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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

## **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 and Parasitology Dept.  
Academic or Professional Program Name: Master of Science (M.Sc.) in Microbiology  
Final Certificate Name: MSc degree in Microbiology  
Academic System: Course  
Description Preparation Date: 15\4\2024  
File Completion Date: 15\6\2024

Signature:

Head of Department Name: Assist.Prof. Dr.

Asst. Prof. Dr. Sanaa S. Ahmed

Date: 10\6\2024

Signature:

Scientific Associate Name: Dalkeel

Date: 10\6\2024

Mussein Hadra

The file is checked by:

Department of Quality Assurance and University Performance

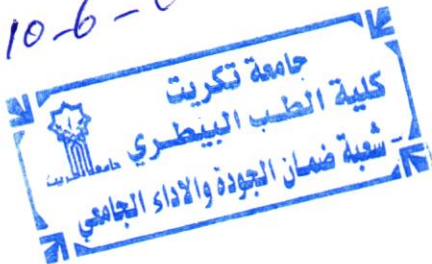
Director of the Quality Assurance and University Performance Department:

Date:

Signature:

Saif Khaleel

10-6-2024



Approval of the Dean

### **1. Program Vision**

The College of Veterinary Medicine at Tikrit University seeks to establish the program as a center of excellence in microbiology education and research and creating a stimulating learning environment that fosters student engagement and scientific inquiry and developing strategic partnerships to translate research into practical, impactful applications. In addition, contributing to advancements in human and animal health, food security, environmental sustainability, and technological innovation Supporting the sustainable development of the local and global community

### **2. Program Mission**

The College of Veterinary Medicine at Tikrit University seeks to provide high-quality education and training in Microbiology to equip students with strong theoretical knowledge and practical skills establishing a research-intensive environment, monitoring research projects and plans, and developing them to protect animal resources, and solve problems related to human and animal health, as well as food safety. To promote collaboration and knowledge exchange between students, faculty members, and industry partners to develop critical thinking and communication skills in graduate students. Additionally, Prepare committed researchers who apply ethical principles and technical/scientific knowledge in the field of Microbiology, contributing to the improvement of societal and environmental conditions.

### **3. Program Objectives**

Comprehensive coverage of the core disciplines within Microbiology, from bacteria to parasites, immunology, and vaccinology

Developing problem-solving and analytical capabilities to address challenges in animal health, zoonotic diseases, and fundamental microbiological sciences

Cultivating robust research skills, critical thinking, and effective communication abilities in students

Enabling students to actively participate in and contribute to research and academic teams at various levels

Preparing students to engage in high-level scientific discourse and presentation at conferences and other academic forums

### **4. Program Accreditation**

National program accreditation standards for higher education institutions in Iraq have been prepared based on the European Association of Establishments for Veterinary Education

### **5. Other external influences**

Laboratories Animal facilities, Library and internet resources, Slaughterhouse, Veterinary hospital and Veterinary projects

### **6. Program Structure**

Program Structure	Number of Courses	Study Unit	Percentage	Reviews*
Institution Requirements	Institution requirements: 30 hours (theoretical) + 30 hours	second semester units		Basic course
College Requirements	Yes			
Department Requirements	Yes			
Summer Training				
Other				

\* This can include notes whether the course is basic or optional.

7. Program Description				
Year/Level	Course Code	Course Name	Credit Hours	
2024-2023/			2	theoretical vaccinology

8. Expected learning outcomes of the program	
<b>Knowledge</b>	
	<p>The ability to search and analyze relevant literature and research, and identify gaps and new contributions in the field of scientific research.</p> <p>Selecting the appropriate research design (quantitative, qualitative, mixed) and organizing and presenting the results in a logical and clear manner, and determining the conclusions and recommendations based on the results.</p> <p>The ability to independently research and analyze information and data.</p> <p>The ability to write a well-organized and coherent research manuscript that is ready for publication.</p>
<b>Skills</b>	
	<p>Research and analysis skills</p> <ul style="list-style-type: none"> <li>• The ability to identify the research problem and formulate research questions and hypotheses.</li> <li>• Skills in collecting data and information in an organized and reliable manner.</li> <li>• Scientific writing and documentation skills:</li> <li>• The ability to critically and objectively evaluate the literature and results.</li> </ul>
<b>Ethics</b>	
	<ul style="list-style-type: none"> <li>• Commitment to ethical and professional laws and behaviors in conducting research and applying its results and respect and research cooperation</li> <li>• Contribution to the development of knowledge and practices in scientific research.</li> </ul>

- Respect for intellectual property rights, patents, and copyrights.

