Republic of Iraq

Ministry of High Education and Scientific Research

University of Baghdad

Scientific supervision and evaluation apparatus

Department of Quality Assurance and Academic Accreditation

Academic Program Description Form for Colleges and Institutes for the Academic

University: Baghdad

College/Institute: Veterinary Medicine

Name of Academic Program: Bachelor of Veterinary Medicine

Academic System: Semesters

Name of Final Degree: Bachelor of Veterinary Medicine and Surgery

Vice Dean for Postgraduate Studies and Scientific Affairs:

Name: Ahmed hameed fathullah albayati.

Signature:

Date: 10/9/2024

The Quality Assurance and University Performance Division verified the file.

The Director of Quality Assurance and University Performance Division:

Name: Amr Hakeem Chyad

Date: 9/10/2024

Signature:

Approval of the Dean:

Name: Hameed A. Kadhim

Introduction:

The educational program is considered a coordinated and organized package of curricula that includes procedures and experiences that organize the study materials. It is primarily aimed at building and refining the skills of graduates, making them qualified to meet labor market requirements. The program is reviewed and evaluated annually through internal or external auditing procedures and programs, such as the external examiner program.

The academic program description provides a summary of the main features of the program and its courses, indicating the skills that are being developed for students based on the educational program objectives. The importance of this description lies in its role as a cornerstone for obtaining program accreditation, and it is written collaboratively by teaching staff under the supervision of scientific committees in the academic departments.

This guide, in its second version, includes a description of the academic program after updating the items and sections of the previous guide in light of the developments and changes in the educational system in Iraq. It includes a description of the academic program in its traditional form (annual, semester) as well as adopting the generalized description of the academic program according to the letter from the Department of Studies T M3/2906 dated 3/5/2023 regarding programs that primarily rely on the Bologna Process as their framework.

In this regard, we cannot emphasize enough the importance of writing descriptions of academic programs and courses to ensure the smooth operation of the educational process.

Concepts and Terminology:

Academic Program Description:

The academic program description provides a brief overview of its vision, mission, and objectives, including a precise description of the targeted learning outcomes according to specific learning strategies.

Course Description:

This is derived from the program description and provides a concise summary of the course's main characteristics and the expected learning outcomes for the student, demonstrating whether they have maximized the benefits of the available learning opportunities.

Program Vision:

An ambitious image of the future of the academic program to be a developed, inspiring, motivating, realistic, and applicable program.

Program Mission:

It briefly outlines the goals and necessary activities to achieve them, as well as defines the program's development paths and directions.

Program Objectives:

These statements describe what the academic program intends to achieve within a specified timeframe; they should be measurable and observable.

Curriculum Structure:

All courses/subjects included in the academic program according to the adopted learning system (semester, annual, Bologna pathway), whether they are requirements (Ministry, University, College, and Scientific Department) with the number of credit hours.

Learning Outcomes:

A coherent set of knowledge, skills, and values acquired by the student after successfully completing the academic program, and learning outcomes should be specified for each course in a way that achieves the program's objectives.

Teaching and Learning Strategies:

These are the strategies used by faculty members to develop student teaching and learning; they are plans followed to achieve learning objectives. They describe all in-class and out-of-class activities to accomplish the program's learning outcomes

1-Vision of the Program:

The College of Veterinary Medicine aspires to become an educational, research, advisory, and productive institution that is prominent and distinguished in the field of education and community service and in systems that ensure the development of animal wealth in the country by providing high-quality graduates who are aware of the importance of this profession, which governs their work, and achieving commitment, responsibility, and leadership towards excellence and innovation in the field of the profession**.**

2- Program Message:

We at the College of Veterinary Medicine strive to prepare and qualify distinguished graduates in the field of veterinary medicine, develop the teaching staff, foster a spirit of scientific research and sustainable development, and integrate theoretical and practical knowledge in veterinary medicine and surgery.

3- Program Objectives:

1- Keeping up with the developments and progress in the field of veterinary medicine and surgery by updating the curricula of undergraduate and graduate studies according to global standards and in line with the labor market requirements.
2- Serving the community by treating medical cases and providing scientific consultations to pet owners and livestock breeding fields.
3- Establishing training courses with other colleges and ministries to maintain scientific bridges between them and the parent college, and to develop professional performance and enhance the scientific base.
4- Supporting cooperation between the college and the beneficiary entities through conducting joint research that addresses the problems facing livestock and curriculum development committees.

5- Activating international relations and cooperation with reputable global colleges.
6- Obtaining programmatic academic accreditation

4- Program Accreditation:

Under Review

5- External Influences:

None

6- Program Structure

Program Structure	Number of courses	Study Unit	Percentage	*Notes
Institutional Requirements	15	10	7%	Main course
Faculty Requirements	66	270	91.7%	Main course
Department Requirements	---	---	---	---
Summer Training	1	15	1.3%	Main course
Other				

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

7- Program Description:				
Credit Hours		**Course title**	**Course Code**	**Academic Stage**
Theoretical	**Practical**			
2	2	Biology		First stage
2	2	Anatomy		
3	1	Chemistry	1401CHM	
2	2	Animal Nutrition		Second stage
3	2	General Microbiology		
2	2	Anatomy		
2	2	Histology		
2	2	Embryology		
2	2	Physiology	PHY2502	
2	2	Biochemistry	BCH2402	
	4	Clinical Veterinary		Third stage
3	2	Parasites (Chapter One)Cycloids, Tapeworms, and Trypanosomiasis		
3	2	Parasites (Chapter Two)Protozoa and Insects		
2	3	Pathology	Semester	
2	2	Nutrition Hygiene		
2	2	Immunology		
2	2	Virus		
3	3	Pharmacology	3402PHR	
2	2	Toxicology	3201TOX	

