

**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**

**2025**

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## **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), 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.

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**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.....

Faculty/Institute: College of Medicine.....

Scientific Department: Medical Microbiology.....

Academic or Professional Program Name: .....

Final Certificate Name: MBCHB.....

Academic System: Annual .....

Description Preparation Date:

15/9/2025

File Completion Date:15/9/2025

Signature:

Head of Department Name:

Prof. Dr. Rafal Khaleel

Farhan

Date:15/9/2025

Signature:

Scientific Associate Name:

Ass. Prof. Dr. Hashim Abd Al

Sattar

Date:15/9/2025

أ.م.د. هاشم عبد الستار جبار  
معاونة العميد للشؤون العلمية

The file is checked by:

Department of Quality Assurance and University Performance

Director of the Quality Assurance and University Performance Department:

Date:

Signature:

عذراء كامل حسين العبيدي  
مسؤول شعبة ضمان الجودة



Approval of the Dean

**1. Program Vision**

The program vision includes the gain by students the basic sufficient knowledge regarding diagnosis and treatment of infectious diseases caused by various microbes including bacteria, viruses, fungi, and parasites. The treatment includes ways of prevention and control.

**2. Program Mission**

Via theoretical lectures and practical laboratory learning, students will learn about microbial taxonomy, microbial cell structure, their virulence factors, then the process of diagnosis depending on signs and symptoms.

**3. Program Objectives**

Learning students about infectious diseases which can be transmitted in the community, ways of diagnosis and treatment..

**4. Program Accreditation**

Work in progress to gain accreditation

**5. Other external influences**

Null

<b>6. Program Structure</b>				
Program Structure	Number of Courses	Credit hours	Percentage	Reviews•
Institution Requirements				
College Requirements				
Department Requirements	Basic courses			
Summer Training	null			
Other				

This can include notes whether the course is basic or optional

7. Program Description				
Year/Level	Course Code	Course Name	Credit Hours(weekly)	
			theoretical	Practical
1		General Microbiology for 15 weeks	1	1 (4 weeks only)
1		Human Genetics for 24 weeks	1	
2		Bacteriology for 8 weeks	1	1
2		Immunology for 8 weeks	1	1
2		Virology for 4 weeks	1	1
2		Mycology for 4 weeks	1	1
3		Bacteriology for 8 weeks	1	1
3		Virology for 8 weeks	1	1
3		Mycology for 8 weeks	1	1
3		Parasitology for 24 weeks	2	2

<b>8- Learning outcomes:</b>	
<b>Knowledge: of microbial cell structure, virulence factors and other mechanisms of pathogenesis.</b>	
<b>Skills: acquiring the skill of diagnosing infectious diseases, treatment, and ways of prevention and control.</b>	
<b>9-Teaching and learning strategies: Theoretical lectures, practical laboratory learning, and seminars.</b>	
<b>10- Ways of assessment:</b> quizzes, monthly and final exams theory and practical.	

<b>11- Faculty</b>						
Academic Rank	Specialization		Special Requirement s/Skills (if applicable)		Number of the teaching staff	
	General	Special			Staff	Lecturer
Professor		PHD.			Staff	
Assistant professor	MBCHB	MSC. In				
Lecturer	BSC.	Medical				
Assistant lecturer	BVM.	Microbiolog y				

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## 12. Acceptance Criterion

(Setting regulations related to enrollment in the college or institute, whether central admission or others): Central Admission





## Course Description of Genetics for First Year

<b>1. Course Name:</b>	
<b>Theoretical Human Genetics</b>	
<b>2. Course Code:</b>	
<b>3. Semester / Year:</b>	
<b>Annual / First Stage</b>	
<b>4. Description Preparation Date:</b>	
<b>15/9/2025</b>	
<b>5. Available Attendance Forms:</b>	
<b>Attendance (theoretical lectures)</b>	
<b>6. Number of Credit Hours (Total) / Number of Units (Total)</b>	
<b>30 hours / 2 Credits</b>	
<b>7. Course administrator's name (mention all, if more than one name)</b>	
<b>Name: Assist. Prof. Dr. Mujahid Khalaf Ali</b> <b>Email: <a href="mailto:mujahid.ali@tu.edu.iq">mujahid.ali@tu.edu.iq</a></b>	
<b>8. Course Objectives</b>	
<b>Course Objectives</b>	<ol style="list-style-type: none"> <li>1. Gain a comprehensive understanding of the fundamental principles of human genetics.</li> <li>2. Understand the structure and functions of genes and chromosomes.</li> <li>3. Study the mechanisms of inheritance and the processes of heredity.</li> <li>4. Understand DNA replication, transcription, the genetic code, and protein synthesis.</li> <li>5. Gain in-depth knowledge of the inheritance of dominant and recessive genetic diseases.</li> <li>6. Develop the ability to work with genetic engineering techniques and their applications in therapy.</li> <li>7. Become familiar with the basics of genetic counseling and the importance of early diagnosis of genetic diseases.</li> <li>8. Learn about the characteristics of stem cells and how they can be utilized in genetic and therapeutic applications.</li> </ol>
<b>9. Teaching and Learning Strategies</b>	
<b>Strategy</b>	<ol style="list-style-type: none"> <li>1. <b>Interactive lectures</b></li> <li>2. <b>Presentations</b></li> <li>3. <b>discussion of clinical cases.</b></li> </ol>
<b>10. Course Structure</b>	

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1 hr.	1 hour per week means 30 hours per year.	<ol style="list-style-type: none"> <li>To enable students to understand the fundamentals of genetics</li> <li>To utilize modern techniques in genetic analysis</li> <li>To apply knowledge to the principles of gene diagnosis and therapy</li> </ol> <p>To develop effective communication skills and ability to work effectively with multidisciplinary teams</p>	Human Genetics	Large and small student groups	<ol style="list-style-type: none"> <li>Daily quizzes</li> <li>Discussions</li> <li>Monthly exams</li> <li>Final exams</li> </ol>

