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

2024-2025

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.

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.

Academic Program Description Form

University Name: Tikrit University
Faculty/Institute: College of Veterinary Medicine
Scientific Department: Microbiology.
Academic or Professional Program Name: Immunology
Final Certificate Name: BSc degree in Veterinary Medicine
Academic System: Semester
Description Preparation Date: 5/10/2024
File Completion Date: 6/10/2024

Signature:
Head of Department Name:
Prof.Ass.Dr. Sanaa Saoud Ahmed
Date:6/10/2024

Signature:
Scientific Associate Name:
Prof. Dkheel Hussain
Date: 6/10/2024

The file is checked by:
Department of Quality Assurance and University Performance
Director of the Quality Assurance and University Performance Department:

Date: 6/10/2024

Signature:

Ahmed Abdullah Sultan

جامعة تكريت
كلية الطب البيطري
شعبة ضمان الجودة والاداء الجامعي

Approval of the Dean

1. **Program Vision**
The College of Veterinary Medicine at Tikrit University seeks to become a pioneering and distinguished educational, research and extension institution in order to improve and advance the educational process regionally and internationally. This is done by adhering to Arab and international quality assurance standards and policies for university performance and achieving excellence and creativity in the field of the veterinary medicine profession by creating competencies. Veterinary medicine is able to keep pace with scientific and professional development through developing and updating curricula so that graduates can perform their work efficiently in accordance with the requirements of the labor market and provide the best services to society.

2. **Program Mission**
The College of Veterinary Medicine at Tirit university seeks to provide the appropriate educational environment to prepare a veterinarian with distinguished scientific and practical skills in his field of work. The college also follows up projects, plans, develops research, and works to implement them to protect livestock and solve problems to preserve human and animal health and ensure food safety The college of Veterinary Medicine will provide projects and scientific researches that contribute to providing innovative solutions to support the national economy with relevant authorities and achieve sustainable development in education, health, and food according to the standards of the Education Council for Iraqi Veterinary colleges.

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3. **Program Objectives**
1-Knowledge and understanding of veterinary medicine and its related local, regional, and international standards 2- Scientific skills that enable the identification of the immune defence mechanisms that occur in the animal's body against bacterial and viral diseases. 3- analytical thinking skills that enable solving emerging problems in the field of livestock, common diseases, and basic sciences, by local, regional, and international standards. 4- Employability skills and self-development that enable the student to compete with others in the labor market

4. **Program Accreditation**
The BSc in Veterinary Medicine is accredited by relevant veterinary education bodies, ensuring that it meets established quality standards. This accreditation enhances the program's credibility and assures students of the qualifications they will gain

5. **Other external influences**
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6. Program Structure				
Program Structure	**Number of Courses**	**Study Unit**	**Percentage**	**Reviews***
Institution Requirements	**Institution requirements: 60 hours (theoretical) + 30 hours (practical), first semester,30 hours**	**first 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**	
2024-2025/ Third stage	**VEP**	**Immunology**	**2 theoretical**	**2 practical**

8. Expected learning outcomes of the program	
Knowledge	
	1. Components of the immune system 2. Immunological terminology 3. Complement systems. 4. An antigen properties and antibody types 5. Distinguish between innate and acquired immunity
Skills	
	Students learned laboratory skills to: • Prepare reports in the field of immunity • Using of laboratory animals such as laboratory mice and rats to isolate immune cells • Using of immunological and serological methods to diagnose some epidemic pathogens

Ethics	
	Developing students' abilities to share ideas Student should be able to implement the ethics based on Veterinary science development, correlation between ethics, discipline, and law in the medic and business

9. Teaching and Learning Strategies

1- **Strategies** of delivering lectures based on reliable sources for academic purposes
2. Using a data display device in teaching
3. Encouraging of students to learn by discussion, asking questions, dialogue, and brainstorming
4. Using of E-learning and blended learning.
5. Deliver some of important topics by the student to develop his speaking and learning skills
6. Holding practical training courses in immunology field

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	Lecturer
Assistant professor (PhD)	Biology	Microbiology-Immunology			staff	
Lecturer(PhD)	Veterinary medicine and surgery	Biomedical			staff	

Professional Development
Mentoring new faculty members
Conducting Training Programs including seminars, training courses and workshops to provide them with academic skills and experience
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**
- Veterinary immunology / Ian Tizard/Tenth edition /2018 Cellular and Molecular Immunology/Seventh edition/Abbas, Abul K. et al.,2012

14. Program Development Plan
To link the theoretical information that the student receives to clinical reality, formal and informal activities to develop a conducive academic atmosphere by **•Formal activities include:** 1)Regular classroom lectures, laboratory practical work, and field activities 2)Updating teaching methods and following up on new developments in the educational process 3)Encouraged students to use multiple resources such as the Internet, library holdings, and outside experts to improve student learning in higher education through analytics, resources, and advice. **•Informal activities include:** community service, discussions, research seminar presentations, student involvement in research collaborations, student internships during holidays, and public lectures featuring speakers from private and veterinary practice sectors.

