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

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.

1

Concepts and terminology:

<u>Academic Program Description</u>: 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.

<u>Program Vision</u>: An ambitious picture for the future of the academic program to be sophisticated, inspiring, stimulating, realistic and applicable.

<u>Program Mission</u>: Briefly outlines the objectives and activities necessary to achieve them and defines the program's development paths and directions.

<u>Program Objectives</u>: They are statements that describe what the academic program intends to achieve within a specific period of time and are measurable and observable.

<u>Curriculum Structure</u>: 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.

<u>Teaching and learning strategies</u>: 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.

2

Academic Program Description Form University Name: Al-Furat Al-Awsat Technical Faculty/Institute: Al-Mussyyib Technical Institute Scientific Department: Medical Lap Techniques Academic or Professional Program Name Final Certificate Name: Diploma in Medical Laboratory Technology. Academic System: course **Description Preparation Date: 2023-2024** File Completion Date Signature: Signature/ Scientific Associate Name Dr. Ashawed Hadi Sabri Head of Department Name Date 4-23. 2020 Date: Azhoar Mousa 23-4-2024 The file is checked by:

Department of Quality Assurance and University Performance Director of the Quality Assurance and University Performance Department:

Date:

AWS Matimoud Kreat Signature

2024) Approval of the Dean

1. Program Vision

The Medical Laboratory Technology Department works through its specialized scientific studies to establish a technical system based on the requirements and needs of the community and the service facility related to the specialty, including developing technology and technology in the Medical Laboratory Technology Diploma.

2. Program Mission

Working to achieve the goals and requirements of the department through a suitable environment and providing all the material and human requirements necessary to achieve this and working to graduate classes capable of serving the community in providing scientific competence in the field of medical laboratory techniques through technical learning in accordance with internationally approved quality standards.

3. **Program Objectives**

The Department of Medical Laboratory Technology aims to prepare staff A technician capable of working in the medical field and hospitals and knowing how to manage them.

4. Program Accreditation

Nothing

5. Other external influences

Nothing

6. Program Structure									
Program Structure	Number of Courses	Credit hours	Percentage	Reviews*					
Institution									
Requirements									
College									
Requirements									
Department									
Requirements									
Summer Training									
Other									

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

7. Program Descri	ption			
Year/Level	Course Code	Course Name	Credit	Hours
			theoretica l	practical
First year/ first semester		Laboratory instruments	4	4
		Histology	5	5
		Laboratory technique	4	4
		Microbial preparation	5	5
		Analytical chemistry	6	6
		Fundamentals of nursing	3	3
		Computer	2	2
		Human Rights and Democracy	2	2
First year/ 2 nd		Blood transfusion	3	3
semester		Biochemistry	6	6
		Molecular Biology	4	4
		Quality control	4	4
		Histological techniques	5	5
		Lap Safety	2	2
		English Language	2	2
Second year/ first		Protozoa	6	6
semester		Hematology	6	6
		microbiology	6	6
		Clinical Immunology	6	6
		Pathogenic Bacteria	6	6
		Virology	3	3
Second year/ 2 nd		Hematology	6	6
semester		Pathogenic Bacteria	6	6
		Clinical Immunology	6	6
		Clinical biochemistry	6	6
		metazoa	6	6
		Medical Mycology		

8. Expected learning outc	8. Expected learning outcomes of the program							
Knowledge								
Learning Outcomes 1 The	Learning Outcomes Statement 1							
student should be able to	The student should be familiar with how laboratory equipment							
identify all types of	works and how it can be used							
laboratory equipment	Conduct tests on it							
The student will know how	The student will know how to read laboratory results correctly							

to manage the laboratory	and without error.
correctly and accurately.	
Skills	
Learning Outcomes 2 The	Learning Outcomes Statement 2
student will be able to	The student must be able to perform a blood draw smoothly
perform analyzes on various	And with great skill.
devices in a professional	
manner	
Ethics	
Learning Outcomes 4	Learning Outcomes Statement 4
The student must be able to	The student will be able to develop medical laboratories and
understand the importance of	access better methods for faster and easier results for patients.
this section and the	
possibilities it offers	
Provided to the community	
and medical workers.	

9. Teaching and Learning Strategies

The modern education system adopts means of illustration such as illustrative pictures, and the use of scientific means, devices, methods, programs, and products for each laboratory procedure, and videos explaining how the laboratory procedure works, while providing theoretical lectures that include the scientific basis for each procedure in order to improve the teaching process.

10. Evaluation methods

Daily exam Monthly exam Intellectual questions Final exam

7. Faculty						
Faculty Members						
Academic Rank	Specializa	ation	Special Requiremen (if applicab	nts/Skills le)	Number of t staff	he teaching
	General	Special			Staff	Lecturer

Professional Development
Mentoring new faculty members
Electronic and in-person workshops and courses are approved inside and outside the educational

institution.

Professional development of faculty members

Meetings, seminars and training courses are approved to prepare and prepare faculty members.

8. Acceptance Criterion

- Central Admission - for morning studies.

- Direct application - for evening studies - according to grade and competition.

9. The most important sources of information about the program

A group of methodological books related to the academic subjects are relied upon.

10. Program Development Plan

				Program	n Skills	Outlin	ne								
				Required program Learning outcomes											
Year/Level	Course Code	Course Name	Basic or optional	Knov	Knowledge			Skills				Ethics			
			-	A1	A2	A3	A4	B1	B2	B3	B4	C1	C2	C3	C4
First year/ first semester		Laboratory instruments	Basic	1	1	1		1	1	~		1	1	1	
		Histology	Basic	1	1	✓		1	✓	✓		1	✓	1	
		Laboratory technique	Basic	1	1	1		1	1	1		1	1	1	
		Microbial preparation	Basic	1	1	1		1	1	1		1	1	1	
		Analytical chemistry	Basic	1	1	1		1	1	1		1	1	1	
		Fundamentals of nursing	Basic	1	1	1		1	1	~		1	1	1	
		Computer	Basic	1	1			1	✓			1	 Image: A start of the start of	1	
		Human Rights and Democracy	Basic	1	1			1	1			1	1	1	
First year/ 2 nd semester		Blood transfusion	Basic	1	1	1		~	1	1		1	1		

	Biochemistry	Basic	1	✓		1	1		•	✓	✓	✓	
	Molecular Biology	Basic	1	1	1	1	1	1	•	√	1	1	
	Quality control	Basic	1	\checkmark	1	1	✓	✓	•	✓	1		
	Histological techniques	Basic	1	1	1	1	1	1	•	1	1		
	Lap Safety	Basic	1	✓		1	✓		•	✓	1		
	English Language	Basic	1	1		1	1		•	1	1		
Second year/	Protozoa	Basic	1	\checkmark	1	✓	✓	✓	•	✓	1	1	
1 st semester	Hematology	Basic	1	\checkmark	1	1	✓	\checkmark	•	✓	1	✓	
	microbiology	Basic	1	\checkmark	1	1	✓	✓	•	✓	1	✓	
	Clinical Immunology	Basic	1	1	1	1	1	1	•	√	1	1	
	Pathogenic Bacteria	Basic	1	1	1	1	1	1	•	1	1	1	
	virology	Basic	✓	\checkmark	1	\checkmark	✓	\checkmark	•	\checkmark	 ✓ 	\checkmark	
	Professional conduct	Basic	1	1		1	1		•	/	1	1	
Second year/	Hematology	Basic	1	\checkmark	1	\checkmark	✓	\checkmark	•	✓	\checkmark	1	

2 nd semester	Pathogenic	Basic	1	1	1	✓	✓	1	1	✓	1	
	Bacteria											
	Clinical	Basic	1	\checkmark	1	1	1	\checkmark	1	1	1	
	Immunology											
	Clinical	Basic	1	1	\checkmark	\checkmark	1	1	1	1	1	
	biochemistry											
	metazoa	Basic	1	1	1	~	1	~	1	~	~	
	Medical	Basic	1	1	\checkmark	\checkmark	1	\checkmark	1	1	1	
	Mycology											

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

			Course Description F	orm				
1 Cour	se Name:	Histology						
		mstorogy						
2. Cour	rse Code:							
3. Seme	ester / Yea	r: 1 st seme	ster/ First year					
4. Desc	ription Pre	eparation I	Date: 20/11/2023					
5. Avai	lable Atte	ndance For	ms: Attend a lecture					
	1 60	1', TT						
6. Num	ber of Cre	dit Hours	(Total) / Number of Units (Total): N	umber of Units (5)				
	se admini	strator's na	me (mention all, if more than one na	me)				
Nam	e: Dr. Ruc	ayah Ali S	Salman	ine)				
Ema	il: <u>roqa@a</u>	<u>tu.edu.iq</u>						
8. Cour	se Objecti	ves	To see done to a late					
Course Obj	ectives		of human tissue.	e histological struct	ure and morphole			
9. Teac	hing and I	Learning S	trategies	cal experiments				
Strategy		• Late	st research and periodicals	eurexperiments				
10. Course	Structure	• Edu	cational videos					
Week	Hours	Requir	Unit or subject name	Learning	Evaluation			
		Learni		method	memou			
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1	2	mes	Shape of cell	Attende	01000			
1	L		Shape of cen	lecture	exam			
2	2		Epithelial tissue –simple epi T.					
3			Epithelial tissue- Stratified epith. T.					
4	2		Connective tissue – Loose c t.T.	Attend a lecture	exam			
5	2		Connective tissue –dense co	Attend a lecture	exam			
6	2		Connective tissue – the blood Attend a Exam					
	2			Attend a	exam			
7			Connective tissue –compact bone	lecture				
8	2		External feature of digestive	Attend a	exam			

9 2 Urogenital system of male & defemale Attend a lecture exam lecture 10 2 Liver Attend a Exam lecture 11 2 Spleen Attend a exam lecture 12 2 Lymph node Attend a exam lecture 13 2 Circulatory system (Artery) Attend a exam lecture 14 2 Circulatory system (vein) Attend a exam lecture 15 2 Final exam Attend a Exam lecture 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 exam is 20 marks The theoretical monthly written exam is 20 marks The theoretical monthly written exam is 25 marks III. 12. Learning and Teaching Resources E Required textbooks (curricular books, if any) Not available Main references (sources) BASIC HISTOLOGY (thirteen edition) Recommended books and references (scientific journals, reports) Electronic References, Websites 							
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journals, reports) Electronic References, Websites	Recommend	led books	and ref	erences (scientific		, , , , , , , , , , , , , , , , , , ,	,
Electronic References, Websites	journals, rep	orts)		·			
	Electronic R	leferences,	Websites				

1. Course Name: Laboratory instruments / First stage/ theoretical	
,	
2. Course Code:	
3. Semester / Year: 1 st SEMSTER	
4. Description Preparation Date: 25/2/2024	
5. Available Attendance Forms: Attend a lecture	
6. Number of Credit Hours (4) / Number of Units (4)	
7. Course administrator's name (mention all, if more than one name)	
Name: Safa Nihad Abed	

8.	Course O	bjectives			
Course	Objectiv Teaching	and Lear	The student will be able to: - - General objectives: - Understand the principle of all in laboratories.	struments that u	sed in the r
Strateg	У	• Le • Pra • Th	ctures actical experiences e exams		
10. Co Week	Hours	Requi red Learn ing Outco mes	Unit or subject name	Learning method	Evalu: tio metho
1	2		MICROSCOPES Uses, main parts ,principle of work ,kinds, ty of condensers, operation, cleaning, service a maintenance.	Attend a lecture	ex
2	2		BALANCES Uses ,types of balances ,main part ,principle operation ,operation ,service and maintenance	Attend lecture	ex
3	2		PHOTOMETRY Introduction, Light and wave length, B lamberts Law, types of photometers, main pa filters, prisms and diffraction gratings, princi of operation, operation and maintenance	Attend lecture	ex
4	2		Introduction , Uses ,main parts , types atomizers ,principle of operation ,operation ; maintenance.	Attend lecture	ex
5	2		ATOMIC ABSORPTION SPECTROPHOTOMETERY Introduction ,uses , types, main parts , princi of operation ,operation and maintenance.	Attend lecture	ex
6	2		CENTRIFUGES Uses , types, main parts , principle of operation ,operation and maintenance.	Attend lecture	ex
7	2		Monthly exam	Attend lecture	ex
8	2		AUTOCLAVES Introduction ,uses , types, main parts , princi of operation , sterilization, operation maintenance	Attend lecture	ex
9	2		PH METERS Uses , types, main parts ,electrodes , principle operation ,operation and maintenance.	Attend lecture	ex

10	2	MICROTOMES	Attend	exan
		Uses, types, main parts, sharpeners, principle	lecture	
		operation ,operation and maintenance.		
11	2	ELECTROPHORESIS	Attend	exan
		Uses, types, main parts, principle of operat	lecture	
		, operation and maintenance.		
12	2	HEATING INSTRUMENTS (WATER BATHS	Attend	exan
		,OVEN & INCUBATION)	lecture	
		Uses, types, main parts thermostats, principle		
		operation ,operation and maintenance.		
13	2	WATER PURIFICATION (DISTILLATORS &	Attend	exan
		DEAIONIZERS)	lecture	
		Distillator ,deionizers, uses, main parts		
		operation and maintenance.		
14	2	AUTOANALYZERS	Attend	exan
		Introduction ,uses , types, main parts , princi	lecture	
		of operation ,operation and maintenance.		
15	2	Review	Attend	exan
			lecture	
11. (Course Eva	luation		
Distrit	buting the s	core out of 100 according to the tasks assigned to the student such	as daily preparation	on,
y oral,	monthly, o	r written exams, reports etc		
The th	eoretical m	nonthly written exam is 20 marks		
The m	ionthly writ	tten practical exam is 10 marks		
The th	eoretical fi	nal written exam is 35 marks		
The fi	nal practica	al written exam is 25 marks		
12.1	Learning ar	nd Teaching Resources		
Requi	red textboo	oks (curricular books, if any Nothing		
Main	references	(sources) MEDICAL INSTRUMENTA	TION Book	
Recor	nmended	books and references		
(scien	tific journa	ls, reports)		
Electr	onic Refere	ences, Websites		
		Course Description Form		
13	3. Course N	ame: Microbial preparation/1 st /		
14	I. Course C	ode:		
15	5. Semester	/ Year: 1 st SEMSTER		
16	6. Descripti	on Preparation Date: 26 /2/2024		
17	. Available	e Attendance Forms: Attend a lecture		
18	3. Number of	of Credit Hours (5) / Number of Units (5)		

10	Course	administratoria	nome (montion all if more than one nome)		
19.	Lourse	administrator s	name (mention all, if more than one name)		
	Name:	Hadeel A. Hass	an du ia		
1	Email:	n.ainayii@atu.e	au.iq		
20.	Course	Objectives			
Course	Object	tives	prepare slides for histopathe	ology and cytolog	у
	Ū		A) In general:-		
			Students can prepare perma	nent slides for dif	ferent body r
			B) Specifically student can	do :-	
			1- Permanent stained tissue	slides and body f	luid smears.
			2- Fix and preserve tissu	ie specimen.	
21.7	Teachir	ng and Learning	Strategies		
Strateg	у	• Lectur	es		
	-	Practic	al experiences		
		• The ex	ams		
22. Co	ourse St	ructure			
Week	Hour	s Required	Unit or subject name	Learning	Evaluation n
		Learning		method	
		Outcomes			
1	2		Definition of some terminology that deals w	Attend a	exan
			histology,	lecture	
	_		cytology, etc.		
2	2		Sample collection, biopsy, and autop	Attend a lecture	exa n
3	2		Steps of preparing tissue for stu fixation, fixatives.	Attend a lecture	exa n
4	2 Steps o		Steps of preparing tissue for stu	Attend	exa n
			fixation, fixatives.	lecture	
5	2		Routine fixatives and special fixative	Attend	exa n
				lecture	
6	2		Routine fixatives and special fixative	Attend a lecture	exan
7	2		Washing, solution, time.	Attend a lecture	exan
8	2		Dehydration, dehydrants.	Attend a lecture	exa n
9	2		Clearing ,clearing agents	Attend a lecture	exan
10	2		Infiltration ,types of waxes .	Attend a lecture	exan
11	2		blocking and trimming	Attend a lecture	exan
12	2		Microtomes, Sectioning.	Attend a lecture	exan
13	2		Review	Attend a lecture	exan
14	2		Review	Attend a lecture	exan
15	2		Final exam	Attend a lecture	exan
<u>23. Co</u>	ourse E	valuation		1	
Distribu	iting the	e score out of I	00 according to the tasks assigned to the stu	dent such as daily	^v preparation
monthly	/, or wr	itten exams, rep	oorts etc		
The the	orelical	monuny writte	n exam is 20 marks		
The HIO	nully W	final written a	chain is 10 marks		
The the	oretical	inal written ex	ann 18 33 marks m is 25 marks		
$\frac{1}{24}$	u pract	and Tasahing P			
24. Le	d torrth	and reaching R	booka if on v Nothing		
Reduire	u iexid	ooks (cuificulai	Nouning Nouning		
Main #2	forman		A manual of Histoland	and Tachnicesan ar	d The diam

