

Medical Doctorate (MD) degree logbook of Microbiology & Immunology 2022-2023

Microbiology &
Immunology



" كراسة الأنشطة "
اللازمة لحصول المتدرب على درجة الدكتوراة
فى الميكروبيولوجى و المناعة الطبية
2022-2023



كلية الطب

Faculty of Medicine
Quality Assurance Unit

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Personal Data:

Name.....

Gender

Nationality

Date of birth.....

Address.....

Place of work.....

Telephones.....

Mobile phone(s).....

E mail.....

Academic Information:

MBBCh University/...../.....

Grade

Master Degree

University/...../.....

Grade

Date of Medical Doctorate degree registration:/...../.....

Grade of Internal Medicine course on graduation

Others:

..... University/...../.....

*** Aim of the activities book**

To provide one source of evidence for the assessment committee that you attained the desired level of competency required to gain the award.

In this book you will document all clinical/practical, academic and other experiences and skills you attained during your training.

Sections of the book

For each module / course / rotation

You should fill the following sections:-

1- Procedures log

- 1- You will find a list for required procedure, and level of desired performance you should achieve at the end of training.
- 2- You will find empty tables to write down the procedure, your level of participation ,date and signature of supervisor.

2- Rotation / attendance proof

You should have evidence of achievement the required training hours within each module.

For the whole program fill the following sections.

1- Academic activities

- A- Document all academic activities e.g. lecture, journal clubs, workshops, conferences, services attended. This documentation should include the level of participation " attendance, preparation, presentation,....."

2- Academic achievements

A- Document all outcomes you achieved in the field of:-

- Audit participation
- Research participation.
- Evidence- based medicine "generation of guidelines" protocols

3- Formative assessment log

This document all types of formative assessment attended e.g.:-

- Mini clinical examination
- Quiseses

PROGRAMM AIMS

1. Produce students with a systematic understanding of the scientific basis of traditional and novel microbiological concepts.
2. Produce students equipped with the knowledge, specialist practical skills and critical awareness to enable them to pursue careers in the microbiological field, whether in the hospital, laboratory, industrial or research setting.
3. Enable them to work effectively, in partnership with other health professionals, support staff and service users.
4. Equip students with a critical understanding of the current issues and problems at the forefront of medical microbiology that will allow them to make independent, informed judgments in relation to these issues.
5. Provide students with the opportunity to participate in, and contribute to, current microbiological research programmes within the department, and thus provide the wider microbiological community with new members
6. The acquisition of life-long habits of reading, literature searches, consultation with colleagues, attendance at scientific meetings, and the presentation of scientific work that are essential for continuing professional development (CPD).
7. Enable them to understand and get the best of published scientific research and do their own.

First Part

Academic activities of basic sciences

Practice with the academic departments for at least 6 months during 1st year.

Course 1

- Medical Statistics

Course 2

- Research Methods

Course 3

- Medicolegal Aspects & Ethics in Medical Practice and Scientific Research

Course 4

- Advanced Infection Control

Course 5

- Advanced Molecular Biology



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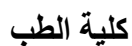
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Medical statistics

Requirements

- Credit points: 1 credit point
- Minimal rate of attendance 80%

Name of the course	Credit points	Responsible department	Attendance	Practical	Percentage of Achieved points
Medical statistics	1 credit point	Pubic Health & Community Medicine			100%
	0.1		Introduction 1 hour	SPSS Introduction 2H	10%
	0.1		Tables and graphics 1 Hour	Data entry and cleaning of data 2H	10%
	0.1		Sampling 1 Hour	Transforming of variables 2H	10%
	0.1		Methodology of data collection 1 Hour	Descriptive statistics 2 H	10%
	0.1		Type of variables 1 Hour	Graphic presentation 2 H	10%
	0.1		Proportion test Chi-square test 1 Hour	Chi square and interpretation of results 2 H	10%
	0.1		Student T test Paired T test 1 Hour	Student, Paired and ANOVA tests 2H	10%
	0.1		ANOVA test 1 Hour	Correlation Regression 2 Hour	10%
	0.1		Non parametric tests 1 Hour	Multiple and logistic Regression 2 H	10%
	0.1		Discrimination analysis factor analysis 1 Hour	Non parametric tests 2 H	10%
			Revision 1 H	Revision 2H	
Student signature			Principle coordinator signature		Head of the department signature



Medical Statistics

Lectures and tutorials

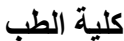
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Research Methodology

Requirements

- Credit points: 1 credit point
- Minimal rate of attendance 80%

Name of the course	Credit points	Responsible department	Attendance	Percentage of Achieved points
Research Methodology	1 credit point	Pubic Health & Community Medicine		100%
	0.15		4 hours Introduction & proposal writing	15%
	0.15		4 hours Epidemiological study designs	15%
	0.15		4 hours Screening & theoretical background	15%
	0.24		6 hours Screening practical	24%
	0.15		4 hours Sample size calculation	15%
	0.08		2 hours Research bias	8%
	0.08		2 hours Ethics in research	8%
	-		2 hours Revision	-
Student signature			Principle coordinator signature	Head of the department signature



Quality Assurance Unit

Lectures and tutorials

[illegible]

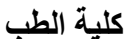
Medicolegal Aspects and Ethics in Medical Practice and Scientific Research

