

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



Academic Program and Course Description Guide

Basrah University

2025-2026

6. Program Structure

Program Structure	Number of Courses	Study Unit	Percentage	Reviews*
Institution Requirements	Institution requirements: 60 hours (theoretical) + 30 hours (practical), first semester 60 hours (theoretical) + 30 hours (practical), second semester	5 first semester units + 5 second semester units		Basic course
College Requirements	Yes			
Department Requirements	Yes			
Summer Training	Yes			
Other				

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

7. Program Description

Year/Level	Course Code	Course Name	Credit Hours	
2024-2023/second stage	VET 203, VET 209	Physiology	4 theoretical	2 practical

8. Expected learning outcomes of the program

Knowledge	
	Teaching the student to know the most important natural functions of organs, blood tests, methods of conducting them, and the materials and elements that are included in these tests.
Skills	
	Students learned laboratory skills in how to deal with pathological cases, methods of drawing blood, and how to conduct tests and compare them with normal standards.
Ethics	
	Developing students' abilities to share ideas
	1- Enabling the student to know how to diagnose the disease

	<p>and the pathology of the disease</p> <p>2- Enabling the student to recognize normal functions and compare them with diseases.</p> <p>3- Enabling students to link the functioning of the organs and their influence with other substances, such as medicines and toxins.</p> <p>4- Enabling students to know about diseases and the extent of their impact on public health and economic aspects</p>
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9. Teaching and Learning Strategies

- 1- Theoretical/through scientific lectures and new explanatory methods - getting to know the functions of organs in detail and expanding the student's mind in the field of organ physiology and linking it to other sciences.
- 2- Practical/through practical lectures in the laboratory and in order to learn about the most important methods of measuring normal blood parameters and comparing them with pathological cases.

10. Evaluation methods

- 1-Theoretical exams (daily, monthly, end of semester)
- 2- Practical exams (daily, monthly, end of semester)

11. Faculty

Faculty Members

Academic Rank	Specialization		Special Requirements/Skills (if applicable)		Number of the teaching staff	
	General	Special			Staff	
professor	Veterinary medicine and surgery	physiology			staff	

Professional Development

Mentoring new faculty members

Briefly describes the process used to mentor new, visiting, full-time, and part-time faculty at the institution and department level.

Professional development of faculty members

Using modern educational methods

12. Acceptance Criterion

(Establishing regulations related to enrollment in the college or institute)

13. The most important sources of information about the program

-Guyton and Hill , medical physiology, 2008, Ramesh C. Gupta, Veterinary Toxicology Basic and Clinical Principles. First edition 2008,

-Jim E. Riviere , Mark G. Papich . Veterinary Pharmacology and Therapeutics, 9th Edition

-Journal of physiology

-Amer. J. of pharmacology

-Veterinary physiology 2006

14. Program Development Plan

In order to link the theoretical information that the student receives to clinical reality, several things must be done, the most important of which are the following: -

- 1- Increasing field visits to government and private projects
- 2- Encouragement to visit the college library and the central library at the university
- 3- Urging students to benefit from summer training in veterinary centers and the teaching hospital
- 4- Improving research projects and graduation projects.

Course Description Form

1. Course Name:	2.		
Physiology			
3. Course Code:	4.		
VFT 203. VFT 209			
5. Semester / Year:	6.		
2024-2025/ second year			
7. Description Preparation Date:	8.		
8/1/2025			
9. Available Attendance Forms:	10.		
Attendance			
11. Number of Credit Hours (Total) / Number of Units (Total)	12.		
120 theoretical hours + 60 practical hours. 4 theoretical hours + 2 practical hours per week			
13. Course administrator's name (mention all, if more than one name)	14.		
Prof.Dr. Muna Hamuid Mohammoud, Prof.Dr. Rashad Fadial Ghabban Prof.Dr. Adal Mousa Hassan			
15. Course Objectives	16.		
1- Teaching the student to know the most important natural functions of the organs, blood tests, methods of conducting them, and the materials and elements that go into these tests. 2- Students learned laboratory skills in how to deal with pathological cases, methods of draw blood, and how to conduct tests for them and compare them with normal standards..			
17. Teaching and Learning Strategies	18.		
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">Strategy</td> <td> 1-Electronic learning method 2- Brainstorming education strategy. 3- Education Strategy Notes Series </td> </tr> </table>	Strategy	1-Electronic learning method 2- Brainstorming education strategy. 3- Education Strategy Notes Series	
Strategy	1-Electronic learning method 2- Brainstorming education strategy. 3- Education Strategy Notes Series		
10.Course structure			

