

اصلاحية

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: Microbiology

Final Certificate Name: BSc degree in Veterinary Medicine

Academic System: Semesters

Description Preparation Date: 5\10\2024

File Completion Date: 6\10\2024

Signature: 

Head of Department Name:

Assist.Prof. Dr. Sanaa Saoud Ahmed

Date: 6\10\2024

Signature: 

Scientific Associate Name:

Prof. Dkheel Hussain

Date: 6\10\2024


The file is checked by:

*Ahmed Abdallah Sultan*

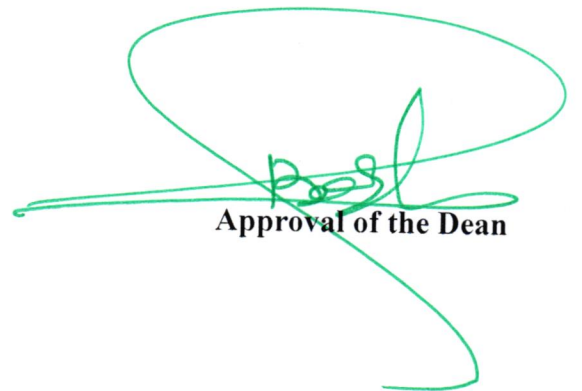
Department of Quality Assurance and University Performance

Director of the Quality Assurance and University Performance Department:

Date: 6/10/2024

Signature: 





Approval of the Dean

### **1. Program Vision**

The College of Veterinary Medicine / Tikrit University seeks to become an educational, research and extension institution and to be a pioneer and distinguished in order to advance the educational process and advance it regionally and internationally by adhering to Arab and international quality assurance standards and policies and 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 development in the field of the profession, as this is done through developing and updating the curriculum so that graduates can perform their work efficiently in accordance with the need of the labor market and provide the best service to society.

### **2. Program Mission**

The basic outputs of the college are to prepare distinguished, competent graduates in the field of veterinary medicine by relying on the outputs of the College of Veterinary Medicine as basic building blocks for primary and postgraduate studies to serve the country's livestock. This is done by developing the curriculum in a way that is compatible with the spirit of the times and modernity. The college is also committed, through its mission, to honesty and quality in education at all levels. In addition to encouraging distinguished research projects for teachers in accordance with the needs of society and the labor market. The college also seeks to achieve excellence in preparing students with solid academic preparation that qualifies them to serve the community in the field of specialization. It also works to establish values and ideals among the college's members and students.

### **3. Program Objectives**

The College of Veterinary Medicine aims to raise the scientific level of undergraduate and graduate students and build their capabilities at the scientific and applied levels, and work to direct scientific research in the applied direction in the field of veterinary medicine and livestock and protect humans from common diseases by combating them and carrying out awareness and educational campaigns to prevent them, as well as graduating doctors. Veterinarians are able to perform their work in the field of community service with high efficiency through the scientific capabilities available at the college, including laboratories, the consulting office, and the veterinary teaching hospital, examining and treating various field animals, poultry, and fish ponds, supervising and treating them, and providing consultations in the field of care and nutrition of animals, poultry, and fish in order to obtain a food product. Safe from healthy animal origin and free of diseases, spreading environmental and cultural awareness of the importance of veterinary medicine in serving society and developing the environment, focusing on the educational and moral aspect of the student and spreading the spirit of dedication, tolerance and commitment.

**4. Program Accreditation**

National Council for Accreditation of Veterinary Medicine College

**5. Other external influences**

European System of Evaluation of Veterinary Training (ESEVT)  
 European Association of Establishments for Veterinary Education” (EAEVE)  
 European Coordinating Committee on Veterinary Training (ECCVT)  
 European Board for Veterinary Specialization” (EBVS)  
 World Organization of Animal Health (WOAH)

**6. Program Structure**

Program Structure	Number of Courses	Study Unit	Percentage	Reviews*
Institution Requirements	30 hours (practical), first semester  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
2024-2025/Third stage	MIC134	Microbiology	3 Theoretical 2 practical
2024-2025/Third stage	MIC234	Microbiology	3 Theoretical 2 practical

## 8. Expected learning outcomes of the program

### Knowledge

Enabling students to obtain knowledge and understanding of microbiology and fungal diseases.

### Skills

1-Enabling Students to solve problems related to microbiology  
2-proficiency in using the English language ,reading ,writing and applying it general concepts of the english language and its literature .  
3-The students knowledge and memorization of some literary texts in the english to enhance his general culture .  
4-Developing the students skills by focusing on some external influences that help him develop himself .  
5-Enabling students to use glass slides including histological sections from various branches of veterinary medicine ,in addition figures and posters explaining specific disease conditions  
6-Enabling students to pass job interviews .