				Application By: John D. Banek	proft HC Cook	
Recomm	ended	books and	d references	By . John D. Baner		
(scientifi	c journa	ls, reports))			
Electron	c Refere	ences, Websi	ites			
			Cours	e Description Form		
1. Co	urse Nar	ne: Laborato	ory instruments /	First stage/ theoretical		
2. Co	urse Coc	le:				
3. Ser	nester /	Year: 1 st SEI	MSTER			
4 De	scription	Preparation	Date: 2/2/2024			
		reputation	<i>Duto. 2 2 202</i> 4			
5. Av	ailable A	Attendance F	orms: Attend a l	ecture		
6. Nu	mber of	Credit Hour	s (4) / Number o	f Units (4)		
				``````````````````````````````````````		
7. Co	urse adn	ninistrator's r	name (mention a	ll, if more than one name)		
Nai	me: khet	am lateaf hu	issain			
8. Co	urse Obj	ectives	uu.iq			
Course Ol	bjective	5		The student will be able to: -		
				- General objectives: - Understand the principle of a	all medical technic	mes that used
				medical laboratories.		1
9 Tea	aching a	nd Learning	Strategies			
Strategy		• Lectu	res			
		• Practi	cal experiences			
		• The e	xams			
10. Cours	se Struct	ure				
Week	Hours	Required	Unit or subjec	t name	Learning	Evaluatic n
		Outcome			methou	
		S				
1	2		Introdu	ction to medical lab technique	Attend a	ex in
1					lecture	
2	2		Sample	collection and transport	Attend a	ex in
3	2		Culturi	ng of microorganism	Attend	ex in
			<b>_</b>		lecture	
4	2		GUE		Δttend	ov

			lecture	
5	2	GSE	Attend	ex in
			lecture	
6	2	Seminal examination	Attend	ex in
			lecture	
7	2	Monthly exam	Attend	ex in
			lecture	
8	2	Agglutination technique	Attend	ex in
			lecture	
9	2	ELISA technique	Attend	ex in
			lecture	
10	2	RIA technique	Attend	ex in
			lecture	
11	2	PCR technique	Attend	ex in
			lecture	
12	2	Immunofloresence technique	Attend	ex in
			lecture	
13	2	review	Attend	ex in
			lecture	
14	2	review	Attend	ex in
			lecture	
15	2	Monthly exame	Attend	ex in
			lecture	

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

The theoretical monthly written exam is 20 marks The monthly written practical exam is 10 marks

The theoretical final written exam is 35 marks

The final practical written exam is 25 marks

12. Learning and Teaching Resources		
Required textbooks (curricular books, if any)	Nothing	
Main references (sources)	MEDICAL labrotory technique Book	
Recommended books and references		
(scientific journals, reports)		
Electronic References, Websites		
		4

1. Course Name: Name of the course: Human Rights and Democracy / Theoretical / First stag
Protozoa
2. Course Code:
3. Semester / Year:
first stage
4. Description Preparation Date: 20/3/2024
Medical laboratories
5. Available Attendance Forms:

6	Number o	f Credit Hours	(Total) / Number of Units (To	tal)		
0.	2hours, 2	credit	(10tal) / Italioer of Olitis (10	(ui)		
7.	Course ad	ministrator's na	me (mention all, if more than	one nam	ne)	
0	Name : a.t	Muneer Hadi	Hussein Email: muneer.hussei	n.ims@a	atu.edu.iq	
8.	Course Ot	ojectives		Q4 1		
Course	e Objective	es	1- classif 2- know 3- study protozoa 4- diagn	spp of prof spp of p y patho a osis of p	tozoa protozoa ogenicity an protozoa	d life cycle
9.	Teaching a	and Learning S	trategies	•		
Strateg	39	At the the p genera public	e end of the academic year, the rinciples and values of hu ations to respect and adhere freedoms and what these freedoms	ne studer uman ri to then doms are	nt should be ights, introd n, and becon e in their deta	able to recogn uce them, ra ne familiar w ils.
10. C	ourse Struc	cture				
Week	Hours	Required Learning Outcomes	Unit or subject name		Learning method	Evaluation method
1	2		Human rights/definition/goal Human rights in ancient civilizations, especially Mesopotamian civilization		Quiz discussion	
2	2		Human rights in divine laws, focus on human rights in Isla	with a m		quiz discussion
3	2		Human rights in contemporar modern history / internationa recognition of human rights s World War I and the League Nations		Quiz discussion	
4	2		Regional recognition of human rights (International Committee of the Red Cross / Amnesty International / Human Rights Watch / National Human Rights Organizations)			Quiz Discussion
5	2		Human rights in Iraqi constitution between theory and reality	utions		Quiz Discussion
6	2		The relationship between hur rights and public freedoms: A - In the Universal Declarat Human Rights B- In regional charters and na constitutions	nan ion of ational		Quiz discussion
7	2		Modern human rights: facts i development - the right to a c environment - the right to sol	n clean lidarity -		Quiz Discussion

r		[			
			the right to religi	on	
8	2		Exam		Exam.
9	2		Economic and cu	ultural human rights	Quiz
			and civil and pol	itical human rights	discussion
10	2		Guarantees of re of human rights / Guarantees in t laws / Guarantee the rule of law / constitutional ov Guarantees in fre public opinion / governmental or respecting and purights	spect and protection at the national level he constitution and s in the principle of Guarantees in ersight / eedom of speech and The role of non- ganizations in rotecting human	Quiz Discussion
11	2		Democracy / its	definition / types	Quiz Discussion
12	2		Concepts of dem	ocracy	Quiz discussion
13	2		Democracy in th	e Third World	Quiz Discussion
14	2		Concepts of free of basic pu intellectual freed social	doms / classification blic freedoms / loms / economic and freedoms	Quiz Discussion
15	2		Final exam of	of second course	Exam.
11 C	ourse Eval	uation			
Distribu prepara . quiz o . first th Second First an Final pr Final th	tion, daily f practice a heory exan theory exan d second practice exa heory exam	score out of 10 oral, monthly, and theory 10n n 10 marks am 10 marks practice exam 1 m 25 marls n 35 d Teaching Res	00 according to th or written exams, narks 10 marks	ne tasks assigned to the reports etc	student such as daily
12. Le	earning and	a Teaching Res	sources	Ductorico materia 1	anthron a da
Kequire	ea textbool	ks (curricular b	ooks, 11 any)	Protozoa, metazoa and	artnropoda
Main re	erences (	sources)			
ioumol	mended be	boks and refer	ences (scientific		
Floot	s, reports	.) noog Wahaitaa			
Electro	mc ketere	nces, websites			

1	Course Name: Analytical chemistry
1.	Course Name. Anarytical chemistry
2.	Course Code:
3.	Semester / Year: 1 st SEMSTER/ 1 st year

4.	Descrip	otion Prepara	ation Date: 22/2/2024			<u> </u>		
5 Available Attendance Forms: Attend a lacture								
5. Available Attendance Forms: Attend a lecture								
6.	Numbe	r of Credit F	Hours (6) / Number of Units (6)					
	1.00000							
7.	Course	administrate	or's name (mention all, if more than one name)			<u> </u>		
1	Name: Email:	Baraa.B.Ald	lin 1.ims@atu.edu.iq					
8	Course	Objectives				<u> </u>		
Course	• Objec	tives	Study and understand the substan	ce and solutions	how to	eal y		
course	e o sjee		prepare them, and how to dilute the	em practically an	d using la	ws m		
9.	Teachin	ng and Learr	ning Strategies	1 2	<u> </u>			
Strateg	gy	Study and	d understand the substance and solutions, how to deal w	ith materials, ho	w to prep	ire th		
		them pract	ctically and using laws mathematically.					
10 C	ourse St	tructure						
Week		Require	Unit or subject name	Learning	Evaluat	on n		
W CCK	rs	d	o int of subject nume	method	Lvaluat			
		Learnin						
		g						
		Outcom						
1	2	es	Introduction to analytical chamistry and y			Lom		
1	2		methods are used chemically	Attend a	e	kam		
			methods are used enemicany	lecture				
2	2		About organic chemistry, what are	Attend	e	kam		
			applications, what are isotopes and their types?	lecture				
3	2		An overview of the types of standard methods	Attend	e	kam		
			an explanation of what is the error rate	lecture				
4	2		Explain the chemical and physical states	Attend	e	kam		
			matter and how to deal with matter in its vari	lecture				
5	2		States Explain the law of molarity and how to appl	Attand		zom		
5	2		practically and mathematically	lecture	e	xaiii		
6	2	+	Explain the law of normality and how to apply it	Attend	f	kam		
-	_		practically and mathematically	lecture				
7	2		Explain the general dilution law and how	Attend	e	kam		
-		ļ	prepare liquid and solid substances	lecture		<b></b>		
8	2		Describe the process of titration practically	Attend	ε	kam		
			mathematically, what is the purpose of titration and what two are word in the average	lecture				
			titration					
9	2	+	Definition of ph of solutions what is	Attend	e	Kam		
· /								
	2		importance, and how to extract it practically	lecture	, i	Xuilli		

			using law	vs mathematically,			
10	2		Definitio	on of acids, bases and how to prep	Attend	e cam	
			them		lecture		
11	2		Definitio	on of strong acid and weak acid	Attend	e kam	
					lecture		
12	2		Definitio	n of a strong base and a weak base	Attend	e cam	
					lecture		
13	2		What is	weak acid and its salt and how to prep	Attend	e cam	
			it		lecture		
14	2		What is	a weak base, its salt and how to prepar	Attend	e cam	
					lecture		
15	2		Review		Attend	e kam	
					lecture		
11.	Course E	valuation					
Distri	ibuting th	ne score out o	f 100 according	to the tasks assigned to the student su	uch as daily pre	paration, laily	
writte	en exams	, reports etc	c	-	• •		
The t	heoretica	l monthly wri	tten exam is 20 n	narks			
The n	nonthly v	vritten practic	al exam is 10 ma	rks			
The t	heoretica	l final written	exam is 35 mark	CS			
The f	inal prac	tical written ex	xam is 25 marks				
12.	Learning	and Teaching	g Resources				
Requ	ired textl	ooks (curricu	lar books, if any	Not available			
Main	referenc	es (sources)		Foundations of Analytical Ch	emistry / Dougla	is A. Scot g 20	
Reco	mmended	l books a	nd references	Foundations of Analytical Chemistry / Douglas A. Scot			
(scier	ntific jour	mals, reports	.)	-	- 0	ſ	
Elect	ronic Ref	erences, Web	sites				
		,		researchgs) مبادئ الكيمياء التحليلية	ate.net).pdf		
					<i>/</i> 1		
			Cour	se Description Form			
				_			
25	5. Course	Name: Funda	amentals of nursi	ng			
20	6. Course	Code:					
27	7. Semes	ter / Year: 1 st	SEMSTER				

28. Description Preparation Date: 23 /2/2024

29. Available Attendance Forms: Attend a lecture

30. Number of Credit Hours (3) / Number of Units (3)

31. Course administrator's name (mention all, if more than one name) Name: Aiyat Hazem Email: ayiat.agel@atu.edu.iq

32. Course Objectives

Course	e Object	tives	<ul> <li>Learn about the found</li> <li>Special: - Getting to professional safety in patient while he is in</li> </ul>	lations of nursin know the basion the field of nu medical laborate	g. cs of nursin rsing, and m pries	, fi ethc
33.	Teachin	ng and Le	earning Strategies			
Strateg	gy		<ul> <li>Lectures</li> <li>Practical experiences</li> <li>The exams</li> </ul>			
34. C	ourse St	ructure				
Week	Hou rs	Requi red Learn ing Outco	Unit or subject name	Learning method	Evaluatior	me
1	2	mes	Introduction to nursing	Attend a lecture	exa	1
2	2		Medical examination	Attend lecture	exa	n
3	2		Vital signs, temperature measurement	Attend lecture	exa	n
4	2		Pulse, definition, factors that effecting pu measurement of pulse	Attend lecture	exa	n
5	2		Respiration, definition, factors that effect respiration, measurement of respiration	Attend lecture	exa	1
6	2		Blood pressure, definition, factor the effect blood pressure, hyper and hypotensi measurement of blood pressure	Attend lecture	exa	n
7	2		Monthly exam	Attend lecture	exa	n
8	2		Health care, definition, factors effecting heat care	Attend lecture	exa	n
9	2		Factors that effects the health of worker laboratories, natural factors, infectious diseases	Attend	exa	n
10	2		Chemical factors- disease	Attend lecture	exa	1
11	2		Psychological factors-diseases	Attend lecture	exa	1
12	2		Biological factors- types-their effects on work in Lab diseases.	Attend lecture	exa	n
13	2		First aid- definition, paramedic, fundamental	Attend	exa	n
14	2		Burns- types of fracture aid- artificial respiratio	Attend	exa	n
15	2		Final examination .	Attend	exa	n
35. C	ourse Ev	valuation				
Distrib	uting the	e score o	out of 100 according to the tasks assigned to the studen	t such as daily	preparation.	laily
				jan in the second of the	<u> </u>	

		<ul><li>Practic</li><li>The ex</li></ul>	eal experiences ams			
45. Strateg	Teaching y	and Learning • Lectur	g Strategies			
Course	Objectiv	ves		• How to handle an them	nd preserve sam	ples and make
44	Course O	biectives	•			
	Name: Ai Email: av	yat Hazem iat.agel@atu.	edu.iq			
43.	Course ad	lministrator's	name (mention a	ll, if more than one name)		
42.	Number o	of Credit Hou	rs (3) / Number (	of Units (3)		
41.	Available	Attendance	Forms: Attend a	lecture		
40.	Descriptio	on Preparatio	n Date: 23/2/202			
39.						
20	Comparison C	(Veer 2 ND S	EMCTED			
38	Course C	ode:				
37.	Course N	ame: Blood t	ransfution			
			Course	Description Form 2		
ectronic	Reference	es, Websites				
comment commentific	nded be	ooks and	references	v		
quired t ain refer	extbooks ences (sou	(curricular bo urces)	ooks, if any)	Nothing Chemistry		
6. Learr	ning and T	Teaching Reso	ources			
e month e theore	tical final	written exam	in is 10 marks			
.1	tical mon	thly written e	xam is 20 marks			

				lecture	
3	2	choosii	ng the donor , physi	Attend	exam
		examin	ation ,time of collection	lecture	
4	2	Blood group ,A	ABO system, Rh factor,	Attend	exam
		Lewis	system	lecture	
5	2	Classif	ication of blood typing	Attend	exam
				lecture	
6	2	Direct	and indirect coombs test	Attend	exam
		blood		lecture	
7	2	Process	s of cross matching	Attend	exam
		,reporti	ng and record the result	lecture	
8	2	Roles	of blood transfusion ,blo	Attend	exam
		disease		lecture	
9	2	Pregna	nt care ,leukemia of infant .	Attend	exam
				lecture	
10	2	Compo	nent of blood after stor	Attend	exam
		,antico	agulants	lecture	
11	2	Examin	nation for second term	Attend	exam
				lecture	
12	2	Blood	ransfusion disadvantage	Attend	exam
				lecture	
13	2	Separa	ion of blood content ,meth	Attend	exam
		of sepa	ration	lecture	
14	2	Quality	control, tools ,persons ,meth	Attend	exam
				lecture	
15	2	Final e	xamination .	Attend	exam
				lecture	
47.	Course Eva	aluation			
Distri	buting the	score out of 100 according to	the tasks assigned to the studer	nt such as daily p	reparation, dail
writte	en exams, r	eports etc			
The the	heoretical r	nonthly written exam is 20 m	arks		
The n	nonthly wr	itten practical exam is 10 mar	KS		
The ti	neoretical I	inal written exam is 35 marks			
1 ne 1	inal practic	al written exam is 25 marks			
48	Learning a	nd Teaching Resources	NI-41-1		
Requi	ired textbo	oks (curricular books, if any)	Notning	- 1 T - 1 - 1	1 The discourse
Main	references	(sources)	A manual of Histologic	cal Techniques an	a The diag los
Daaa	h a h a a a a	heeles and references	By : John D. Bane	Enront, H.C. Cool	<u> </u>
(soior	innended	books and references			
Floot	ronio Dofor	ans, reports)			
Electi	ionic Keler				
49.	Course Na	me:			