2	**2**	**Zoonotic Diseases**		
3	**2**	**Internal Medicine**		
2	**2**	**Female Fertility and Reproductive Diseases**	**FDS**	
2	**2**	**Obstetrics**	**OBS**	
2	**3**	**Large Animal Surgery**	**SUR**	
	Four hours weekly for each subject	**Clinics**	**CLN**	
2	**2**	**Infectious Diseases**	**INF**	**Fourth stage**
2	**2**	**Pathological Diagnoses**	**CLP**	
2	**2**	**Poultry Diseases**		
2	**1**	**Pathological Anatomy**		
-	**4**	**Clinical Pathology**		
2	**2**	**Surgery**		
-	**4**	**Clinical Medicine**		
3		**Internal Medicine**	**MED**	
	12	**Clinical Medicine**		
1		**Professional Ethics**		
-	**1**	**Forensic Medicine**	MED1	
1	**2**	**Male Fertility and Reproductive Diseases**	MDS	**Fifth stage**
1	**2**	**Reproductive Techniques**	RD	
	16 hrs. weekly	**Clinics**	CLN	
2	**3**	**Small Animal Sur-**	SUR	

		gery		
	16 hrs. weekly	**Clinics**	CLN	
2	**2**	**Fish Diseases**		
2	**2**	**Obstetrics**		
4	**-**	**Clinical Poultry Diseases**		**Master degree**
2	**2**	**Parasitic Immunology**		
2	**2**	**Cylindrical Worms**		
3	**2**	**Tapeworms**		
2	**2**	**Trypanosomes**		
2	**2**	**Medical Entomology**		
3	**2**	**Protozoa**		
2	**3**	**Advanced Anatomy**		
2	**3**	**Anatomical Techniques**		**Master degree**
2	**3**	**Poultry Anatomy**		
2	**3**	**Advanced Histology**		
2	**3**	**Histological Techniques**		
2	**3**	**Advanced Embryology**		
2	**2**	**Parasite Epidemiology**		
2	**2**	**Zoonotic Parasitic Diseases**		
2	**2**	**Advanced Parasitic Diseases**		
2	**2**	**Ticks**		
2	**2**	**Genetic Engineering**		

2	**3**	**Comparative Anatomy**	
2	**3**	**Poultry Anatomy**	
2	**3**	**Laboratory Animal Anatomy**	
2	**3**	**Neuroanatomy**	
2	**3**	**Comparative Histology**	
2	**3**	**Comparative Embryology**	

PhD degree

8- Expected learning outcomes of the program	
Knowledge	
1- Familiarity with basic sciences such as anatomy, physiology, biochemistry, microbiology, and pharmacology, as well as understanding the scientific foundations of animal diseases, including infectious and non-infectious diseases. 2- Understanding the principles of animal nutrition and its effects on health and production.	3- Grasping the principles of epidemiology and veterinary public health. 4- Understanding modern techniques in veterinary diagnosis, such as radiology, ultrasound, laboratory analyses, and surgical procedures.
Skills	
1- Conducting various clinical examinations on animals efficiently and using laboratory tools and techniques to diagnose diseases. 2- Implementing vaccination and immunization programs to prevent animal diseases.	3- Applying veterinary treatment methods, including surgical, pharmaceutical, and preventive, and handling veterinary emergencies efficiently. 4- Evaluating the quality and safety of animal products and contributing to food safety.
Values	
1- Professional and ethical responsibility: Commitment to ethical principles in dealing with animals and ensuring the provision of human and fair veterinary care. 2- Animal welfare: Respect for the rights of animals and a focus on their well-being in accordance with veteri-	3- Community Service: Contributing to the improvement of public health through the prevention of zoonotic diseases and enhancing food safety. 4- Commitment to Quality and Excellence: Continuous effort to provide high-quality veterinary services in accordance with global standards, dedication, teamwork, and collabo-

nary and ethical principles.	ration with colleagues and other specialists to achieve the best results in veterinary care. Keeping up with innovation and development to encourage scientific research and creative thinking in the field of veterinary medicine.

9-Teaching and Learning Strategies

1- Interactive Learning: Encourages interaction between students and the instructor through discussions, direct questions, daily quizzes, and group projects.

2- Problem-Based Learning: Diagnosing a real problem from the job market or student needs, prompting students to think critically and seek solutions based on the academic program offered at the college.

3- Project-Based Learning for Graduation Projects: Providing students with scientific projects using multiple skills.

10- Assessment Methods

* Daily, weekly, and monthly exams, quarterly reports, and end-of-year exams

* Daily performance and interaction in scientific discussions during lectures between the student and the professor

* Preparing scientific reports on various lecture topics

11- Academic Staff members

Faculty Members

Number of Faculty Members		Requirements/Specific Skills (if any)	Specialization		Academic Rank
private	**General**		**private**	**General**	

None	245	---	---	46	Professor
			---	65	Assistant Professor
			---	86	Lecturer
			---	48	Assistant Lecturer

12- Admission Criteria

Centralized by the Ministry of Higher Education and Scientific Research

13- Important Sources of Information about the Program

The website of the College of Veterinary Medicine, University of Baghdad, in both Arabic and English

The website of the University of Baghdad

The website of the Ministry of Higher Education and Scientific Research

The page of the College of Veterinary Medicine, University of Baghdad, on social media.