Requirements

♦ Credit points: 1 credit point

Minimal rate of attendance 80%

Name of the course	Credit points	Responsible department	Attendance	Percentage of Achieved points
Medicolegal Aspects and Ethics in Medical Practice and Scientific Research	1 credit point	Forensic Medicine and Clinical Toxicology	10 hours	100%
	0.5		5 hours Ethics in research	50%
	0.5		5 hours Medical ethics in practice.	50%
Student signature			Principle coordinator Signature	Head of the department signature



Medicolegal Aspects and Ethics in Medical Practice and Scientific Research Lectures and tutorials

[illegible]

Course 4: Advanced Infection Control

Requirements

- **Credit points:** 2 credit points for didactic (lectures, seminars, tutorial) and 2 points for training.
 - Minimal rate of attendance 80% of training and didactic
 - MCQ Assessment (One MCQ examination at the second half of the 1st year)

2 Credit points for didactic

Name of the course	Credit points	Responsible department	Attendance& TOPICS	Percentage of Achieved points
Advanced infection control	2 CP	Medical Microbiology & Immunology	20 hours in Medical Microbiology & Immunology	100%
	1.75CP		17.5 hours for advanced infection control	87.5%
	0.4CP		-Prevention of procedure/device related infections 4h	20%
	0.4CP		-Infection control measures for specific patient care settings 4h	20%
	0.3CP		- Infection control measures for outpatient healthcare settings 3h	15%
	0.1CP		- Infection control guidelines for support services 1h	5%
	0.3CP		- Environment care IC issues 3h	15%
	0.25CP		-Advanced occupational safety issues 2.5h	12.5
	0.25CP		Formative assessment	12.5%
Student signature			Principle coordinator signature	Head of the department signature



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2 credit points for training

Clinical training	Credit points	Responsible department	Attendance& activities	Percentage of Achieved points
Advanced infection control	1.75 CP	Infection Control lab	Practical training in Infection control lab for at least in 15 weeks (4hour /wk) with practice of cases in Infection control lab as Practice identification of common nosocomial pathogens to the species level using all available biochemical tests as mentioned below in log of cases.	87.5%
	0.25 CP		<input checked="" type="checkbox"/> Attendance of at least one workshop of the infection control	12.5 %
Student signature			Principle coordinator Signature	Head of the department signature

Identification of nosocomial pathogens:

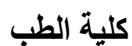
Pathogens	Number
Staphylococcal spp.	30 cases
Enterococci spp.	10 cases
Lactose fermenter Enterobacteriaceae	
Ecoli	10 cases
Klebsiella spp.	10 cases
Enterobacter spp.	10 cases
Non Lactose fermenter Enterobacteriaceae	
Proteus	10 cases
Salmonella	As logged
Pseudomonas	10 cases
Candida spp.	10 cases
Fiamentous fungi	10 cases

Lecture Attendance

Date	Attendance	Topic	Signature

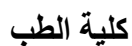
Remarks:

Signature



**Faculty of Medicine
Quality Assurance Unit**

[illegible]



Practical Skills record

[illegible]

C- Observed

Course 5: Advanced Molecular Biology

Requirements

- **Credit points:** 2 credit points for didactic (lectures, seminars, tutorial) and 1 point for training.
- Minimal rate of attendance 80% of training and didactic
 - MCQ Assessment (One MCQ examination at the second half of the 1st year)

2 Credit points for didactic

Name of the course	Credit points	Responsible department	Attendance& TOPICS	Percentage of Achieved points
Advanced molecular biology	2CP	Medical Microbiology & Immunology	20 hours in	100%
	<u>1.75 CP</u>		17.5 hours for advanced molecular biology	<u>87.5%</u>
	0.2CP		-DNA structure 2h	11.4%
	0.2CP		-Mechanisms of DNA replication & replication errors 2h	11.4%
	0.15CP		-Molecular biology manipulations with DNA 1.5h	8.6%
	0.3CP		-Gene expression & its regulation 3h	17.1%
	0.2CP		-Mutation 2h	11.4%
	0.2CP		- Plasmids 2h.	11.4%
	0.3CP		- DNA transfer between bacteria 3h	17.1%
	0.2CP		- DNA repair 2h	11.4%
	0.25CP		Formative assessment	12.5%
Student signature			Principle coordinator signature	Head of the department signature



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1 credit points for training

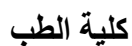
Clinical training	Credit points	Responsible department	Attendance& activities	Percentage of Achieved points
Advanced molecular biology	0.75CP	Medical Microbiology & Immunology	30 hours of training in the Molecular Lab. at Medical Microbiology & Immunology Department.	75%
	0.1CP		-Setting up PCR master mix	10%
	0.1CP		- Designing PCR primers	10%
	0.2CP		- PCR experiment	20%
	0.2CP		- Gel electrophoresis	20%
	0.15CP		- Blast sequence	15%
	0.25 CP		<input checked="" type="checkbox"/> Attendance of work shop	25 %
Student signature			Principle coordinator Signature	Head of the department signature

Lecture Attendance

Date	Attendance	Topic	Signature

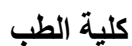
Remarks:

Signature:



Attendance in Infection control laboratory

[illegible]



Practical Skills record

[illegible]