## 11. Course Evaluation

- Daily quizzes
- Discussions
- Monthly exams

## 12. Learning and teaching resources

<p><b>Required textbooks (methodology, if applicable)</b></p>	<p>no textbooks.</p>
<p><b>Main references (sources)</b></p>	<p>"Human Genetics" Tenth Edition by Lewis Published by McGraw-Hill in its international edition.</p>
<p><b>Recommended supporting books and references (scientific journals, reports(...</b></p>	<ol style="list-style-type: none"> <li>1. Principles of Genetics (8th Edition) by Snustad and Simmons – This book covers the fundamental concepts of classical and molecular genetics and explains the genetic basis of diseases.</li> <li>2. Genetics: A Conceptual Approach (6th Edition) by Benjamin Pierce – This book focuses on helping students understand genetic concepts through real-world problems and case studies.</li> <li>3. Medical Genetics (6th Edition) by Jorde, Carey, Bamshad, and White – This book focuses on the clinical applications of genetics, including the diagnosis and medical management of genetic diseases.</li> <li>4. In addition to books, it is recommended to follow scientific journals to stay up-to-date on the latest research in the field of medical genetics, such as:             <ul style="list-style-type: none"> <li>• Nature Genetics</li> <li>• American Journal of Human Genetics</li> <li>• Genetics in Medicine</li> </ul> </li> </ol>
<p><b>Electronic references, websites</b></p>	<ol style="list-style-type: none"> <li>1. Online Mendelian Inheritance in Man (OMIM) – For detailed information about genes and genetic diseases: OMIM.</li> <li>2. Genetics Home Reference – To learn more about genes and genetic diseases.</li> <li>3. National Center for Biotechnology Information (NCBI) – For genetic databases and analysis tools: NCBI.</li> <li>4. The Human Genome Project – To explore the fundamentals and applications of genomics.</li> <li>5. GeneCards – For comprehensive information about genes.</li> </ol>

### Microbiology Course Description/ First Year

<b>1. Course Name:</b>					
Theoretical Microbiology for the first year					
<b>2. Course Code:</b>					
<b>3. Semester / Year:</b>					
Second / first year					
<b>4. Description Preparation Date:</b>					
15/9/2025					
<b>5. Available Attendance Forms:</b>					
Attendance only					
<b>6. Number of Credit Hours (Total) / Number of Units (Total)</b>					
15 / 4					
<b>7. Course administrator's name (mention all, if more than one name)</b>					
Name: Dr. Mujahid Khalaf Ali Email: <a href="mailto:mujahid.ali@tu.edu.iq">mujahid.ali@tu.edu.iq</a>					
<b>8. Course Objectives</b>					
<b>Course Objectives</b>		<ul style="list-style-type: none"> <li>• <b>The curriculum includes the study of the basics of Medical Microbiology</b></li> <li>• <b>Identify modern sterilization methods and laboratory diagnostic methods</b></li> </ul>			
<b>9. Teaching and Learning Strategies</b>					
<b>Strategy</b>		1- Education strategy collaborative concept planning. 2- Brainstorming education strategy. 3- Education Strategy Notes Series			
<b>10. Course Structure</b>					
<b>Week</b>	<b>Hours</b>	<b>Required Learning Outcomes</b>	<b>Unit or subject name</b>	<b>Learning method</b>	<b>Evaluation method</b>
1 hr.	1 hour per week means 9 hours per year.	-Know the types of Gram-positive bacterial infection ,its pathogenesis and virulence factors -Know the types of spore forming bacteria, its pathogenesis and virulence factors	Microbiology	1. Explanation of the scientific material through mode lectures 2.Use illustrative tools such as light microscopes, data show, smart board and plasma screens.	Weekly, month daily and written exams and annual research and the end-of-year exam

<b>11. Course Evaluation</b>					
Distributing the score out of 100 according to the tasks assigned to the student such as daily preparation, daily oral, monthly, or written exams, reports .... etc would be as follows: 20 degrees monthly and daily exams for the first semester. 20 degrees monthly and daily exams for the second semester. 60 marks for final exams					
<b>12. Learning and Teaching Resources</b>					
Required textbooks (curricular books, if any)					
Main references (sources)			Jawetz, Melnick, & Adelberg's Medical Microbiology Bailey and Scott's Diagnostic Microbiology		
Recommended books and references (scientific journals, reports...)					
Electronic References, Websites					

### Course Description Form

<b>1. Course Name:</b>	
Practical Microbiology for the first year	
<b>2. Course Code:</b>	
<b>3. Semester / Year:</b>	
1 <sup>st</sup> / 1 <sup>st</sup> class	
<b>4. Description Preparation Date:</b>	
15/9/2025	
<b>5. Available Attendance Forms:</b>	
In- person	
<b>6. Number of Credit Hours (Total) / Number of Units (Total)</b>	
4 hours	
<b>7. Course administrator's name (mention all, if more than one name)</b>	
Name: Jaafar Jameel Ibrahim Email: <a href="mailto:gaafar.jameel.2022@tu.edu.iq">gaafar.jameel.2022@tu.edu.iq</a>	
<b>8. Course Objectives</b>	
<b>Course Objectives</b>	Studying laboratory sterilization methods • Understanding different types of stains and culture media

	<ul style="list-style-type: none"> <li>• Understanding methods for culturing samples on culture media</li> <li>• Understanding how to interpret and diagnose culture results</li> </ul>
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### 9. Teaching and Learning Strategies

<b>Strategy</b>	Follow modern methods of education
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### 10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
4	4	Complete familiarity with all aspects of the semester and the established system	Medical microbiology	theoretical explanation of the material followed by practical application - daily	semester, and final exams

### 11. Course Evaluation

Distributing the score out of 100 according to the tasks assigned to the student such as daily preparation, daily oral, monthly, or written exams, reports .... etc would be as follows: 20 degrees monthly and daily exams for the first semester. 20 degrees monthly and daily exams for the second semester. 60 marks for final exams

### 12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	
Main references (sources)	Jawetz, Melnick, & Adelberg's Medical Microbiology Bailey and Scott's Diagnostic Microbiology
Recommended books and references (scientific journals, reports...)	
Electronic References, Websites	

## Course Description Form

(Dr. Dheyaa Saleh Mehdi)