50. Course Code:

51. Semester / Year:

52. Description Preparation Date:

	lable Atte	endance Form	18:			
54. Num	ber of Cr	edit Hours (T	otal) / Number of U	Units (Total)		
55. Cou	se admin	istrator's nam	e (mention all, if m	ore than one	name)	
Nam	e: Hadeer	Amer Moha	n Ladu ia			
EIIIa	II. Haueel	. Monan@atu	i.edu. iq			
56. Cou	se Object	ives				
<b>Course Obj</b>	ectives			1. Know wh safety	at is meant by	laboratory
				2. identify la	aboratory risks	•••
				3. idenitfy la	aboratory chem	uy
57. Teac Strategy	ning and	Learning Stra	ategies			
mangy		The example	n			
58. Course	Structure	e				
Week	Hours	Required	Unit or subject a	name	Learning	Evaluation
		Learning			method	method
		Outcomes				memou
1and	2	Outcomes2	Introducti	on	Attend	Exam
1and	2	Outcomes 2	Introducti To labora	ion tory	Attend Lecture	Exam
1and	2	Outcomes 2	Introducti To labora Safety	ion tory	Attend Lecture	Exam
1and 3	2	Outcomes	Introducti To labora Safety	ion tory	Attend Lecture Attend	Exam
1 and 3	2	Outcomes 2	Introducti To labora Safety General la	ion tory ab.	Attend Lecture Attend Lecture	Exam
1 and	2	Outcomes	Introducti To labora Safety General la Safety rol	ion tory ab. es	Attend Lecture Attend Lecture	Exam
1and 3 4and	2	Outcomes 2 2	Introducti To labora Safety General la Safety rol Person pr	ion tory ab. es otection eq	Attend Lecture Attend Lecture	Exam
1and 3 4and	2	Outcomes	Introducti To labora Safety General la Safety rol Person pr uipments	ion tory ab. es otection eq	Attend Lecture Attend Lecture	Exam Exam exam
1 and 3 4 and	2	Outcomes	Introducti To labora Safety General la Safety rol Person pr uipments Biologica	ab. es otection eq	Attend Lecture Attend Lecture Attend a lecture Attend	Exam Exam exam
1 and 3 4 and 6 and and 8	2	Outcomes	Introducti To labora Safety General la Safety rol Person pr uipments Biologica	ab. es otection eq	Attend Lecture Attend Lecture Attend a lecture Attend lecture	Exam Exam exam
1 and 3 4 and 6 and and 8 9-10	2	Outcomes	Introducti To labora Safety General la Safety rol Person pr uipments Biologica Types	ion tory ab. es otection eq l hazards of biologi	Attend Lecture Attend Lecture Attend a lecture Attend lecture	Exam Exam exam
1 and 3 4 and 6 and 9-10	2	Outcomes       2       2       2       2       2       2       2       2	Introducti To labora Safety General la Safety rol Person pr uipments Biologica Types hazards Chemical	ion tory ab. es otection eq l hazards of biologi	Attend Attend Lecture Attend lecture Attend lecture Attend lecture	Exam Exam exam
1 and 3 4 and 6 and and 8 9-10 11	2	Outcomes       2       2       2       2       2       2       2       2       2       2	Introducti To labora Safety General la Safety rol Person pr uipments Biologica Types hazards Chemical hazards	ion tory ab. es otection eq 1 hazards of biologi	Attend Lecture Attend Lecture Attend a lecture Attend lecture Attend lecture	Exam Exam exam exam
1 and 3 4 and 6 and 9-10 11 12	2	Outcomes       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2	Introducti To labora Safety General la Safety rol Person pr uipments Biologica Types hazards Chemical hazards Types of	ion tory ab. es otection eq 1 hazards of biologi	Attend Lecture Attend Lecture Attend a lecture Attend lecture Attend lecture Attend	Exam Exam exam exam
1 and 3 4 and 6 and 9-10 11 12	2	Outcomes       2       2       2       2       2       2       2       2       2       2       2       2       2       2	Introducti         To labora         Safety         General la         Safety rol         Person pr         uipments         Biologica         Types         hazards         Chemical         hazards         Chemical	ab. les otection eq l hazards of biologi hazards	Attend Lecture Attend Lecture Attend a lecture Attend lecture Attend lecture Attend lecture Attend	Exam Exam exam exam exam
1 and 3 4 and 6 and and 9-10 11 12 12	2	Outcomes       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2	Introducti To labora Safety General la Safety rol Person pr uipments Biologica Types hazards Chemical hazards Types of Chemical Review	ion tory ab. es otection eq l hazards of biologi hazards	Attend Lecture Attend Lecture Attend a lecture Attend lecture Attend lecture Attend lecture Attend lecture Attend	Exam Exam exam exam exam exam
1 and 3 4 and 6 and and 9-10 11 12 13		Outcomes       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2	Introducti To labora Safety General la Safety rol Person pr uipments Biologica Types hazards Chemical hazards Types of Chemical Review	ion tory ab. es otection eq l hazards of biologi hazards	Attend Lecture Attend Lecture Attend a lecture Attend lecture Attend lecture Attend lecture Attend lecture	Exam Exam exam exam exam exam

preparation, daily oral, monthly, or written exams, reports etc				
60. Learning and Teaching Resources				
Required textbooks (curricular books, if any)				
Main references (sources)				
Recommended books and references (scientific				
journals, reports)				
Electronic References, Websites				

61. Course Name: Molecular Biology							
62. Course Code:							
63 Seme	ester /Fir	st 1	Year second	semester			
05. 50110		50		semester			
64. Desc	ription P	rep	paration Date:	22/2/2024			
65. Avai	lable Att	end	dance Forms:				
66. Num	ber of C	red	it Hours (4) /	Number of U	Units (4)		
67. Cour	rse admir	nist	rator's name (	(mention all, i	if more than one	e name)	
Nam	e: Dr. Ru	iqa	yah Ali Salm	an			
Ema	n: roqa@	all	i.edu.iq				
68. Cour	se Objec	tiv	es				
Course Obj	ectives				Students will b	be able to	
					• unders	tand the molecula	r process of
					intact o	cells	
					• signal	ling and the molec	cular structures
69. Teac	hing and	Le	earning Strate	gies			
Strategy			• curricul	lums and spec	cialized books p	practical experime	nts
			• Latest r	esearch and p	periodicals		
			• Educati	onal videos			
70. Course	Structur	e					
Week	Hours		Required	Unit or sub	ject name	Learning	Evaluation
			Learning			method	method
1		2	Outcomes	Intro	duction to		exam
_				mole	ecular biology	Attend	
						lecture	

2	2		Cell cycle		evam
2	2		chi cycle	Attend	CXam
				lecture	
3	2	Г	NA and RNA	1000010	exam
5	-	S	tructure	Attend	Untuiti
				lecture	
4	2		DNA replication		exam
			· · · · · ·	Attend	
				lecture	
5	2	Γ	ONA transcription		exam
			1	Attend	
				lecture	
6-7	2	]	<b>Franslation and</b>		exam
		p	orotein synthesis	Attend	
			-	lecture	
8	2	(	Gene expression and		exam
		r	egulation	Attend	
				lecture	
9-10	2	I	nhibitors of		exam
		ti	ranslation and	Attend	
		tı	ranscription	lecture	
11	2	L	ONA repair system		exam
				Attend	
				lecture	
12	2	Mutatior	n and		exam
		chromos	omal aberrations	Attend	
				lecture	
13	2	Chemica	and physical		exam
		agents th	at cause mutation	Attend	
				lecture	
14	2	Recomb	inant DNA		exam
		technolo	gy (cDNA	Attend	
		techniqu	e)	lecture	
		teeninqu	()		
15	2	Cloning	and application		evam
15	2	(hmiafly)	and apprication	Attend	Слат
		(oneny)		lecture	
71 Carrier	E1			Teeture	
/1. Course	Evaluation	aut of 100 according	to the testre costor	ad to the student	anala an dailer
Distributing	doily oral	out of 100 according	to the tasks assign	ed to the student	such as daily
The theoretic	cal monthly	written exam is 20 ma	rks		
The monthly	v writton pre	withen examines 20 mark	1K5		
The theoretic	eal final wri	itten exam is 35 marks			
The final pra	actical writt	en exam is 25 marks			
72 Learnin	ng and Teac	hing Resources			
Required tex	thooks (cur	ricular books if any)	Not availa	hle	
Main referer	ices (source	()		lecular Riology ('	Third edition)
				vid D Clark 2010	
			Da	viu I. Claik, 2010	)

Recor	mmend	ed books	and references					
(scien	tific jo	urnals, report	s)					
Electr	ronic R	eferences, W	ebsites					
			<b>Course Description Form</b>					
1.	Cours	se Name: BI	DCHEMSTERY /1 ST /					
2.	Cours	se Code:						
3.	Seme	ster / Year: 2	ND SEMSTER					
4.	Desci	ription Prepa	ration Date: 22/2/2024					
5.	Avail	able Attenda	nce Forms: Attend a lecture					
(	NT	on of Caral's	Hours (6) / Number of Heits (6)					
6.	Num	ber of Credit	Hours (6) / Number of Units (6)					
7	Cour	a administra	tor's name (mention all if more than one nom					
1.	Name	· Baraa B A	din					
	Emai	l: baraa.ahme	ed.ims@atu.edu.ig					
			1					
8.	Cours	se Objectives						
Cour	se Obj	ectives	Know the functionin	g of cells, the	functions and im			
0	Teacl	ning and Lea	enzymes Knowledge of	metabolism				
<u>J.</u> Strate								
Stiut	~8)	• P1	actical experiences					
		• T	ne exams					
10	~							
10. <b>(</b>	Course	Structure	TT	<b>T</b>				
Wee	Hou	Kequired	Unit or subject name	Learning	Evaluation method			
К	rs	Outcomes		method				
1	2		Definition of biochemistry and what are the		exam			
			components of	Attend a				
			The cell and its importance	lecture				
2	2 2 Carbohydrates, their classification and Attend exam							
L	2	types and their chemical composition lecture						
2	2		types and their chemical composition	lecture				
2	2		Fats, their characteristics and types	lecture Attend	exam			
3	2		Fats, their characteristics and types and chemical composition	Attend lecture	exam			
2 3 4	2 2 2		types and their chemical compositionFats, their characteristics and types and chemical compositionEssential fats and derived fats	Attend lecture Attend lecture	exam exam			
2 3 4 5	2 2 2 2		types and their chemical composition         Fats, their characteristics and types         and chemical composition         Essential fats and derived fats         Proteins and their properties	Attend Attend lecture Attend lecture	exam exam			
2 3 4 5	2 2 2 2		types and their chemical composition         Fats, their characteristics and types         and chemical composition         Essential fats and derived fats         Proteins and their properties	lectureAttendlectureAttendlectureAttendlecture	exam exam exam			
2 3 4 5 6	2 2 2 2 2		types and their chemical composition         Fats, their characteristics and types         and chemical composition         Essential fats and derived fats         Proteins and their properties	lectureAttendlectureAttendlectureAttendlectureAttendlectureAttendlectureAttend	exam exam exam exam			
2 3 4 5 6	2 2 2 2 2 2		types and their chemical composition         Fats, their characteristics and types         and chemical composition         Essential fats and derived fats         Proteins and their properties         Peptide Bond in Amino Acids	lectureAttendlectureAttendlectureAttendlectureAttendlectureAttendlecture	exam exam exam exam			

			Amino acid characterist	s, their types and ics of each type	lecture	
8	2		Enzymes ar	nd their classification	Attend lecture	exam
9	2		Know some Glands and enzyme	e of the disorders that aft d affect the work of	Attend lecture	exam
10	2		Types of g function of	lands, their location and the enzyme action	Attend lecture	exam
11	2		Endocrine	diseases	Attend	exam
12	2		Vitamins, importance	their properties ;	Attend	exam
13	2		Sources of	vitamins	Attend lecture	exam
14	2		Laboratory	tests for some vitamins	Attend lecture	exam
15 11.	2 Course	Evaluation	Review		Attend lecture	exam
15 11. Distr writte The t The t The t	2 Course ibuting en exam heoretic monthly heoretic inal pra	Evaluation the score ou as, reports cal monthly written prace cal final written ctical written	Review t of 100 according to etc written exam is 20 m etical exam is 10 mar ten exam is 35 marks n exam is 25 marks	the tasks assigned to the narks tks s	Attend lecture	exam aily preparation,
15 11. Distr writte The t The t The t 12. Recu	2 Course ibuting en exam heoretic nonthly heoretic inal pra Learnin ired tex	Evaluation the score ou is, reports cal monthly written prace cal final written ctical written g and Teach thooks (curr	Review t of 100 according to etc written exam is 20 m ctical exam is 10 mar ten exam is 35 marks n exam is 25 marks ing Resources icular books if any	o the tasks assigned to the narks rks s	Attend lecture	exam aily preparation,
15 11. Distr writte The t The t The t 12. Requi	2 Course ibuting en exam heoretic nonthly heoretic ïnal pra Learnin ired tex referen	Evaluation the score ou as, reports cal monthly written prace cal final writ ctical written g and Teach tbooks (curr cces (sources	Review t of 100 according to . etc written exam is 20 m etical exam is 10 mar ten exam is 35 marks n exam is 25 marks ing Resources icular books, if any )	o the tasks assigned to the narks rks s Nothing BIOCHEMSTRY	Attend lecture	exam aily preparation,
15 11. Distr writte The t The t The t 12. Requ Main Reco (sciet	2 Course ibuting en exam heoretic nonthly heoretic inal pra Learnin ired tex referen mmende ntific jou	Evaluation the score ou is, reports cal monthly written prace cal final writ ctical written g and Teach tbooks (currices (sources ed books urnals, report	Review t of 100 according to etc written exam is 20 m etical exam is 10 mar ten exam is 35 marks in exam is 25 marks ing Resources icular books, if any ) and references ts)	o the tasks assigned to the narks fks s <u>Nothing</u> BIOCHEMSTRY HARPERS ILLUSTRATE	Attend lecture student such as da	exam aily preparation,

# 1. Course Name: Laboratory instruments / First stage/ theoretical 2. Course Code: 3. Semester / Year: 2nd SEMSTER 4. Description Preparation Date: 2/4/2024 5. Available Attendance Forms: Attend a lecture 6. Number of Credit Hours (4) / Number of Units (4)

7 6	urso ad	ministrator's name	(montion a	Il if more than one name)			
7. CC	me khe	tam lateaf bussain	(mention a	n, n more man one name)			
Kł	netam hi	ussain@atu.edu.io					
8. Co	ourse Ob	viectives					
Course O	biective	es		The student will be able to c	ualitation of labo	oratory res il	lt.
	J				1	J III J	
9. Te	aching a	and Learning Strate	egies				
Strategy		• Lectures					
		<ul> <li>Practical</li> </ul>	experience	es			
		• The exam	ns				
10 0	<b>C</b> (						
10. Cour	se Struc	Dequired	I Init on a	which nome	Looming	Evolution	
week	nours	Learning	Unit of s	ubject name	method	Evaluat 0	)[] []
		Outcomes			memou		
1	2		In	troduction to quality control		εxa	am
				· · · · · · · · · · · · · · · · · · ·	Attend a		
					lecture		
2	2		M	edical revalance of QA	Attend	e Ka	am
					lecture		
3, 4,5	2		Ba	alancing error detection	Attend	e Ka	am
					lecture	-	
6,7	2		Q	uality control material	Attend	e ka	am
0	2		0	A for quantitative regult	lecture		0.000
8	2		Q.	A for quantitative result	Attend	exa	am
9	2		0	A for qualitative result	Attend	e ta	am
,				r for quantarive result	lecture		um
10	2		0	A for semi-quantitative result	Attend	εxa	am
				1	lecture		
11	2		Tı	coubleshoot based on QA result	Attend	e (2	am
					lecture		
12,13,14	2		re	view	Attend	e Ka	am
					lecture	-	
15	2		M	lonthly exam	Attend	e ka	am
11 0					lecture		
Distributi	rse Evan	uation	ording to t	he tasks assigned to the studen	t such as daily pr	operation	oily
written ex	ams ret	orts etc	ording to t	he tasks assigned to the studen	t such as daily pr	eparation, ja	any
The theore	etical m	onthly written exar	n is 20 mar	ks			
The month	hly writt	en practical exam	is 10 marks	3			
The theore	etical fir	al written exam is	35 marks				
The final j	practica	written exam is 2	5 marks				
12. Lear	ning and	l Teaching Resource	ces				
Required	textbool	s (curricular books	s, if any)	Nothing			
Main refer	rences (a	sources)		MEDICAL labrotory to	echnique Book		
Recomme	nded	books and re	eferences				
· · · · ·	iournal	s reports )					
(scientific	D						