C- Observed



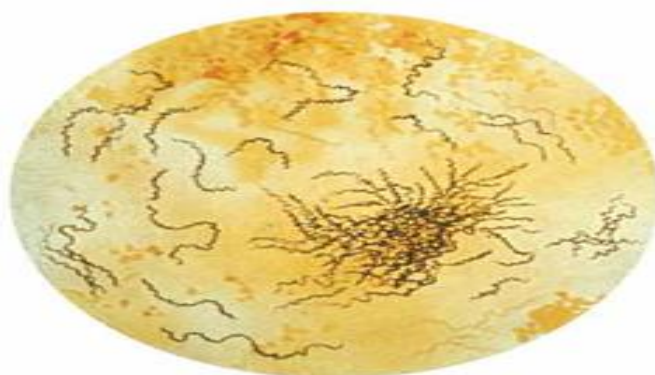
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Course 6: Advanced Microbiology

Units' Titles' list	% from total Marks	Level (Year)	Core Credit points		
			Didactic	training	Total
1) Unit 1 "advanced bacteriology"	35%	2,3,4	8	29	37
2) Unit 2 " advanced virology"	25%	2,3	6	21	27
3) Unit 3 " advanced mycology"	15%	2,3	4	12	16
4) Unit 4 " Basic & Clinical Immunology"	25%	2,3	6	21	27
Total No. of Units:	4	-	24	83	107

Unit 1: Advanced Bacteriology



Requirements

- Credit points: 8 point for didactic (lectures, seminars, tutorial) and 29 point for training.

- Minimal rate of attendance 80% of training and didactic
- MCQ Assessment (One MCQ examination at the second half of the second year) & (One MCQ examination at the second half of the third year) & (One MCQ examination at the second half of the fourth year)
- 1 practical examinations (at the 2nd half of the 3rd year)



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Rotation / attendance proof

الأماكن التي تدرب بها

أسم المعامل التي تدرب بها	توقيع رئيس القسم	توقيع مدير المعمل

Systematic medical microbiology
Module 3: Systematic Microbiology
Year 2 (4 credit point for didactic)

Name of the course	Credit points	Responsible department	Attendance & topics	Percentage of Achieved points
Unit 1: Advanced Bacteriology	4CP	Medical Microbiology & Immunology	Year 2	50 % of the didactics of Unit 1
General Bacteriology	1.8 CP 0.3CP	Immunology	<u>18 hours</u> -Structure, morphology of bacteria, Nomenclature and classification of microbes (3hours)	7.5% 5%
	0.2CP		-Growth and nutrition of bacteria (2hours)	7.5%
	0.3CP		-Bacterial metabolism (3hours)	10%
	0.4CP		-Antibacterial substances and drug resistance in bacteria (4hours)	10%
	0.4CP		-Bacterial ecology, Host parasite relationship, Bacterial toxins (4hours)	5%
	0.2CP		-Bacterial cultures, Bacterial biochemical reactions (2hours)	



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Systematic Bacteriology	2 CP		20 hours	
			diagnosis of the different microorganisms, antigenic structure and virulence factor pathogenesis and mode of transmission and diseases for the following:	
	0.5		-Gram positive cocci:	
	0.5		-staphylococci,	12.5%
	0.5		-streptococci,	12.5%
			- pneumococci and others	12.5%
	0.5		-Gram negative cocci: (Neisseriaceae, others)	12.5%
	0.2CP		Formative assessment	5%
Student signature			Principle coordinator Signature	Head of the department signature



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Year (2) (12 credit points for training)

Clinical training	Credit points	Responsible department	Attendance&activities	Percentage of Achieved points
Advanced Bacteriology (unit 1)	12 CP	Medical Microbiology & Immunology	Year 2	41.4 % Of the total training of unit 1
	4CP		Practical training in Medical Microbiology & Immunology department for at least 25 weeks (6h/wk or 1h/day) in Microbiology lab <input checked="" type="checkbox"/> Practice with preparation of <u>students' Microbiology</u> practical sections samples in the bacteriology lab at the department as mentioned below in log of samples	33.3 %
	4CP		<input checked="" type="checkbox"/> Teaching Microbiology practical sections in the department's student class of <u>at least 22</u> weeks (1 hours /day) as mentioned below	33.3%
	4CP		<input checked="" type="checkbox"/> Teaching of at least 25 weeks (1 hours /day) in the Microbiology practical sections in students' lab as mentioned below	33.3 %
Student signature			Principle coordinator Signature	Head of the department signature

Microbiology students' practical sections samples:

Sections	Number
Slides of Gram positive cocci	20
Slides of Gram negative bacilli	20
Slides of TB	15
Preparation of pathological specimens	10
Preparation of culture media	20
Preparation of tube agglutination test	10
Preparation of ASO test	10
Preparation of Complement fixation test	10
Preparation of culture, biochemical reactions for:	
Staphylococci	3
Streptococci, pneumococci	3
Neisseris	3
Corynebacterium diphtheria	3
Bacillus	3
Mycobacterium tuberculosis	3
Anaerobes	3
Enterobacteriaceae	3
Other gram –ve bacilli	3
Mycology	3



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The Bacteriology practical sections

Sections	Number
Microscope	5
Gram staining	5
Ziehl-Neelsen stain	5
pathological specimens collection	5
culture media	5
Sterilization	5
Serology	5
Staphylococci	5
Streptococci, pneumococci	5
Neisseris	5
Corynebacterium diphtheria	5
Bacillus	5
Mycobacterium tuberculosis	5
Anaerobes	5
Enterobacteriaceae	5
Other gram –ve bacilli	5
Mycology	5