<b>1. Course Name:</b>					
Theoretical Virology for the first year					
<b>2. Course Code:</b>					
<b>3. Semester / Year:</b>					
1 <sup>st</sup> / 1 <sup>st</sup> class					
<b>4. Description Preparation Date:</b>					
15 / 9 / 2025					
<b>5. Available Attendance Forms:</b>					
In- person					
<b>6. Number of Credit Hours (Total) / Number of Units (Total)</b>					
4 hours					
<b>7. Course administrator's name (mention all, if more than one name)</b>					
Name: Dheyaa Saleh Mehdi					
Email: <a href="mailto:Dheyaa.saleh@tu.edu.iq">Dheyaa.saleh@tu.edu.iq</a>					
<b>8. Course Objectives</b>					
<b>Course Objectives</b>			<ul style="list-style-type: none"> <li>Understand structural and physiological characteristics of viruses</li> <li>Correlate viral pathogens with clinical manifestations</li> </ul>		
<b>9. Teaching and Learning Strategies</b>					
<b>Strategy</b>		<ul style="list-style-type: none"> <li>Interactive lectures</li> <li>Presentations</li> <li>Case- based discussion</li> </ul>			
<b>10. Course Structure</b>					
Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
4	4	Learning about viruses on general	Introduction to virology Classification of viruses	Lectures and discussions	Quizzes, seminars and tests

**1. Course Evaluation**

15 marks for monthly and daily exams for the first semester ,15 marks for monthly and daily exams for the second semester ,,and 70 marks for the final exams.

**2. Learning and Teaching Resources**

Required textbooks (curricular books, if any)	Medical microbiology Jawetz,Melin and Aldellbergs (2019).28ed McGraw-Hill companies ,Inc.
Main references (sources)	Medical microbiology Jawetz,melnick and Adellbergs (2019).28ed McGraw – Hill companies ,Inc.
Recommended books and references (scientific journals, reports...)	

### Course Description Form (Dr. Dheyaa Saleh Mehdi)

<b>1. Course Name:</b>	
Practical Virology for the first year	
<b>2. Course Code:</b>	
<b>3. Semester / Year:</b>	
1 <sup>st</sup> / 1 <sup>st</sup> class	
<b>4. Description Preparation Date:</b>	
15 / 9 / 2025	
<b>5. Available Attendance Forms:</b>	
In- person	
<b>6. Number of Credit Hours (Total) / Number of Units (Total)</b>	
1 hour	
<b>7. Course administrator's name (mention all, if more than one name)</b>	
Name: Dheyaa Saleh Mehdi	
Email: <a href="mailto:Dheyaa.saleh@tu.edu.iq">Dheyaa.saleh@tu.edu.iq</a>	
<b>8. Course Objectives</b>	
<b>Course Objectives</b>	<ul style="list-style-type: none"> <li>• Understand structural and physiological characteristics of viruses</li> <li>• Correlate bacterial pathogens with clinical manifestations</li> </ul>
<b>9. Teaching and Learning Strategies</b>	

<b>Strategy</b>	<ul style="list-style-type: none"> <li>• Interactive lectures</li> <li>• Presentations</li> <li>• Case- based discussion</li> </ul>
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### 10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	1	Learning about viruses on general	Identification techniques of viruses	Lectures and discussions	Quizzes, seminars and tests

### 3. Course Evaluation

15 marks for monthly and daily exams for the first semester ,15 marks for monthly and daily exams for the second semester ,,and 70 marks for the final exams.

### 4. Learning and Teaching Resources

Required textbooks (curricular books, if any)	Medical microbiology Jawetz, Melnick and Adellbergs (2019).28ed McGraw-Hill companies ,Inc.
Main references (sources)	Medical microbiology Jawetz, melnick and Adellbergs (2019).28ed McGraw – Hill companies ,Inc.
Recommended books and references (scientific journals, reports...)	

## Course Description of Bacteriology for Second Year

<b>13.Course Name:</b>	Theoretical Bacteriology for the second year
<b>14.Course Code:</b>	
<b>15.Semester / Year:</b>	Semester 1
<b>16.Description Preparation Date:</b>	15/9/2025
<b>17.Available Attendance Forms:</b>	Theoretical lectures
<b>18.Number of Credit Hours (Total) / Number of Units (Total)</b>	8hours annually -1 hours weekly

19. Course administrator's name (mention all, if more than one name)					
Asst. Prof. Dr. Mujahed Khalaf Ali Email: <a href="mailto:mujahid.ali@tu.edu.iq">mujahid.ali@tu.edu.iq</a>					
20. Course Objectives					
Course Objectives		<ul style="list-style-type: none"> <li>• The curriculum includes the study of the fundamentals of microbiology (bacteria).</li> <li>• The study of some Gram-negative and Gram-positive bacterial species from a diagnostic perspective and their pathological effects on the organism.</li> </ul>			
21. Teaching and Learning Strategies					
Strategy		1-Education strategy collaborative concept 2-Teaching strategy brainstorming 3-Education strategy notes series .			
22. Course Structure					
Week	Hours	Required Learning Outcome	Unit or subject name	Learning method	Evaluation method
1	1 hour weekly for 9 weeks	-Know the types of Gram-positive bacterial infection ,its pathogenesis and virulence factors -Know the types of spore forming bacteria, its pathogenesis and virulence factors	Bacteriology	Explain scientific material giving Lectural using Explanatory tools microscope data show	Daily ,monthly And final examination writing research and report
23. Course Evaluation					

15 marks for monthly and daily exams for the first semester ,15 marks for monthly and daily exams for the second semester ,,and 70 marks for the final exams.

#### 24.Learning and Teaching Resources

Required textbooks (curricular books, if any)	Medical microbiology Jawetz,Melin and Adellbergs (2019).28ed McGraw-Hill companies ,Inc.
Main references (sources)	Medical microbiology Jawetz,melnick a Adellbergs (2019).28ed McGraw – Hill companies ,Inc.
Recommended books and references (scientific journals, reports...)	Bacteriology methods for the study Of infectious disease (2019).Jenkins R.and Maddocks Academic press. <a href="https://www.elesvier.com">https://www.elesvier.com</a> ./books-ans-journals

### Course Description Form

<b>1. Course Name:</b>	
Practical Bacteriology for the second year	
<b>2. Course Code:</b>	
<b>3. Semester / Year:</b>	
Second stage	
<b>4. Description Preparation Date:</b>	
15 / 9 / 2025	
<b>5. Available Attendance Forms:</b>	
In- person	
<b>6. Number of Credit Hours (Total) / Number of Units (Total)</b>	
9 hours	
<b>7. Course administrator's name (mention all, if more than one name)</b>	
Name: Jaafar Jameel Ibrahim	
Email: <a href="mailto:gaafar.jameel.2022@tu.edu.iq">gaafar.jameel.2022@tu.edu.iq</a>	
<b>8. Course Objectives</b>	
<b>Course Objectives</b>	Studying laboratory sterilization methods • Understanding different types of stains and culture media

