TEMPLATE FOR COURSE SPECIFICATION

HIGHER EDUCATION PERFORMANCE REVIEW: PROGRAMME REVIEW

COURSE SPECIFICATION

This Course Specification provides a concise summary of the main features of the course and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if he/she takes full advantage of the learning opportunities that are provided. It should be cross-referenced with the programme specification.

1. Teaching Institution	Kirkuk University
2. University Department/Centre	College of Veterinary Medicine
3. Course title/code	Clinical pathology / CVM4102/CVM4202
4. Modes of Attendance offered	fourth year students
5. Semester/Year	fourth year / first and second semesters (2022-2023)
6. Number of hours tuition (total)	45
7. Date of production/revision of this specification	2/9/2022
8. Aims of the Course	
1. Acquaintance with the principles of basic pathological diagnostics. 2. Knowing the different pathogens that may affect animals. 3- The subject of pathological diagnoses is one of the basic medical sciences that must be known in the applied medical sciences (internal medicine, infectious diseases).	

9· Learning Outcomes, Teaching ,Learning and Assessment Methode

A- Cognitive goals .

A1- Teaching the student the concept of pathological diagnoses and its general principles

A2- Knowledge, understanding and comprehension of the scientific subject curriculum

A3- To classify the theoretical and practical needs for the development of learning and teaching in the appropriate manner with the scientific material

A4- Identifying pathogens that may affect animals to give the correct diagnosis of the disease state.

B. The skills goals special to the course.

B1 - Teaching the student how to make an accurate diagnosis of the disease.

B2 - Teaching the student to use scientific methods in diagnosis.

B 3 - Teaching the student the modern techniques used to diagnose diseases.

Teaching and Learning Methods

1) lectures.
2) Discussions during and after the lecture.
3) Motivation through questions and answers.
4) Homework .
5) Preparation of scientific reports .

Assessment methods

1. Semester and final theory exams by 60%
2. Semester and final practical exams at a rate of 40% , from it Daily exams (cues) and Extracurricular activities (reports, making wall posters) 5%

C. Affective and value goals

C1.
C2.
C3.
C4.

Teaching and Learning Methods

1) lectures.
2) Discussions during and after the lecture.
3) Motivation through questions and answers.
4) Homework .
5) Preparing scientific reports .

Assessment methods

1. Semester and final theory exams by 60%
2. Semester and final practical exams at a rate of 40% from it Evaluation of extra-curricular activities (reports, posters and homework) by 5% and Daily exams .

D. General and rehabilitative transferred skills (other skills relevant to employability and personal development)
D 1- Teamwork: Working in harmony with a group or team.
D2- Initiative Motivation to work: The ability to take the initiative, identify potential causes and develop ideas and solutions.
D3 - Planning & organization: The ability to develop applicable plans and programs to reach accurate results.
D4- Flexibility: adapting to different situations.
D 5- Time management: The ability to complete work on specific dates.

10. Course Structure (first semester)					
Week	Hours	ILOs / practical	Unit/Module or Topic Title / theoretical	Teaching Method	Assessment Method
1	3	Collection of different samples	Introduction (terminology and concepts)	Theoretical (1 hour) + practical (2 hours)	daily test
2	3	Erythrocytes count	Clinical hematology (leukocytes and erythrocytes)	Theoretical (1 hour) + practical (2 hours)	daily test
3	3	Reticulocytes count		Theoretical (1 hour) + practical (2 hours)	Homework
4	3	Packed cell volume and Hb determination	Bone marrow examination	Theoretical (1 hour) + practical (2 hours)	daily test
5	3	Leukocytes parameters (TLC)	Platelets function abnormalities & diagnosis of bleeding disorders	Theoretical (1 hour) + practical (2 hours)	daily test
6	3	Leukocytes parameters (DLC)	Clinical biochemistry, Basic principles, total portion,	Theoretical (1 hour) + practical (2 hours)	Homework
7	3	ESR determination	review	Theoretical (1 hour) + practical (2 hours)	daily test
8		**Mid-term exam**.			Theoretical (25) and practical (10) exams + reports (5)
9	3	Platelets function abnormalities	Ketones, urea, enzymology, mineral levels.	Theoretical (1 hour) + practical (2 hours)	daily test
10	3	Bleeding and clotting time	Metabolic profile testing and S.1. unit.	Theoretical (1 hour) + practical (2 hours)	daily test
11	3	Blood smear examination 2	Liver function test	Theoretical (1 hour) + practical (2 hours)	Homework
12	3	Lymph smear examination	Kidney function test	Theoretical (1 hour) + practical (2 hours)	daily test
13	3	Clinical biochemistry,	Water electrolytes and	Theoretical (1	daily test