### Ethics

Developing students' abilities to share ideas

1- Enabling the student to know how to diagnose the disease and the pathology of the disease  
4- Enabling students to know about diseases and the extent of their impact on public health and economic aspects

## 9. Teaching and Learning Strategies

1. The lecture
2. Discussion
3. Holding discussion circles
4. Holding training courses in the field of practical applications
5. Providing students with basics and additional topics related to the previous learning outcomes of skills, to solve problems the operati

## 10. Evaluation methods

weekly, monthly, and daily exams, and the end of the semester

## 11. Faculty

Faculty Members

Academic Rank	Specialization		Special Requirements/Skills (if applicable)	Number of the teaching staff	
	General	Special		Staff	Lecturer
Professor PhD	Biology	Microbiology		Staff	Lecturer
Professor PhD	Biology	Microbiology		Staff	Lecturer
Assist.Prof.PhD.	Biology	Microbiology		Staff	Lecturer
Professor	Biology	Microbiology		Staff	Lecturer

### Professional Development

#### Mentoring new faculty members

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

#### Professional development of faculty members

- 1-Time management and setting priorities
- 2-perseverance and teamwork
- 3-Freedom to choose a role model or stage representative for the student

### 12. Acceptance Criterion

The central admission system is based on the applicant's choice

### 13. The most important sources of information about the program

Textbooks and Recommended Reference

P.J. Quin, BK Markey, ME Carter, WJ Donnelly and FC Leonard. Veterinary Microbiology and Microbial Disease. Blackwell Science

Peter Borriello, Patrick R. Murray and Guido Funke. Topley and Wilson's Microbiology and Microbial Infections, Bacteriology Volumes I & II. Hodder Arnold

Glen Sonder J & Karen W Post. Veterinary Microbiology: Bacterial and Fungal Agents of Animal Diseases. Cold Spring Harbor Lab. Press.

Veterinary Clinical Microbiology, By Patrick Quinn Bryan Markey , Mark Carter and G.R. Carter. 2nd Revised edition.2013.

### 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.

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 Third	MIC134	Microbiology	Basic		x		x	X						x	
	MIC234	Microbiology	Basic												

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

## Course Description Form

<b>1. Course Name:</b>	
Microbiology	
<b>2. Course Code:</b>	
<b>3. Semester / Year:</b>	
2024-2025/ Third year	
<b>4. Description Preparation Date:</b>	
5/10/2024	
<b>5. Available Attendance Forms:</b>	
Weekly	
<b>6. Number of Credit Hours (Total) / Number of Units (Total)</b>	
75 practical hours. 2 practical hours per week	
<b>7. Course administrator's name (mention all, if more than one name)</b>	
<b>Name :</b> Prof.Dr.Nihad Abdulhussain Jafar      Email : <a href="mailto:nihadabid73@tu.edu.iq">nihadabid73@tu.edu.iq</a> Prof.Dr.Bashar Sadeq Noomi      Email : <a href="mailto:vetbashae@tu.edu.iq">vetbashae@tu.edu.iq</a> Dr.Assist.Prof. Sanaa Saoud Ahmed      Email: <a href="mailto:Sanaa.s.ahmed@tu.edu.iq">Sanaa.s.ahmed@tu.edu.iq</a> Prof. Hiba Younis Khalaf      Email: <a href="mailto:hibamicrobiology@tu.edu.iq">hibamicrobiology@tu.edu.iq</a> . Assist. Lecturer Hanen omar bahjat <a href="mailto:Hanenomar@tu.edu.iq">Hanenommar@tu.edu.iq</a> Assist. Lecturer Ban Badran Adnan <a href="mailto:ban.b.adnan@tu.edu.iq">ban.b.adnan@tu.edu.iq</a>	
<b>8. Course Objectives</b>	
This course aims to give the student a complete idea of microorganisms from ancient times to the present, through his study of a number of microorganisms and methods of detection using modern technologies. Providing the student with practical and theoretical information On how to study and cultivate microorganisms Accuracies and modern molecular methods in diagnosing some bacterial and viral diseases that infect humans and animals. A study on microscopic organisms bacteria, viruses, and their classification.	
<b>9. Teaching and Learning Strategies</b>	
<b>Strategy</b>	Delivering lectures explaining and clarifying. Clarifying. Using technological educational aids as aids For teaching, educational films, and electronic lectures. Self-learning method through the support of an environment Learner-centered learning. Encourage students to use the library as a method of learning Developing student's ability on the subject of microbiology Its risks, methods of transmission between humans and animals, and how to treat it with antibiotics