	<ul style="list-style-type: none"> <li>• Understanding methods for culturing samples on culture media</li> <li>• Understanding how to interpret and diagnose culture results</li> </ul>
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### 9. Teaching and Learning Strategies

<b>Strategy</b>	Follow modern methods of education
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### 10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
9	9	Complete familiarity with all aspects of the semester and the established system	Bacteriology	theoretical explanation of the semester material followed by practical application - daily	semester and final exams

### 11. Course Evaluation

Distributing the score out of 100 according to the tasks assigned to the student such as daily preparation, daily oral, monthly, or written exams, reports .... etc would be as follows: 20 degrees monthly and daily exams for the first semester. 20 degrees monthly and daily exams for the second semester. 60 marks for final exams

### 12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	
Main references (sources)	Jawetz, Melnick, & Adelberg's Medical Microbiology Bailey and Scott's Diagnostic Microbiology
Recommended books and references (scientific journals, reports...)	
Electronic References, Websites	

## Course Description Form

<b>1. Course Name:</b>	Theoretical Mycology for the second year
<b>2. Course Code:</b>	
<b>3. Semester / Year:</b>	2 <sup>nd</sup> / 2 <sup>nd</sup> class
<b>4. Description Preparation Date:</b>	

15 / 9 / 2025

5. Available Attendance Forms:

In- person

6. Number of Credit Hours (Total) / Number of Units (Total)

3 hours / 1 units

7. Course administrator's name (mention all, if more than one name)

Name: Marwa Tareq Ahmed

Email: [marwatareq@tu.edu.iq](mailto:marwatareq@tu.edu.iq)

8. Course Objectives

**Course Objectives**

- Understand structural and physiological characteristics of fungi
- Correlate bacterial pathogens with clinical manifestations

9. Teaching and Learning Strategies

**Strategy**

- Interactive lectures
- Presentations
- Case- based discussion

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation
3	3	Classification of fungi based on structure, shape, and diseases	Classification of fungi, Dermatophytosis, Aspergillus species	Lectures and discussions	Quizzes, seminars and tests

9. Course Evaluation

15 marks for monthly and daily exams for the first semester ,15 marks for monthly and daily exams for the second semester ,,and 70 marks for the final exams.

10. Learning and Teaching Resources

Required textbooks (curricular books, if any)

Medical microbiology Jawetz,Melin and Adellbergs (2019).28ed McGraw-Hill companies ,Inc.

Main references (sources)

Medical microbiology Jawetz,melnick a Adellbergs (2019).28ed McGraw – Hill companies ,Inc.

Recommended books and references (scientific journals, reports...)

Researches and journals.

## Course Description Form

<b>1. Course Name:</b>					
Practical Mycology for the second year					
<b>2. Course Code:</b>					
<b>3. Semester / Year:</b>					
Second stage					
<b>4. Description Preparation Date:</b>					
15 / 9 / 2025					
<b>5. Available Attendance Forms:</b>					
In- person					
<b>6. Number of Credit Hours (Total) / Number of Units (Total)</b>					
2 hours					
<b>7. Course administrator's name (mention all, if more than one name)</b>					
Name: Jaafar Jameel Ibrahim					
Email: <a href="mailto:gaafar.jameel.2022@tu.edu.iq">gaafar.jameel.2022@tu.edu.iq</a>					
<b>8. Course Objectives</b>					
<b>Course Objectives</b>		Understanding different types of stains and culture media • Understanding methods for culturing samples on culture media • Understanding how to interpret and diagnose culture result of aspergillosis			
<b>9. Teaching and Learning Strategies</b>					
<b>Strategy</b>		Follow modern methods of education			
<b>10. Course Structure</b>					
Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method

2	2	Complete familiarity with all aspects of the semester and the established system	Mycology	theoretical explanation of the material followed by practical application - daily	semester, and final exams
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Course Description Form  
(Dr. Dharma Saha, Fdbd)

	1. Course Name
	Theoretical Mycology for the second year
	2. Course Code
	3. Semester / Year
	4. Description / Preparation Date
	5. Available Attendance / days
	6. Number of Credit Hours / Total Number of Units / Total hours
	7. Course coordinator's name (mention all, if more than one name) Name: Dr. Dharma Saha Mondal Email: dsaha@fbd.edu.bd
	8. Course objectives
	<ul style="list-style-type: none"> <li>• The student will be able to understand the concept of mycology.</li> <li>• The student will be able to identify the various groups of fungi.</li> <li>• The student will be able to describe the life cycle of various fungi.</li> <li>• The student will be able to describe the economic importance of various fungi.</li> </ul>

<b>11. Course Evaluation</b>	
Distributing the score out of 100 according to the tasks assigned to the student such as daily preparation, daily oral, monthly, or written exams, reports .... etc would be as follows: 20 degrees monthly and daily exams for the first semester. 20 degrees monthly and daily exams for the second semester. 60 marks for final exams	
<b>12. Learning and Teaching Resources</b>	
Required textbooks (curricular books, if any)	
Main references (sources)	Jawetz, Melnick, & Adelberg's Medical Microbiology Bailey and Scott's Diagnostic Microbiology
Recommended books and references (scientific journals, reports...)	
Electronic References, Websites	

## Course Description Form (Dr. Dheyaa Saleh Mehdi)

<b>1. Course Name:</b>	
Theoretical Virology for the second year	
<b>2. Course Code:</b>	
<b>3. Semester / Year:</b>	
2 <sup>nd</sup> / 2 <sup>nd</sup> class	
<b>4. Description Preparation Date:</b>	
15 / 9 / 2025	
<b>5. Available Attendance Forms:</b>	
In- person	
<b>6. Number of Credit Hours (Total) / Number of Units (Total)</b>	
7 hours	
<b>7. Course administrator's name (mention all, if more than one name)</b>	
Name: Dheyaa Saleh Mehdi Email: <a href="mailto:Dheyaa.saleh@tu.edu.iq">Dheyaa.saleh@tu.edu.iq</a>	
<b>8. Course Objectives</b>	
<b>Course Objectives</b>	<ul style="list-style-type: none"> <li>• Understand structural and physiological characteristics of viruses</li> <li>• Correlate viral pathogens with clinical manifestations</li> </ul>