### Teaching and Learning Strategies

- Direct instruction: Graduate students deliver lectures based on approved sources to develop presentation and public speaking skills using PowerPoint slides and displaying them through a data projector.
- Cooperative learning by encouraging communication and collaboration with research groups to achieve common goals.
- Organizing scientific seminars and conferences to exchange knowledge and experiences and expand the students' scientific network.
- Discussion, questioning, dialogue, and brainstorming.

## 9. Evaluation methods

- Mid-term exam and a final course exam to assess knowledge, understanding, and reasoning in relation to the student's level of ability and comprehension of the course content.
- Scientific discussion sessions to measure the student's ability to present information, select appropriate responses, and prepare the students to write scientific reports by choosing important topics in the field of research methodology.
- Providing mechanisms to monitor student progress and provide academic feedback and guidance.

## 10. Faculty

### Faculty Members

Academic Rank	Specialization		Special Requirements/Skills (if applicable)	Number of the teaching staff	
	General	Special		Staff	Lecturer
Assistant professor	Biology	Microbiology and Immunology		staff	

### Professional Development

#### Mentoring new faculty members

- The program organizes the following to help students develop skills and expertise in academic research writing and publication:

#### Professional development of faculty members

- Participation in specialized workshops and discussion sessions on the latest developments in the field of scientific research, publishing methods, and writing scientific papers.
- Attending relevant scientific conferences and seminars to stay up-to-date on the latest trends in writing and publishing scientific research.

- Conducting research and updating the curriculum to align with scientific and research advancements.
- Providing training and guidance to faculty members in the field of supervising graduate students.

### 11. Acceptance Criterion

According to the regulations, the postgraduate program in microbiology at the College of Veterinary Medicine, University of Tikrit

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

- The official website of the Veterinary Medicine Program at the University of Tikrit
- The student handbook or academic guide
- Assessments and rankings of the program by accreditation agencies or academic institutions
- The Postgraduate Studies and Follow-up Unit

### 13. 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:**

Discussions, research seminar presentations, student involvement in research collaborations, and attendance at public lectures on the latest developments in research methodology.



Program Skills Outline																		
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		Research methodology	Basic		√	√	√			√	√	√				√		

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

### Course Description Form

1. Course Name:	2.		
Research methodology			
3. Course Code:	4.		
5. Semester / Year:	6.		
2023-2024/ postgraduate			
7. Description Preparation Date:	8.		
10/4/2024			
9. Available Attendance Forms:	10.		
Attendance			
11. Number of Credit Hours (Total) / Number of Units (Total)	12.		
30 theoretical hours + tow theoretical hour per week			
13. Course administrator's name (mention all, if more than one name)	14.		
Name: Assist.Prof.Dr. Agharid Ali Hussein email: agharidalrasheed@tu.edu.iq			
15. Course Objectives	16.		
<ol style="list-style-type: none"> <li>1. The program aims to provide students with a comprehensive understanding of: Scientific research methods, design of scientific experiments.</li> <li>2. academic writing a thesis and scientific research</li> </ol>			
17. Teaching and Learning Strategies	18.		
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;"><b>Strategy</b></td> <td> <ul style="list-style-type: none"> <li>Interactive lectures: Presenting the basic concepts and theories by the advan faculty, and encouraging discussions and dialogues between students and lecturers</li> <li>Developing analytical thinking skills, problem-solving, and enhancing research : scientific writing skills for the master's thesis and research papers.</li> <li>Presentations and research reports prepared and presented by the students.</li> <li>Group discussions, debates, and exchange of opinions and ideas between students : supervisors.</li> <li>Enhancing communication and critical skills, and encouraging students to use central and electronic library as a method of learning.</li> </ul> </td> </tr> </table>	<b>Strategy</b>	<ul style="list-style-type: none"> <li>Interactive lectures: Presenting the basic concepts and theories by the advan faculty, and encouraging discussions and dialogues between students and lecturers</li> <li>Developing analytical thinking skills, problem-solving, and enhancing research : scientific writing skills for the master's thesis and research papers.</li> <li>Presentations and research reports prepared and presented by the students.</li> <li>Group discussions, debates, and exchange of opinions and ideas between students : supervisors.</li> <li>Enhancing communication and critical skills, and encouraging students to use central and electronic library as a method of learning.</li> </ul>	
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**10. Course structure****Course level: postgraduate****Course Name: Research methodology****Semester: Second**