			<b>Course Description For</b>	m		
73.	Course Na	ame: Histolog	ical techniques/1 st /			
74	Course Co	de.				<u> </u>
/+.		Juc.				-
75.	Semester ,	/ Year: 2 ND SH	EMSTER			
76.	Descriptio	on Preparation	Date: 23 /2/2024			<u> </u>
77						
//.	Available	Attendance F	orms: Attend a lecture			<u> </u>
78.	Number o	f Credit Hour	s (5) / Number of Units (5)			
79.	Course ad	ministrator's r	name (mention all, if more than one nam	e)		
	Name: Ha	deel A. Hassa	un			
	Email: n.a	inayn@atu.et	10.10			
80.	Course Ol	ojectives				
Course	Objectiv	es	• How to han	dle and preserve	samples and make	histo
81	Teaching	and Learning	Strategies them			
Strateg	y June 19	• Lect	ures			<u> </u>
		• Prac • The	exams			
82. Co Week	Surse Strue	cture Required	Unit or subject name	Learning	Evaluation metho	1
WCCK	nours	Learning	Chit of subject hame	method	Evaluation methy	1
1	2	Outcomes	Mounting Adhesives		exam	<u> </u>
1	2		Mounting, Adhesives	Attend a	exam	
				lecture		
2	2		Staining, classification of stain	Attend lecture	exam	
3	2		Staining, classification of stain	Attend	exam	
4	2		Staining section	lecture Attend	exam	<u> </u>
т 	<i>–</i>			lecture	Crain	
5	2		Staining section	Attend	exam	
6	2		Methods of staining	Iecture Attend	exam	<u> </u>
				lecture		
7	2		Types of stains	Attend	exam	
L		I	l	iecture	<u> </u>	<u> </u>

8	2		prepara	tion of stain and oxidati	Attend	exam
			of some	e stains	lecture	
9	2		Stains s	olvents ,factors affectin	Attend	exam
			staining , storage of stains , how		lecture	
			to choo	se stain .		
10	2		Decalci	fication, bone tissue	Attend	exam
					lecture	
11	2		Examin	ation for second term	Attend	exam
					lecture	
12	2		Tissue	slide	Attend	exam
					lecture	
13	2		Freezin	g	Attend	exam
					lecture	
14	2		microto	ome	Attend	exam
					lecture	
15	2		Final ex	kamination.	Attend	exam
					lecture	
83. 0	Course Eval	uation				
Distri	buting the s	score out of 1	00 according to	the tasks assigned to th	e student such as	s daily preparation, lail
writte	n exams, re	ports etc				
The th	neoretical m	onthly written	exam is 20 mar	·ks		
The m	onthly writ	ten practical e	xam is 10 marks	5		
The th	neoretical fin	nal written exa	am is 35 marks			
The fi	nal practica	l written exan	n is 25 marks			
84. I	Learning an	d Teaching Re	esources			
Requi	red textboo	ks (curricular	books, if any)	Nothing		
Main	references (	sources)		A manual of Hi	stological Techni	iques and The diagn stic
				By : John	D. Banehroft, H.	C. Cook
Recor	nmended	books and	d references			
(scien	tific journal	s, reports)				
Electr	onic Refere	nces, Website	S			

85. Course Name:					
Lap Safety					
86. Course Code:					
87. Semester / Year:					
2 nd Semester/ 1 st year					
88. Description Preparation Date:					
89. Available Attendance Forms:					
Attend a lecture					
90. Number of Credit Hours (Total) / Number of Units (Total)					

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

Name Email	:Hadeer Am : hadeer. Mo	er Mohan han@atu.edu	u. iq			
07 Cours	o Objective	2				
Course Obje	ctives	<u>,</u>	1. Kr 2. ide 3. ide	now what is i entify labora enitfy labora	neant by laborato tory risks tory chemiy	ry safety
93. Teach	ing and Lea	rning Strateg	ies	•	•	
Strategy		Lectures The exam				
94. Course S	Structure					
Week	Hours	Required Learning Outcomes	Unit or subject	t name	Learning method	Evaluation method
1and2	2		Introduc To labor Safety	ction ratory	Attend a Lecture	Exam
3	2		General Safety r	lab. oles	Attend a Lecture	Exam
4and5	2		Person j equipme	protection ent's	Attend a lecture	exam
6and7 and8	2		Biologic	cal hazards	Attend a lecture	exam
9-10	2		Types o gical ha	f biolo- zards		
11			Chemica hazards	al	Attend a lecture	exam
12	2		Types o Chemic	f al hazards	Attend a lecture	exam
13	2		Review		Attend a lecture	exam
14-15			Final ex	am		exam
95. Course I Distributing preparation, d 96. Learning	Evaluation the score of laily oral, m g and Teach	out of 100 a onthly, or wr ing Resource	according to the itten exams, repo s	tasks assign rts etc	ned to the studen	t such as daily
Required text Main reference Recommende journals, repo	books (curri ces (sources) d books a rts)	icular books, ) ind reference	if any) es (scientific			

1.	1. Course Name:							
English	English Language/ Second semester							
2.	2. Course Code:							
3.	Semest	er /	Year:					
Second	l semest	er						
4.	Descrip	otio	n Preparation Dat	e:				
23-2-2	2024							
5.	Availat	ole 4	Attendance Form	s:				
	Attend	a le	ecture					
6.	Numbe	r of	Credit Hours (To	otal) / Number of Units (Total)/	/			
	(2)/(2)	)						
7.	Course	adr	ninistrator's name	e (mention all, if more than one	name)			
	Name:	Afr	ah Mohammed N	Iuslim				
	Email:	afra	h.al-sowaidi.ims	@atu.edu.iq				
0	C	$O^1$	• •					
8.	Course	Ub	jectives	the English Language ( 1	• • • • • • • • • • • • • • •	the restrict		
Course	Objecti	ives	1. Improving	the English language for stude	its and teachers to	the point		
			where they ca	in use it as a popular language of	of communication	, research, and		
			2 Improving	the advectional level to deal wi	th the translation	of scientific		
			2. Improving					
9	Teachi	าด ล	and Learning Stra	tegies				
Strateg	v	15 0	1 Listening	+ Speaking				
Bildieg	, ,		2 Writing +	reading				
			Each level i	s divided into four education	nal stages, with	specific procedu		
			objectives to			-F		
			support what	has been previously learned w	hile adding every	thing new.		
			11	1 5	6 7	U		
10. C	ourse St	truc	ture					
Week	Hours		Required	Unit or subject name	Learning	Evaluation		
			Learning		method	method		
			Outcomes					
1	2			<b>Hello!</b> p6	attend a	exam		
				am/are/is my/your	lecture			
				What's your name? p6				
				How are you? p8				
2	2			2 Your world P12	attend	exam		
				am/are/is	a lecture			
				he/she/they – his/her				
				Questions				
	2			3 Personal information	attend	exam		
3				am/are/is	a lecture			
				AIII/ aIC/15 Negatives questions				
				short answers				
4	2			4 Family and friends	attend	exam		
<b>-</b>	2			Possessive adjectives	a lecture	CAUII		
				Possessive				
	1							

	2	5 It's m	y life!	attend	exam
5		Pre	esent Simple	a lecture	
		I/	you/they		
	2	6 Ever	y day	attend	exam
6		T	he time. p40	a lecture	
		esent Sim	ple he/she/it		
		uestions an	nd negatives		
	2	7 Places	s I like	attend	exam
7		0	bject pronouns	a lecture	
		th	is/that		
		Questions	and answers		
	2	8 Where	e I live	attend	exam
8		Ther	e is/are, any	a lecture	
		P	repositions		
	2	9 Happy b	pirthday!	attend	exam
9		Past Simpl	le - irregular	a lecture	
		1	verbs		
	2	10 We had a s	good time!	attend	exam
10		Past Sim	ple - regular	a lecture	
		and irre	egular		
		uestions at	nd negatives		
		S	hort answers		
	2	II We can	n do it!	attend	exam
11	-	can/c	can/can't		Unum
		R	equests and offers	u icetuie	
	2	12 Thank you	very much	attend	exam
12	2	TANAL POR	ant like and w	a lecture	CAUIII
1 4		ii)	ant, nkc, and wo		
	2	R Here a	nd now	attend	evam
13	2	D	resent Simple and	a lecture	Слат
15		Pr	resent Continuous	a lecture	
		11	Continuous		
	2	14 It's tim	e to go!	attend	exam
14		uestion wo	ords revision	a lecture	
		Present Co	ntinuous for		
			future		
			Final exam	attend	exam
15	2			a lecture	
11.0	Course Eval	uation			
Distrib	outing the	score out of 100 according	to the tasks assign	ned to the student	such as daily
prepar	ation. dailv	oral, monthly. or written ex	ams, reports etc		
12. I	earning an	d Teaching Resources	······································		
Requir	ed texthoo	ks (curricular books if any)	New Headway	Beginner student	's Book
Main r	eferences (	sources)		Degimer Studelit	5 2001
Recom	mended by	ooks and references (scientifi	ic		
iourno	le reporte				
journa	nic Refere	., nces Websites			
Fleater		11003, W CUSIICS			
Electro		~	D		

	~					
1.	Course Na	ame:				
Protozo	ba					
2.	Course Co	ode:				
3.	Semester /	/ Year:				
first ser	nester					
4.	Descriptio	on Preparation	Date: 24/2/2024			
Medica	l laborator	ries				
5.	Available	Attendance Fo	orms:			
	27 1					
6.	Number o	f Credit Hours	(Total) / Number of	Units (Total)		
	6 hours, 6	credit				
7.	Course ad	ministrator's n	ame (mention all. if r	more than one nam	ne)	
	Name : dr	. jawad kadhin	n ali		/	
	Email : jav	wad.kadhim@a	atu.edu.iq			
8.	Course Ol	ojectives				
Course	Objectiv	es		1- classifiedprot	ozoa	
				2- Know spp of p	protozoa	d life anal
				5- study patho	ogenicity at	ia me cyclo
				nrotozoo		
				protozoa 4. diagnosis of n	rotozog	
9.	Teaching	and Learning S	Strategies	protozoa 4- diagnosis of p	protozoa	
9. Strateg	Teaching :	and Learning S	Strategies	protozoa 4- diagnosis of p	protozoa	
9. Strateg	Teaching s	and Learning S Lectu The e	Strategies res xam	protozoa 4- diagnosis of p	protozoa	
9. Strateg	Teaching : gy	and Learning S Lectu The e	Strategies res xam	protozoa 4- diagnosis of p	protozoa	
9. Strateg	Teaching Sy	and Learning S Lectu The e	Strategies res xam	protozoa 4- diagnosis of p	protozoa	
9. Strateg 10. Co Week	Teaching s sy ourse Strue Hours	and Learning S Lectu The e cture <b>Required</b>	Strategies res xam <b>Unit or subject na</b>	protozoa 4- diagnosis of p me	Learning	Evaluation
9. Strateg 10. Co Week	Teaching Sy ourse Strue Hours	and Learning S Lectu The e cture Required Learning	Strategies res xam <b>Unit or subject na</b>	protozoa 4- diagnosis of p me	brotozoa Learning method	<b>Evaluation</b> method
9. Strateg 10. Co Week	Teaching s sy ourse Strue <b>Hours</b>	and Learning S Lectu The e cture Required Learning Outcomes	Strategies res xam <b>Unit or subject na</b>	protozoa 4- diagnosis of p	Learning method	<b>Evaluation</b> method
9. Strateg 10. Co Week	Teaching 3 39 ourse Strue Hours	and Learning S Lectu The e cture <b>Required</b> Learning Outcomes	Strategies res xam <b>Unit or subject na</b> Define of parasite a	and parasitology.	Learning method	Evaluation method
9. Strateg 10. Co Week	Teaching s sy ourse Strue Hours 2	and Learning S Lectu The e cture Required Learning Outcomes	Strategies res xam Unit or subject na Define of parasite a types of parasites a	and parasitology. nd hosts.	Learning method	<b>Evaluation</b> method Quiz
9. Strateg 10. Co Week	Teaching s sy ourse Strue Hours 2	and Learning S Lectu The e cture <b>Required</b> Learning Outcomes	Strategies res xam Unit or subject na Define of parasite a types of parasites a classification of para	and parasitology. nd hosts. rasites(protozoa	Learning method	Evaluation method Quiz discussion
9. Strateg 10. Co Week	Teaching s sy ourse Strue Hours 2	and Learning S Lectu The e cture Required Learning Outcomes	Strategies res xam Unit or subject na Define of parasite a types of parasites a classification of par and metazoan)	and parasitology. nd hosts. rasites(protozoa	Learning method	Evaluation method Quiz discussion
9. Strateg 10. Co Week	Teaching s sy ourse Struc Hours 2	and Learning S Lectu The e cture <b>Required</b> Learning Outcomes	Strategies res xam Unit or subject na Define of parasite a types of parasites a classification of par and metazoan) Introduction in cha of protozoa and cla	and parasitology. nd hosts. rasites(protozoa racteristic feature	Learning method	<b>Evaluation</b> method Quiz discussion
9. <b>Strateg</b> 10. Co <b>Week</b> 1 2	Teaching a sy	and Learning S Lectu The e cture Required Learning Outcomes	Strategies res xam Unit or subject na Define of parasite a types of parasites a classification of par and metazoan) Introduction in cha of protozoa and cla rhizopoda, mastigo	and parasitology. nd hosts. rasites(protozoa racteristic feature assification: phora. cliophora.	Learning method	Evaluation method Quiz discussion quiz discussion
9. <b>Strateg</b> 10. Co <b>Week</b> 1 2	Teaching a sy	and Learning S Lectu The e cture Required Learning Outcomes	Strategies res xam Unit or subject na Define of parasite a types of parasites a classification of par and metazoan) Introduction in cha of protozoa and cla rhizopoda, mastigo telophora.	and parasitology. nd hosts. rasites(protozoa racteristic feature assification: ophora, cliophora,	Learning method	Evaluation method Quiz discussion quiz discussion
9. Strateg 10. Co Week 1 2	Teaching a sy	and Learning S Lectu The e cture Required Learning Outcomes	Strategies res xam Unit or subject na Define of parasite a types of parasites a classification of par and metazoan) Introduction in cha of protozoa and cla rhizopoda, mastigo telophora.	and parasitology. nd hosts. rasites(protozoa racteristic feature assification: phora, cliophora,	Learning method	Evaluation method Quiz discussion quiz discussion
9. <b>Strateg</b> 10. Co <b>Week</b> 1 2	Teaching a sy	and Learning S Lectu The e cture Required Learning Outcomes	Strategies res xam Unit or subject na Define of parasite a types of parasites a classification of par and metazoan) Introduction in cha of protozoa and cla rhizopoda, mastigo telophora.	and parasitology. nd hosts. rasites(protozoa racteristic feature assification: phora, cliophora, pathogenic.	Learning method	Evaluation method Quiz discussion quiz discussion Quiz
9. Strateg 10. Co Week 1 2	Teaching s y ourse Struc Hours 2 2 2 2	and Learning S Lectu The e cture Required Learning Outcomes	Strategies res xam Unit or subject na Define of parasite a types of parasites a classification of par and metazoan) Introduction in cha of protozoa and cla rhizopoda, mastigo telophora. Class: Rhizopoda. p amoeba. Entamoab	and parasitology. nd hosts. rasites(protozoa racteristic feature assification: phora, cliophora, pathogenic. a histolytica.	erotozoa Learning method	Evaluation methodQuiz discussionquiz discussionQuiz discussion
9. <b>Strateg</b> 10. Co <b>Week</b> 1 2 3	Teaching a sy	and Learning S Lectu The e cture Required Learning Outcomes	Strategies res xam Unit or subject na Define of parasite a types of parasites a classification of par and metazoan) Introduction in cha of protozoa and cla rhizopoda, mastigo telophora. Class: Rhizopoda. p amoeba. Entamoab morphology. life cy	and parasitology. nd hosts. rasites(protozoa racteristic feature assification: ophora, cliophora, pathogenic. a histolytica. ycle.	Derotozoa Learning method	Evaluation         method         Quiz         discussion         quiz         discussion         Quiz         discussion
9. Strateg 10. Co Week 1 2 3	Teaching s y ourse Struc Hours 2 2 2 2	and Learning S Lectu The e cture Required Learning Outcomes	Strategies res xam Unit or subject na Define of parasite a types of parasites a classification of par and metazoan) Introduction in cha of protozoa and cla rhizopoda, mastigo telophora. Class: Rhizopoda. p amoeba. Entamoab morphology. life cy pathogenicity.l ab o	and parasitology. and parasitology. and parasitology. and parasitology. and parasitology. and hosts. rasites(protozoa racteristic feature assification: phora, cliophora, pathogenic. a histolytica. ycle. diagnosis.	Protozoa Learning method	Evaluation method Quiz discussion quiz discussion Quiz discussion
9. <b>Strateg</b> 10. Co <b>Week</b> 1 2 3	Teaching a sy	and Learning S Lectu The e cture Required Learning Outcomes	Strategies res xam Unit or subject na Define of parasite a types of parasites a classification of par and metazoan) Introduction in cha of protozoa and cla rhizopoda, mastigo telophora. Class: Rhizopoda. j amoeba. Entamoab morphology. life cy pathogenicity.l ab of Few of	And parasitology. and parasito	Protozoa	Evaluation         method         Quiz         discussion         quiz         discussion         Quiz         discussion
9. <b>Strateg</b> 10. Co <b>Week</b> 1 2 3	Teaching s y ourse Strue 2 2 2 2	and Learning S Lectu The e cture Required Learning Outcomes	Strategies res xam Unit or subject na Define of parasite a types of parasites a classification of par and metazoan) Introduction in cha of protozoa and cla rhizopoda, mastigo telophora. Class: Rhizopoda. p amoeba. Entamoab morphology. life cy pathogenicity.l ab of Few of morphology pathog	and parasitology. and parasitology. and parasitology. and parasitology. and hosts. rasites(protozoa racteristic feature assification: phora, cliophora, pathogenic. a histolytica. ycle. diagnosis.	brotozoa Learning method	Evaluation         method         Quiz         discussion         Quiz         discussion         Quiz         discussion         Quiz         Ouiz         Ouiz
9. <b>Strateg</b> 10. Co <b>Week</b> 1 2 3 4	Teaching a system ourse Struct Hours	and Learning S Lectu The e cture Required Learning Outcomes	Strategies res xam Unit or subject na Define of parasite a types of parasites a classification of par and metazoan) Introduction in cha of protozoa and cla rhizopoda, mastigo telophora. Class: Rhizopoda. p amoeba. Entamoab morphology. life cy pathogenicity.l ab o Few of morphology, pathog of Entamoaba	protozoa         4- diagnosis of p         4- diagnosis of p         and parasitology.         and parasitology.         nd hosts.         rasites(protozoa         racteristic feature         assification:         ophora, cliophora,         pathogenic.         oa histolytica.         ycle.         diagnosis.         genicity,diagnosis	Protozoa	Evaluation         method         Quiz         discussion         Quiz         discussion         Quiz         discussion         Quiz         Discussion
9. <b>Strateg</b> 10. Co <b>Week</b> 1 2 3 4	Teaching s y ourse Struc Hours 2 2 2 2 2 2	and Learning S Lectu The e cture Required Learning Outcomes	Strategies res xam Unit or subject na Define of parasite a types of parasites a classification of par and metazoan) Introduction in cha of protozoa and cla rhizopoda, mastigo telophora. Class: Rhizopoda. p amoeba. Entamoab morphology. life cy pathogenicity.l ab o Few of morphology,pathog of Entamoaba gingivalis,Acanthm	protozoa         4- diagnosis of p         4- diagnosis of p         and parasitology.         racteristic feature         assification:         phora, cliophora,         pathogenic.         a histolytica.         ycle.         diagnosis.         genicity, diagnosis         noaba, Neagleria.	Protozoa	Evaluation         Quiz         discussion         Quiz         discussion         Quiz         Discussion