Year 3 (3 credit point for didactic)

Name of the course	Credit points	Responsible department	Attendance & topics	Percentage of Achieved points
Unit 1: Advance bacteriology	3 CP	Medical Microbiology & Immunology	Year 3	37.5 % of total didactics of Unit 1
systematic bacteriology	<u>2.6 CP</u>		(26 hours) diagnosis of the different microorganisms, antigenic structure and virulence factor pathogenesis and mode of transmission and diseases for the following: -Gram positive bacilli → non-spore forming (corynebacterium, listeria, actinomyces and lactobacilli). (2 hours) -Spore forming bacteria: Bacillus (2 hours) Anaerobes (2 hours) -Mycobacteria: T.B (2 hours) Leprosy (1 hour) -Enterobacteriaceae: Lactose fermenters: E.coli, Klebsiella..(2 hours) Non lactose fermenters: Salmonella, shigella, proteus,	6.7% 6.7% 6.7% 6.7% 3.3% 6.7%
	0.2 CP			
	0.2 CP			
	0.2 CP			
	0.2 CP			
	0.1 CP			
	0.2 CP			
	0.2 CP			



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			citrobacter...(2 hours)	6.7%
	0.1 CP		Serratia, Acinetobacter (1 hour)	3.3%
			Other Gram –ve bacilli:	
	0.1 CP		-Pseudomonas, stenotrophomonas (1 hour)	3.3%
	0.2 CP		Vibrio, campylobacter and helicobacter (2 hours)	6.7%
	0.2 CP		-Haemophilus, Bordetella and Brucella (2 hours)	6.7%
	0.2 CP		-Yersenia, pasteurella, and francisella, Legionellae. (2 hours)	6.7%
	0.2 CP		-Spirochaetes (2 hours)	6.7%
	0.1 CP		-Mycoplasma and cell wall-defective bacteria. (1 hours)	3.3 %
	0.2 CP		-Rickettsia, Coxiella and Chlamydia. (2 hours)	6.7%
	0.2 CP		*Attendance of academic activities in department including the following:	6.7%
			-Seminars for at least 50% of seminars in department.	
			- Attendance of at least one Conference	
	0.2 CP		Formative assessment	6.7%
Student signature			Principle coordinator Signature	Head of the department Signature

Year 3(12 credit point for training)

Clinical training	Credit points	Responsible department	Attendance	Percentage of Achieved points
Training in advanced bacteriology unit 1	12 CP	Microbiology Department & Infection Control Unit	Year 3	41.4 % of the training in Unit 1
	<u>10.5 CP</u>		Practical training in bacteriology department lab for at least attendance 38 weeks with practice of training and fulfilling requirement of training skills and procedures log as mentioned below including System based identification of bacteria as mentioned below -Choosing proper sample -Microscopical identification -Proper culture -Biochemical reactions -Antibiotic sensitivity testing As mentioned below	87.5%
	2CP 2CP 2.2CP 2.1CP 2.2CP			
	0.5 CP		-Attendance of at least one workshop related to advanced bacteriology	4.2 %
	1 CP		➤ Formative assessment	8.3%
Student signature			Principle coordinator Signature	Head of the department signature

Bacteriology training items

Items	Number
Choosing proper sample for each infection	20
Microscopical identification	20
Proper culture	20
Biochemical reactions	20
Antibiotic sensitivity testing	30

* Level of competency

- A- Independent performance
- B- Performance under supervision
- C- Observed



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Year 4 (1 credit point for didactic)

Name of the course	Credit points	Responsible department	Attendance	Percentage of Achieved points
Unit 1: Advanced bacteriology	1 CP	Medical Microbiology & Immunology	Year 4	% of total didactics of Unit 1
	0.5CP		(5 hours) System based infections: Urinary tract infections CNS infections GIT infections Bacteraemia Respiratory ENT infections CVS infections.....etc.	50%
	0.3 CP		(3 hours) -problem solving of cases of system based infections	30%
	0.2 CP		Formative assessment	20%
Student signature			Principle coordinator Signature	Head of the department Signature

Year 4(5credit point for training)

Clinical training	Credit points	Responsible department	Attendance& activities	Percentage of Achieved points
Training in Advanced bacteriology (Unit 1)	5 CP	Microbiology and immunology Department	Year 4	17.2 % of total training in Unit 1
	2 CP	Bacteriology lab At the department	-practical training of junior colleagues in the Microbiology and immunology Department.	40%
	2.25 CP		-preparation of slides for students' practical sections as mentioned below.	45%
	0.75CP		Attendance of at least one Conference or Workshops related to advanced bacteriology	15%
Student signature			Principle coordinator Signature	Head of the department signature

Slides of students' practical sections:

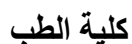
Items	Number
Staphylococci (Culture Gram, MB)	50 each
Staphylococci in pus (Gram, MB)	10 each
Streptococci in pus	10
Streptococci in milk	50
Pneumococci in sputum (Gram, MB)	10 each
Neisseria (Gram, MB)	As logged of
Corynebacterium diphtheria (Gram)	10
Bacillus (anthracis)	As logged of
Anthracooids (Gram, MB, spore stain)	50 each
Mycobacterium tuberculosis	50
gram –ve bacilli	50
pasteurella	As logged of
spirochaetes	As logged of
yeast	50
Moulds	50

