Master (MSc) Program & Course Specifications in Medical Parasitology

2022/2023

Program Specification for Master Degree in Medical Parasitology

- **University: MINIA**
- **Faculty (s): MEDICINE**
- **Department: Medical Parasitology**

A- Basic Information

1- Program title: Program Specification for Master Degree In Medical Parasitology,
2- Code: PR200
3- **Final award** : Master degree in Medical Parasitology
4- **Program type: Single** * Double Multiple
5- **Department responsible for offering the degree:** Medical Parasitology dept.
6- **Departments involved in the program:** Medical Parasitology and Public health and Preventive medicine departments.
7- Program duration : 2 years
8- **Number of program courses :** Two (Medical Parasitology and Public health and preventive medicine courses)
9- Coordinator: Dr. Manar mostafa (**lecturer of Medical Parasitology**) Dr. Reham Ahmed (lecturer of **Medical Parasitology**)
10- **External Evaluator(**s): Prof.Dr. Ahmed Kamal Dyab Professor of Medical Parasitology, Faculty of Medicine, Assuit University.
11- Internal Evaluator:
-Ass.Prof.Dr. Noha Hamed Abdel Gelil (Assistant Professor of Medical Parasitology, Faculty of Medicine, Minya University.
12- Last date of program specifications update: Mach 2023

B- Professional Information.

1- Program Aims

The aim of this program is to provide the postgraduate student with the medical knowledge and skills (covering medical helminths, protozoa and vectors) essential for practice in the field of Medical parasitology through providing:

1. Scientific knowledge essential for practice Medical Parasitology.
2. Master a variety of technical skills in Medical Parasitology and expert relevant equipment, technology, and software.

3. Maintenance of self-learning, modern technological aids and research abilities necessary for continuous professional development.

4. Ethical principles related to the practice in Medical parasitology field.

5. Awareness of its role in community health development.

2- Intended learning outcomes (ILOs)

a- **Knowledge and understanding:**

By the end of the program the student should be able to:

a1. Discuss detailed knowledge and understanding of the biology, life cycles, world distribution, pathogenesis, diagnosis of medical parasitic infections and epidemiologic principles and the effect of social and demographic patterns on parasitic disease and vulnerability.

a2. Discuss detailed knowledge and understanding of the biology and strategies for control of the vectors and intermediate hosts of human parasites.

a3. Identify different traditional and advanced diagnostic procedures and its reflection on the environment.

a4. Define the recent immunological responses and the possible dynamics of immune protective mechanisms.

a5. Recognize the basis of ethical and legal aspect of professional practice, related to the medical parasitology

a6. Recognize quality control activities to gain accurate and reliable research results.

a7. Identify the clinical research ethics, design principles, implementation, and interpretation and the ability to design a laboratory or field-based research project, apply relevant research skills.

b- Intellectual skills

By the end of the program the student should have the ability to:

b1. Solve complex problems and reviewing related information to develop and evaluate options and implement solutions.

b2. Analyse clinical and investigational data to develop skill of logic reasoning for clinical problem solving.

b3. Interpret experimental data in an appropriate scientific format.

b4. Design an appropriate research work for carrying out a medical research thesis under supervision.

b5. Evaluate research hazards and risk (when changes in practices, instrumentation, or facilities)

b6. Establish clear goals, quickly learn new technological advancements, and attend workshop and training courses.

b7. Analyse a situation, predict possible outcomes and come up with a solution or action in an efficient time frame.

c- Professional and practical skills

By the end of the course the student should have the ability to mark the basic and modern professional skills in the area of medical parasitology

c1. Carry out practical laboratory identification of the various parasite stages both free and in tissues and diagnose infections.

c2. Prepare the various parasitic stages both free and in tissues and to report properly positive findings in different samples.

c3. Deal with lab animals: infecting, sacrifice, dissecting and examining.

c4. Carry out some advanced diagnostic procedures

c5. Prepare a written report including a critical literature review of relevant scientific publications

c6. Demonstrate proficiency in evaluating technical tools used in research.

c7. Assess and evaluate findings from appropriate peer-reviewed journals.

c8. Design variable epidemiological studies of some parasitic infections in Egypt.

d- General and transferable skills

By the end of the program the student should have the ability to:

d1. Communicate effectively face-to-face, e-mail, and written reports

d2. Use computers efficiently in reaching biomedical information to remain updated with advances in knowledge and practice

d3. Monitor/Assess his own performance, and other individuals' performance to make improvements or take corrective action.

d4. Conduct research using the internet and library resources.