15 - Course level :Second year Course Name :Theoretical physiology Semester: First & second.					
Evaluation methods	Learning methods	Subjects name	Learning methods outcomes	Hours	weeks
Questions, discussion and daily exam	Lecture and explanation	Introduction :Definition of physiology and its relation to other sciences, the structure of cell membrane and cell organelles functions.	Introducing the student to physiology and its relationship to other sciences, an introductory introduction, the structure of the plasma membrane and the functions of organelles.	4	1-

=	=	Cellular Basis of Animal Physiology, Animal cell ultra-structure, composition and functions Body fluid and its Dynamics. . Physio-chemical laws and membranes' phenomena. Transport of through biological membrane.)Review exam(.	Identify cellular structure	6	5
=	=	Excitable cells, Neurophysiology: structure and functions, Excitability and transmission of impulse in neuron and muscle. Junctional transmission. Neuro-transmitters and action potential. Synapse, (Review exam.)	Identify the nervous system and its structure	10	6
=	=	Muscle Physiology Muscle types and their intra-cellular contractile mechanisms. Electrophysiology of muscles. Neuromuscular junction. Excitation contraction coupling, its biochemical and ionic mechanisms. Molecular basis of muscle contraction (Review exam.)	Identify the function and importance of the muscular system and its relationship with the nervous system	10	7
=	=	Nervous system: organization of the nervous system, CNS, PNS, Spinal cord, Reflex arch, Autonomic nervous system, (sympathetic, and	Specialized nervous system function	6	8 & 9
=	=	Cardiovascular physiology: Cellular component of blood, Types and Functions, Hemoglobin Structure and Function, Electrical activity of the heart, (ECG...EKG), Capillaries and fluid exchange. Neural and Hormonal Control of Blood pressure, Blood Volume. and Hemostasis.	Identify the circulatory system, its components, and the importance of each component	10	10 & 11
=	=	Endocrinology: Endocrine system (Glands and their Functions) (Review exam	Identify the endocrine system and the importance of hormones and their work	10	10
=	=	Gastrointestinal Physiology and Metabolism: Organization of the Digestive System, Saliva and Salivary Glands, Liver and Pancreas, Digestive Enzymes, Ruminant physiology and fermentation	Identify digestive system function	12	11
=		Renal Physiology: Nephron structure and Function, Glomerular Filtration, Solute reabsorption, Water Balance, and Acid Base Balance.	Identify urinary system	8	12 & 13
=	Lecture and explanation with preview of samples	Respiratory System Physiology, Respiratory Volumes, Gas Exchange, Gas transport in the Blood, and Control of ventilation	Identify respiratory system	8	12
=	Lecture and explanation with preview of samples	Reproductive Physiology: Gamete development, Ovulation, Reproductive cycle, Pregnancy, Mammary gland and Lactation, Reproductive physiology of the male. (Review exam.)	Identify reproductive system and its function	10	13
=	=	Homeostasis		2	14 & 15

15 - Coures level :2nd year

Course Name :Practical physiology / 2 hours

1. Semester: First

15 - Coures level :2nd year

Course Name :Practical physiology / 2 hours

Semester: First

Evaluation methods	Learning methods	Subject name	Learning method outcome	Hours	Weeks
Daily exam questions and discussion	Lecture and explanation with ppt presentation	Safety in the physiological Laboratory		2	1
=	=	Introduction to apparatus and instruments.		2	2
=	=	Fragility of Red Blood cell.		2	3
=	=	Red blood cell count.		2	4
=	=	White blood cell count.		2	5
=	=	Differential leukocyte count		2	6
=	=	Estimation of hemoglobin		2	7
=	=	Estimation of packed cell volume		2	8
=	=	Estimation of erythrocyte sedimentation		2	9
=	=	The Win Trobe erythrocyte indexes		2	10
=	=	Blood groups		2	11
=	=	Coagulation		2	12
=	=	Bleeding time		2	13
=	=	Blood pressure		2	14
=	=	Effect of exercise and gravity on blood pressure and venous pressure		2	15
Examine					

