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	APD-1202	Fundamentals of Plant Protection	B	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	APD-1204	Analytical Chemistry	S	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	APD-1203	General Animal Science	C	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Second Year First Semester	BIOC205	Biochemistry	Core	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	APHY206	Animal Product Hygiene	Core	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	PRIM209	Fundamentals of Microbiology	Core	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	PRAE211	Fundamentals of Agricultural Extension	Core	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

	PRFI207	Fundamentals of Fish Science	Core	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	CBRI204	Crimes of the Ba'ath Regime in Iraq	Core	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	APPC202	Computer Applications 2	Core	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Second Year Second Semester	GENE212	Fundamentals of Genetics	Core	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	FOCR213	Forage and Pasture Crops	Core	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	PRGA214	Fundamentals of Horticulture	Core	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	PAGE215	Fundamentals of Agricultural Economics	Core	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	PFIP208	Fish Breeding and Production	Core	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	ANPM216	Mechanization of Animal Production	Core	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	PRDS217	Fundamentals of Dairy Science	Core	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	ENGL201	Specialized English 2	Core	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Third Year First Semester	303APHY	Animal Physiology	Core	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	EXDA302	Experimental Design and Analysis	Core	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	ADIS304	Animal Diseases	Core	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	FEFE305	Animal Feeds and Rations	Core	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	POPT306	Poultry Products	Core	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

		Technology														
	ECAB307	Animal Environment and Behavior	Core	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	APEC308	Animal Production Economics	Core	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Third Year Second Semester	ABRE309	Animal Breeding and Improvement	Core	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	PPHY310	Poultry Physiology	Core	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	ANUT311	Animal Nutrition	Core	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	RPHY312	Reproductive Physiology	Core	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	HATM313	Hatching and Hatchery Management	Core	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	MVIN314	Medical and Veterinary Entomology	Core	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	ENGL301	Specialized English 3	Core	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Fourth Year First Semester	PNUT402	Poultry Nutrition	Core	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	PBRE415	Poultry Breeding and Improvement	Core	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	MEPR404	Beef Production	Core	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	SGPR405	Sheep and Goat Production	Core	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	POPM406	Poultry Production and Management	Core	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	BUPR410	Buffalo Production	Core	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	SEMN407	Seminars	Core	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	GRPP408	Graduation Research	Core	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

		Project														
Fourth Year Second Semester	PDIS411	Poultry Diseases	Core	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	DACP412	Dairy Cattle Production	Core	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	MESI413	Meat Science	Core	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	MBIO414	Molecular Biology	Core	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	PAMA403	Rangeland Management	Core	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	ENGL401	Rangeland Management	Core	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	GRPP409	Graduation Research Project	Core	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

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