d5. Perform self and peer evaluation

d6. Able to work with others towards a common goal

d7. Manage laboratory work time, scientific meeting deadlines and Prioritizing tasks

d8. Adopt lifelong learning

3- **Program Academic Reference Standards (ARS)**

Academic standards for master degree in Medical Parasitology

- Faculty of Medicine, Minia University adopted the general national academic reference standards provided by the national authority for quality assurance and accreditation of education (NAQAAE) for all postgraduate programs. (Faculty Council decree No.6854, in its cession No.177 Dated: 18\5\2009.) **{Annex 1}.**
- Minia faculty of medicine has developed the academic standards (ARS) for Master (MSc) program and was approved in faculty Council decree No.7528, in its cession No.191, dated: 15/3/2010, last update: 20/2/2023. **{Annex 1}.**
- Then Medical Parasitology department has developed the intended learning outcomes (ILOs) for Master (MSc) program in Medical Parasitology and the Date of program specifications 1st approval by department council: dated: 13\5\2013) and the last update in department council: 6\3\2023. {Annex II}.

4- Program external references: No External references (Benchmarks)

5 - Program structure:

-Program duration: 2years at least

	hours /week	
Subject	Lectures	Practical
First Part:		
Public health and Preventive Medicine	2 hours/week	1 hours/ week
Second Part:		
Medical Parasitology	3 hours/week	3 hours/week

- Levels of program in credit hours system: Not applicable

6- Program courses: Two courses**;**

1- Public health and preventive medicine course (elective course)
2- Medical Parasitology course **(compulsory)**.
N.B: Courses' specifications are present in AnnexVI, VII and correlation of Program ILOs with program content in AnnexV

1st part:

Lectures: 60 hours; 2hours/week.

Practical/clinical: 30 hours; 1 hours/week.

The total number of weeks: 30 weeks

2nd part:

Lectures: 90 hours; 3 hours/week.

Practical/clinical: 90 hours; 3 hours/week.

The total number of weeks: 30 weeks

	Course Title	Total No. of Hours	No. of hours /week		Program ILOs
			Lect.	Lab.	
FIRST PART					
a-	Public health and Community	60 hours Theoretical 30practical	2	1	a1,a2, a3,a5, a6,a7, b1,b2,b3,b4,b5,b6,b 7,c5, c5,c7 d1,d2,d3, d4,d5,d6, d7,d8
SECOND PART					
a- Compulsory :	Medical Parasitology	3x30 week= 90 hours theoretical 90 practical	3	3	a1,a2, a3,a4,a5,a6,a7,b1,b 2,b3,b4 b5,b6,b7, ,c1,c2,c3,c4,c5.c6,c 7 d1,d2,d3,d4,d5,d6,d 7, d8

6- Program admission requirements

1. General requirements:

A. Candidates should have either:

1. MBBCH degree from any Egyptian faculty of medicine or

2. Equivalent degree from medical schools abroad approved by the ministry of higher education

B. Candidate should complete the house office training year.

C. Candidate should follow postgraduate regulatory rules of Minia Faculty of Medicine (TOEFL, SPSS certificate)

2. Specific requirements:

A. Candidates graduated from Egyptian universities should "Good Rank" in their final year/cumulative years examination and grade "Good Rank "in Medical Parasitology course too.

7- Regulations for progression and program completion

Duration of program is 2years, starting from registration till the second part exam; divided to:

First Part: Duration of program is 1years, starting from registration till the second part exam; divided to:

• Program-related basic science; General epidemiology, Demography, Medical Statistics, epidemiology of communicable and non- communicable diseases and Nutrition

• At least 12 months after registration should pass before the student can ask for examination in the 1st part.

• Two sets of exams: 1st in April — 2nd in October.

• For the student to pass the first part exam, a score of at least 60% in each curriculum is needed (with at least 40% of the written exam).

• Those who fail in the curriculum need to re-exam it only.

Thesis :

- Protocol of the thesis should be started after passing the 1st part.
- Thesis should be completed, and accepted a minimum of 6 months after protocol registration up to a month prior to enrolment to the 2nd part final exam.
- Accepting the thesis occurs after acceptance and\ or publishing one thesis-based paper in local or international journal and this is adequate to pass this part.

Second Part: (12 months):

- Program related specialized science Medical Parasitology Courses.
- Actual work for 12 months as a demonstrator /trainee in Medical Parasitology department.
- The student should pass the 1st part before permitted enrolment to the 2nd part exam.
- Two sets of exams: 1st in April — 2nd in October.
- For the student to pass the second part exam, a score of at least 60% in each curriculum is needed (with at least 40% in the written exam).