* Level of competency

A- Independent performance

B- Performance under supervision

C- Observed



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Advanced Bacteriology

(Procedure & practical skills LOG)

* Level of participation
A- Plan and carry out
B- Carry out
C- Carry out under supervision

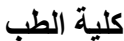
Module 3(Applied Microbiology) B-Seminars

Requirements

- Attendance of at least 50% of the seminars
- Presentation of at least 3 cases in the seminar per year
- Log of at least 1 evidence-based guidelines

First: Attendance

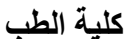
Date	Attendance	Topic	Signature



B- Second: Seminars presentation

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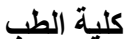
A- Group A
B- Group B
C- Group C



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Module 3(Applied Microbiology)
Post graduate teaching
First: lectures

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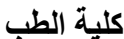


Quality Assurance Unit

Post graduate teaching

Second: Tutorial

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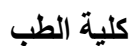


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Post graduate teaching

Second: practical Teaching

[illegible]



Formative assessment and MCQ

[illegible]

- A- Excellent
B- Very good
C- Good
D- Pass

Unit 2: Advanced Virology

Requirements

- Credit points: 6 points for didactic (lectures, seminars, tutorial) and 21 points for training.
- Minimal rate of attendance 80% of training and didactic
- MCQ Assessment (One MCQ examination at the second half of the second year) & (One MCQ examination at the second half of the third year)
- 1 practical examination (at the 2nd half of the 3rd year)



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Year 2 (4 credit points for didactic)

Name of the course	Credit points	Responsible department	Attendance	Percentage of Achieved points
Unit 2: Advanced Virology	4 CP	Medical Microbiology & Immunology	Year 2	66.7 % of total didactics of Unit 2
General Virology	1.75CP 0.2 CP 0.2 CP 0.2 CP 0.2 CP 0.2 CP 0.25 CP 0.25 CP 0.25 CP		(17.5 hours) -General characters of viruses (2h) - Methods of virus purification (2h) - Virus classification (2h) - Virus replication (2h) -Virus interference and recombination (2h) -Pathogenesis and host defense in virus infections (2.5h) - Laboratory diagnosis of viral infections (2.5h) -Antiviral drugs (2.5h)	<u>43.75%</u> 5% 5% 5% 5% 5% 6.25% 6.25% 6.25%
Systematic Virology	1.75CP 0.3 CP 0.5 CP 0.25 CP 0.4 CP 0.3 CP		(17.5 hours) -Viruses causing diarrhea (3h) - Childhood exanthems (5h) - Poxviruses (2.5h) - Enteroviruses (4h) - Papovaviruses (3h)	<u>43.75%</u> 7.5% 12.5% 6.25% 10% 7.5%
	0.25 CP		*Attendance of academic activities in department including the following: -Seminars for at least 50% of seminars in department. - Attendance of at least one Conference	6.25%
	0.25 CP		Formative assessment	6.25%
Student signature			Principle coordinator Signature	Head of the department Signature



كلية الطب

Faculty of Medicine
Quality Assurance Unit

Year 2(8 credit points for training)

Clinical training	Credit points	Responsible department	Attendance& activities	Percentage of Achieved points
Training in Advanced Virology (Unit 2)	8 CP	Microbiology and immunology Department	Year 2	38.1 % of total training in Unit 2
Virology	7 CP	Virology lab At the department	*Practical training in the Virology lab of Microbiology and immunology department for at least 10 weeks 3h/day with practice and fulfilling required tests and procedures log as mentioned below	87.5%
	2 CP		-Recognition of tissue culture requirements.	25%
	2 CP		-Recognition of types of tissue culture.	25%
	3 CP		-Propagation of tissue culture cells.	37.5%
	0.75CP		Attendance of at least one Conference or Workshops related to Advanced Virology	9.4%
	0.25 CP		➤ Formative assessment	3.1%
Student signature			Principle coordinator Signature	Head of the department signature

Log of Virology practical items:

Items	Number
-Recognition of tissue culture requirements.	5
-Recognition of types of tissue culture.	5
-Propagation of tissue culture cells.	7

* Level of competency

A- Independent performance

B- Performance under supervision

C- Observed

Year 3 (2 credit points for didactic)

Name of the course	Credit points	Responsible department	Attendance	Percentage of Achieved points
Unit 2: Advanced Virology	2 CP	Medical Microbiology & Immunology	Year 3	33.3 % of total didactics of Unit 2
Systematic Virology	1.75CP 0.3 CP 0.3 CP 0.3CP 0.2 CP 0.15 CP 0.3CP 0.2 CP		(17.5 hours) -Respiratory viruses (3h) - Hepatitis viruses (3h) - Herpesviruses (3h) - Arthropod born and other zoonotic viruses (2h) - Rabies (1.5h) - Retroviruses (3h) - Persistant viral infections of the CNS (2h)	<u>87.5%</u> 15% 15% 15% 10% 7.5% 15% 10%
	0.125CP		*Attendance of academic activities in department including the following: -Seminars for at least 50% of seminars in department. - Attendance of at least one Conference	6.25%
	0.125 CP		Formative assessment	6.25%
Student signature			Principle coordinator Signature	Head of the department Signature

Year 3 (13 credit points for training)