Official documentation

14- Program Development Plan

1- Adopt clinical skills assessments for as many relevant courses as possible and for all stages

2- Encourage scientific research in community service

3- Foster collaboration between corresponding scientific disciplines

4- Promote professional and academic development for the teaching staff

5- Utilize modern references and the latest textbooks used in global universities, and update the curriculum annually in line with higher education standards

6- Conduct annual evaluations based on outcomes and exam results

Diagram of curriculum skills/Unit of Zoonosis diseases

Please tick the boxes corresponding to the individual learning outcomes for the program subject to assessment

The required learning outcomes of the program																			
General and qualified transferable skills (other skills related to employability and (personal development				**The emotional and value goals**				**Skill objectives of the program**				**Cognitive objectives**				**Main or Elective**	**Name of the course**	**Course Code**	**/ Year Level**
D4	D3	D2	D1	C4	C3	C2	C1	B4	B3	B2	B1	A4	A3	A2	A1				
√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	Main	Biology F1 Biology F2		First
√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√		Anatomy		
√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	Main	Chemistry		
X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Main	Animal Nutrition		
√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	Main	General Microbiology		
√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	Main	Anatomy		
√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	Main	Histology		Second
√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	Main	Embryology		
√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	Main	Physiology		
√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	Main	Biochemistry		
√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	Main	Veterinary Clinic		

√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	Main	(Parasite (First semester	
√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	Main	Trematode, Cestode, Nematodes	
√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	Main	Parasite(First semester)	
√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	Main	General Microbiology	
√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	Main	Protozoa & Arthropoda	Third
√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	Main	علم الامراض	
√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	Main	Food Hygiene	
√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	Main	Immunity	
√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	Main	Virology	
√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	Main	**Zoonosis diseases**	
√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	Main	Internal medicine	
X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Main	السريريات	
X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Main	المعدية	
X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Main	تشخيصات مرضية	Fourth
√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	Main	Poultry diseases	
X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Main	خصوبة الاناث وامراضهاالتناسلية	
X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Main	Morbid Anatomy	
X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Main	Veterinary Obstetrics	
√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	Main	Clinical Pathology	

X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Main	Large Animal Surgery		
X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Main	Internal medicine		Fifth
X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Main	Clinic		
X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Main	Ethics		
x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	Main	Internal medicine		
x	x	x	x	x	x	x	x	x	x	x	x	x	x	X	X	Main	Fish diseases		
X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Main	Small Animal Surgery		
X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Main	Male fertility and its reproductive diseases		
√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	Main	Clinic of poultry diseases		
x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	Main	Clinical immunology, Zonoosis bacterial diseases, Zonoosis viruses, Zonoosis parasitic diseases, Zonoosis fungal diseases, Zonoosis epidemics, pathogenesis of zoonotic diseases, Zonoosis pathogenesis		High Diploma

																	of rodent		
x	x	x	x	x	x	x	x	x	x	x	x	x	x			Main	Molecular biology, clinical immunology, zoonosis bacterial diseases, zoonosis viral diseases, zoonosis parasitic diseases, zoonosis fungal diseases, zoonosis epidemiology, pathogenesis of zoonotic diseases, clinical microbiology		Master
√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	Main	Virology S1		
√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	Main	Advance immunity S2		Master
X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Main	Protozoa		
X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Main	Trematode		
X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Main	Cestode		
X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Main	Medical Entomology		

Diagram of curriculum skills																			
Please tick the boxes corresponding to the individual learning outcomes for the program subject to assessment																			
The required learning outcomes of the program																			
General and qualified transferable skills (other skills related to employability and personal development				**The emotional and value goals**				**Skill objectives of the program**				**Cognitive objectives**				**Main or Elective**	**Name of the course**	**Course Code**	**Year / Level**
D4	D3	D2	D1	C4	C3	C2	C1	B4	B3	B2	B1	A4	A3	A2	A1				
√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	Main	Genetic Engineering S1		Ph.D.
√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	Main	Physiology of Microbes S2		
√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	Main	Clinical Parasitology		
√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	Main	Zoonosis Parasites		
√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	Main	Advanced Parasitology		
√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	Main	Parasite Epidemiology		
x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	Main	Advanced Food Contamination, Biochemistry, Environmental pollution and Animal Health, Experimental Design, Quantitative and Molecular Genetics		
x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	Main	Advanced Food Hygiene, Food Chemistry and Nutrition		

Course Description*:*

This course description provides a concise summary of the main features of the course and the learning outcomes that are expected from a student. It demonstrates whether the student has made the most of the available learning opportunities, it must be linked to the program description.

