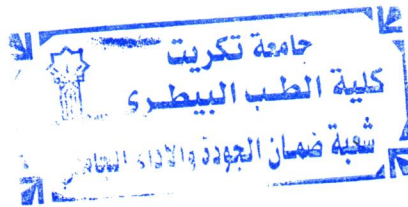


Ministry of Higher Education and Scientific Research
Scientific Supervision and Scientific Evaluation Apparatus
Directorate of Quality Assurance and Academic Accreditation
Accreditation Department



Academic Program and Course Description Guide



Introduction:

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

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

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

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

Academic Program Description Form

University Name: Tikrit university

Faculty/Institute: Veterinary medicine

Scientific Department: physiology, pharmacology and biochemistry.

Academic or Professional Program Name: Bachelor of Veterinary Medicine and Surgery

Final Certificate Name: master degree in clinical biochemistry

Academic System:- courses

Description Preparation Date: 5/10/2025

File Completion Date: 6/11/2025

Signature: 

Head of Department Name:

Butaina 

Date:

BUTHAINA ABDOULHAMEED ABDULLAH

Signature: 

Scientific Associate Name:

Date:

**Asst. Prof. Dr.
Montaser M. Helal**

The file is checked by:

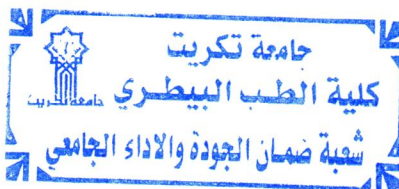
Department of Quality Assurance and University Performance

Director of the Quality Assurance and University Performance

Department:

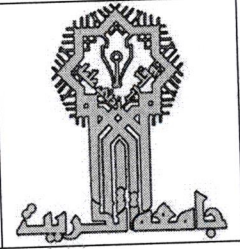
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Signature:





وزارة التعليم العالي والبحث العلمي - العراق
جامعة تكريت
كلية الطب البيطري



MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

Module Information			
معلومات المادة الدراسية			
Module Title	Systematic Physiology		Module Delivery
Module Type	Core Basic		<input type="checkbox"/> Theory <input type="checkbox"/> Lecture <input type="checkbox"/> Lab <input type="checkbox"/> Practical <input type="checkbox"/> Seminar
Module Code	VET209		
ECTS Credits			
SWL (hr./sem)	150		
Module Level	2	Semester of Delivery	
Administering Department	Physiology and pharmacology and biochemistry	College	College of Veterinary Medicine
Module Leader	Wasan sarhan Oubeid	e-mail	wasansarhan@tu.edu.iq
Module Leader's Acad. Title	Professor	Module Leader's Qualification	Ph.D.
Module Tutor	PhD. Muneef Saab MSc. Dakeel Hussien MSc. Kalid Ahmed	e-mail	muneef.s962@tu.edu.iq dakeel1981@tu.edu.iq Dr.physiologist@tu.edu.iq
Peer Reviewer Name	Dr. Muneef Saab	e-mail	muneef.s962@tu.edu.iq
Scientific Committee Approval Date	2025	Version Number	1.0

Relation with other Modules		
العلاقة مع المواد الدراسية الأخرى		
Prerequisite module	None	Semester

Co-requisites module	None	Semester	
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Module Aims, Learning Outcomes and Indicative Contents أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية	
Module Objectives أهداف المادة الدراسية	<ol style="list-style-type: none"> 1. Understand the fundamental principles of human and animal physiology as the basis for clinical and health sciences. 2. Correlate structure (anatomy) with function (physiology) at cellular, tissue, organ, and system levels. 3. Apply physiological knowledge to explain normal body functions and predict responses to internal and external changes. 4. Develop critical thinking and problem-solving skills in analyzing physiological processes.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	<p>Knowledge Outcomes</p> <p>Describe the normal functions of cells, tissues, organs, and systems of the human body.</p> <p>Explain the physiological mechanisms that maintain homeostasis.</p> <p>Relate anatomical structures to their corresponding physiological functions.</p> <p>Discuss regulatory mechanisms (neural, hormonal, and chemical) in controlling body functions.</p>
Indicative Contents المحتويات الإرشادية	<p>Foundation for Medical and Health Sciences</p> <p>Physiology explains how the body normally functions, forming the basis for understanding medicine, nursing, pharmacy, and other health fields.</p> <p>Understanding of Homeostasis</p> <p>It shows how the body maintains stability (temperature, pH, blood pressure, fluid balance) and what happens when balance is disturbed.</p> <p>Bridge to Pathology</p> <p>Essential for making rational decisions in diagnosis and treatment.</p> <p>Support for Other Sciences</p> <p>Provides the physiological background needed for pharmacology, biochemistry, pathology, and public health.</p> <p>Practical Skills Development</p> <p>Laboratory exercises (e.g., ECG, blood pressure, lung function tests) improve diagnostic and research skills.</p> <p>Improves Critical Thinking</p> <p>Daily Life Relevance</p> <p>Preparation for Research and Innovation</p>