Clinical training	Credit points	Responsible department	Attendance & activities	Percentage of Achieved points
Training in Advanced Virology (Unit 2)	13 CP	Microbiology and immunology Department	Year 3	61.9% of total training in Unit 2
Virology	12 CP	Virology lab At the department	*Practical training in the Virology lab of Microbiology and immunology department for at least 10 weeks 3h/day with practice and fulfilling required tests and procedures log as mentioned below - Hemagglutination test - Virus neutralization test - Detection of viral cytopathic effects	92.3%
	4 CP 4 CP 4 CP			31% 31% 31%
	0.75CP		Attendance of at least one Conference or Workshops related to Advanced Virology	5.8%
	0.25 CP		➤ Formative assessment	1.9%
Student signature			Principle coordinator Signature	Head of the department signature

Log of Virology practical items:

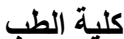
Items	Number
- Hemagglutination test	5
- Virus neutralization test	5
- Detection of viral cytopathic effects	5

* Level of competency

A- Independent performance

B- Performance under supervision

C- Observed



Advanced Virology (Procedures & practical skills LOG)

* Level of participation
A- Plan and carry out
B- Carry out
C- Carry out under supervision

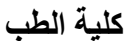
B-Seminars

Requirements

- Attendance of at least 50% of the seminars
- Presentation of at least 3 cases in the seminar per year
- Log of at least 1 evidence-based guidelines

First: Attendance

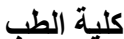
Date	Attendance	Topic	Signature



B- Second: Seminars presentation

[illegible]

A- Group A
B- Group B
C- Group C

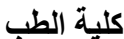


Quality Assurance Unit

Post graduate teaching

First: lectures

[illegible]



Quality Assurance Unit

Post graduate teaching

Second: practical Teaching

[illegible]



كلية الطب

Faculty of Medicine
Quality Assurance Unit

Formative assessment and MCQ

Exam	Score	Grade*	Date	Signature

*Degree

- A- Excellent
- B- Very good
- C- Good
- D- Pass

Unit 3: Advanced Mycology

Requirements

- Credit points: 4 points for didactic (lectures, seminars, tutorial) and 12 points for training.
- Minimal rate of attendance 80% of training and didactic
- MCQ Assessment (one MCQ examination at the second half of the third year)
- 1 practical examination (at the 2nd half of the 3rd year)

Year 2 (2 credit points for didactic)

Name of the course	Credit points	Responsible department	Attendance	Percentage of Achieved points
Unit 3: Advanced Mycology	2 CP	Medical Microbiology & Immunology	Year 2	50 % of total didactics of Unit 3
General Mycology	1.5 CP 0.3 CP 0.3 CP 0.3 CP 0.3 CP 0.3 CP		15 h (3h each) -Classification of fungi -fungal spores, reproduction of fungi -Pathogenesis of fungal infections -laboratory diagnosis of fungal pathogens -Chemotherapy of fungal infections	<u>75%</u> 15% 15% 15% 15% 15%
Systematic Mycology	0.4 CP		(4 hours) Pathogenesis, diagnosis, treatment, prevention and control of fungi causing: Superficial mycosis	20%
	0.1 CP		*Attendance of academic activities in department including the following: -Seminars for at least 50% of seminars in department. - Attendance of at least one Conference or workshop	5%
Student signature			Principle coordinator Signature	Head of the department Signature



كلية الطب

Faculty of Medicine
Quality Assurance Unit

Year 2 (6 credit points for training)

Clinical training	Credit points	Responsible department	Attendance& activities	Percentage of Achieved points
Training in Advanced Mycology (Unit 3)	6 CP	Microbiology and immunology Department	Year 2	50 % of total training in Unit 3
Mycology	5.5 CP	Mycology lab at the Infection Control Lab	*Practical training in the Mycology lab At the Infection Control Lab for at least 10 weeks 3h/day with practice and fulfilling required tests and procedures log as mentioned below	87.5%
	1 CP		-Recognition , preparation of fungal culture media as mentioned below	16.7%
	1 CP		-Recognition, preparation of fungal stains as mentioned below.	16.7%
	1 CP		- Biochemical reactions	16.7%
	1 CP		-Preservation of living fungi	16.7%
	1.5 CP		-Isolation, identification & phenotyping of candida spp. as mentioned below	25%
	0.5 CP		Attendance of at least one Conference or Workshops related to Advanced Mycology	8.3%
Student signature			Principle coordinator Signature	Head of the department signature

Log of Mycology culture media items:

Items	Number
-Sabouraud's dextrose agar.	5
-Sabouraud's dextrose broth	5
-Corn meal agar.	2
-Yeast nitrogen base agar.	
-Muller hinton glucose methylene blue agar.	5
-Potato sucrose agar	
-Potato dextrose agar	

* Level of competency

A- Independent performance

B- Performance under supervision

C- Observed

Log of Mycology staining items:

Items	Number
-Lactophenol cotton blue stain.	5
-India ink stain.	5
-Geimsa stain.	2
-Potassium hydroxide wet mount examination	5

* Level of competency

A- Independent performance

B- Performance under supervision

C- Observed

Log of Mycology biochemical reactions items:

Items	Number
- Unease test	5
- Lipase test	5

* Level of competency

A- Independent performance

B- Performance under supervision

C- Observed

Log of Candida spp. identification procedures:

Items	Number
-Culture Sabouraud's dextrose agar.	10
- Germ tube test.	10
-Identification of chlamydospores on Corn meal agar.	10
-Identification of different Candida spp. on different chromogenic media.	10
-Sugar assimilation test.	3
- Antifungal susceptibility test.	10