Semester/Year	No. of hours	Available forms for attendance	Name / course code	The Scientific Department	Order
-	Bachelor's (120) hours	Present attendance	-	Public Health	**1**
1st and 2nd semesters (2024-2025)	(50) hours for undergraduate studies	Practical and Theoretical Lectures present attendance only	-	Pathology and poultry disease	**2**
1st and 2nd semesters (2024-2025)	(90) hours for undergraduate studies	Practical and Theoretical Lectures present attendance only	-	Microbiology	**3**
1st and 2nd semesters (2024-	Master's (39) / Higher Diploma (33)	Present attendance	-	Unit of Zoonosis disease	**4**

Semester/Year	No. of hours	Available forms for attendance	Name / course code	The Scientific Department	Order
2025)					
First and second semesters (2024-2025)	One course/(26) study units/(12) theoretical hours/ (28) practical hours/week In Total/(600) study hours in the course over (15) weeks	Present attendance	General Veterinary Medicine and Surgery	Internal Medicine	**5**
First and second semesters (2024-2025)	(90) hours for undergraduate studies	Practical and Theoretical Lectures present attendance only	-	Parasitology	**6**
First and second semesters (2024-2025)	(4)	Present attendance	BIOCHEMISTRYlBCH2402	Histology, Biochemistry and Pharmacology	**7**
First and second semesters (2024-	(90) hours for undergraduate studies	Practical and Theoretical	-	Anatomy and Histology	**8**

Semester/Year	No. of hours	Available forms for attendance	Name / course code	The Scientific Department	Order
2025)		Lectures present attendance only			
First and second semesters (2024-2025)	hours (30) Number of units (3)	Present attendance	FDS, OBS, MSD, RT, -LAS, and SAS	Surgery and Obstetrics	**9**

10- Course Construction:

Method of evaluation	Method of education	Unit name/or subject	Required Learning Outcomes	Hours	Weeks	Name of the Department
Exams	Lecture	Introduction to microbiology	4-1	12	4-1	Microbiology
Exams	Lecture	Classification and growth of bacteria	8-5	12	8-5	
Exams	Lecture	Classification of viruses	15-9	21	15-9	
Exams	Lecture	Classification of fungai	32-16	24	23-16	
Exams	Lecture	Introduction to immunology	30-24	21	30-24	
Quizzes, Exams, and Homework	Theoretical & Practical Lectures	Clinical & Zoonosis Bacteriology Diploma and Master's	Clinical Bacteriology	1 Theoretical 1 Practical 2	15 Weeks	Research unit of Zoonosis disease
Quizzes, Exams, and Homework	Theoretical & Practical Lectures	Zoonosis Bacteriology Diploma and Master's	Zoonosis Bacteria	1 Theoretical 1 Practical 2	15 Weeks	
Quizzes, Exams, and Homework	Theoretical & Practical Lectures	Clinical Immunity Diploma and Master's	Clinical Immunity	1 Theoretical 1 Practical 2	15 Weeks	

Method of evaluation	Method of education	Unit name/or subject	Required Learning Outcomes	Hours	Weeks	Name of the Department
Quizzes, Exams, and Homework	Theoretical and practical lectures	Zoonosis Parasites Diploma and Master's	Zoonosis Parasitology	1 Theoretical Practical 2	15 Weeks	
Quizzes, Exams, and Homework	Theoretical and practical lectures	Zoonosis Viruses Diploma and Master's	Zoonosis Virology	1 Theoretical Practical 2	15 Weeks	
Quizzes, Exams, and Homework	Theoretical and practical lectures	Zoonosis Fungi Diploma and Masters	Zoonosis mycology	1 Theoretical Practical 2	15 Weeks	
Quizzes, Exams, and Homework	Theoretical and practical lectures	Molecular Biology Diploma and Master's	Molecular Biology	1 Theoretical Practical 2	15 Weeks	
Quizzes, Exams, and Homework	Theoretical and practical	Zonoosis Epidemiology Diploma and Master's	Zoonosis epidemiology	Practical 2	15 Weeks	

Method of evaluation	Method of education	Unit name/or subject	Required Learning Outcomes	Hours	Weeks	Name of the Department
	lectures					
Quizzes, Exams, and Homework	Theoretical and practical lectures	Morbid Anatomy Diploma and Master's	Morbid Anatomy	1 Theoretical 1 Practical2	15 Weeks	
Exams	Lecture	Anatomy1	4-1	12	4-1	Anatomy & Histology
Exams	Lecture	2Anatomy	8-5	12	8-5	
Exams	Lecture	Histology	15-9	21	15-9	
Exams	Lecture	Embryology	23-16	24	23-16	
Exams	Lecture	Advance histology	30-24	21	30-24	
Exams	Lecture	Comparative histology	4-1	12	4-1	
Exams	Lecture	Comparative histology	8-5	12	8-5	
Exams	Lecture	Trematoda	4-1	12	4-1	Parasitology
Exams	Lecture	Cestode	8-5	12	8-5	
Exams	Lecture	Nematoda	15-9	21	15-9	
Exams	Lecture	Protozoa	23-16	24	23-16	
Exams	Lecture	Arthropoda	30-24	21	30-24	

Method of Evaluation	Method of Education	Name of unit/ or subject	Required learning outcomes	Hours	Weeks	Name of Department
Quizzes, Exams, and Homework	Lectures	Nutrition and Poultry Management	Public Health	12	4-1	Public Health
Quizzes, Exams, and Homework	Lectures	Nutrition and Poultry Management	Public Health	12	8-5	
Quizzes, Exams, and Homework	Lectures	Animal Nutrition	Public Health	21	15-9	
Quizzes, Exams, and Homework	Lectures	Food Hygiene	Public Health	24	23-16	
Quizzes, Exams, and Homework	Lectures	Dairy and Meat Hygiene	Public Health	21	30-24	
Quizzes and Exams	Lectures	Gumboro disease Newcastle disease avian influenzas virial arthritis	Poultry Diseases 4th Class	4	1-2	Pathology & Poultry Diseases
Quizzes and Exams	Lectures	Marek's disease lymphoid leucosis Avian Encephalomyelitis	Poultry Diseases	4	4-3	