Program Skills Outline															
				Required program Learning outcomes											
Year/Level	Course Code	Course Name	Basic or optional	Knowledge				Skills				Ethics			
				A1	A2	A3	A4	B1	B2	B3	B4	C1	C2	C3	C4
2023-2024	VEP2103	Immunology	Basic		√	√	√		√	√			√	√	

- Please tick the boxes corresponding to the individual program learning outcomes under evaluation.

Course Description Form

1. Course Name:
Immunology
2. Course Code:
3. Semester / Year:
2024-2025/ Third year
4. Description Preparation Date:
5/10/2024
5. Available Attendance Forms:
Weekly
6. Number of Credit Hours (Total) / Number of Units (Total)
30 theoretical hours + 30 practical hours. 2 theoretical hours + 2 practical hours per week
7. Course administrator's name (mention all, if more than one name)
Name:. Assist.Prof.Dr. Agharid Ali Hussein Email: agharidalrasheed@tu.edu.iq Dr.Muthanna Ali Sultan Email:Muthanna.sultan@tu.edu.iq Assist. Lecturer. Mariam Ahmed Zaydan mariamahmed@tu.edu.iq
8. Course Objectives
This course aims to provide the student with the fundamentals of immunology, the components Of the cellular and humoral immune system, and the role of immunity in maintaining animal health and its resistance to infection agents such as viruses, bacteria, and parasites pathogens Providing the student with practical information about serological and immunological methods diagnosing and detecting bacterial and viral pathogens that infect humans and animals.
9. Teaching and Learning Strategies

Strategy	1. Lectures are delivered by explaining and clarifying. 2. Using modern educational teaching aids, such as educational films, blended learning, and e-learning by the Google Classroom platform. 3. The Self-learning method, by learner-centered approach, encourages students to take ownership of their learning, set their own goals, and adapt to new challenges. 4. Encourage students to visit the central library of Tikrit University to improve their understanding and learning

10. Course structure

Course level: third year
Course Name: Theoretical Immunology
Semester: First

Evaluation methods	Learning methods	Subjects name	Learning methods outcomes	Hours	weeks
Questions, discussion and	**Lecture and explanation**	**Introduction of immunology primary lymphoid organs**	**Learning the student about the history of immunology and its relationship to other sciences**	**8 hr.**	**1-4 weeks**

daily exam		**secondary lymphoid organs immune cells**	**Structure and function of primary and secondary lymphoid organs The immune cells types and function**		
Questions, discussion and daily exam	**Lecture and explanation with preview of samples**	**Types of immunity Innate and adaptive immunity**	**Differentiate between innate immunity and adaptive immunity**	4	**5-6**
First midterm exam					**7**
=	=	**Complement systems Antigen Types of Antigens Antibodies structure**	**Learning of Complement systems pathways Antigen properties Self and autoantigens , structure o and types of antibodies**	12	**8-10**
Second midterm exam					**11**
		Immune response Interaction between Antibody and antigen Autoimmune diseases	**immune response by lymphocyte cells Interactions between antibodies and antigens, autoimmune diseases**		**12-13**

Practical Immunology / 2 hours

1. Semester: First

Evaluation methods	Learning methods	Subject name	Learning method outcome	Hours	weeks
Daily exam questions and discussion	Lecture and explanation with ppt presentation	blood collection and immune parameters	Methods of drawing blood from laboratory animals. Detection of immune parameters in the blood	**4**	**2-1**
=	=	Microscopic examination of blood smear and immune cells differentiation	Microscopic examination of blood samples to distinguish between immune cells and identify their types and shapes	**4**	**4-3**

Mid-term exam					**5**
=	=	Isolation of splenocytes Isolation of lung immune cells and lymphocytes	Isolation and culturing of Spleen cells Isolation of lymphocytes from lymph nodes and immune cells from the lung	4	**6-7**
=	=	Molecular immune techniques and diagnosis	Immunological molecular methods to identify immune markers	2	**8**
		preparation bacterial antigen Preparation of polyclonal antibodies	preparation for gram negative bacterial antigen Preparation of polyclonal antibodies in lab animals Serum preparation	4	**10-9**
=	=	agglutination test precipitation test	Interaction between antibodies and antigens by agglutination test precipitation test	4	**12-11**
=	=		Watching and practicing some immune techniques in central lab Tikrit university	2	**13**

1. Course Evaluation	
The distribution of marks is as follows: 40 marks for the annual assessment and 60 marks for the final exams."	
2. Learning and Teaching Resources	
Required textbooks (curricular books, if any)	Veterinary immunology / Ian Tizard/Tenth edition /2018
Main references (sources)	Cellular and Molecular Immunology/Seventh edition/Abbas, Abul K. et al.,2012
Recommended books and references (scientific journals, reports...)	
Electronic References, Websites	