- Fulfillment of the requirements in each course as described in the template and registered in the log book is a prerequisite for candidates to be assessed and undertake part 1 and part 2 examinations; as following:

- Training courses
- Case presentation
- Conference attendance
- Seminars
- Thesis discussion attendance
- Self educational training
- Workshops

• Two sets of exams: 1st in April— 2nd in October.

• For the student to pass the second part exam, a score of at least 60% in each curriculum is needed (with at least 40% of the written exam).

8- Teaching and learning methods:

a- Lectures.

b- Practical training and demonstration weekly throughout the course.

b- Self-training activities such as use of internet and multimedia.

c- Seminars, presentations and assignments.

d- Training courses & workshops.

e- Thesis discussion attendance.

f- Conference attendance

Matrix of coverage of course ILOs by Methods of Teaching and Learning (Annex III)

9- Methods of student assessment:

1. **Paper based exam:**
   - Short essay
   - MCQs
   - Problem solving
2. **Practical Exams:**
   - OSPE
   - Statistical analysis of data
3. **Oral Exams**

Matrix of coverage of course ILOs by Methods of assessment (Annex IV)

Weighing of assessment:

It is mandatory to pass all the papers of written exams separately

Course	written	oral	Practical	Total
1- Public health and preventive medicine)	**120**	**90**	**90**	**300**
2- Medical Parasitology course	**280** **1st paper 140** **2nd paper 140**	**220**	**200**	**700**

10-Evaluation of program intended learning outcomes

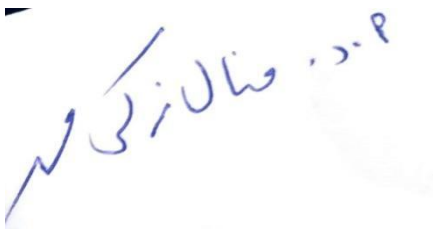
Evaluator (By whom)	Method/tool	Sample
1. Senior students (Students of final years)	Questionnaires	Attached to the file
2. Graduates (Alumni)	Questionnaires	Attached to the file
3. Stakeholders	Meeting Questionnaires	Attached to the file Attached to the file
4. External & Internal evaluators and external examiners	Reports	Attached to the file
5. Quality Assurance Unit	Reports Questionnaires Site visits	Attached to the file Attached to the file Attached to the file

Coordinator:

- Prof. Dr. Azza Kamal Ahmed
- Dr. Manar Mostafa Nagi
- Dr. Reham Ahmed Mahmoud Abd Rabou
- Ass. Lecturer. Seham Ibrahim Mohamed

Head of Department:

- Prof. Dr Manal Zaki Mohammed



Date of program specifications 1st approval by department council: 13/5/2013.

Date of last update & approval by department council: 6/3/2023

Annex (1): Comparison between National Academic Quality Assurance & Accreditation (NAQAAE) General Academic Reference Standards (GARS) and Faculty Academic Reference Standards (ARS)

NAQAAE برامج الماجستير	Faculty Master (MSC) Program
١. مواصفات الخريج: خريج برنامج الماجستير في أي تخصص يجب أن يكون قادرا على:	**1. Graduate Attributes:** Graduate of master (MSC) program should be able to:
1.1. إجادة تطبيق أساسيات ومنهجيات البحث العلمي واستخدام أدواته المختلفة.	1.1. understanding and applying of basics of research method and research tools
2.1. تطبيق المنهج التحليلي واستخدامه في مجال التخصص	2.1. Critically analyze, evaluate, and effectively communicate findings, theories, and methods
3.1. تطبيق المعارف المتخصصة و دمجها مع المعارف ذات العلاقة في ممارسته المهنية.	3.1. Apply integrated professional and general knowledge in his scholarly field and at the interface between different fields.
4.1. إظهار وعيا بالمشاكل الجارية والرؤى الحديثة في مجال التخصص.	4.1. Demonstrate awareness of community health needs related to the field of specialization by understanding the beneficial interaction with the society to improve quality of life
5.1. تحديد المشكلات المهنية وإيجاد حلولا لها.	5.1. Demonstrating proficiency, required to solve current complex problems in his scholarly field.
6.1. إتقان نطاق مناسب من المهارات المهنية المتخصصة واستخدام الوسائل التكنولوجية المناسبة بما يخدم ممارسته المهنية.	6.1. Master a variety of technical skills in his scholarly field and expert relevant equipment, technology, and software.