Method of evaluation	Method of education	Unit name/or subject	Required Learning Outcomes	Hours	Weeks	Name of the Department
		Infectious stunting syndrome				
Quizzes and Exams	Lectures	Pox disease Adeno virus disease (EDS, HHS, and IBH) CIA	Poultry Diseases	6	5-7	
Quizzes and Exams	Lectures	SEMESTER EXAM	Poultry Diseases	2	8	
Quizzes Exams and	Lectures	Infectious bronchitis duck viral Hepatitis	Poultry Diseases	4	10-9	
Quizzes and Exams	Lectures	Mycoplasma disease Fowl cholera disease Infectious coryza disease	Poultry Diseases	6	-12-11 13	
Quizzes and Exams	Lectures	Poultry house Cleaning and disinfections coryza	Poultry Diseases	4	1	
Quizzes and Exams	Lectures	Anatomy and examination Case history	Poultry Diseases	8	2	Pathology & Poultry Diseases
Quizzes and Exams	Lectures	Vaccination program Poultry nutrition	Poultry Diseases	8	3	
Quizzes and	Lectures	Newcastle disease	Poultry Diseases	8	4	

Method of evaluation	Method of education	Unit name/or subject	Required Learning Outcomes	Hours	Weeks	Name of the Department
Exams		Avian influenzas				
Quizzes and Exams	Lectures	Gumboro disease Viral arthritis	Poultry Diseases	8	5	
Quizzes and Exams	Lectures	Mareks disease lymphoid leucosis	Poultry Diseases	8	6	
Quizzes and Exams	Lectures	Avian Encephalomyelitis Infectious stunting syndrome	Poultry Diseases	8	7	
Quizzes and Exams	Lectures	Pox disease CIA	Poultry Diseases	8	8	
Quizzes and Exams	Lectures	Adeno virus disease (EDS, HHS, and IBH)	Poultry Diseases	8	9	
Quizzes and Exams	Lectures	SEMESTER EXAM	Poultry Diseases	8	10	
Quizzes and Exams	Lectures	Infectious bronchitis DUCK VIRAL HEPITIS	Poultry Diseases	8	11	
Quizzes and Exams	Lectures	Mycoplasma disease	Poultry Diseases	8	12	
Quizzes and Exams	Lectures	Fowl cholera disease Infectious coryza disease	Poultry Diseases	8	13	
Quizzes and Exams	Lectures	Introduction and Classification of Surgery	Surgery 4th class			Surgery and Obstetrics

Method of evaluation	Method of education	Unit name/or subject	Required Learning Outcomes	Hours	Weeks	Name of the Department
Quizzes and Exams	Lectures	Sterilization (Physical and Chemical) and Modern Fertilization Techniques	Surgery			
Quizzes and Exams	Lectures	Shock and Fluid Therapy - Wounds	Surgery			
Quizzes and Exams	Lectures	Bleeding and haemostasis	Surgery			
Quizzes and Exams	Lectures	Abscess, Hematoma, and Cysts	Surgery			
Quizzes and Exams	Lectures	Fistula, Sinuses, Ulcers, Gangrene, Tumours, and Burns	Surgery			
Quizzes and Exams	Lectures	Radiology: (Definition, Principle, Characteristics, Types, and Factors Affecting X-rays)	Surgery			
Quizzes and Exams	Lectures	Contrast Radiology	Surgery			
Quizzes and Exams	Lectures	X-ray Protection and Risks	Surgery			
Quizzes and Exams	Lectures	Modern Diagnostic Tools: (CT Scan, MRI, Ultrasound, Digital X-ray, and Gamma Camera)	Surgery			
Quizzes Exams and	Lectures	Fractures: (Definition, Cause, Classification, Treatment, and Fracture Healing)	Surgery			
Quizzes and Exams	Lectures	Introduction to the Operating Theater	Surgery/ 1st Semester (Practical) 4th Year	30		Surgery and Obstetrics

Method of evaluation	Method of education	Unit name/or subject	Required Learning Outcomes	Hours	Weeks	Name of the Department
Quizzes and Exams	Lectures	Sterilization	Surgery/ 1st Semester (Practical)			
Quizzes and Exams	Lectures	Surgical Instruments	Surgery/ 1st Semester (Practical)			
Quizzes and Exams	Lectures	Pre-Surgical Preparation	Surgery/ 1st Semester (Practical)			
Quizzes and Exams	Lectures	Surgical Sutures (Suture Material and Suture Patterns	Surgery/ 1st Semester (Practical)			
Quizzes and Exams	Lectures	X-rays	Surgery/ 1st Semester (Practical)			
Quizzes and Exams	Lectures	Fractures	Surgery/ 1st Semester (Practical)			
Quizzes and Exams	Lectures	Anaesthesia (Restraint and Terminology)	Surgery / 2nd Semester (Theoretical) 4th Year			Surgery and Obstetrics
Quizzes and Exams	Lectures	Introduction to Anaesthesia and Factors Affecting	Surgery / 2nd Semester (Theoretical)			