* Level of competency

A- Independent performance

B- Performance under supervision

C- Observed



كلية الطب

Faculty of Medicine
Quality Assurance Unit

Year 3 (2 credit points for didactic)

Name of the course	Credit points	Responsible department	Attendance	Percentage of Achieved points
Unit 3: Advanced Mycology	2 CP	Medical Microbiology & Immunology	Year 3	50% of total didactics of Unit 3
Systematic Mycology	1.8 CP		(18 hours) <u>6 h each</u>	<u>90%</u>
	0.6 CP		Pathogenesis, diagnosis, treatment, prevention and control of fungi causing:	
	0.6 CP		- Subcutaneous mycosis	30%
	0.6 CP		- Systemic mycosis	30%
			- Opportunistic mycosis	30%
	0.1 CP		*Attendance of academic activities in department including the following: - Seminars for at least 50% of seminars in department. - Attendance of at least one Conference	5%
	0.1 CP		Formative assessment	5%
Student signature			Principle coordinator Signature	Head of the department Signature



كلية الطب

Faculty of Medicine
Quality Assurance Unit

Year 3 (13 credit points for training)

Clinical training	Credit points	Responsible department	Attendance & activities	Percentage of Achieved points
Training in Advanced Mycology (Unit 3)	6 CP	Microbiology and immunology Department	Year 3	50% of total training in Unit 3
Mycology	5.5 CP	Mycology lab At the department	*Practical training in the Mycology lab of Microbiology and immunology department for at least 10 weeks 3h/day with practice and fulfilling required tests and procedures log of identification of filamentous fungi as mentioned below -Aspergillus -fusarium -Rhizopus -Penicillium -Chladosporium -Dermatophytes spp	91.6% 16.7% 15% 15% 13.3% 15% 16.7%
	0.25CP		Attendance of at least one Conference or Workshops related to Advanced Mycology	4.2%
	0.25 CP		➤ Formative assessment	4.2%
Student signature			Principle coordinator Signature	Head of the department signature

Log of filamentous fungi identification procedures:

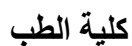
Items	Number
-Aspergillus	7
-fusarium	5
-Rhizopus	5
-Penicillium	4
-Chladosporium	5
-Dermatophytes spp.	7

* Level of competency

A- Independent performance

B- Performance under supervision

C- Observed



Advanced Mycology (Procedures & practical skills LOG)

[illegible]

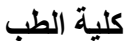
B-Seminars

Requirements

- Attendance of at least 50% of the seminars
- Presentation of at least 3 cases in the seminar per year
- Log of at least 1 evidence-based guidelines

First: Attendance

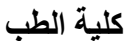
Date	Attendance	Topic	Signature



B- Second: Seminars presentation

[illegible]

A- Group A
B- Group B
C- Group C

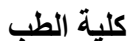


Quality Assurance Unit

Post graduate teaching

First: lectures

[illegible]



Quality Assurance Unit

Post graduate teaching

Second: practical Teaching

[illegible]



كلية الطب

Faculty of Medicine
Quality Assurance Unit

Formative assessment and MCQ

Exam	Score	Grade*	Date	Signature

*Degree

- A- Excellent
- B- Very good
- C- Good
- D- Pass

Unit 4: Basic & Clinical Immunology

Requirements

- Credit points: 6 points for didactic (lectures, seminars, tutorial) and 21 points for training.
- Minimal rate of attendance 80% of training and didactic
- MCQ Assessment (One MCQ examination at the second half of the second year) & (One MCQ examination at the second half of the third year)
- 1 practical examination (at the 2nd half of the 2nd year)



كلية الطب

Faculty of Medicine
Quality Assurance Unit

Year 2 (4 credit points for didactic)

Name of the course	Credit points	Responsible department	Attendance	Percentage of Achieved points
Unit 4: Basic & Clinical Immunology	4 CP	Medical Microbiology & Immunology	Year 2	66.7 % of total didactics of Unit 4
Basic Immunology	3.5CP		35 hours for Basics of Immunology	87.5%
	0.4CP		-Components of innate immunity 4h	10%
	0.4CP		-Antigens & their immune recognition 4h	10%
	0.4CP		-Maturation & activation of lymphocytes 4h	10%
	0.4CP		-Effector mechanisms of cell mediated immunity 4h	10%
	0.4CP		-Effector mechanisms of Humoral immunity 4h	10%
	0.4CP		-Antibodies and their gene diversity 4h	10%
	0.3CP		-Monoclonal antibodies 3h	7.5%
	0.4CP		- The complement system 4h.	10%
	0.4CP		-Regulation of Immune system 4h	10%
	0.25 CP		*Attendance of academic activities in department including the following:	6.25%
			-Seminars for at least 50% of seminars in department.	
			- Attendance of at least one Conference	
	0.25 CP		Formative assessment	6.25%
Student signature			Principle coordinator Signature	Head of the department Signature



كلية الطب

Faculty of Medicine
Quality Assurance Unit

Year 2(21 credit points for training)