1. Course Evaluation

The distribution is as follows: 40 marks for the annual pursuit and 60 marks for the final exams

2. Learning and Teaching Resources

Required textbooks (curricular books, if any)	Veterinary physiology
Main references (sources)	Gyuton and Hill , medi physiology,
Recommended books and references (scientific journals, reports...)	Jim E. Riviere , Mark G. Papich . Veterinary Pharmacology and Therapeutics, 9th Edition -Journal of physiology -Amer. J. of pharmacology ..
Electronic References, Websites	

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Concepts and terminology:

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

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

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

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

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

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

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

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

1. Program Vision

Program vision is written here as stated in the university's catalogue and website.

2. Program Mission

Program mission is written here as stated in the university's catalogue and website.

3. Program Objectives

General statements describing what the program or institution intends to achieve.

4. Program Accreditation

Does the program have program accreditation? And from which agency?

5. Other external influences

Is there a sponsor for the program?

6. Program Structure

Program Structure	Number of Courses	Credit hours	Percentage	Reviews*
Institution Requirements	4	3		Basic course
College Requirements	yes			
Department Requirements	Yes			
Summer Training	No			
Other				

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

7. Program Description

Year/Level	Course Code	Course Name	Credit Hours	
2023-2024 (1 st)	vEP3I 16	Clinical Toxicology	theoretical	
Post graduate				

8. Expected learning outcomes of the program

Knowledge

Cognitive objectives.

- 1- Enabling students with good advanced knowledge of clinical toxicology.
- 2- Enabling students to conduct advanced scientific research and expand scientific research work in the field of toxicology as well as in pharmacology
- 3- Enabling graduate students to develop their skills by attending seminars related to toxicology and pharmacology.

Skills

- 1- Providing the student with skills in how to deal with various types of laboratory animals for the purpose of conducting scientific experiments.
- 2- Providing the student with skills in how to use laboratory equipment.
- 3- Providing the student with the appropriate skills to administer medications and other materials to laboratory animals.
- 4- Giving the student the skills to use tissue culture for the purpose of experimenting with drugs and toxins.

Ethics

9. Teaching and Learning Strategies

- 1- Theoretical lectures.
- 2- Scientific seminars and courses
- 3- Seminars that students are assigned to present and discuss with them.
- 4- Scientific discussions during scheduled scientific lectures, asking questions, and brainstorming for graduate students.

10. Evaluation methods

- 1- Daily, monthly and final exams.
- 2- Reports.
- 3- Seminars

11. Faculty

Faculty Members

Academic Rank	Specialization		Special Requirements/Skills (if applicable)		Number of the teaching staff	
	General	Special			Staff	Lecturer
Prof.Dr.	Veterinary medicine and surgery	Veterinary pharmacology			staff	

Professional Development

Mentoring new faculty members

Attending scientific seminars and courses, as well as keeping up with seminars and courses held electronically at international universities

Professional development of faculty members

Explaining the mechanism for arranging and sequencing lectures, as well as the assessment and evaluation methods used for graduate students

12. Acceptance Criterion

Competitive examination and the ministry's plan

13. The most important sources of information about the program
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1- Barile's Clinical Toxicology, Principles and Mechanisms, Third Edition

2- External source books, Veterinary Toxicology: Basic and Clinical Principles 3rd Edition Sheep flock health (Neil sargison)

14. Program Development Plan

Updating the curriculum by updating lectures and modern scientific sources
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Course Description Form

1. Course Name:	
Clinical Toxicology	
2. Course Code:	
3. Semester / Year:	
First semester	
4. Description Preparation Date:	
22\1\2025	
5. Available Attendance Forms:	
My presence	
6. Number of Credit Hours (Total) / Number of Units (Total)	
45 / 3	
7. Course administrator's name (mention all, if more than one name)	
Assist.Prof.Dr. Jala Amier Salman	
8. Course Objectives	
<p>1- Cognitive objectives.</p> <p>2- Enabling students to know animal management while making optimal use of the capabilities available to house and care for animals.</p> <p>3- Enabling students to know and understand the science of management and methods of raising animals.</p>	
9. Teaching and Learning Strategies	
<p>1- Educational strategy, collaborative concept planning.</p> <p>2- Brainstorming education strategy.</p> <p>3- Education Strategy Notes Series</p>	
10. Course Structure	