		between Entamoaba coli and	Discussion
		E.histolytica, and morphology, lab.	
		Diagnosis of Iodamoaba	
		butschlii, Endolimax	
		nana, Dientamoaba fragilis.	
		Classification of flagellates Giardia	
		lamblia chilomastix	
		mesnili Trichomonas	
		hominis morphology life	
6	2	cycle pathogenicity and	Quiz
0	2	lab diagnosis. Trichmones	discussion
		lab.ulagnosis . Inclinionas	
		vaginans. I richomonas	
		tenax,morphology,pathogenicity,lab.	
		diagnosis	
		Lieshmania donovani, Lieshmania	
		tropica, Lieshmania brazeliensis,	
		morphology,life	
		cycle,pathogenicity,lab.	
7	2	Diagnosis.Trypanosoma cruzi,	Quiz
/	2	Trypanosoma	Discussion
		brucei, morphology, life	
		cycle.pathogenicity.lab.	
		Diagnosis sample of Tse tse flyand	
		Reduviid bug	
8	2	First monthly exam	Exam
		Class Cliophora: Balantidium	<u>D</u> Aum
9	2	coli morphology life	Quiz
,	2	cycle pathogenicity lab Diagnosis	discussion
<u> </u>		elessSperozon introduction of	
		classSporozoa.introduction of	
		characteristic feature of Sporozoa,	
10	2	life cycle of Plasmodium spp.in man	Quiz
		and insects. Plasmodium vivax	Discussion
		,Plasmodium ovale,morphology,lab.	
		diagnosis	
		Plasmodium malarae, Plasmodium	
11	2	falciparum.pathogenicity,lab.	Quiz
11	2	Diagnosis, the defferences in	Discussion
		lab.diagnosis in Plasmodium spp.	
		Isospora belli ,Toxoplasma gondii,	0.1
12	2	morphology,life	Quiz
		cycle.pathogenicity.lab. diagnosis	discussion
		Cryptosoridium spp.morphology.life	Ouiz
13	2	cycle.pathogenicity lab diagnosis	Discussion
14	2	Second monthly exam	Exam.
1 7	2	Final exam of second course	Exam
15	<i>i i i</i>		L'Aun.
15			

. quiz of practice and theory 10marks . first theory exam 10 marks

Second theory exam 10 marks					
First and second practice exam 10 marks					
Final practice exam 25 marls					
Final theory exam 35					
12. Learning and Teaching Resources					
Required textbooks (curricular books, if any)	Protozoa, metazoa and arthropoda				
Main references (sources)					
Recommended books and references (scientific					
journals, reports)					
Electronic References, Websites					

1. (	Course N	e Name: Hematology 1						
2. 0	2. Course Code:							
3. \$	3. Semester / Year: first semester							
4. I	Descripti	ion Preparation	Date: 22/2/2024					
5. A	Availabl	e Attendance F	orms: Attend a lecture					
6. N	Number	of Credit Hour	s (6) / Number of Units (6)					
	7	1 • •						
7. (	Course a	dministrator's r	name (mention all, if more than one na	me)				
l T	Name: D	r. Hisham Atw	an Swadi					
	Email: ai	nimalproductio	n547@atu.edu.iq					
8. 0	Course C	Objectives						
Course	Objecti	ves	Knowing	medical system				
			• and tests	that occur in lab	oratory			
			• and diagn	osis the disease	case			
9. 7	Feaching	g and Learning	Strategies					
Strateg	y	• Lecture	es					
		Practica	al experiences					
		• tl	ne exams					
10. Co	urse Str	ucture						
Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method			
1	2		Introduction importance		exam			
			hematology. Study the	Attend a				
			blood contains.	lecture				
2	2		The haemoto poiesis in	Attend	exam			
			fetus, children and adult.	a lectur				
3	2		The normal red blood	Attend	exam			

cells, importance, Structure, erythropoiesis and Function.       lecture         4       2       Polycythemia, causes, Cause, Cause, Causes, Causes, Causes, Causes, Causes, Cause			1				· · · · · · · · · · · · · · · · · · ·
4       2       Structure, erythropoiesis and Function.       Attend       exam         4       2       Polycythemia, causes, Clinical Signs and Laboratory diagnosis.       Attend       exam         5       2       Study the red cell morphology in health and disease. Abnormality R.B.C in size.       Attend       exam         6       2       Abnormality of R.B.C in shape.       Attend       exam         7       2       Abnormality of R.B.C in colour.       Attend       exam         8       2       The normal Hb. Of the blood, contain and importance       lecture         9       2       Study the types of normal Hb. Types.       lecture         10       2       Common Hb. Variant.       Attend       exam lecture         11       2       Anemia.       Attend       exam lecture         13       2       Megaloblastic anemia and autoimmune hemolytic anemia.       lecture       exam lecture         14       2       Sickle Cell an. And acquired and autoimmune hemolytic anemia.       Attend       exam lecture         11.       2       Sickle Cell an. And acquired and autoimmune hemolytic anemia.       Attend       exam         14       2       Aplastic anemia and hemolytic anemia.       Attend       exam         15 </td <td></td> <td></td> <td></td> <td>cells, imp</td> <td>portance,</td> <td>lecture</td> <td></td>				cells, imp	portance,	lecture	
4       2       Polycythemia, causes, Clinical Signs and Laboratory diagnosis.       Attend       exam         5       2       Study the red cell morphology in health and disease. Abnormality R.B.C in size.       Attend       exam         6       2       Abnormality of R.B.C in shape.       Attend       exam         7       2       Abnormality of R.B.C in colour.       Attend       exam         8       2       The normal Hb. Of the blood, contain and importance difficult exam       Attend       exam         9       2       Study the types of normal Hb. Types.       Attend       exam         10       2       Common Hb. Variant.       Attend       exam         11       2       Anemia. und types.       Attend       exam         12       2       Anemia. und types.       Attend       exam         13       2       Megaloblastic anemia and Pernicious anemia lecture       Attend       exam         14       2       Sickle Cell an. And acquired and and areminia.       Attend       exam         15       2       Sickle Cell an. And acquired and and and immune hemolytic anemia.       Attend       exam         15       2       Sickle Cell an. And acquired and and actionmune hemolytic anemia.       Attend       exam				Structure	, erythropoiesis		
4       2       Polycythemia, causes, Clinical Signs and Laboratory diagnosis.       Attend lecture       exam lecture         5       2       Study the red cell and disease. Abnormality R.B.C in size.       Attend lecture       exam exam lecture         6       2       Abnormality of R.B.C in shape.       Attend lecture       exam lecture         7       2       Abnormality of R.B.C in shape.       Attend lecture       exam lecture         8       2       The normal Hb. Of the blood, contain and importance lecture       lecture       exam lecture         9       2       Study the types of normal Hb. Types.       Attend lecture       exam lecture         10       2       Common Hb. Variant.       Attend lecture       exam lecture         11       2       Anemia. Definition, classification and types.       Attend lecture       exam lecture         12       2       Anemia. Causes clinical and approxibilis anemia and Pernicious anemia lecture       exam lecture         13       2       Megaloblastic anemia and Pernicious anemia lecture       exam lecture         14       2       Sickle Cell an. And acquired and autoimmune hemolytic anemia.       Attend exam lecture       exam lecture         15       2       Sickle Cell an. And acquired and autoimmune hemolytic anemia.       Attend lecture       e			6	and Func	tion.		
Clinical Signs and Laboratory diagnosis.       lecture         5       2       Study the red cell morphology in health and disease. Abnormality R.B.C in size.       Attend lecture         6       2       Abnormality of R.B.C in colour.       Attend lecture         7       2       Abnormality of R.B.C in colour.       Lecture         8       2       The normal Hb. Of the blood, contain and importance lecture       exam lecture         9       2       Study the types of normal Hb. Types.       Attend       exam lecture         10       2       Common Hb. Variant.       Attend lecture       exam lecture         11       2       Anemia. und types.       Attend lecture       exam lecture         12       2       Anemia. und types.       Attend lecture       exam lecture         13       2       Aplastic anemia and Pernicious anemia lecture       Attend exam lecture       exam lecture         14       2       Aplastic anemia and hemolytic anemia.       Attend lecture       exam lecture         15       2       Sickle Cell an. And acquired and autoimmune hemolytic anemia.       attend lecture       exam lecture         11. Course Evaluation       100       accord 100 according to the tasks assigned to the student such as daily preparation, daily oral, monthly, or written exams, reports etc	4	2	I	Polycyth	emia, causes,	Attend	exam
1       Laboratory diagnosis.         5       2       Study the red cell morphology in health and disease. Abnormality R.B.C in size.         6       2       Abnormality of R.B.C in shape.         7       2       Abnormality of R.B.C in shape.         7       2       Abnormality of R.B.C in colour.         8       2       The normal Hb. Of the blood, contain and importance lecture         9       2       Study the types of normal hb. Types.         10       2       Common Hb. Variant.       Attend exam lecture         11       2       Anemia. Definition, classification lecture and types.       Lecture         11       2       Anemia. Causes clinical strend exam lecture and types.       Lecture         13       2       Megaloblastic anemia and Pernicious anemia lecture hemolytic anemia.       Lecture hemolytic anemia lecture hemolytic anemia lecture hemolytic anemia lecture hemolytic anemia lecture hemolytic anemia.         14       2       Aplastic anemia and hemolytic anemia lecture hemolytic anemia.       Lecture hemolytic anemia.         15       2       Sickle Cell an. And acquired attend exam lecture hemolytic anemia.       Lecture hemolyticanemia. <td></td> <td></td> <td>(</td> <td colspan="2">Clinical Signs and</td> <td>lecture</td> <td></td>			(	Clinical Signs and		lecture	
5       2       Study the red cell morphology in health and disease. Abnormality R.B.C in size.       Attend exam lecture         6       2       Abnormality of R.B.C in size.       Attend exam lecture         7       2       Abnormality of R.B.C in olicity of R.B.C in lecture       exam lecture         8       2       The normal Hb. Of the locute       Attend exam lecture         9       2       Study the types of normal lecture       exam lecture         10       2       Common Hb. Variant.       Attend exam lecture         11       2       Anemia.       Attend lecture         12       2       Anemia.       Attend lecture         13       2       Megaloblastic anemia and hemolytic anemia lecture       exam lecture         14       2       Aplastic anemia and autoimme lecture       exam lecture         15       2       Sickle Cell an. And acquired and autoimme lecture lemolytic anemia.       Attend lexam lexam lecture lemolytic anemia.         15       2       Sickle Cell an. And acquired and autoimme lecture lemolytic anemia.       Itend lexam lexam lecture lemolytic anemia.         11. Course Evaluation       10       accord of 100 according to the tasks assigned to the student such as daily preparation, daily oral, monthly, or written exams, reports etc         The theoretical final written exam is 20 mar			I	Laborato	ry diagnosis.		
morphology in health and disease. Abnormality R.B.C in size.     lecture       6     2     Abnormality of R.B.C in shape.     Attend     exam lecture       7     2     Abnormality of R.B.C in colour.     Attend     exam lecture       8     2     The normal Hb. Of the blood, contain and importance lecture     Attend     exam lecture       9     2     Study the types of normal Hb. Types.     Attend     exam lecture       10     2     Common Hb. Variant.     Attend     exam lecture       11     2     Anemia. Definition, classification and types.     lecture       12     2     Anemia. Anemia. Causes .clinical signs and laboratory Finding lecture     exam lecture       13     2     Megaloblastic anemia and Pernicious anemia lecture     exam lecture       14     2     Aplastic anemia. Attend     exam lecture       15     2     Sickle Cell an. And acquired and autoimmune lecture     Attend     exam lecture       15     2     Sickle Cell an. And acquired and autoimmune lecture     Attend     exam lecture       16     2     Sickle Cell an. And acquired and autoimmune lecture     Attend     exam lecture       15     2     Sickle Cell an. And acquired and autoimmune lecture     Attend     exam lecture       17     2     Sickle Cell an. And acquired and	5	2		Study the	e red cell	Attend	exam
and disease. Abnormality R.B.C in size.     Attend     exam       6     2     Abnormality of R.B.C in shape.     Attend     exam       7     2     Abnormality of R.B.C in shape.     Attend     exam       7     2     Abnormality of R.B.C in colour.     Attend     exam       8     2     The normal Hb. Of the blood, contain and importance lecture     Attend     exam       9     2     Study the types of normal Hb. Types.     Attend     exam       10     2     Common Hb. Variant.     Attend     exam       11     2     Anemia.     Attend     exam       12     2     Anemia. Causes .clinical and types.     Attend     exam       13     2     Megaloblastic anemia and Pernicious anemia and Pernicious anemia lecture     Attend     exam       14     2     Aplastic anemia and autoimmune hemolytic anemia.     Attend     exam       15     2     Sickle Cell an. And acquired and autoimmune hemolytic anemia.     Attend     exam       15     2     Sickle Cell an. And acquired and autoimmune hemolytic anemia.     Attend     exam       10     Course Evaluation     I     I     I     I       15     2     Sickle Cell an. And acquired and autoimmune hemolytic anemia.     I     I <tr< td=""><td></td><td></td><td>1</td><td>morpholo</td><td>ogy in health</td><td>lecture</td><td></td></tr<>			1	morpholo	ogy in health	lecture	
R.B.C in size.       R.B.C in size.         6       2       Abnormality of R.B.C in shape.       Attend exam lecture         7       2       Abnormality of R.B.C in colour.       Attend exam lecture         8       2       The normal Hb. Of the blood, contain and importance lecture       exam lecture         9       2       Study the types of normal Hb. Types.       lecture         10       2       Common Hb. Variant.       Attend exam lecture         11       2       Anemia.       Attend exam lecture         11       2       Anemia.       Attend exam lecture         13       2       Anemia. Causes .clinical signs and laboratory Finding lecture       exam lecture         14       2       Aplastic anemia and pernicious anemia lecture hemolytic anemia.       lecture         15       2       Sickle Cell an. And acquired attend lecture hemolytic anemia.       lecture hemolytic anemia.         15       2       Sickle Cell an. And acquired attend lecture hemolytic anemia.       lecture hemolytic anemia.         11. Course Evaluation       Interview is 25 marks       The morthly written exam is 20 marks       theoretical final written exam is 25 marks         The final practical written exam is 25 marks       Interview is 25 marks       Interview is 25 marks       Interview is 25 marks				and dis	ease. Abnormality		
6       2       Abnormality of R.B.C in shape.       Attend lecture         7       2       Abnormality of R.B.C in colour.       Attend lecture         8       2       The normal Hb. Of the blood, contain and importance lecture       exam lecture         9       2       Study the types of normal Hb. Types.       lecture         10       2       Common Hb. Variant.       Attend exam lecture         11       2       Anemia.       Attend exam lecture         11       2       Anemia.       Attend exam lecture         13       2       Anemia. Causes .clinical signs and laboratory Finding lecture       exam lecture         14       2       Aplastic anemia and hemolytic anemia lecture       exam lecture         15       2       Sickle Cell an. And acquired and autoimmune hemolytic anemia.       lecture lecture         15       2       Sickle Cell an. And acquired Attend lexam lecture hemolytic anemia.       and autoimmune hemolytic anemia.         16       10       course Evaluation       signs marks       theoretical final written exam is 20 marks         The theoretical monthly written exam is 30 marks       The theoretical final written exam is 35 marks       theoretical final written exam is 35 marks         The theoretical final written exam is 35 marks       The final practical written exam is 25			I	R.B.C in	size.		
n       shape.       lecture         7       2       Abnormality of R.B.C in colour.       Attend exam lecture         8       2       The normal Hb. Of the blood, contain and importance lecture       exam lecture         9       2       Study the types of normal Hb. Types.       lecture         10       2       Common Hb. Variant.       Attend exam lecture         11       2       Anemia.       Attend exam lecture         11       2       Anemia.       Attend exam lecture         11       2       Anemia.       Attend exam lecture         13       2       Megaloblastic anemia and Pernicious anemia lecture       exam lecture         14       2       Aplastic anemia.       lecture         15       2       Sickle Cell an. And acquired attend lecture hemolytic anemia.       exam lecture hemolytic anemia.         15       2       Sickle Cell an. And acquired Attend exam lecture hemolytic anemia.       study oral, monthly, or written exams, reports etc         The theoretical monthly written exam is 20 marks       The theoretical monthly written exam is 25 marks       the oretical monthly written exam is 25 marks         16       Learning and Teaching Resources       Netled for the block of	6	2		Abnorma	ality of R.B.C in	Attend	exam
7       2       Abnormality of R.B.C in colour.       Attend lecture       exam lecture         8       2       The normal Hb. Of the blood, contain and importance lecture       Attend exam lecture         9       2       Study the types of normal Hb. Types.       Lecture         10       2       Common Hb. Variant.       Attend exam lecture         11       2       Anemia.       Attend exam lecture         12       2       Anemia. Causes .clinical signs and laboratory Finding lecture       exam lecture         13       2       Megaloblastic anemia and hemolytic anemia.       Attend exam lecture         14       2       Aplastic anemia and hemolytic anemia.       Lecture         15       2       Sickle Cell an. And acquired and autoimmune hemolytic anemia.       Attend exam lecture         11. Course Evaluation       100 according to the tasks assigned to the student such as daily preparation, daily oral, monthly, or written exams, reports etc       The theoretical monthly written exam is 20 marks         The theoretical final written exam is 25 marks       The theoretical final written exam is 25 marks       The theoretical final written exam is 25 marks         12. Learning and Teaching Resources       No daily of the task of the student for the student for the stu			S	shape.		lecture	
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Required textbooks (curricular books, if any) Nothing	Required textbooks (curricular books, if any)			Nothing			
Main references (sources) Hematology	Main references (sources)			Hematology			
Recommended books and references (scientific Color atlas of hematology - Practical	Recom	mended bo	boks and references $\overline{(sc)}$	eientific	Color atlas of hematology - Practical		
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13. Course Name:

microbiology       14'' SEMSTER       14''''''''''''''''''''''''''''''''''''								
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18. Number of Credit Hours (6) / Number of Units (6)         18. Number of Credit Hours (6) / Number of Units (6)         19. Course administrator's name (mention all, if more than one name)         Name: heba khalaf         Email: heba.khalaf.ism@atu.edu.iq         20. Course Objectives         • Introduction to microbiology , Important Microbiology Science         • Classification of microbiology         • Scientific nomenclature of bacteria         • Bacterial structure, growth, toxin, pathogenesis, • Antibacterial agent         21. Teaching and Learning Strategies         Strategy         • I actures         • Practical experiences         • The exams         22. Course Structure <b>Vint or</b> subject instruction to medical microbiology, Microorganism, instruction with the host, microbial virulence, historical significance       Vint or subject instruction with the host, microbial virulence, historical significance       Attend a lecture       exam lecture         2       Classification and Scientific nomenclature of the bacteria, Normal Flora       Attend lecture       exam lecture         3       2       Classes of pathogenic microorganisms viruses, bacteria, Normal Flora       Attend lecture       exam lecture <td>17</td> <td>Availab</td> <td>e Attendance Forms: Attend a</td> <td>lecture</td> <td></td> <td></td> <td></td> <td></td>	17	Availab	e Attendance Forms: Attend a	lecture				
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Name: heba khalaf       Simily heba khalaf.ism@atu.edu.iq         20. Course Objectives       Important Microbiology Science         Course Objectives       Important Microbiology Science         Classification of microbiology - Important Microbiology Science       Figure Science         Classification of microbiology - Important Microbiology - Classification of microbiology - Science       Classification of microbiology - Important Microbiology - Science       Figure Microbiology - Classification of microbiology - Science       Classification of microbiology - Important Microbiology - Science       Figure Microbiology - Classification of microbiology - Science       - Antibacterial agent	19.	Course a	administrator's name (mention	all, if more the	an one nai	ne)		
Email: heba.khalaf.ism@atu.edu.iq         20. Course Objectives       introduction to microbiology , Important Microbiology Science       Figure Science	]	Name: h	eba khalaf					
20. Course Objectives       • Introduction to microbiology , Important Microbiology Science       • Fig         Course Objectives       • Introduction to microbiology , Classification of microbiology , Scientific nomenclature of bacteria       • Fig         21. Teaching and Learning Strategies       • Antibacterial agent       • Classification of microbiology , Science, • Classification and scientific nomenclature of bacteria       • Bacterial structure, growth, toxin, pathogenesis , • Antibacterial agent         21. Teaching and Learning Strategies       • Lectures , • Practical experiences • • The exams       • Introduction to medical microbiology, nume to bacteria       • Practical experiences         22. Course Structure       • Introduction to medical microbiology, mistruction with the host, microbial significance       Introduction to medical microbiology, nume to bacteria       • Praterial structure, growth, toxin, pathogenesis , • The exam       • Odd         1       2       Introduction to medical microbiology, mistruction with the host, microbial significance       Attend a lecture       exam         2       2       classes of pathogenic microorganisms       Attend a lecture       exam         3       2       Classification and Scientific nomenclature of the bacteria. Normal Flora       Attend lecture       exam         4       2       Bacterial division and growth       Attend lecture       exam       exam         5       2       Bacterial division		Email: h	eba.khalaf.ism@atu.edu.iq					
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21. Teaching and Learning Strategies       Antibacterial structure, growth, toxin, pathogenesis, Antibacterial structure, growth, toxin, pathogenesis, Antibacterial structure, growth, toxin, pathogenesis, The exams       Image: Classification of microbiology         21. Teaching and Learning Strategies       Image: Classification of microbiology       Image: Classification of microbiology         Strategy       - Lectures       - Practical experiences       - The exams       Image: Classification of microbiology         22. Course Structure       Veek       Hours       Required Learning Outcomes       Unit or subject name       Learning method       Fealuation me       hod         1       2       Introduction to medical microbiology, Microorganism, instruction with the host, microbial virulence, historical significance       Attend a lecture       exam       exam         2       2       Classification and Scientific nomenclature of the bacteria, Normal Flora       Classification and Scientific nomenclature       Attend       exam       exam         3       2       Bacterial Structure       Image: Attend       lecture       exam       exam       exam       exam         4       2       Bacterial Genetics, DNA transfer betw       Attend       exam					crobiolog	y Science		
21. Teaching and Learning Strategies       - Antibacterial agent       -         Strategy       - Lectures - Practical experiences - The exams       -       -         22. Course Structure       - Practical experiences - The exams       -       -         22. Course Structure       - Negative Lectures - Practical experiences - The exams       -       -         1       2       Introduction to medical microbiology, Microorganism, instruction with the host, microbial virulence, historical significance       Attend a lecture - Practical experiences       exam - Practical experiences       -         2       2       Classification and Scientific nomenclature of the bacteria. Normal Flora       Attend - Practical experiences       -         3       2       Bacterial Structure       -       Attend - Practical - Practical significance       -         3       2       Bacterial Structure       -       Attend - Practical - P				• Cla	ssification	of microbiology		
Bacterial structure, growth, toxin, pathogenesis ,         Bacterial structure, growth, toxin, pathogenesis ,         Antibacterial agent         21. Teaching and Learning Strategies         Strategies         Strategy         · Lectures · Practical experiences · The exams         Unit or subject name       Learning method       Evaluation me hod         22. Course Structure       Unit or subject name       Learning method       Evaluation me hod         1       2       Introduction to medical microbiology, Microorganism, instruction with the host, microbial virulence, historical significance       Attend a lecture       exam         2       2       classes of pathogenic microorganisms Viruses, bacteria, fungi, parasites       Attend lecture       exam         3       2       Classification and Scientific nomenclature fungi, parasites       Attend lecture       exam         4       2       Bacterial Structure       Attend lecture       exam       1         5       2       Bacterial division and growth       Mitend       exam       1         6       2       Bacterial Genetics, DNA transfer betw       Attend       exam				• SC1	entific nomenclature of bacteria			
1. Teaching and Learning Strategies       Antibacterial agent         21. Teaching and Learning Strategies         Introduction example         Practical experiences         Introduction to medical microbiology, Microorganism, instruction with the host, microbial virulence, historical significance       Unit or subject name       Learning method       Evaluation me hod       hod         2       2       Introduction to medical microbiology, Microorganism, instruction with the host, microbial virulence, historical significance       Attend a lecture alecture       exam       Feanting         3       2       classes of pathogenic microorganisms Viruses, bacteria, fungi, parasites       Attend lecture       exam       Feanting         3       2       Classification and Scientific nomenclature of the bacteria. Normal Flora       Attend lecture       exam       Feanting         4       2       Bacterial Structure       Attend lecture       exam       Feanting         5       2       Bacterial division and growth       Attend lecture       exam       Feanting         6       2       Bacterial Genetics, DNA transfer betw       Attend       exam       Feanting				• Bac	cterial stru	cture, growth, toxin, pathogenesis,		
Strategy       • Lectures         Strategy       • Lectures       • Practical experiences       • The exams         22.       Course Structure       Image: Course Struct	01	T 1'		• Ant	tibacterial	agent		
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42Bacterial StructureAttend lectureexam lecture52Bacterial division and growthAttend lectureexam lecture62Bacterial Genetics, DNA transfer betwAttend lectureexam			Normal Flora					
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52Bacterial division and growthAttend lectureexam lecture62Bacterial Genetics, DNA transfer betwAttendexam						lecture		
Image: Sector of the sector	5	2	Bacterial division and growt	th		Attend	exam	
62Bacterial Genetics, DNA transfer betwAttendexam						lecture		
	6	2	Bacterial Genetics, DNA	transfer betw		Attend	exam	

		bacteria.		lecture			
7	2	Pathogenicity of bacteria		Attend	exam		
0	2	TOVICENEEUS (hastaria)	( towin)	Attend			
8	2	IOXIGENESIS (bacteria	I toxin).	Attend	exam		
0	2	lecture       Classes of antibacterial agents     Attend     exa					
9	2	Classes of antibacterial agents Attend exa		exam			
10		Instrument     Instrument       General characteristic and classification     Attend       Attend     examination					
10	2	General characteristic and classificationAttendexampleof viruslecture					
1 1		of virus     lecture       Viral genetics: a mutation instruction     Attend					
12Viral genetics, a mutation, instructionAttendexabetween viruses.lecture					exam		
		the role of constitution	on in avalution	lecture			
		of viruses					
12	2	Dethogonicity of viruses		Attend	oxom		
12		ramogenicity of viruses		Auena	exam		
12	2	Classes of optimization	,		<b>AWAH</b>		
13		Classes of antiviral agents	,	Auena	exam		
1 /	2	Characteristic and slassifi	action of modia		<b>AWAH</b>		
14		Characteristic and classifi	cation of medic	Attend	exam		
15		Iuligi Mombology og Laterat	offunci				
13		Classes of	e of fungi,	Attend	exam		
		Classes OI		lecture			
00 (		antifungal agents					
24. I Requi Main Recor Scien Electr	Learning red texth reference nmendec tific jour onic Ref	and Teaching Resources books (curricular books, if any es (sources) d books and references mals, reports) Ferences, Websites	Nothing Microbiology Immunology and micro	biology			
. Co	urse Nan	Cour	rse Description Form	n			
Co	urse Cod	le•					
. Ser	mester / `	Year: 1 st SEMSTER/ 2 nd year					
. De	scription	Preparation Date: 22/2/2024					
A -	oilchl- A	ttendence Former Attend					
. Av	allable A	Auendance Forms: Attend a led	ciure				
			— 41 —				

6.	Number	of Credit Hou	urs (6) / Number of Units (6)						
7	Course a	dministrator's	name (mention all if more than one name)			<u> </u>			
Name: Dr. Azhaar Mousa Jaffar									
	Email: <u>a</u>	zhaar.jaffar@	atu.edu.iq						
8.	Course (	Objectives							
Course	e Objecti	ves	Studying the basics of immuno	ology, how the	pathoger	and			
9	Teaching	and Learnin	resistant to it enter the body, and th	e types of infinu	ne respon	se.			
J. Strate	ov	• c	urriculums and specialized books practical experiments	3					
Strateg	53	• L	atest research and periodicals	, ,					
		• E	ducational videos						
	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~								
10. C	ourse Str		Unit on autionst name	Looming	Evel	0.77			
vveek	Hour	Learning	Unit of subject name	Learning	Evaluat	on n			
	5	Outcomes		memou					
1	2		Immunology: definition and classification		e	kam			
			of the sections of immunity, natural and	Attend a					
			acquired immunity, natural immune factors	lecture					
2	2		and defenses	Attand		rom			
2	2		cells their origin recipients and stages of	lecture	e e	(and			
			maturation, primary and secondary	locture					
			lymphoid organs.						
3	2		Phagocytosis: Antigen presenting cells	Attend	e	kam			
4	-			lecture					
4	2		Antigen and antigenic determination	Attend	e	kam			
5	2		Antibodies: Definition of the opposite.	Attend	$\epsilon$	kam			
5	-		composition, types, properties, manufacturing	lecture					
			and editing						
6	2		Immune responses mimory and secondary	Attend	e	kam			
			their characteristics and differences	lecture					
			regulation of the immune response						
7	2		Major histocompatibility complex (MHC) Its	Attend	e	kam			
			definition, types, role in antigen presentation:	lecture					
8	2		Complements: Definition of complement,	Attend	e	kam			
			activation, methods of activation,	lecture					
			complement deficiency						
9	2		Cytokines	Attend	ε	kam			
			-	lecture					
10	2		Immunity against germs and toxins	Attend	e	kam			
			How the immune system works in defense	lecture					
			against germs			<b> </b>			

11	2	Immunity ag	ainst viruses, immunity against parasites	Attend	e kan
10	-		nity against rungi	lecture	
12	2	Defin	ition of tumor, antigens related to the	Attend	e karr
		tumo	, their types, their relationship to	lecture	
		vario	is tumors, means of evading the		
10		body	s immunity.		
13	2	Нуре	ersensitivity: Its definition, different	Attend	e karr
		patter	ns, and diseases resulting from it	lecture	
14	2	Natu	ral and acquired immune deficiency:	Attend	e karr
		Туре	and theories	lecture	
15	2	Vacci	nation, types of vaccines	Attend	e karr
				lecture	
11.	Course Ev	aluation			
Distri	buting the	score out of 100 according	g to the tasks assigned to the student su	ch as daily preparation	on, aily
writte	en exams, r	eports etc			
The tl	heoretical	nonthly written exam is 20	marks		
The n	nonthly wr	itten practical exam is 10 m	arks		
The fl	heoretical	inal written exam is 35 mar	ks		
The f	inal practic	al written exam is 25 marks			
12	I earning a	nd Teaching Resources			
Requi	ired textbo	oks (curricular books, if any	) Not available		
Main	references	(courses)	How The Immune System We	rlea (5th ad)	
Decer	Telefences	(sources)	How The Initiale System Wo	alagy Red	
Reco		books and reference	Cellular and Molecular Immur	lology, sed	
(scien	itific journ	als, reports)			
Electi	conic Refei	ences, websites			
			(YouTube channel)		~
			https://youtu.be/WzMH5-51yf	M?si=t91Qc0EoIO41	JvK j
		(	Course Description Form		
	25. Cours	e Name: Pathogenic Bacter	a /2 nd /		
	26.0	0.1			
	26. Cours	e Code:			
	27. Seme	ster / Year: 1 st SEMSTER			
	27. 50110				
	28. Descr	iption Preparation Date: 22/	2/2024		
	20 Avoil	able Attendence Former Att	and a lastura		
	29. Avail	able Altendance Forms. All			
	30. Numl	per of Credit Hours (6) / Nu	nber of Units (6)		