Clinical training	Credit points	Responsible department	Attendance& activities	Percentage of Achieved points
Training in Basic & clinical Immunology (Unit 4)	21 CP	Microbiology and immunology Department	Year 2	100 % of total training in Unit 4
	19.5 CP		- Practical training in immunology lab of Medical Microbiology & Immunology department for at least 20 weeks(6 h/wk) of attendance with practice of required training skills in providing the principles, precautions, steps, laboratory and experimental care for each of the following immunological tests and techniques including immunological procedures & tests log as mentioned below; *Western blot *Immunofluorescence - Antigen titration for ELISA - Antibody titration for ELISA - Performing & interpreting ELISA test - Orientation of principles of Flow Cytometry and interpretation of its results. - Performing PCR technique. - Performing Gel electrophoresis.	93%
	2CP			9.5%
	2CP			9.5%
	3CP			14.3%
	3CP			14.3%
	3CP			14.3%
	2CP			9.5%
	2.5CP			11.9%
	2CP			9.5%
	0.75CP		Attendance of at least one Conference or Workshops related to Basic& Clinical Immunology	3.5%
	0.75 CP		➤ Formative assessment	3.5%
Student signature			Principle coordinator Signature	Head of the department signature

Year 3 (2 credit points for didactic)

Name of the course	Credit points	Responsible department	Attendance	Percentage of Achieved points
Unit 4: Basic & Clinical Immunology	2 CP	Medical Microbiology & Immunology	Year 3	33.3 % of total didactics of Unit 4
Clinical Immunology	1.75 CP 0.5CP		(17.5 hours) -MHC and transplantation immunology (5 h) -Hypersensitivity reactions (2.5 h) -Tumor immunology (2.5 h) -Tolerance and autoimmunity 2.5 h -Immuno - deficiency disorders 2.5h	<u>86%</u> 25% 12.5% 12.5% 12.5% 12.5%
	0.25 CP 0.25CP 0.25 CP			
	0.25 CP			
	0.125CP		*Attendance of academic activities in department including the following: -Seminars for at least 50% of seminars in department. - Attendance of at least one Conference	6.25%
	0.125 CP		Formative assessment	6.25%
Student signature			Principle coordinator Signature	Head of the department Signature



كلية الطب

Faculty of Medicine
Quality Assurance Unit

Basic & Clinical Immunology (Procedures & practical skills LOG)

NO.	Processing of specimens	Level of participation *	Location	Signature of supervisor

* Level of participation

A- Plan and carry out

B- Carry out

C- Carry out under supervision

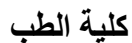
Module 4 (Basic & Clinical Immunology) B-Seminars

Requirements

- Attendance of at least 50% of the seminars
- Presentation of at least 3 cases in the seminar per year
- Log of at least 1 evidence-based guidelines

First: Attendance

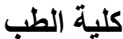
Date	Attendance	Topic	Signature



**Faculty of Medicine
Quality Assurance Unit**

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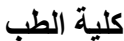
C- Group C



Quality Assurance Unit

Module 4 (Basic & Clinical Immunology)
Post graduate teaching
First: lectures

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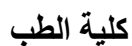


Quality Assurance Unit

Post graduate teaching

Second: practical Teaching

[illegible]

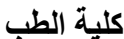


Formative assessment and MCQ

[illegible]

A- Excellent
B- Very good
C- Good
D- Pass

Other Activities



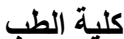
Quality Assurance Unit

Program of Medical Microbiology & Immunology Doctorate Degree

1- Academic activities

Lecture, journal club, seminar, conference, workshop

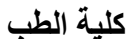
[illegible]



Program of Medical Microbiology & Immunology MD Degree

2- Academic achievements

[illegible]



Program of Medical Microbiology & Immunology MD Degree
3- Formative assessment

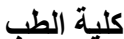
كلية الطب – الدور الخامس – جناح ب
ت : 088/2411875 فاكس : 2360606
E-mail: Qaaunit@yahoo.com

Elective Course

Requirements

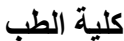
● **Credit points:** 2 credit point.

- Minimal rate of attendance 80% of lectures and 80% of training



Name of the elective course: -----

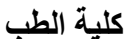
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Quality Assurance Unit

Elective Course Practical skills

[illegible]



Quality Assurance Unit

Academic activities

Lecture, journal club, conference, workshop

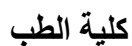
[illegible]

**** Your role:-**

A- Attendance

B- Organization

C- Presentation



Formative assessment and MCQ

[illegible]

A- Excellent
B- Very good
C- Good
D- Pass

الرسائل العلمية

عنوان الرسالة

عربي : _____

انجليزي : _____

المشرفون : _____

1- _____

2- _____

3- _____

4- _____

تاريخ القيد لدرجة : / / 200

تاريخ التسجيل الموضوع :

المتابعة الدورية :

التاريخ	ما تم انجازه من بروتكول البحث	المتبقي	توقيع المشرفين



كلية الطب

Faculty of Medicine
Quality Assurance Unit

Declaration

Course Structure Mirror	Responsible (Module) Coordinator Name:	Signature	Date
Course 1			
Course 2			
Course 3			
Course 4			
Course 5			
Course 6 Unit 1			
Course 6 Unit 2			
Course 6 Unit 3			
Course 6 Unit 4			
- Elective Course(s) Certificate (s) Dates:			
- MD Degree Thesis Acceptance Date:			
- Fulfillment of required credit points prior to final examination			
Microbiology & Immunology MDdegree principle Coordinator:			
Date approved by medical Microbiology & Immunology department council:			

يعتمد ،
رئيس القسم

/د.ا