Method of evaluation	Method of education	Unit name/or subject	Required Learning Outcomes	Hours	Weeks	Name of the Department
		Anaesthesia				
Quizzes and Exams	Lectures	Pre-Anaesthesia	Surgery / 2nd Semester (Theoretical)			
Quizzes and Exams	Lectures	Muscle Relaxants	Surgery / 2nd Semester (Theoretical)			
Quizzes and Exams	Lectures	Local Anaesthesia	Surgery / 2nd Semester (Theoretical)			
Quizzes and Exams	Lectures	General Anaesthesia	Surgery / 2nd Semester (Theoretical)			
Quizzes and Exams	Lectures	Anaesthesia Accidents	Surgery / 2nd Semester (Theoretical)			
Quizzes and Exams	Lectures	Lameness	Surgery / 2nd Semester (Theoretical)			
Quizzes and Exams	Lectures	Laser Surgery	Surgery / 2nd Semester (Theoretical)			
Quizzes and Exams	Lectures	Laparoscopic Surgery and Endoscopic Surgery	Surgery / 2nd Semester (Theoretical)			

Method of evaluation	Method of education	Unit name/or subject	Required Learning Outcomes	Hours	Weeks	Name of the Department
Quizzes and Exams	Lectures	Local Anaesthesia	Surgery / 2nd Semester (Practical) 4th Year	30	2	Surgery and Obstetrics
Quizzes and Exams	Lectures	General Anaesthesia	Surgery / 2nd Semester (Practical)	30	3	
Quizzes and Exams	Lectures	Intra-articular Injection	Surgery / 2nd Semester (Practical)	10	1	
Quizzes and Exams	Lectures	Tendon Surgery	Surgery / 2nd Semester (Practical)			
Quizzes and Exams	Lectures	Laser and Endoscopic Surgery	Surgery / 2nd Semester (Practical)			
Quizzes and Exams	Lectures	Dehorning	Surgery / 2nd Semester (Practical)			
Quizzes and Exams	Lectures	Digestive System (Diseases of the Salivary Glands and Tongue)	Surgery / 1st Semester (Theoretical) 5th Year	30		

Method of evaluation	Method of education	Unit name/or subject	Required Learning Outcomes	Hours	Weeks	Name of the Department
Quizzes and Exams	Lectures	Dental Diseases	Surgery / 1st Semester (Theoretical)			
Quizzes and Exams	Lectures	Diseases of the Soft and Hard Palate	Surgery / 1st Semester (Theoretical)			
Quizzes and Exams	Lectures	Diseases of the Pharynx	Surgery / 1st Semester (Theoretical)			
Quizzes and Exams	Lectures	Diseases of the Oesophagus	Surgery / 1st Semester (Theoretical)			
Quizzes and Exams	Lectures	Simple Stomach Diseases	Surgery / 1st Semester (Theoretical)			
Quizzes and Exams	Lectures	Large Stomach Diseases	Surgery / 1st Semester (Theoretical)			
Quizzes and Exams	Lectures	Diseases of the Accessory Organs of the Digestive System	Surgery / 1st Semester (Theoretical)			
Quizzes and Exams	Lectures	Hernia	Surgery / 1st Semester (Theoretical)			

Method of evaluation	Method of education	Unit name/or subject	Required Learning Outcomes	Hours	Weeks	Name of the Department
Quizzes and Exams	Lectures	Cardiovascular System	Surgery / 1st Semester (Theoretical)			
Quizzes and Exams	Lectures	Ear Surgery: Aural Hematoma, Ear Trimming	Surgery / 1st Semester (Theoretical)			
Quizzes and Exams	Lectures	Eye Surgery	Surgery / 1st Semester (Theoretical)			
Quizzes and Exams	Lectures	Central Nervous System	Surgery / 1st Semester (Theoretical)			
Quizzes and Exams	Lectures	Digestive System: Tooth Extraction	Surgery / 1st Semester (Practical) 5th Year	30		
Quizzes and Exams	Lectures	Partial Tongue Resection	Surgery / 1st Semester (Practical)			
Quizzes and Exams	Lectures	Oesophageal Resection	Surgery / 1st Semester (Practical)			
Quizzes and Exams	Lectures	Gastrectomy (Stomach Resection)	Surgery / 1st Semester (Practical)			
Quizzes and	Lectures	Pylorectomy and Pyloric Muscle	Surgery / 1st			

Method of evaluation	Method of education	Unit name/or subject	Required Learning Outcomes	Hours	Weeks	Name of the Department
Exams		Resection	Semester (Practical)			
Quizzes and Exams	Lectures	Intestinal Resection	Surgery / 1st Semester (Practical)			
Quizzes and Exams	Lectures	Rumen Resection	Surgery / 1st Semester (Practical)			
Quizzes and Exams	Lectures	Partial and Total Splenecto-my (Spleen Resection)	Surgery / 1st Semester (Practical)			
Quizzes and Exams	Lectures	Respiratory System: Injuries to the Nasal Openings and Nasal Cavity	Surgery / 2nd Se-mester (Theoreti-cal) 5th Year	30		
Quizzes and Exams	Lectures	Sinus and Sinus Cavity Inju-ries	Surgery / 2nd Semester (Theoretical)			
Quizzes and Exams	Lectures	Larynx and Trachea Injuries	Surgery / 2nd Semester (Theoretical)			
Quizzes and Exams	Lectures	Lung Injuries	Surgery / 2nd Semester			