16 - Course level: first year
 Course Name: Animal management / 2 hours
 Semester: first and Second

Evaluation method	Teaching method	Name of unit/course or subject	Required learning outcomes	Hours	Week
Questions and discussion	Lecture explanation	1-Introduction To Basic Toxicological principles,Risk assessment and regulatory toxicology	Introduction Basic definition Types of toxicology Types of toxicologists	Theoretical 3	1
Questions and discussion	Lecture explanation	2-Therapeutic Monitoring of Adverse Drug Reactions ADRs, Classification of Toxins.	1-Adverse drugs reactions in clinical practice 2-Institute of Medicine (IOM) Objectives and Methods Concerning Growing Medication Errors. 3-Therapeutic Monitoring of Adverse Drug Reactions (ADRs). 4-Factors that contribute to adverse. 5-Drug Reactions factors	Theoretical 3	2
Questions and discussion	Lecture explanation	3-Exposure,Effects (general classification and chemical interaction).	1-Duration and frequency. 2-Rout of exposure 3-accumulation	Theoretical 3	3
Questions and discussion	Lecture explanation	4-Dose response ,Descriptive of Animal Toxicity Test.	1-Types of Dose –response relationships. 2-Concentration effect and presence at the receptor site 3-LD50% 4-Eperimental protocol.	Theoretical 3	4
Questions and discussion	Lecture explanation	5-Toxicokinetics ,In vitro Alternatives to animal Toxicants.	1 -Toxicokinetic ,relative to Pharmacokinetic 2-Absorption,Distribution ,Metabolism,and Elimination. 3-In vitro methods 4-Cell culture.	Theoretical 3	5
Questions and discussion	Lecture explanation	6-Chemical and drug receptor interaction ,Toxicogenomic .	1-Types of chemical and drug receptors. 2-Signal transduction.	Theoretical 3	6
Questions and discussion	Lecture explanation	7-Toxicity by Opioid and related agents.	1-Opioid. 2-Classifications 3-Mechanism action and adverse effect 4-Antidote and therapy of toxicity.	Theoretical 3	7
Questions and discussion	Lecture explanation	8-Toxicity by none therapeutic agents(Alcohols and aldehydes,Metals,Gases,Alephatic and aromatic hydrocarbons,Insecticides,Hebicides and Rodenticides.	1-Toxicity by metas 2-Alchole and aldehyde toxicity . 3-Gases toxicity. 4-Hydrocarbones toxicity. 5-Pesticides:Insecticides Herbicides,Fungicides,and Rodenticides	Theoretical 3	8
Questions and	Lecture explanation	9-Chemical Carcinogenesis and mutagenesis.	1-Mechanisms of chemical carcinogenesisCARCIN	Theoretical 3	9

discussion			2-Metabolism. 3-free radicals and reactive oxygen species.		
Questions and discussion	Lecture explanation	10-reproductive and Developmental toxicity.	1-Drugs affecting embryonic and fetal development 2-Endocrine disrupting chemicals.	Theoretical 3	10
Questions and discussion	Lecture explanation	11-Radiation toxicity, chemical and biological threats to public health .	1-Principles of radioactivity 2-Ionizing radiation. 3-Ultra ionization UV R	Theoretical 3	11
Questions and discussion	Lecture explanation	12-Therapeutic agents toxicity(Cardiovascular toxicogcy).	1-Epidmiology. 2-Digital glycosides. 3-Beta adrenergic drugs 4-Calcium chanel inhibitors . 5-ACE inhibitors.	Theoretical 3	12
Questions and discussion	Lecture explanation	13-Toxicity by herbal remedies.	Toxicity by herbal or some plant.	Theoretical 3	13
Questions and discussion	Lecture explanation	14-Toxicity by vitamins .	1-Toxicity by Vitamins	Theoretical 3	14
Questions and discussion	Lecture explanation	15-Toxicity by None steriodal anti-inflammatory drugs	1 -Acetaminophen Tox. 2-Aspirin Tox. 3-Treatment and antidote.	Theoretical 3	15

11. Course Evaluation

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

12. Learning and Teaching Resources

- 1- Barile's Clinical Toxicology, Principles and Mechanisms, Third Edition.
- 2- Veterinary Toxicology: Basic and Clinical Principles 3rd Edition.