9. Teaching and Learning Strategies					
<b>Strategy</b>		<ul style="list-style-type: none"> <li>• Interactive lectures</li> <li>• Presentations</li> <li>• Case- based discussion</li> </ul>			
10. Course Structure					
Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
7	7 h	Learning about viruses on general	General properties of viruses, Structure of viruses, types of viruses, HIV	Lectures and discussions	Quizzes, seminars and tests

5. Course Evaluation	
15 marks for monthly and daily exams for the first semester ,15 marks for monthly and daily exams for the second semester ,,and 70 marks for the final exams.	
6. Learning and Teaching Resources	
Required textbooks (curricular books, if any)	Medical microbiology Jawetz, Melinick and Adellbe (2019).28ed McGraw-Hill companies ,Inc.
Main references (sources)	Medical microbiology Jawetz,melnick and Adellbe (2019).28ed McGraw – Hill companies ,Inc.
Recommended books and references (scientific journals, reports...)	

### Course Description Form (Dr. Dheyaa Saleh Mehdi)

<b>1. Course Name:</b>
Practical Virology for the second year
<b>2. Course Code:</b>
<b>3. Semester / Year:</b>
2 <sup>nd</sup> / 2 <sup>nd</sup> class
<b>4. Description Preparation Date:</b>
15 / 9 / 2025

5. Available Attendance Forms:					
In- person					
6. Number of Credit Hours (Total) / Number of Units (Total)					
8 hours					
7. Course administrator's name (mention all, if more than one name)					
Name: Dheyaa Saleh Mehdi					
Email: <a href="mailto:Dheyaa.saleh@tu.edu.iq">Dheyaa.saleh@tu.edu.iq</a>					
8. Course Objectives					
<b>Course Objectives</b>			<ul style="list-style-type: none"> <li>• Understand structural and physiological characteristics of viruses</li> <li>• Correlate viral pathogens with clinical manifestations</li> </ul>		
9. Teaching and Learning Strategies					
<b>Strategy</b>		<ul style="list-style-type: none"> <li>• Interactive lectures</li> <li>• Presentations</li> <li>• Case- based discussion</li> </ul>			
10. Course Structure					
Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
8	8	Learning about viruses identification	Serological tests for identification of viruses, ELISA test for the diagnosis of HIV, Slide projection	Lectures and discussions	Quizzes, seminars and tests

7. Course Evaluation	
15 marks for monthly and daily exams for the first semester ,15 marks for monthly and daily exams for the second semester ,,and 70 marks for the final exams.	
8. Learning and Teaching Resources	
Required textbooks (curricular books, if any)	Medical microbiology Jawetz,Melin and Aldellbergs (2019).28ed McGraw-Hill companies ,Inc.
Main references (sources)	Medical microbiology Jawetz,melnick a Adellbergs (2019).28ed McGraw – Hill companies ,Inc.
Recommended books and references (scientific journals, reports...)	

## Course Description Form

<b>1. Course Name:</b>					
Theoretical Immunology for the second year					
<b>2. Course Code:</b>					
<b>3. Semester / Year:</b>					
1 <sup>st</sup> / 2 <sup>nd</sup> year					
<b>4. Description Preparation Date:</b>					
15/9/2025					
<b>5. Available Attendance Forms:</b>					
Attendance					
<b>6. Number of Credit Hours (Total) / Number of Units (Total)</b>					
16					
<b>7. Course administrator's name (mention all, if more than one name)</b>					
Name: Alaa Zanzal Raad Email: dr.alaa.zanzal@tu.edu.iq.					
<b>8. Course Objectives</b>					
<b>Course Objectives</b>			<ol style="list-style-type: none"> <li>1. To know the most important definition of immunity and its types</li> <li>2. To know the immunological disorders that are medically important</li> <li>3. To able to diagnose and manage the hypersensitivity.</li> </ol>		
<b>9. Teaching and Learning Strategies</b>					
<b>Strategy</b>		<ul style="list-style-type: none"> <li>• Interactive lectures</li> <li>• Presentations</li> </ul> <p>Case- based discussion</p>			
<b>10. Course Structure</b>					
<b>Week</b>	<b>Hours</b>	<b>Required Learning Outcomes</b>	<b>Unit or subject name</b>	<b>Learning method</b>	<b>Evaluation method</b>

1 to 15	2 hours weekly in 1 <sup>st</sup> semester	From week 1 -15 enable the student to know the <u>classification of immunity and types of immunity interaction and most important immunological diseases. Defenition of hypersensitivity and its types and clinical features diagnosis and prevention of them.</u>	Immunology	Data show and integrated online learning	Daily examination and monthly examination
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#### 11-Course Evaluation

15 marks for monthly and daily exams for the first semester ,15 marks for monthly, and 70 marks for the final exams.

#### 12 Learning and Teaching Resources

Required textbooks (curricular books, if any)

Medical microbiology Jawetz, Melnick and Aldellbergs (2019). 28ed McGraw-Hill companies ,Inc. Essentials of medical parasitology . **Apurba Sankar Sastry MD (JIPMER)**

Main references (sources)

Microbiology and Immunology –on line, Hunt, R.C. editor.

Recommended books and references (scientific journals, reports...)

Journals and Researches online.