<b>Evaluation methods</b>	<b>Learning methods</b>	<b>Subjects name</b>	<b>Learning methods outcomes</b>	<b>Hours</b>	<b>weeks</b>
Questions, and discussion	Presenting the lecture using (PPT) slides, with clarification and explanation	Ethics of scientific research	Ethical principles in scientific research	6	2-1
Questions, and discussion	Presenting the lecture using (PPT) slides, with clarification and explanation	Scientific research	the importance of scientific research in society and human progress, and characteristics of a scientific researcher	2	4-3
Questions, and discussion		Types of research studies	a overview of the different classification of research studies based on their purpose, methodological design, data sources, and overall approach	2	5
Mid-term exam					6
Questions, and discussion	Presenting the lecture using (PPT) slides, with clarification and explanation	The design of scientific experiments	the key principles and main elements involved in the design of scientific :experiments	2	7
Questions, and discussion	Presenting the lecture using (PPT) slides, with clarification and explanation	Research proposal	the key elements of a research proposal, defining the research problem, and determining the sample size	4	9-8
Questions, and discussion	Presenting the lecture using (PPT) slides, with clarification and explanation	Citation and referencing:	the types of direct and indirect citations, and how to write references in APA 7th edition:	4	10
Mid-term exam					11
Questions, and discussion	Presenting the lecture using (PPT) slides, with clarification and explanation	Writing of thesis and dissertation:	key components of a thesis or dissertation:	4	13-12
Questions, and discussion	Presenting the lecture using (PPT) slides, with clarification and explanation	Writing of research paper	key steps in writing a research paper		14
<b>Final exam</b>					

## 1. Course Evaluation

Student performance is evaluated through the following assessments: Midterm Examination (30%) and Final Examination 70%.

## 2. Learning and Teaching Resources

Required textbooks (curricular books, if any)	<p>لكتاب_جودة_البحث_العلمي  الاخلاقيات -المنهجية-الاشراف-كتابة الرسائل والبحوث العلمية  علي ابراهيم عبيدو الطبعة الاولى 2014  Howell, K. E. (2013) Introduction to the Philosophy of Methodology. London: Sage Publications</p>
Main references (sources)	<p>Lodico, Marguerite G.; Spaulding, Dean T.; Voegtle, Katherine H. (2010). <i>Methods in Educational Research: From Theory to Practice</i>. Wiley. ISBN 978-0-470-58869-7.</p>
Recommended books and references (scientific journals, reports...)	<p>APA Format Citation Guide •  <a href="https://www.mendeley.com/guides/apa-citation-guide/">https://www.mendeley.com/guides/apa-citation-guide/</a>  <a href="#">Formatting - APA Referencing Style Guide - Library Guides at University of Waikato</a></p>
Electronic References, Websites	<p>Sampling Methods In Reseach: Types, Techniques, &amp; Examples:  <a href="#">Sampling Methods In Reseach: Types, Techniques, &amp; Examples (simplypsychology.org)</a>  Statistics Online:  <a href="#">Statistics Online   STAT ONLINE (psu.edu)</a></p>