31. Course administrator's name (mention all, if more than one name) Name: Asmaa Abd Ali Abd Alameer

Email asmaa. alrifai.ims @atu.edu.iq

32. Course Objectives

**Course Objectives** 

• Students will learn basic information of clinical chem

to • Develop their skills in clir egies xperiences t or subject name roduction to clinical chemistry ciplinary of clinical chemistry roduction of metabolism, types of	nical chemistry.	Evali	atio
Develop their skills in clir egies  xperiences  t or subject name  roduction to clinical chemistry ciplinary of clinical chemistry roduction of metabolism, types of	Learning method	Evali	ation
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ciplinary of clinical chemistry roduction of metabolism, types of	Attend a		exa
roduction of metabolism, types of			
	lecture		
tabolism			
abolism and catabolism)			
ection and handing of blood samples,			
icoaguiani,			
ne preservative			
d-base balance	Attend		exa
	lecture		
ctrolytes (Na+, K+, Cl-, Ca2+, Mg, ect)	Attend		exa
	lecture		
eases related to increase and decrease of	Attend		exa
trolytes	lecture		
ce element [Cu+2, Ceruloplasmin, Zn, Mn],	Attend		exa
sease appeared in abnormal metabolism of	lecture		
se metals.			
Glucose digestion and	Attend		exa
absorption	lecture		
(glucose metabolism)			
Glucose uptake by			
cells			
colvsis and hormones that regulate	Attend		exa
colysis and normones that regulate	lecture		0110
Monthly exam	Attend		exa
	lecture		
cyclic acid (TCA, Krebs' cycle)	Attend		exa
eactions of TCA	lecture		
Sunction and regulation of TCA			
Inction of TCA			
cogen metabolism	Attend		
	abolism and catabolism) ection and handing of blood samples , icoagulant , ne compassion ,urine collection methods , ne preservative d-base balance ctrolytes (Na+, K+, Cl-, Ca2+, Mg, ect) eases related to increase and decrease of ctrolytes nce element [Cu+2, Ceruloplasmin, Zn, Mn], sease appeared in abnormal metabolism of se metals. Glucose digestion and absorption (glucose metabolism) Glucose uptake by cells reolysis Monthly exam cyclic acid (TCA, Krebs' cycle) teactions of TCA Energy production of TCA Function and regulationof TCA lysfunction of TCA reogen metabolism	abolism and catabolism)         ection and handing of blood samples ,         icoagulant ,         ne compassion ,urine collection methods ,         ne preservative         d-base balance         d-base balance         Attend         lecture         ctrolytes (Na+, K+, Cl-, Ca2+, Mg, ect)         Attend         lecture         eases related to increase and decrease of         trolytes         ice element [Cu+2, Ceruloplasmin, Zn, Mn],         sease appeared in abnormal metabolism of         sease appeared in abnormal metabolism of         se metals.         Glucose digestion and         absorption         (glucose metabolism)         Glucose uptake by         cells         rcolysis and hormones that regulate         Monthly exam         Attend         lecture         Monthly exam         Cyclic acid (TCA, Krebs' cycle)         Attend         lecture         Venction and regulationof TCA         Function of TCA         Venction of TCA         Venction of TCA         Venction of TCA	abolism and catabolism)       ection and handing of blood samples ,         icoagulant ,       ne compassion ,urine collection methods ,         ne preservative       Attend         d-base balance       Attend         lecture       Iccure         ctrolytes (Na+, K+, Cl-, Ca2+, Mg, ect)       Attend         lecture       Iccure         eases related to increase and decrease of       Attend         trolytes       Iccure         ease appeared in abnormal metabolism of       Iccure         sease appeared in abnormal metabolism of       Iccure         glucose digestion and       Attend         absorption       Iccure         (glucose metabolism)       Glucose uptake by         cells       Monthly exam         Monthly exam       Attend         Iccure       Attend         Iccure       Iccure         Yours and hormones that regulate       Attend         Iccure       Attend         Iccure       Iccure

		1- Regulation	n of synthesis	lecture	
		2- disorders	of glycogen metabolism		
11	2	Gluconeogen	esis	Attend	exa
		Precursors (s	such as Pyruvate, lactate, alanine,	lecture	
12	2	ect)	tes	Attend	eva
12	2	Mellit		lecture	Сла
13	2	(blood	l glucose and regulation of	Attend	exa
		blood	glucose (role	lecture	
		insuli glucos	n and glucagon hormones in se regulation)		
14	2	Hyper	glycemia (types of	Attend	exa
		DM)		lecture	
		Нуроз	glycemia		_
15	2	Review for fi	nal exam	Attend	
				Lo of 11 Mo	
25	<u>О Г</u>	1		lecture	_
35. (	Course Eva	lluation	the today and the the student much		1.1.1.
35. Distri	Course Eva buting the	luation score out of 100 according to	the tasks assigned to the student such	as daily preparation	n, laily
35. Distri writte The tl	Course Eva buting the on exams, re-	luation score out of 100 according to eports etc nonthly written exam is 20 m	the tasks assigned to the student such	as daily preparation	n, laily
35. Distri writte The th The n	Course Eva buting the n exams, r neoretical r	luation score out of 100 according to eports etc nonthly written exam is 20 ma itten practical exam is 10 mar	the tasks assigned to the student such arks	as daily preparation	n, laily
35. 0 Distri writte The the The n The the	Course Eva buting the n exams, r neoretical r nonthly wr neoretical f	Iluation score out of 100 according to eports etc nonthly written exam is 20 ma itten practical exam is 10 marks inal written exam is 35 marks	the tasks assigned to the student such arks	as daily preparation	n, laily
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35. 0 Distri writte The th The n The th The find 36. 1	Course Eva buting the en exams, r heoretical r honthly wr heoretical f inal practic Learning a	Iluation score out of 100 according to eports etc nonthly written exam is 20 ma itten practical exam is 10 mar inal written exam is 35 marks al written exam is 25 marks nd Teaching Resources	the tasks assigned to the student such arks ks	as daily preparation	n, laily
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35. 0 Distri writte The th The th The fi 36. Requi	Course Eva buting the en exams, re- neoretical re- neoretical f inal practic Learning are ired textboor references mmended utific journa	Iluation score out of 100 according to eports etc nonthly written exam is 20 ma itten practical exam is 10 mar inal written exam is 35 marks al written exam is 25 marks al written exam is 25 marks nd Teaching Resources oks (curricular books, if any) (sources) books and references als, reports)	o the tasks assigned to the student such arks ks <u>Nothing</u> Lippincott's Biochemistry book	as daily preparation	h, laily
35. 0 Distri writte The tl The fl The fl 36. 2 Requi Main Recon (scien Electr	Course Eva buting the en exams, re- neoretical re- neoretical re- neoretical free inal practice Learning and references mmended atific journar- conic Refer	Induction score out of 100 according to eports etc nonthly written exam is 20 ma itten practical exam is 10 mar inal written exam is 35 marks al written exam is 25 marks al written exam is 25 marks nd Teaching Resources oks (curricular books, if any) (sources) books and references als, reports) ences, Websites	o the tasks assigned to the student such arks ks Nothing Lippincott's Biochemistry book	as daily preparation	n, laily
35. 0 Distri writte The th The th The fi 36. Requi Main Recon (scien Electr	Course Eva buting the en exams, re- neoretical re- neoretical f inal practic Learning are ired textboor references mmended tific journa- conic Refer	Iluation score out of 100 according to eports etc nonthly written exam is 20 ma itten practical exam is 10 mar inal written exam is 35 marks al written exam is 25 marks al written exam is 25 marks nd Teaching Resources oks (curricular books, if any) (sources) books and references als, reports) ences, Websites	o the tasks assigned to the student such arks ks <u>Nothing</u> Lippincott's Biochemistry book	as daily preparation	n, laily

- Course Name: Name of the course:
   Virology / 2nd year / 1st cource
   Course Code:
   3. Semester / Year:
  - 4. Description Preparation Date: 20/3/2024

5.	Available	Attendance	Forms:
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Attend a lecture

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

(3)/(3)

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

Name: Ahmed Sadiq

8. Course Objectives

#### **Course Objectives**

9. Teaching and Learning Strategies

Strategy

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	2		Introduction, General properties of virus, structure, classification of DNA & RNA viruses.	Attend a lecture	Quiz discussion
2	2		Replication of DNA and RNA virus	Attend a lecture	quiz discussion
3	2		Virus isolation & cultivation.	Attend a lecture	Quiz discussion
4	2		Chemotherapy, antiviral agent & vaccines.	Attend a lecture	Quiz Discussion
5	2		Influenza viruses	Attend a lecture	Quiz Discussion
6	2		Paramyxo & Robella viruses.	Attend a lecture	Quiz discussion
7	2		Enteric viruses, Rhinovirus group.	Attend a lecture	Quiz Discussion
8	2		Pathogenesis of viruses and Genetic of viruses	Attend a lecture	Exam.
9	2		Herpes viruses	Attend a	Quiz discussion

			lecture	
10	2	Oncogenic viruses	Attend a lecture	Quiz Discussion
11	2	Hepatitis viruses	Attend a lecture	Quiz Discussion
12	2	Rubies & other neurotropic viruses	Attend a lecture	Quiz discussion
13	2	Arbo viruses & viral haemorrhagic viruses	Attend a lecture	Quiz Discussion
14	2	Adeno, pox & parvo viruses	Attend a lecture	Quiz Discussion
15	2	Retro & Adis	Attend a lecture	Exam.
11. Co	ourse Eval	ation		

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

. quiz of practice and theory 10marks . first theory exam 10 marks Second theory exam 10 marks First and second practice exam 10 marks Final practice exam 25 marls

Final theory exam 35

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	
Main references (sources)	
Recommended books and references (scientific	
journals, reports)	
Electronic References, Websites	

13. Course Name: Hematology 2
14. Course Code:
15. Semester / Year: second semester
16. Description Preparation Date: 22/2/2024
17. Available Attendance Forms: Attend a lecture

10	NT 1				
18	Numbe	er of Credit Ho	ours (6) / Number of Units (6)		
19.	Course	e administrator	r's name (mention all, if more than one na	me)	
]	Name:	Dr. Hisham A	Atwan Swadi		
_	Email:	animalproduc	ction547@atu.edu.iq		
20	Course	Objectives			
Course	Obied	tives	• Knowing	medical system	
	<b>j</b>		• and tests	that occur in labo	ratory
			and diagn	osis the disease ca	ase
21 '	Teachi	ng and Learni	ng Strategies		
Strateg	v	• Lect	tures		
~8	J	• Prac	ctical experiences		
		• the e	exams		
22 ~	~				
22. Co	urse S		Unit or subject name	Loorning	Fugluation
week	s	d	our or subject name	method	method
	5	Learnin		methou	methou
		g			
		Outcom			
1	2	es	Heemosteric definition and type		21.072
1	2		The role of blood Vessels and	Attend a	exam
			Platelet in Haemostasis.	lecture	
2	2		Coagulation factors, name and	Attend a	exam
			figures.	lecture	
3	2		Coagulative Processes	Attend a	exam
4	2		Hoomostosia disendentruos	lecture	
4	2		Haemostasis due to blood vessel	Attend a	exam
			disorder.	lecture	
5	2		Haemostasis due to Coagulative	Attend	exam
			disorder.	lecture	
6	2		Haemostasis due to blood plate	Attend	exam
7	2		disorder.	Attend	ovom
/	2		disorder.	lecture	exam
8	2		The White blood Cells, types.	Attend	exam
			/ 51	lecture	
9	2		The maturation of W.B.C.	Attend	exam
10				lecture	
10	2		The function of W.B.C.	Attend	exam
11	2		Leukocytosis	Attend	exam
**	-		Leunocytosis	lecture	CAUIII
12	2		Leukopenia	Attend	exam
				lecture	
13	2		Leukemia, definition and	Attend	exam

nd exam re nd exam re ent such as daily - Practical Diagnosis
ure       exam         nd       exam         re       exam         ent such as daily       exam         - Practical       Diagnosis
nd exam rre ent such as daily - Practical Diagnosis
ent such as daily - Practical Diagnosis
ent such as daily - Practical Diagnosis
ent such as daily - Practical Diagnosis
- Practical Diagnosis
- Practical Diagnosis
- Practical Diagnosis
- Practical Diagnosis
- Practical Diagnosis
- Practical Diagnosis
- Practical Diagnosis
- Practical Diagnosis
ogenic bacterial species
species
production, enzyme, mm
I
L

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation metho
1	2		Systemic bacteriology, Genus Staphylococcus, General characters, toxin production, enzyme, immunity, Sensitivity test.	Attend a lecture	exam
2	2		Genus Streptococcus General characters. Bio chemical test, Antigenic characters, M protein Streptococcus group A, diseas toxin, and immunity.	Attend lecture	exam
3	2		Streptococcus group B, C, D. Biochemical reaction, immunity, diseases. Streptococcus pneumonia and Streptococc variance disease, antigenic structure.	Attend lecture	exam
4	2		Gram positive bacilli – Corynebacterium diphtheria. Shape of bacteria, virulence, toxin, immunity, shick test. Antitoxin, skin test.	Attend lecture	exam
5	2		Genus Mycobacterium , general characters, Classification of bacteria , growth , antigenic structure , Disease, immunity.	Attend lecture	exam
6	2		Genus Bacillus, Bacillus anthraces. General characters, biochemical reaction, antigenic structure, toxin, immunity.	Attend lecture	exam
7	2		Anaerobic bacteria – Clostridium, general characters. Clostridium perifringeus, general characters. Antigen structure, biochemical reaction, virulence, toxin. Clostridium tetani, disease immunity, antigenic structure	Attend lecture	exam
8	2		Genus Neisseria, general characters, biochemical reaction. Neisseria gonorrhea, antigenic structure, virulence. Neisseria meningitides, immunity, sensitiv test. Antigenic structure , virulence immunity	Attend lecture	exam
9	2		Genus Haemophilus , general characters , growth factors ,	Attend lecture	exam

		Virulence, immunity		
		Genus Bordetella general charact		
		disease		
0	2	Family	Attend	exam
0	2	Enterobacteriaceae	lecture	CAum
		General characters classification	lecture	
		biochemical reaction		
		Antigenic characters, sugar fermentation		
		sensitivity test		
		Genus Escherichia coli disea		
		virulence Immunity		
1	2	Family	Attend	exam
1	2	Enterobacteriaceae	lecture	CAum
		General characters classification	lecture	
		biochemical reaction		
		Antigenic characters sugar fermentation		
		sensitivity test		
		Genus Klebsiella diseases viruler		
		Immunity		
12	2	Genus Vibirio, history of disease	Attend	exam
12	2	general characters	lecture	enum
		Antigenic structure virulence immunity	lecture	
		treatment		
		Classical Vibirio EL-TOR biotype.		
		Vibirio parahaemical.		
		Campylobacter jejuni.		
13	2		Attend	exam
	_		lecture	••••••
4	2	Francisella, general characters.	Attend	exam
		transmition diseases.	lecture	
		Virulence, syphilis, VDRL.		
		Nocardia, general characters, stin-direct		
		smear.		
		Mycoplasma, shape, viruler		
		Lab.dignosis		
15	2	Chlamydia, general characters, shape,	Attend	exam
		biochemical	lecture	
		test.		
		Virulence, immunity.		
23. 0	Course Evaluation	n		
Distril	outing the score of	out of 100 according to the tasks assigned to the studer	t such as daily r	preparation,
vrittei	n exams, reports	etc		1
The th	eoretical monthl	y written exam is 20 marks		
The m	onthly written pr	actical exam is 10 marks		
Гhe th	eoretical final w	ritten exam is 35 marks		
The fi	nal practical writ	ten exam is 25 marks		
24. I	earning and Tea	ching Resources		
	red textbooks (cu	rricular books, if any Nothing		
Requi	(	ec) Microbiology		
Requit Main 1	references (sourc			
Requin Main 1 Recon	references (sourc nmended books	s and references		