### Course Description Form (Dr. Wisal Raof Yaseen)

<b>1. Course Name:</b>	Practical Immunology for second year
<b>2. Course Code:</b>	
<b>3. Semester / Year:</b>	1 <sup>st</sup> / 2 <sup>nd</sup> year
<b>4. Description Preparation Date:</b>	15/9/2025
<b>5. Available Attendance Forms:</b>	Attendance
<b>6. Number of Credit Hours (Total) / Number of Units (Total)</b>	16 hours annually -2 hours weekly
<b>7. Course administrator's name (mention all, if more than one name)</b>	

Name: Wisal Raof Yaseen  
 Email: [mismicrobiology1980@tu.edu.iq](mailto:mismicrobiology1980@tu.edu.iq)

### 8. Course Objectives

<b>Course Objectives</b>	1-Know the type of immunity, immune organ and immune response 2-Know the types of abnormal immune response 3. To be able to diagnose and manage the hypersensitivity.
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### 9. Teaching and Learning Strategies

<b>Strategy</b>	1-Education strategy collaborative concept 2-Teaching strategy brainstorming 3-Education strategy notes series.
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### 10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
8	2	Recognize the type of immune response 2-recognise the main organ and cell of immune system 3-Enable the student to recognize the mechanisms of functioning of the immune system and how the body can respond to foreign bodies. 4-recognise the sequence of abnormal immune response 5-recognise the type of abnormal immune response	Practical immunology	1.Providing students with the skill of knowing the types of immunological tests. 2.Informing students about the importance of immune disorders associated with certain infections.	Quizzes, seminars and laboratory tests.

### 11-Course Evaluation

6marks for monthly and daily exams for the first semester, and 8 marks for the final exams.

<b>12 Learning and Teaching Resources</b>	
Required textbooks (curricular books, if any)	Medical microbiology Jaweds, Melnick and Adelberg's (2019).28ed McGraw-
Main references (sources)	Microbiology and Immunology –on line, Hunt, R.C. editor.
Recommended books and references (scientific journals, reports...)	Journals and Researches online.

## Course Description Form

<b>1. Course Name:</b>	
Theoretical Bacteriology for the third year	
<b>2. Course Code:</b>	
<b>3. Semester / Year:</b>	
First /3 <sup>rd</sup> class	
<b>4. Description Preparation Date:</b>	
15 / 9 / 2025	
<b>5. Available Attendance Forms:</b>	
In- person	
<b>6. Number of Credit Hours (Total) / Number of Units (Total)</b>	
13 hours / 3 units	
<b>7. Course administrator's name (mention all, if more than one name)</b>	
Name: Marwa Tareq Ahmed	
Email: <a href="mailto:marwatareq@tu.edu.iq">marwatareq@tu.edu.iq</a>	
<b>8. Course Objectives</b>	
<b>Course Objectives</b>	<ul style="list-style-type: none"> <li>• Understand structural and physiological characteristics of bacteria</li> <li>• Correlate bacterial pathogens with clinical manifestations</li> <li>• Recognise mechanisms of antibiotic resistance</li> </ul>
<b>9. Teaching and Learning Strategies</b>	
<b>Strategy</b>	<ul style="list-style-type: none"> <li>• Interactive lectures</li> <li>• Presentations</li> <li>• Case- based discussion</li> </ul>

## 10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation
13	13	Classification, and learning about the gastrointestinal bacteria and the diseases it causes and methods of treatment and prevention	Enterobacteriaceae (E. coli), Salmonella & Shigella, Klebsiella & Proteus, Pseudomonas aeruginosa, Haemophilus influenzae, Bordetella pertussis, Brucella, Vibrio cholerae, Helicobacter pylori, Campylobacter, Treponema & Rickettsia, Chlamydia & Mycoplasma	Lectures and discussions	Quizzes, seminars and tests

## 11. Course Evaluation

15 marks for monthly and daily exams for the first semester ,15 marks for monthly and daily exams for the second semester ,,and 70 marks for the final exams.

## 12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	Medical microbiology Jawetz, Melnick and Aldellbergs (2019). 28ed McGraw-Hill companies ,Inc.
Main references (sources)	Medical microbiology Jawetz, melnick & Adellbergs (2019). 28ed McGraw – Hill companies ,Inc.
Recommended books and references (scientific journals, reports...)	Bacteriology methods for the study Of infectious disease (2019). Jenkin's R. and Maddocks Academic press. <a href="https://www.elsevier.com">https://www.elsevier.com</a> /books-ans-journals

## Course description Form (Dr. Wisal Raof Yaseen)

<b>1. Course Name:</b>					
Practical Bacteriology for the third year					
<b>2. Course Code:</b>					
<b>3. Semester / Year:</b>					
First/ third year					
<b>4. Description Preparation Date:</b>					
15/9/2025					
<b>5. Available Attendance Forms:</b>					
Attendance only					
<b>6. Number of Credit Hours (Total) / Number of Units (Total)</b>					
13 hours annually /3 units					
<b>7. Course administrator's name (mention all, if more than one name)</b>					
Name: Wisal Raof Yaseen Email: <a href="mailto:mismicrobiology1980@tu.edu.iq">mismicrobiology1980@tu.edu.iq</a>					
<b>8. Course Objectives</b>					
<b>Course Objectives</b>			<ul style="list-style-type: none"> <li>The curriculum includes the study of the basics of medical bacteriology</li> <li>Identify modern sterilization methods and laboratory diagnostic methods.</li> </ul>		
<b>9. Teaching and Learning Strategies</b>					
<b>Strategy</b>		1-Education strategy collaborative concept planning 2-Teaching strategy brainstorming 3- Education strategy notes series.			
<b>10. Course Structure</b>					
Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
13	1	Classification, and learning about the gastrointestinal bacteria and the diseases it causes and methods of treatment and prevention	Enterobacteriaceae (E. coli), Salmonella & Shigella, Klebsiella & Proteus, Pseudomonas aeruginosa, Haemophiles influenzae, Bordetella pertussis, Brucella,	Explaining scientific material by giving lectures Using explanatory tools microscope –	Quizzes, seminars and tests

			Vibrio cholerae, Helicobacter pylori, Campylobacter, Treponema & Rickettsia, Chlamydia & Mycoplasma	data show	
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### 11. Course Evaluation

15 marks for monthly and daily exams for the first semester ,15 marks for monthly and daily exams for the second semester, and 70 marks for the final exams.