		Total portion, Ketones and urea.	acid - base imbalance	hour) + practical (2 hours)	
14	3	Enzymology and mineral levels.	Disturbances of adrenal, pituitary, thyroid and parathyroid glands	Theoretical (1 hour) + practical (2 hours)	daily test
15	3	Urine examination (physical, chemical and microscopic)	Review	Theoretical (1 hour) + practical (2 hours)	
		Final-term exam.			Theoretical and practical exams (40+20)

10. Course Structure (second semester)					
Week	**Hours**	**ILOs / practical**	**Unit/Module or Topic Title / theoretical**	**Teaching Method**	**Assessment Method**
1	3	Fecal examination	Clinical parasitology	Theoretical (1 hour) + practical (2 hours)	daily test
2	3			Theoretical (1 hour) + practical (2 hours)	daily test
3	3	Skin scraping examination	Rumen fluid examination	Theoretical (1 hour) + practical (2 hours)	Homework
4	3			Theoretical (1 hour) + practical (2 hours)	daily test
5	3	Clinical microbiology		Theoretical (1 hour) + practical (2 hours)	daily test
6	3		Clinical microbiology	Theoretical (1 hour) + practical (2 hours)	Homework
7	3	Review	Review	Theoretical (1 hour) + practical (2 hours)	daily test
8		**Mid-term exam.**			Theoretical (25) and practical (10) exams + reports (5)
9	3	Milk Examination (physical and chemical)	Milk Examination	Theoretical (1 hour) + practical (2 hours)	daily test
10	3			Theoretical (1 hour) + practical (2 hours)	daily test
11	3	Milk Examination (Bacterial)	Antimicrobial sensitivity test	Theoretical (1 hour) + practical (2 hours)	Homework
12	3	Antimicrobial sensitivity test	Clinical immunology	Theoretical (1 hour) + practical (2 hours)	daily test
13	3	Rumen fluid examination		Theoretical (1 hour) + practical (2 hours)	daily test
14	3	Serological test	Transudate and exudate	Theoretical (1 hour) + practical (2 hours)	daily test
15	3	Tests of detection of toxic	Water electrolytes and	Theoretical (1 hour)	

		substances.	acid - base imbalance	+ practical (2 hours)	
		Final-term exam.			Theoretical and practical exams (40+20)

11. Infrastructure	
1. Books Required reading:	non
2. Main references (sources)	1- Fundamentals of veterinary clinical pathology ,Steven L.Stokham and Michael A.Scott ,second edition . 2- Veterinary clinical diagnosis by laboratory methods , R.S. Brar ,H.S. Sandhu and Avtar Singh . 3- Clinical pathology and laboratory techniques for veterinary technicians, ANNE M.BARGER and AMY L. MACNEILL . 4- Pathology and parasitology for veterinary technicians , Leland S. Shapiro ,second edition . 5- Color atlas of veterinary pathology , J.E.van Dijk ,E.Gruys and J.M.V.M.Mouwen , second edition . 6- Manual of small animal clinical pathology , Malcolm Davidson ,Roderick Else and John Lumsden .
A- Recommended books and references (scientific journals, reports…).	non
B-Electronic references, Internet sites…	Wikipedia
12. The development of the curriculum plan	

1. Searching for modern methods and means of teaching and learning away from the old traditional recitation method.
2. Relying on modern educational means to transfer information.
3. The use of modern devices, machines and technologies, especially electronic ones, to convey information so that the student uses all his auditory, visual and sensory senses in comprehending and storing the information in his mind.
4. Using modern methods in diagnosing various diseases that affect animals, such as ELISA and PCR.