### 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	University of Kirkuk			
2. University Department/Centre	College of Veterinary Medicine			
3. Course title/code	Immunology / PART 1/CMV3104			
4. Modes of Attendance offered	Third Class			
5. Semester/Year	first Semester 2022-2023			
6. Number of hours tuition (total)	60 Hours			
7. Date of production/revision of this specification	2/9/2022			
8. Aims of the Course				
1. Teaching students immunology that concerned with the study of immune system, component, organ, cells, complement and antibodies.				
2. understanding the basic principles of immune response and reaction				
3. learning autoimmune diseases				
4.Methods of attacking foreign body				
5-Study of hypersensitivity				

9. Learning Outcomes, Teaching, Learning and Assessment Method

# 1. Cognitive goals.

- A1- Teaching the student the basic of immunology science
- A2- Enable our students to become skilled diagnosis for acute and chronic diseases of animals that may affect the public using serology tests.
- A3- Teaching the method of doing deferent immunological tests
- A 4- Students are introduced to basic practical skills (including animal handling, laboratory skills, that concern immunology
- A 5- To develop an understanding of the mechanisms complement system
- A6- To develop an understanding the new approach of immune therapy
  - B. The skills goals special to the course.
  - B1- Introducing students to the field of veterinary medicine in the community
  - B2 Enabling students to take the course in protecting society from diseases

# Teaching and Learning Methods

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

#### Assessment methods

- 1) Daily and monthly (theoretical) tests.
- 2) Discussing scientific reports
- 3) Questions and answers
  - C. Affective and value goals
  - C1. Enable the student to think according to his ability
    C2- The student understands when and how he should think during and after the lecture
    C3- Effective thinking strategy in learning

  - C4- Pose a problem for analysis

# Teaching and Learning Methods

- Implementation methods: a teacher who listens to the learners while they sit in front of him, and they listen to him, and he must have the ability to indoctrinate and absorb information.
- Conversational methods: the teacher must possess a high scientific ability and the attendees have information on the topic of the discussion.
- The discovery method: the teacher observes the activities of the learners who are taking examples individually or collectively.

#### Assessment methods

- 1. Semester and final theory exams with a rate of 95%
- 2. Extra-curricular activities (reports, making wall posters) by 5%

- D. General and rehabilitative transferred skills(other skills relevant to employability and personal development)
- D1. Teamwork: Working in harmony with a group or team.
- D2. Initiative Motivation to work: the ability to take the initiative, determine the hypothesis, and put forward ideas and solutions.
- D3. Planning & organization: The ability to develop plans and programs that are feasible for implementation.

10. Course Structure						
Week	Hours	ILOs	Unit/Module or Topic Title	Teachin g Method	Assessment Method	
1	4	Immunology	Principle of immunity and immune response (specific and non specific)	2 hours theory 2 hours practical		
2	4		Immunoglobulin: Structure	2 hours theory 2 hours practical		
3	4		Immunoglobulin: variation,	2 hours theory 2 hours practical		
4	4		Immunoglobulin: Function and synthesis	2 hours theory 2 hours practical		
5	4		Immunology of T and B cells	2 hours theory 2 hours practical		
6	4		Complement: Nature, Function and pathways	2 hours theory 2 hours practical		
7	4		Cell mediated immunity, antigen recognition by T cells	2 hours theory 2 hours practical		
8			Mid-term exam.	_	Theoretical exam (25 marks) Practical exam (10 marks) Report (5 marks)	
9	4		Immunological tolerance	2 hours theory 2 hours practical		
10	4		Types of Hypersensitivity, Mechanisms	2 hours theory 2 hours practical		
11	4		Auto-immunity	2 hours theory 2 hours practical		
12	4		Transplantation	2 hours theory 2 hours practical		
13	4		Principle of immune genetics	2 hours theory 2 hours practical		
14	4		Immune anaphylaxis reaction	2 hours theory 2 hours practical		
15	4		Immunity of infection	2 hours theory 2 hours practical		
			Final-term exam.		Theoretical exam (40 marks) Practical exam (20 marks)	

### 11. Infrastructure

1. Books Required reading:			
2. Main references (sources)	1-Lan R. Tizard(2007): Veterinary Immunology 7th .ed.Sunders 2-Gabriel V.(2001): Medical Immunology 5th Edition by Marcel Dekker, Inc. 3- Leon N.and Sophie M. Veterinary Immunology and Immunopathology(2011). Nova Science Publishers, Inc.		
A- Recommended books and references (scientific journals, reports).	4- Jawetz E. and Levinson W. (1996): Medical microbiology and immunology. 4th.ed., Appleton and Large, Stamford.		
B-Electronic references, Internet sites	Wikipedia		
12. The development of the curriculum plan			
1. Adding Visual Studio to the curriculum.			