Method of evaluation	Method of education	Unit name/or subject	Required Learning Outcomes	Hours	Weeks	Name of the Department
			(Theoretical)			
Quizzes and Exams	Lectures	Chest Wall Injuries	Surgery / 2nd Semester (Theoretical)			
Quizzes and Exams	Lectures	Male Reproductive System: Penis and Prepuce Injuries, Preparation for Mating, Castration	Surgery / 2nd Semester (Theoretical)			
Quizzes and Exams	Lectures	Female Reproductive System: Ovariectomy, Hysterovariectomy, Cesarean Section, Rectovaginal Fistula, Treatment of Vaginal Pneumo vagina	Surgery / 2nd Semester (Theoretical)			
Quizzes and Exams	Lectures	Urinary System: Kidney and Ureter Injuries, Bladder Injuries, Urethral Injuries	Surgery / 2nd Semester (Theoretical)			
Quizzes and Exams	Lectures	Mammary Gland: Mammary Gland Injuries, Nipple Surgery	Surgery / 2nd Semester (Theoretical)			
Quizzes and Exams	Lectures	Respiratory System: Trepana-	Surgery / 2nd Se-	30		

Method of evaluation	Method of education	Unit name/or subject	Required Learning Outcomes	Hours	Weeks	Name of the Department
		tion	mester (Practical) 5th Year			
Quizzes and Exams	Lectures	Laryngectomy	Surgery / 2nd Semester (Practical)			
Quizzes and Exams	Lectures	Tracheotomy	Surgery / 2nd Semester (Practical)			
Quizzes and Exams	Lectures	Rib Resection	Surgery / 2nd Semester (Practical)			
Quizzes and Exams	Lectures	Thoracotomy	Surgery / 2nd Semester (Practical)			
Quizzes and Exams	Lectures	Urinary System: Nephrecto-my, Nephrectomy	Surgery / 2nd Semester (Practical)			
Quizzes and Exams	Lectures	Cystectomy, Cyst Resection	Surgery / 2nd Semester (Practical)			
Quizzes and Exams	Lectures	Urethral Resection, Urethral Resection, and Urethral Fis-tula	Surgery / 2nd Semester (Practical)			

Method of evaluation	Method of education	Unit name/or subject	Required Learning Outcomes	Hours	Weeks	Name of the Department
Quizzes and Exams	Lectures	Male Reproductive System: Castration	Surgery / 2nd Semester (Practical)			
Quizzes and Exams	Lectures	Penis Surgery: Circumcision, Coral Reef Procedure, Penile Amputation	Surgery / 2nd Semester (Practical)			
Quizzes and Exams	Lectures	Female Reproductive System: Ovariectomy, Hystero-ovariectomy, Cesarean Section	Surgery / 2nd Semester (Practical)			
Quizzes and Exams	Lectures	Mastectomy	Surgery / 2nd Semester (Practical)			
Quizzes and Exams	Lectures	Nipple Fistula	Surgery / 2nd Semester (Practical)			
Quizzes and Exams	Lectures	Anatomy of Female Reproductive Organs in Animals	Obstetrics / Female Fertility (Theoretical) 4th Year	30 Hours		

Method of evaluation	Method of education	Unit name/or subject	Required Learning Outcomes	Hours	Weeks	Name of the Department
Quizzes and Exams	Lectures	Anatomy of Female Reproductive Organs	Obstetrics / Female Fertility (Theoretical)			
Quizzes and Exams	Lectures	Puberty and Maturity	Obstetrics / Female Fertility (Theoretical)			
Quizzes and Exams	Lectures	Oestrous Cycle in Animals	Obstetrics / Female Fertility (Theoretical)			
Quizzes and Exams	Lectures	Detection of Oestrus	Obstetrics / Female Fertility (Theoretical)			
Quizzes and Exams	Lectures	Seasonality and its Effect on Re-production	Obstetrics / Female Fertility (Theoretical)			
Quizzes and Exams	Lectures	Reproductive Hormones	Obstetrics / Female Fertility (Theoretical)			
Quizzes and Exams	Lectures	Temporary and Permanent Infertility	Obstetrics / Female Fertility (Theoretical)			
Quizzes and Exams	Lectures	Reproduction in Mares	Obstetrics / Female Fertility (Theoretical)			
Quizzes and	Lectures	Reproduction in Buffaloes	Obstetrics /			

Method of evaluation	Method of education	Unit name/or subject	Required Learning Outcomes	Hours	Weeks	Name of the Department
Exams		and Camels	Female Fertility (Theoretical)			
Quizzes and Exams	Lectures	Reproduction in Dogs and Cats	Obstetrics / Female Fertility (Theoretical)			
Quizzes and Exams	Lectures	Examination of Female Reproductive Organs in Animals	Obstetrics / Female Fertility (Practical) 4^{th} Year	30		
Quizzes and Exams	Lectures	Measurement of Female Reproductive Organs in Animals	Obstetrics / Female Fertility (Practical)			
Quizzes and Exams	Lectures	Recognition of Pregnancy by the Mother	Obstetrics / Female Fertility (Practical)			
Quizzes and Exams	Lectures	Uses of Reproductive Hormones	Obstetrics / Female Fertility (Practical)			

Method of evaluation	Method of education	Unit name/or subject	Required Learning Outcomes	Hours	Weeks	Name of the Department
Quizzes and Exams	Lectures	Vaginal and Uterine Samples	Obstetrics / Female Fertility (Practical)			
Quizzes and Exams	Lectures	Abnormalities of Female Reproductive Organs in Animals	Obstetrics / Female Fertility (Practical)			
Quizzes and Exams	Lectures	Intrauterine Treatment	Obstetrics / Female Fertility (Practical)			
Quizzes and Exams	Lectures	Reproductive Performance	Obstetrics / Female Fertility (Practical)			
Quizzes and Exams	Lectures	Factors Affecting Gestation (Normal and Abnormal)	Obstetrics Second Semester (Theoretical) 4th Year	30		
Quizzes and Exams	Lectures	Foetal Membranes and their Problems	Obstetrics Second Semester (Theoretical)			
Quizzes and Exams	Lectures	Pregnancy Problems	Obstetrics Second Semester (Theoretical)			