### 12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	Medical microbiology Jawetz,Melinick Aldellbergs (2019).28ed McGraw- Hill companies ,Inc.
Main references (sources)	Medical microbiology Jawetz,melnick Adellbergs (2019).28ed McGraw – Hill companies ,Inc.
Recommended books and references (scientific journals, reports...)	Bacteriology methods for the study Of infectious disease (2019).Jenkins R.and Maddocks Academic press. <a href="https://www.elsevier.com">https://www.elsevier.com</a> /books-ans- journals

## Course Description Form

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<b>1. Course Name:</b>	
Theoretical Virology for the third year	.....
<b>2. Course Code:</b>	
<b>3. Semester / Year:</b>	
1 <sup>st</sup> / 3 <sup>rd</sup> class	
<b>4. Description Preparation Date:</b>	
15 / 9 / 2025	
<b>5. Available Attendance Forms:</b>	
In- person	
<b>6. Number of Credit Hours (Total) / Number of Units (Total)</b>	
4 hours	
<b>7. Course administrator's name (mention all, if more than one name)</b>	

Name: Prof. Dr. Israa Hashim Saadon  
 Email:israahs14@tu.edu.iq

### 8. Course Objectives

#### Course Objectives

- Understand structural and physiological characteristics of viruses
- Correlate viral pathogens with clinical manifestations

### 9. Teaching and Learning Strategies

#### Strategy

- Interactive lectures
- Presentations
- Case- based discussion

### 10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
10	10	Learning about medical and clinical virology	Medical virology	Lectures and discussions	Quizzes, seminars and tests

## Course Description Form (Dr. Dheyaa Saleh Mehdi)

<b>1. Course Name:</b>					
Practical Virology for the third year					
<b>2. Course Code:</b>					
<b>3. Semester / Year:</b>					
1 <sup>st</sup> / 3 <sup>rd</sup> class					
<b>4. Description Preparation Date:</b>					
15 / 9 / 2025					
<b>5. Available Attendance Forms:</b>					
In- person					
<b>6. Number of Credit Hours (Total) / Number of Units (Total)</b>					
6 hours					
<b>7. Course administrator's name (mention all, if more than one name)</b>					
Name: Dheyaa Saleh Mehdi					
Email: <a href="mailto:Dheyaa.saleh@tu.edu.iq">Dheyaa.saleh@tu.edu.iq</a>					
<b>8. Course Objectives</b>					
<b>Course Objectives</b>			<ul style="list-style-type: none"> <li>Understand structural and physiological characteristics of viruses</li> <li>Correlate bacterial pathogens with clinical manifestations</li> </ul>		
<b>9. Teaching and Learning Strategies</b>					
<b>Strategy</b>		<ul style="list-style-type: none"> <li>Interactive lectures</li> <li>Presentations</li> <li>Case- based discussion</li> </ul>			
<b>10. Course Structure</b>					
<b>Week</b>	<b>Hours</b>	<b>Required Learning Outcomes</b>	<b>Unit or subject name</b>	<b>Learning method</b>	<b>Evaluation method</b>

6	6	Learning about viruses identification	Serological tests for identification of viruses. 2. Latex agglutination test for Rotavirus. 3. ELISA test for the diagnosis of hepatitis virus. 4. Slide projection	Lectures and discussions	Quizzes, seminars and tests
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### 9. Course Evaluation

15 marks for monthly and daily exams for the first semester ,15 marks for monthly and daily exams for the second semester ,,and 70 marks for the final exams.

### 10. Learning and Teaching Resources

Required textbooks (curricular books, if any)	Medical microbiology Jawetz,Melin and Adellbergs (2019).28ed McGraw-Hill companies ,Inc.
Main references (sources)	Medical microbiology Jawetz,melnick a Adellbergs (2019).28ed McGraw – Hill companies ,Inc.
Recommended books and references (scientific journals, reports...)	

## Course Description Form

<b>11. Course Name:</b>					
Theoretical Mycology for the third year					
<b>12. Course Code:</b>					
<b>13. Semester / Year: Semester</b>					
Second \ 3 <sup>rd</sup> class					
<b>14. Description Preparation Date:</b>					
15 /9 /2025					
<b>15. Available Attendance Forms: Available only</b>					
In-person					
<b>16. Number of Credit Hours (Total) / Number of Units (Total)</b>					
10/3units					
<b>17. Course administrator's name (mention all, if more than one name)</b>					
Name: Prof.dr.thekra Ahmad Hamada					
Email: dr.theka.med@tu.edu.iq					
<b>18. Course Objectives</b>					
<b>Course Objectives</b>		<ol style="list-style-type: none"> <li>1. Learning the important of al pathogenic fungi in caused diseasein human body.....</li> <li>2. ....illustrated methods of m.o reproduction ,diagnosis &amp;inhibition of these fungi.</li> </ol>			
<b>19. Teaching and Learning Strategies</b>					
<b>Strategy</b>		<ol style="list-style-type: none"> <li>1- strategies planning in cooperation learning.</li> <li>2- Strategies learning with mental thinking.</li> <li>3- Strategies learning with comments</li> </ol>			
<b>20. Course Structure</b>					
Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method

1 11	3		1-cryptococcosis 2-coccidiosis 3-paracoccidiosis 4-antifungal ager  5-Mycetoma 6-Candidiasis 7-Aspergillosis 8-Histoplasmosis 9-fusarium 10-Mucormycosi	Data show	
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### 21. Course Evaluation

Distributing the score out of 100 according to the tasks assigned to the student such as daily preparation daily oral, monthly, or written exams, reports .... etc

### 22. Learning and Teaching Resources

Required textbooks (curricular books, if any)	Medical mycology, Emon 2012 Description of Medical Fungi, 4 <sup>th</sup> Edition, Se kidd, Catriona hallid & David elis.
Main references (sources)	Atlas of clinical fungi
Recommended books and references (scientific journals, reports...)	Journal of American Medical Association.
Electronic References; Websites	You tube of microbial physiology lect.