Electro	nic Refer	ences, Website	es			
			Cour	se Description Form		
25.	Course N	lame: Pathoge	nic Bacteria /2	2 nd /		
26.	Course C	ode:				
27	Samastar	Vear: 2 ND S	EMSTED			
27.						
28.	Descripti	on Preparation	Date: 22/2/20	)24		
29.	Available	e Attendance F	Forms: Attend	a lecture		
30.	Number of	of Credit Hour	rs (6) / Numbe	r of Units (6)		
31.	Course ad	dministrator's	name (mention	all, if more than one name)		
	Name: A	smaa Abd Ali	Abd Alameer			
	Eliza - H					
32. Course	Email asi Course O Objectiv	maa. alrifai.im Objectives <b>ves</b>	s @atu.edu.iq	• • Identify proteins and	fats and every	thing re
32. Course	Email ası Course O Objectiv	maa. alrifai.im Objectives ves	s @atu.edu.iq	<ul> <li>Identify proteins and including digestion and</li> <li>Conduct all chemical and liver functions, and</li> </ul>	fats and every metabolic pro- tests and exam l identify horm	thing re cesses th inations ones an
32. Course	Email ası Course O <b>Objectiv</b> Teaching	maa. alrifai.im Objectives ves	s @atu.edu.iq Strategies	<ul> <li>Identify proteins and including digestion and</li> <li>Conduct all chemical and liver functions, and</li> </ul>	fats and every metabolic pro- tests and exam l identify horm	thing re cesses th inations ones an
32. Course 33. Strateg	Email ası Course O Objectiv Teaching	maa. alrifai.im bjectives ves and Learning • Lecture • Practic • The ex	s @atu.edu.iq Strategies es al experiences ams	<ul> <li>Identify proteins and including digestion and</li> <li>Conduct all chemical and liver functions, and</li> </ul>	fats and every metabolic pro- tests and exam l identify horm	thing re cesses th inations ones an
32. Course 33. Strateg	Email asi Course O e Objectiv Teaching sy	maa. alrifai.im bjectives ves and Learning • Lecture • Practic • The ex- icture Pagwired	s @atu.edu.iq Strategies es al experiences ams	• Identify proteins and including digestion and • Conduct all chemical and liver functions, and	fats and every metabolic pro- tests and exam l identify horm	thing re cesses th inations ones an
32. Course 33. Strateg 34. Co Week	Email asi Course O Objectiv Teaching Sy ourse Stru Hours	maa. alrifai.im bjectives ves and Learning • Lecture • Practic • The ex icture Required Learning Outcomes	s @atu.edu.iq Strategies es al experiences ams <b>Unit or subj</b>	Identify proteins and including digestion and     Conduct all chemical and liver functions, and ect name	fats and every metabolic pro- tests and exam l identify horm Learning method	thing re cesses th inations ones an Evalua
<u>32.</u> Course <u>33.</u> Strateg <u>34. Co</u> Week 1	Email asi Course O <b>Objectiv</b> Teaching Sy ourse Stru Hours 2	maa. alrifai.im bjectives ves ves and Learning • Lecture • Practic • The ex- icture Required Learning Outcomes	s @atu.edu.iq Strategies al experiences ams Unit or subj • Learn abou	Identify proteins and including digestion and     Conduct all chemical and liver functions, and  ect name t protein digestion and metabolism a	fats and every metabolic pro- tests and exam l identify horm Learning method	thing received at the second s
<u>32.</u> Course <u>33.</u> Strateg <u>34. Co</u> Week 1	Email asi Course O Objectiv Teaching Sy   ourse Stru Hours 2	maa. alrifai.im bjectives ves and Learning • Lecture • Practic • The ex- icture Required Learning Outcomes	s @atu.edu.iq Strategies sal experiences ams Unit or subj • Learn abou kidney funct • - Pl	• Identify proteins and including digestion and • Conduct all chemical and liver functions, and  ect name  t protein digestion and metabolism a ion asma protein (its components).	fats and every metabolic pro- tests and exam l identify horm	thing received to the second s
32. Course 33. Strateg 34. Co Week 1	Email asi Course O <b>Objectiv</b> Teaching <b>3</b> Ourse Stru Hours 2 2	maa. alrifai.im bjectives ves and Learning • Lecture • Practic • The ex acture Required Learning Outcomes	s @atu.edu.iq Strategies es al experiences ams Unit or subj • Learn abou kidney funct • - Pl - Amino acid	Identify proteins and including digestion and Conduct all chemical and liver functions, and ect name t protein digestion and metabolism a ion asma protein (its components), I metabolism, fota of ammonic	fats and every metabolic pro- tests and exam l identify horm Learning method Attend a lecture Attend	thing ro cesses th inations ones an Evalua
32. Course 33. Strateg 34. Co Week 1 2 3	Email asi Course O <b>Objectiv</b> <b>Teaching</b> <b>y</b> Ourse Stru <b>Hours</b> 2 2 2 2	maa. alrifai.im bjectives ves and Learning • Lecture • Practic • The ex- icture Required Learning Outcomes	s @atu.edu.iq Strategies es al experiences ams Unit or subj • Learn abou kidney funct • - Pl - Amino acio - The Urea	Identify proteins and including digestion and Conduct all chemical and liver functions, and  ect name  t protein digestion and metabolism a ion asma protein (its components), I metabolism, fate of ammonia, cycle, urea metabolism, and kid	fats and every metabolic prod tests and exam l identify horm	thing recesses the inations ones an Evaluation set the set of the
32. Course 33. Strateg 34. Co Week 1 2 3 4	Email asi Course O Objectiv Teaching y Ourse Stru Hours 2 2 2 2 2	maa. alrifai.im bjectives ves and Learning • Lecture • Practic • The ex- icture Required Learning Outcomes	s @atu.edu.iq Strategies es al experiences ams Unit or subj • Learn abou kidney funct • - Pl - Amino acio - The Urea funct	Identify proteins and including digestion and Conduct all chemical and liver functions, and ect name t protein digestion and metabolism a ion asma protein (its components), I metabolism, fate of ammonia, cycle, urea metabolism, and kid ion tests	fats and every metabolic pro- tests and exam l identify horm	thing receives the second seco
32.         Course         33.         Strateg         34.       Course         Week         1         2         3         4	Email asi   Course O   Objective   Teaching   3y   ourse Stru   Hours   2   2   2   2   2   2	maa. alrifai.im bjectives ves and Learning • Lecture • Practic • The ex acture Required Learning Outcomes	s @atu.edu.iq Strategies Ss al experiences ams Unit or subj • Learn abou kidney funct • - Pl - Amino acio - The Urea funct Fat metaboli 1- Ox	Identify proteins and including digestion and Conduct all chemical and liver functions, and ect name t protein digestion and metabolism a ion asma protein (its components), l metabolism, fate of ammonia, cycle, urea metabolism, and kid ion tests sm cidation of fatty acids	fats and every metabolic pro- tests and exam l identify horm	thing ro cesses the inations ones an Evalue
32.         Course         33.         Strateg         34.         Course         1         2         3         4         5	Email asi   Course O   Objective   Teaching   3y   ourse Stru   Hours   2   2   2   2   2   2   2   2   2   2   2   2   2   2   2   2   2   2   2   2   2   2   2	maa. alrifai.im bjectives ves and Learning • Lecture • Practic • The ex acture Required Learning Outcomes	s @atu.edu.iq Strategies Ss al experiences ams Unit or subj • Learn abou kidney funct • - Pl - Amino acio - The Urea funct Fat metaboli 1- Ox -Ketone bodi Lipid profile Trigl	Identify proteins and including digestion and • Conduct all chemical and liver functions, and ect name t protein digestion and metabolism a ion asma protein (its components), I metabolism, fate of ammonia, cycle, urea metabolism, and kidi ion tests sm cidation of fatty acids ies and lipid profile disorder (cholester ycerides and lipoproteins)	fats and every metabolic prot tests and exam l identify horm	thing ro cesses th inations ones an Evalua

		Uric acid metabolism (synthesis hyperuricemia)	lecture	
7	2	Monthly exam	Attend	exan
			lecture	
8	2	Introduction to Enzyme (Definition of Enzymes)	Attend	exan
		Creatine kinase CK (isoenzymes)	lecture	
		Lactate dehydrogenase (LDH isoenzymes		
9	2	Liver function tests	Attend	exan
		Bilirubin metabolism	lecture	
		Jaundice (adult and neonatal jaundice)		
		Hepatitis and liver function tests		
10	2	Jaundice (adult and neonatal jaundice)	Attend	exan
		Hepatitis and liver function tests	lecture	
11	2	Tumor markers	Attend	exan
			lecture	
12	2	Hormones	Attend	exan
		1- Thyroid hormones	lecture	
13	2	(Thyroid function tests, thyroid gland	Attend	exan
		hormones)	lecture	
14	2	Fertility hormones (testosterone, luteiniz	Attend	exan
		hormone).	lecture	
15	2	Prolactin, follicle-stimulating hormone)	Attend	exan
			lecture	
35.	Course Eva	luation		
Distri	buting the	score out of 100 according to the tasks assigned to the student suc	ch as daily preparation	on, daily
writte	en exams, re	eports etc		
The tl	heoretical n	nonthly written exam is 20 marks		
The n	nonthly wri	tten practical exam is 10 marks		
The th	heoretical f	inal written exam is 35 marks		
The f	inal practica	al written exam is 25 marks		
36.	Learning ar	nd Teaching Resources		
Requi	ired textboo	oks (curricular books, if any Nothing		
Main	references	(sources) Lippincott's Biochemistry boo	ok	
Recor	mmended	books and references		
(scien	tific journa	ls, reports)		
Electi	ronic Refere	ences, Websites		

1. Course Name: Clinical Immunology	
2. Course Code:	
3. Semester / Year: 2 ND SEMSTER/ 2 nd year	
4. Description Preparation Date: 22/2/2024	
5. Available Attendance Forms: Attend a lecture	

7	Course	administrator's name (mention all if more than one n	ame)	
7.	Name:	Dr. Mohammed Hadi Alabdali		
	Email:	mohammed.alabdali@atu.edu.ig		
8.	Course	e Objectives		
Cours	e Obje	ctives Studying of the most i	mporta	int autoimmune diseases, t
		and the mechanism of	immu	nological occurrence, clir
0	Taaah	treatment.		
9. Strata	reach	• curriculums and specialized books practical	vnorin	nents
Juan	gy	Latest research and periodicals	лрепп	ients
		Educational videos		
0. C	Course S	structure		
Week	Hou	rs Required Learning Outcomes	Uni	Learning method
			t or	
			subj	
			ect	
			na me	
	2	Rheumatic diseases and Rheumatoid arthritis	me	
-	_			Attend a lecture
2	2	Systemic lupus erythromatous and Psoriatic arthri		Attend a lecture
3	2	Ankylosing Spondylitis and Sjogren's syndrome		Attend a lecture
4	2	Behcet's disease		Attend a lecture
5	2	Digestive and hepatic diseases		Attend a lecture
6	2			Attend a lecture
_		Pernicious anemia		
7	2	Diabetes Mellitus Type I		Attend a lecture
8	2	Review		Attend a lecture
9	2	Autoimmune hepatic diseases		Attend a lecture
10	2	Primary biliary cirrhosis and primary sclerosing		Attend a lecture
		cholangitis		
11	2	Renal diseases		Attend a lecture
12	2	Respiratory disease		Attend a lecture
13	2	Immunological thyroid disease and Immunologica		Attend a lecture
		infertility		
14	2	Tumor and Tumor markers		Attend a lecture
15	2	Graft versus host rejection and transplantation		Attend a lecture
<u>11. C</u>	Course E	Evaluation	1	1 4 1 1 1 1
Instrik	outing th	he score out of 100 according to the tasks assigned to t	he stuc	lent such as daily preparati
•	i exams	, reports etc		
writter	00001 -	u momniy written exam 18-70 marks		
writter The the	eoretica	vritten practical exam is 10 marks		

The final practical written exam is 25 marks					
12. Learning and Teaching Resources					
Required textbooks (curricular books,	Not available				
any)					
Main references (sources)	How The Immune System Works (5th ed)				
Recommended books and references	Cellular and Molecular Immunology, 8ed				
(scientific journals, reports)					
Electronic References, Websites					
	Nucleus Medical Media (YouTube channel)				
	https://www.youtube.com/@nucleusmedicalmedia				

1. Course Name:								
metazoa								
2.	2. Course Code:							
3.	Semester /	Year:						
Second	stage							
4.	Descriptio	n Preparation I	Date:					
Medica	l laborator	ies						
5.	Available	Attendance Fo	rms:					
6.	Number of	f Credit Hours	(Total) / Number of Units (Total)					
	6 hours, 6	credit						
7.	Course ad	ministrator's na	me (mention all, if more than one nam	ne)				
	Name : dr	. jawad kadhim	ali					
	Email : jav	wad.kadhim@a	utu.edu.iq					
8.	Course Ob	ojectives						
Course	e Objectiv	es	1- classified met	azoa				
			2- know spp of 1	netazoa				
			3- study patho	ogenicity an	d life cycle			
			metazoa					
0	<b>T</b> 1'	11	4- diagnosis of n	netazoa				
9.	Teaching	and Learning S	trategies					
Strateg	gy	Lectur	ces .					
10 0	C.	The ex	kam					
10. C	ourse Struc	cture		-				
Week	Hours	Required	Unit or subject name	Learning	Evaluation			
		Learning		method	method			
		Outcomes						
1	2		Introduction and characteristic					
1	2		feature of metazoa					
2	2		Cestoda Taena saginata and solium					
3	$\frac{2}{2}$		Hymenoling spn					
<u> </u>	$\frac{2}{2}$		Ecchinococccus granulosus					
. 4	4 2 Decimiococcous granuiosus							

5	2		Trematoda.	Trematoda. Schistosoma spp			
6	2		Liver fluckes intestin	. lung fluckes and nal fluckes			
7	2		First mo	onthly exam			
0	2		Nematode, asc	Nematode, ascaris lumbricoidis.			
0	Z		Trichu	ris trichura			
			Enterobius	s vermicularis,			
9	2		ancylostoma d	uodenale. Nicator			
			ame	ericanus			
			Cutaneous	larva migrans.			
10	2		Subcutaneou	s larva migrans .			
			visceral l	arva migrans			
11	2		Filaria . wuchere	eria bancrofti. loaloa			
12	2		Annelida. Art	hrpoda(insect and			
12	Z		arachnids)				
13	2		re	eview			
14	2		Second n	nonthly exam			
15	2		Final exam of second course				
11. Co	ourse Eval	uation					
Distrib	uting the s	score out of 10	0 according to th	e tasks assigned to	the student s	such as daily	
prepara	tion, daily	oral, monthly,	or written exams,	reports etc			
. quiz o	f practice a	and theory 10n	narks				
. first th	eory exan	n 10 marks					
Second	theory exa	am 10 marks					
First an	d second p	practice exam 1	0 marks				
Final p	actice exa	m 25 marls					
Final th	eory exam	n 35					
12. Le	earning and	d Teaching Res	sources				
Require	ed textbool	ks (curricular b	ooks, if any)	Protozoa, metazoa	and arthropo	da	
Main re	eferences (	sources)					
Recom	mended be	ooks and refer	ences (scientific				
journal	s, reports	.)					
Electro	nic Refere	nces, Websites					

1.	Course Name: Name of the course:
Medic	al Mycology / 2 nd year / 2 nd cource
2.	Course Code:
3.	Semester / Year:
4.	Description Preparation Date: 20/3/2024

Attend a lecture

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

(3)/(3)

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

Name: Ahmed Sadiq

8. Course Objectives

#### **Course Objectives**

9. Teaching and Learning Strategies

Strategy

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	2		Introduction of medical Fungi	Attend a lecture	Quiz discussion
2	2		Structure, reproduction and classification.	Attend a lecture	quiz discussion
3	2		Cultural characteristics, type of mycosis	Attend a lecture	Quiz discussion
4	2		General principle in treatment.	Attend a lecture	Quiz Discussion
5	2		Actinomyces, Nocardia, Mycetoma	Attend a lecture	Quiz Discussion
6	2		Dermatophytes	Attend a lecture	Quiz discussion
7	2		Candidiasis	Attend a lecture	Quiz Discussion
8	2		Cytococcsis	Attend a lecture	Exam.
9	2		Cryptococcusis	Attend a	Quiz discussion

					lecture			
10	2		Histoplasmosis,	sporotrichosis	Attend a lecture	Quiz Discussion		
11	2		Micellanaus fung mucor	gi ,Aspergillosis,	Attend a lecture	Quiz Discussion		
12	2		Rhizopus & pen	icillium	Attend a lecture	Quiz discussion		
13	2		Anti-fungal ager produced by fun	nts , antibiotic gi	Attend a lecture	Quiz Discussion		
14	2		Introduction of r	nedical Fungi	Attend a lecture	Quiz Discussion		
15	2		Structure, reproc	luction and	Attend a lecture	Exam.		
11. C	ourse Eval	uation						
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 . quiz of practice and theory 10marks . first theory exam 10 marks Second theory exam 10 marks First and second practice exam 10 marks Final practice exam 25 marls Final theory exam 35 12. Learning and Teaching Resources								
Require	ed textbool	ks (curricular l	books, if any)					
Main re	eferences (	sources)	•					
Recom	mended be	poks and refe	rences (scientific					
iournal	journals reports )							

Electronic References, Websites