	Forms the scientific base for biomedical research, biotechnology, and healthcare innovations. Professionalism and Ethics
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Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	The main strategy is Engage with concepts through problem-solving, case studies, and group discussions, Apply knowledge to clinical or real-life scenarios. Use diagrams, flowcharts, and concept maps to connect processes (e.g., circulation, nerve conduction). And Helps in understanding complex pathways and feedback mechanisms.

Student Workload (SWL) الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	78	Structured SWL (h/w) الحمل الدراسي المنتظم للطالب اسبوعيا	5
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	150	Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطالب اسبوعيا	6
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	750		11

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

Total assessment	100% (100 Marks)		
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Delivery Plan (Weekly Syllabus)

المنهاج الاسبوعي النظري

	Material Covered
Week 1	Introduction :Definition of physiology and its relation to other sciences, the structure of cell membrane and cell organelles functions.
Week 2	Cellular Basis of Animal Physiology, Animal cell ultra-structure, composition and functions Body fluid and its Dynamics. . Physio-chemical laws and membranes' phenomena
Week 3	. Transport of body fluid through biological membrane.
Week 4	Excitable cells, Neurophysiology: structure and functions, Excitability and transmission of impulse in neuron and muscle.
Week 5	Junctional transmission. Neuro-transmitters and action potential. Synapse
Week 6	Muscle Physiology Muscle types and their intra-cellular contractile mechanisms.
Week 7	Electrophysiology of muscles. Neuromuscular junction. Excitation contraction coupling, its biochemical and ionic mechanisms. Molecular basis of muscle contraction
Week 8	Nervous system: organization of the nervous system, CNS, PNS, Spinal cord, Reflex arch,
Week 9	Autonomic nervous system,
Week 10	Action potential
Week 11	Cardiovascular physiology: Cellular component of blood, Types and Functions, Hemoglobin Structure and Function
Week 12	Electrical activity of the heart, (ECG...EKG), Capillaries and fluid exchange
Week 13	Neural and Hormonal Control of Blood pressure, Blood Volume. and Hemostasis.p1
Week 14	Neural and Hormonal Control of Blood pressure, Blood Volume. and Hemostasis.p2
Week 15	exame
Week 16	Preparatory week before the final Exam

Delivery Plan (Weekly Lab. Syllabus)

المنهاج الاسبوعي للمختبر

	Material Covered
Week 1	Lab 1: introduction to practical physiology
Week 2	Lab 2 Skills Gained in First Semester
Week 3	Lab 3: instruments of physiology Lab.
Week 4	Lab 4: Frogs anatomy
Week 5	Lab 5: pithing of frog
Week 6	Lab 6: nerve impulse and simple muscle twitch
Week 7	Lab 7: effect of temperature on simple muscle twitch
Week 8	Lab 8: effect of prolong exercise on simple muscle twitch

Week 9	Lab 9: heart of frog, structure and function
Week 10	Lab 10: effect of exercises on heart beats
Week 11	Lab 11: effect of temperature on heart beats
Week 12	Lab 12: fatigue of muscle
Week 13	Lab 13: tetanus of muscles
Week 14	Lab 14: reflexes
Week 15	Exam

Learning and Teaching Resources مصادر التعلم والتدريس		
	Text	Available in the Library?
Required Texts	Gyuton and Hill , medical physiology, 2008, Ramesh C. Gupta, Veterinary Toxicology Basic and Clinical Principles. First edition 2008,	Yes
Recommended Texts	Essentials of veterinary physiology 2008,	yes
Websites	https://www.biodiversitylibrary.org/creator/14219	

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

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