## Course Description Form

<b>1. Course Name:</b>	Practical Mycology for the third year
<b>2. Course Code:</b>	
<b>3. Semester / Year:</b>	2 <sup>nd</sup> / 3 <sup>rd</sup> class
<b>4. Description Preparation Date:</b>	15 / 9 / 2025
<b>5. Available Attendance Forms:</b>	In- person (Laboratory)

<b>6. Number of Credit Hours (Total) / Number of Units (Total)</b>					
5 hours / 1 units					
<b>7. Course administrator's name (mention all, if more than one name)</b>					
Name: Marwa Tareq Ahmed					
Email: <a href="mailto:marwatareq@tu.edu.iq">marwatareq@tu.edu.iq</a>					
<b>8. Course Objectives</b>					
<b>Course Objectives</b>			Train students in isolation and identification of medically important fungi		
<b>9. Teaching and Learning Strategies</b>					
<b>Strategy</b>		<ul style="list-style-type: none"> <li>• Practical lab sessions</li> <li>• Microscopic examination</li> <li>• Case- based learning</li> </ul>			
<b>10. Course Structure</b>					
Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
5	5	isolation and identification of fungi	Fungi culture media (SDA), Candidiasis, Cryptococcus neoformans, Histoplasmosis, Mycetoma.	Lab Application	Quizzes, seminars and tests
<b>1. Course Evaluation</b>					
15 marks for monthly and daily exams for the first semester ,15 marks for monthly and daily exams for the second semester ,,and 70 marks for the final exams.					
<b>2. Learning and Teaching Resources</b>					
Required textbooks (curricular books, if any)			Medical microbiology Jawetz,Melin and Aldellbergs (2019).28ed McGraw-Hill companies ,Inc.		
Main references (sources)			Medical microbiology Jawetz,melnick a Adellbergs (2019).28ed McGraw – Hill companies ,Inc.		
Recommended books and references (scientific journals, reports...)			Journals and Researches online.		

## Course Description Form

<b>1. Course Name:</b>					
Theory Medical Parasitology for the third year					
<b>2. Course Code:</b>					
<b>3. Semester / Year:</b>					
Annual/3 <sup>rd</sup> class					
<b>4. Description Preparation Date:</b>					
15/9/2025					
<b>5. Available Attendance Forms:</b>					
In –person					
<b>6. Number of Credit Hours (Total) / Number of Units (Total)</b>					
60 hours , 6 unit					
<b>7. Course administrator's name (mention all, if more than one name)</b>					
Name: Prof. Dr. Rafal Khaleel Farhan / Ass. prof. Raghad Saad Abdul Kareem Email: rafal.khaleel@tu.edu.iq / <a href="mailto:raghadsaad@tu.edu.iq">raghadsaad@tu.edu.iq</a> .					
<b>8. Course Objectives</b>					
<b>Course Objectives</b>			1- To know the most important parasite that are medically important 2. To be able to diagnose and manage the parasitic disease . 3- to able the medical student to differentiate between different parasite and know the importance of some parasite with our life .		
<b>9. Teaching and Learning Strategies</b>					
<b>Strategy</b>		<ul style="list-style-type: none"> <li>● Interactive lectures</li> <li>● Presentations</li> <li>Case- based discussion</li> </ul>			
<b>10. Course Structure</b>					
<b>Week</b>	<b>Hours</b>	<b>Required Learning Outcomes</b>	<b>Unit or subject name</b>	<b>Learning method</b>	<b>Evaluation method</b>

1 to 15	30 hours 2 hours weekly in 1 <sup>st</sup> semester	From week 1 -15 enable the student to know the <u>classification of parasite and parasite –host interaction and most important protozoa disease its causation ,pathogenesis and clinical features</u> <u>diagnosis and prevention</u>	Medical parasitology	Data show and integrated online learning	Daily examination and monthly examination
16-30	30 hours 2 hours weekly for 2 <sup>nd</sup> semester	From week 16 -30 enable the student to know the <u>classification of helminth its important type ,its life cycle ,characteristic ,pathogenesis and clinical features</u> <u>,diagnosis ,treatment and prevention</u>			

<b>11-Course Evaluation</b>	
15 marks for monthly and daily exams for the first semester ,15 marks for monthly and daily exams for the second semester ,,and 70 marks for the final exams.	
<b>12 Learning and Teaching Resources</b>	
Required textbooks (curricular books, if any)	Medical microbiology Jawetz, Melnick and Aldellbergs (2019). 28ed McGraw-Hill companies ,Inc. Essentials of medical parasitology . <b>Apurba Sankar Sastry MD (JIPMER)</b>
Main references (sources)	Pankers ,text book of parasitology .
Recommended books and references (scientific journals, reports...)	Journals and Researches online.

### Course Description Form

<b>1. Course Name:</b>	
Practical Medical parasitology for the third year	
<b>2. Course Code:</b>	
<b>3. Semester / Year:</b>	
3 <sup>rd</sup> class	
<b>4. Description Preparation Date:</b>	
15/9/2025	
<b>5. Available Attendance Forms:</b>	
In –person	
<b>6. Number of Credit Hours (Total) / Number of Units (Total)</b>	
60 hours , 6 unit	
<b>7. Course administrator's name (mention all, if more than one name)</b>	
Name:	Israa Izaldeen Ibrahim israamicro@tu.edu.iq
Email:	
<b>8. Course Objectives</b>	
<b>Course Objectives</b>	1- To know the most important parasite that are medically important 2. To able to diagnose and manage the parasitic disease . 3- to able the medical student to differentiate between different parasite and know the

	importance of some parasite with our life .
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**9. Teaching and Learning Strategies**

<b>Strategy</b>	<ul style="list-style-type: none"> <li>• Interactive lectures</li> <li>• Presentations</li> </ul> <p>Case- based discussion</p>
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**10. Course Structure**

Week	Hours	Required Learning Outcomes	Unit or subject name	name method	Evaluation method
1 to 15	30 hours 8 hours weekly in 1 <sup>st</sup> semester	From week 1 -15 enable the student to know the <u>classification of parasite and parasite –host interaction and most important protozoa disease its causation ,pathogenesis and clinical features diagnosis and prevention</u>	Medical parasitology	Data show and integrated online learning	Daily examination and monthly examination
16-30	30 hours 8 hours weekly for 2 <sup>nd</sup> semester	From week 16 -30 enable the student to know the <u>classification of helminth its important type ,its life cycle ,characteristic ,pathogenesis and clinical features ,diagnosis ,treatment and prevention</u>			

<b>11-Course Evaluation</b>	
15 marks for monthly and daily exams for the first semester , 15 marks for monthly and daily exams for the second semester ,,and 70 marks for the final exams.	
<b>12 Learning and Teaching Resources</b>	
Required textbooks (curricular books, if any)	Medical microbiology Jawetz, Melnick and Aldellbergs (2019). 28ed McGraw-Hill companies , Inc. Essentials of medical parasitology : <b>Apurba Sankar Sastry MD (JIPMER)</b>
Main references (sources)	Pankers , text book of parasitology .
Recommended books and references (scientific journals, reports...)	Journals and Researches online.