Method of evaluation	Method of education	Unit name/or subject	Required Learning Outcomes	Hours	Weeks	Name of the Department
Quizzes and Exams	Lectures	Signs of Approaching Partu-rition	Obstetrics Second Semester (Theoretical)			
Quizzes and Exams	Lectures	Stages of Parturition	Obstetrics Second Semester (Theoretical)			
Quizzes and Exams	Lectures	Retained Foetal Membranes	Obstetrics 2nd Semester (Theoretical)			
Quizzes and Exams	Lectures	Puerperium Period	Obstetrics Second Semester (Theoretical)			
Quizzes and Exams	Lectures	Normal Foetal Position in the Birth Canal	Obstetrics 2nd Semester (Practi-cal) 4th Year	30 Hours		
Quizzes and Exams	Lectures	Abnormal Foetal Position in the Birth Canal	Obstetrics 2nd Semester (Practical)			
Quizzes and Exams	Lectures	Correction of Abnormal Foe-tal Positions	Obstetrics 2nd Semester (Practical)			

Method of evaluation	Method of education	Unit name/or subject	Required Learning Outcomes	Hours	Weeks	Name of the Department
Quizzes and Exams	Lectures	Causes of Dystocia in Animals	Obstetrics 2nd Semester (Practical)			

Method of Evaluation	Method of Education	Unit name / Subject	Required Learning Outcomes	Hours	Week	Name of Department
Conducting daily tests	Oral exam Examination Daily assessment Writing reports	• Drugs acting on the cardiovascular system and blood • Chemotherapy for microbial diseases • Chemotherapy for parasitic diseases • Autacoids and anti-inflammatory drugs • Endocrine pharmacy and hormones • Dermatological pharmacology • Second semester summary • Measurement science • Nature and sources of drugs • Pharmaceutical preparations and drug forms • Methods of drug administration	•Cholinesterase activity •Organophosphate poisoning in rats or mice •Effects of xylazine in sheep •Diuretics •Aspirin toxicity (compared to acetaminophen(•Veterinary pharmaceutical preparations •Neurobehavioral effects of drugs and toxic substances •Effects of narcotics on the perfused heart	150	15	**Physiology, Biochemistry, and Pharmacology**

		• Differences in drug response (species and individuals). • Induction of microsomal enzyme activity and drug response • Drug secretion • Writing a prescription • Discontinuation • Action of drugs on the eyes • Action of drugs on isolated ileal guinea pigs • Drugs and their effects on rabbit intestines • Drugs and their effects on the rabbit uterus • Neuromuscular blockade (in frogs) • Drug dosage calculation • Anesthesia with xylazine-ketamine in rabbits • Dose-response relationships (ED50, LD50, TI) • Anticonvulsants in blood				

2. Course structure		determination					.1

Method of Evaluation	**Method of Education**	**Unit name / Subject**	**Required Learning Outcomes**	**Hours**	**Week**	**Name of Department**
Daily and semester	Field, laboratory, and lectures	1. Basics and components of the laboratory 2. Sample collection and its importance 3. Clinical hematology and blood diseases 4. Clinical chemistry and urine analysis 5. Diagnosis of bacterial diseases 6. Diagnosis of fungal diseases 7. Diagnosis of parasitic diseases 8. Rapid diagnosis 9. Serological tests 10. Milk testing	Clinical Pathology / CLP Fourth year, theoretical and practical	**45** total hours per semester		**Internal and Preventive Veterinary Medicine**
Daily and semester	Lectures	1. Bacterial diseases 2. Viral diseases 3. Parasitic diseases	Infectious Diseases /INF Fourth year,	**45** total hours per		

		4. Protozoal diseases 5. Fungal diseases	theoretical	semester		
Daily and semester	Lectures	1. Gastrointestinal diseases 2. Respiratory diseases 3. Joint and muscle diseases 4. Nervous system diseases 5. •Skin and coat diseases	Internal Medicine /MED1 Fourth year, theoretical	**45** total hours per semester		
Daily and semester	Field, laboratory, and lectures	Medical conditions in various clinical settings	Clinic / CLIN2 4th Class Practical	60 total hours per semester		
Daily and semester	Field, laboratory, and lectures	Medical conditions in various clinical settings	CLIN3 /Clinic 5th Class Practical	60 total hours per semester		
Daily and semester	Lectures	1. Metabolic diseases 2. Deficiency diseases of minerals and essential elements 3. Toxins and their treatment	Internal Medicine / MED2 5th Class Theoretical	**45** total hours per semester		
Daily and semester	Field, laboratory,	Data collection, medical history, animal's condition and behavior	Clinic / CLIN1	**60** total hours		

	and lectures	Methods of clinical examinations and measuring body temperature General clinical examination (Pulse rate and respiration rate) Skin and external covering Cardiovascular system Digestive system Initial examination Respiratory system Lymph nodes Examination of the udder and milk Administration of medications Vaccines and drugs used in veterinary medicine Allergy tests Routine clinical examination of the animal and examination card	3rd Class Practical	per semester		