**10. Course structure**

Course level: third year

Course Name: Theoretical Microbiology

Semester: First

Evaluation Methods	Learning Methods	Subject Name	Learning Methods Outcomes	Hours	Weeks
Daily exam, discussion	Lecture, explanation, and PPT	Introduction and History of Microbiology	Introduction to microbiology and its historical context	6	1 & 2
Daily exam, discussion	Lecture, explanation, and PPT	Structure of Prokaryotic Cells	Understanding prokaryotic cell structure	3	3
Daily exam, discussion	Lecture, explanation, and PPT	Growth and Nutrition in Bacteria	Knowledge of bacterial nutrition and growth mechanisms	3	4
Daily exam, discussion	Lecture, explanation, and PPT	Control of Microbial Growth: Disinfectants, Antibiotics, Chemotherapy	Mastery of microbial control methods	3	5
Daily exam, discussion	Lecture, explanation, and PPT	Microbial Metabolism	Insight into microbial metabolism	3	6
					7
Daily exam, discussion	Lecture, explanation, and PPT	Bacterial Genetics	Comprehension of bacterial genetics and replication mechanisms	6	8
Daily exam, discussion	Lecture, explanation, and PPT	Mycology	Familiarity with fungal classification and pathogenicity	3	9
Daily exam, discussion	Lecture, explanation, and PPT	Staphylococcus	Identification of Staphylococcus virulence factors	3	10
Daily exam, discussion	Lecture, explanation, and PPT	Streptococcus and Related Cocci	Understanding Streptococcus and related cocci	3	11
Daily exam, discussion	Lecture, explanation, and PPT	Corynebacterium species and Rhodococcus equi	Knowledge of Corynebacterium species and their diseases	3	12
Daily exam, discussion	Lecture, explanation, and PPT	Genus: Arcanobacterium,	Understanding various genera and their pathogenic effects	3	13

		Genus: Nocardia, Genus: Dermatophilus			
<b>Daily exam, discussion</b>	Lecture, explanation, and PPT	Spirochaetes Leptospira	Description of Spirochaetes and their impact on health	3	14
<b>Daily exam, discussion</b>	Lecture, explanation, and PPT	Genus: Borrelia, Genus: Listeria	Insight into Borrelia and Listeria virulence	3	15
		Final exam for the first course			

<b>Course structure</b> <b>Course level : third year</b> <b>Course Name: Theoretical Microbiology</b> <b>Semester:Second</b>					
<b>Evaluation Methods</b>	<b>Learning Methods</b>	<b>Subject Name</b>	<b>Learning Methods Outcomes</b>	<b>Hours</b>	<b>Weeks</b>
<b>Questions, discussion, and daily exam</b>	Lecture, explanation, and PPT	Genus: Mycobacterium	Description of the bacterium with recognition of its main virulence factors and pathogenesis, and the major diseases it causes in animals	3	3
<b>Questions, discussion, and daily exam</b>	Lecture, explanation, and PPT	Genus: Pasteurella, Genus: Moraxella	Description of the bacterium with recognition of its main virulence factors and pathogenesis, and the major diseases it causes in animals	3	4
<b>Mid exam</b>					
<b>Questions, discussion, and daily exam</b>	Lecture, explanation, and PPT	Family: Enterobacteriaceae - General features and classification, Genus: Escherichia, Genus: Salmonella, Genus: Klebsiella,	Description of the bacterium with recognition of its main virulence factors and pathogenesis, and the major diseases it causes in animals	3	6

		Genus: Proteus, Genus: Yersinia			
<b>Questions, discussion, and daily exam</b>	Lecture, explanation, and PPT	Genus: Pseudomonas, Genus: Burkholderia, Genus: Mannheimia	Description of the bacterium with recognition of its main virulence factors and pathogenesis, and the major diseases it causes in animals	3	7
<b>Questions, discussion, and daily exam</b>	Lecture, explanation, and PPT	Genus: Brucella, Genus: Campylobacter	Description of the bacterium with recognition of its main virulence factors and pathogenesis, and the major diseases it causes in animals	3	8
<b>Questions, discussion, and daily exam</b>	Lecture, explanation, and PPT	Genus: Taylorella, Genus: Haemophilus	Description of the bacterium with recognition of its main virulence factors and pathogenesis, and the major diseases it causes in animals	3	9
<b>Questions, discussion, and daily exam</b>	Lecture, explanation, and PPT	Genus: Mycoplasma	Description of the bacterium with recognition of its main virulence factors and pathogenesis, and the major diseases it causes in animals	3	10
<b>Mid exam</b>					
<b>Questions, discussion, and daily exam</b>	Lecture, explanation, and PPT	Rickettsia and Chlamydia	Description of the bacterium with recognition of its main virulence factors and pathogenesis, and the major diseases it causes in animals	3	12
<b>Questions, discussion, and daily exam</b>	Lecture, explanation, and PPT	Systematic Mycology, Dermatophytes, Genus: Microsporum, Genus: Trichophyton	Description of the fungus with recognition of its main virulence factors and pathogenesis, and the major diseases it causes in animals	3	13

<b>Questions, discussion, and daily exam</b>	Lecture, explanation, and PPT	Genus: Aspergillus: Candida albicans, Cryptococcus neoformans, Malassezia pachydermatis, Blastomyces dermatitidis, Coccidioides immitis	Description of the fungus with recognition of its main virulence factors and pathogenesis, and the major diseases it causes in animals	3	14
<b>Questions, discussion, and daily exam</b>	Lecture, explanation, and PPT	Histoplasma capsulatum, Histoplasma farciminosum, Sporothrix schenckii, Zygomycoses: Mucormycosis, Entomophthomycosis, Rhinosporidium seeberi, Fungi associated with mastitis and abortions in animals, Mycotoxicoses	Description of the fungus with recognition of its main virulence factors and pathogenesis, and the major diseases it causes in animals	3	15
<b>Final exam</b>					

<b>Practical Microbiology Semester: First &amp; second.</b>					
<b>Evaluation methods</b>	<b>Learning methods</b>	<b>Subjects name</b>	<b>Learning methods outcomes</b>	<b>Hours</b>	<b>Weeks</b>
Questions, discussion and daily exam	Lecture and explanation	Safety in the microbiology laboratory and types of microscope	Learn about ways to preserve laboratory safety Microbiology, basic laboratory equipment and types of microscopes	2	1
=	=	<u>Sterilization and disinfection</u>	Learning about sterilization methods for disinfection and types of	2	2

			disinfectants and sterilizers			
=	=	Bacterial media ,preparation and types of culture media	To learn culture media of bacteria methods of preparation	4	4&3	
=	=	Isolation in culture techniques Bacterial colonies	Identify methods of culturing samples, techniques for obtaining pure growth	2	5	
=	=	Measurement of bacterial growth and total count	Identify bacterial growth and number of bacteria	2	6	
=	=	Bacterial staining	Identify the types of dyes and methods of staining	4	7&8	
=	=	Preservation of bacteria	Preservation of bacteria	2	9	
=	=	Practical Exam for the first course				10
=		Antibiotic Sensitivity Test	Learn about antibiotic testing		11	
=	Lecture and explanation with preview of samples	Biochemical test	Identify of biochemical test to diagnose bacteria	6	12	
=	Lecture and explanation with preview of samples	Staphylococcus	Identify the Staphylococcus and its pathogenicity	2	13	
=	=	Streptococcus	Identify the Streptococcus and its pathogenicity	2	14 & 15	

<b>Practical Microbiology / 2 hours</b>					
<b>Semester: second</b>					
15 - Coures level :3 <sup>nd</sup> year					
Course Name :Practical Microbiology/ 2 hours					
Semester: second					
Evaluation methods	Learning methods	Subject name	Learning method outcome	Hours	Weeks
Daily exam questions and discussion	Lecture and explanation with ppt presentation	Campylobacter, Brucella	Identify the Campylobacter ,Brucella and its pathogenecity	6	3-1



=	=	Ecoil,proteus,klebsiell Salmonella spp	Identify the Enterobacteriaceae and its pathogenicity	4	5-4
Mid Exam					
=	=	Corynebacterium, Listeria	Identify the Corynebacterium, Listeria and its pathogenicity	4	7-6
=	=	Pasteuella and mannheimia	Identify the Pasteuella and mannheimia and its pathogenicity	4	10-9
=	=	Mycology	Identify fungi and their methods of reproduction and diagnosis	4	13-11
Examine Practical Exam for the Second course					

1. Course Evaluation	
The distribution is as follows: 15 marks for the annual pursuit and 20 marks for the final exams	
2. Learning and Teaching Resources	
Required textbooks (curricular books, if any)	<b>Veterinary Microbiology</b>
Main references (sources)	Jawetz, Melnick, Adelbergs Medical Microbiology, 10th edition
Recommended books and references (scientific journals, reports...)	<b>-Journal of Microbiology</b> ..
Electronic References, Websites	