7.1. لتواصل بفاعلية والقدرة على قيادة فرق العمل.	7.1. Gain leadership skills and be able to communicate efficiently with colleagues and get the best results.
8.1. اتخاذ القرار في سياقات مهنية مختلفة.	8.1. Take professional situational decisions and logically support them.
9.1. توظيف الموارد المتاحة بما يحقق أعلي استفادة و الحفاظ عليها	9.1.Optimal use of available resources to achieve research or best patient health care and ensure its maintenance.
10.1. إظهار الوعي بدوره في تنمية المجتمع والحفاظ على البيئة في ضوء المتغيرات.	10.1. Demonstrate awareness of its role in community health development and
11.1. التصرف بما يعكس الالتزام بالنزاهة والمصداقية والالتزام بقواعد المهنة.	11.1. Exhibit ethical behavior that reflect commitment to the code of practice
12.1. تنمية ذاته أكاديميا ومهنيا و قادرا علي التعلم المستمر.	12.1. demonstrate the ability to sustain a lifelong personal and professional growth.
٢.المعايير القياسية العامة: **NAQAAE General Academic Reference Standards "GARS" for Master Programs**	**2. Faculty Academic Reference Standards (ARS) for Master Program**
٢,١. المعرفة والفهم: بانتهاء دراسة برنامج الماجستير يجب أن يكون الخريج قادرا علي الفهم والدراية بكل من:	**2.1. Knowledge & Understanding:** Upon completion of **the Master Program in**……., the graduate should have sufficient knowledge and understanding of:
٢,١,١. النظريات والأساسيات والحديث من المعارف في مجال التخصص والمجالات ذات العلاقة	2.1.1. Understand the scientific basis and modern knowledge in the field of specialization and related medical sciences
٢,١,٢. التأثير المتبادل بين الممارسة المهنية وانعكاسها علي البيئة	2.1.2. The mutual influence of professional practice on work environment, working conditions, and job characteristics.
٢,١,٣. التطورات العلمية في مجال التخصص	2.1.3. Scientific developments in the field of specialization

٢,١,٤. المبادئ الأخلاقية والقانونية للممارسة المهنية في مجال التخصص	2.1.4. Recognize basics of medico-legal aspects of practice, malpractice and avoid common medical errors
٢,١,٥. مبادئ وأساسيات الجودة في الممارسة المهنية في مجال التخصص	2.1.5. Quality principles in the scholarly field
٢,١,٦. أساسيات وأخلاقيات البحث العلمي	2.1.6. Basis of research methodology and medical ethics.
2.2.المهارات الذهنية: بانتهاء دراسة برنامج الماجستير يجب أن يكون الخريج قادرا على:	**2.2. Intellectual Skills:** Upon completion of the master program of……, the graduate should be able to:
2.2.1. تحليل وتقييم المعلومات في مجال التخصص والقياس عليها لحل المشاكل	2.2.1. Use judgment skills for analytical and critical problem solving
2.2.2. حل المشاكل المتخصصة مع عدم توافر بعض المعطيات	2.2.2. Capable of integrating knowledge and dealing with complex subjects to solve problems
2.2.3 الربط بين المعارف المختلفة لحل المشاكل المهنية	2.2.3. Be capable of integrating research results and/or results of history, physical and laboratory test findings to solve a research or a clinical problem.
2.2.4. إجراء دراسة بحثية و/أو كتابة دراسة علمية منهجية حول مشكلة بحثية	2.2.4. Effectively apply research methods and carrying out a medical research thesis
2.2.5. تقييم المخاطر في الممارسات المهنية في مجال التخصص	2.2.5. Be aware of risk management principles, and patient safety.
2.2.6. التخطيط لتطوير الأداء في مجال التخصص	2.2.6. Establish goals, commitments, and strategies for improved professional performance in the field of specialty
2.2.7. اتخاذ القرارات المهنية في سياقات مهنية متنوعة.	2.2.7. Take professional situational decisions and logically support them.
3.2.المهارات المهنية: بانتهاء دراسة برنامج الماجستير يجب أن يكون الخريج قادرا على:	**3.2. Professional Skills:** Upon completion of the master program of……, the graduate must be able to:
3.2.1. إتقان المهارات المهنية الأساسية والحديثة في مجال التخصص.	3.2.1. Master the basic and some advanced professional skills in his scholarly field.

٣,٢,٢كتابة و تقييم التقارير المهني.	3.2.2. Write and evaluate medical or scientific reports
٢,٣,٣تقييم الطرق والأدوات القائمة في مجال التخصص	3.2.3. Assess and evaluate technical tools during research
4.2.المهارات العامة والمنتقلة : بانتهاء دراسة برنامج الماجستير يجب أن يكون الخريج قادرا على:	4.2. **General and transferable skills** Upon completion of the master program of……, the graduate should be able to:
٤,٢,١. التواصل الفعال بأنواعه المختلفة	4.2.1. Communicate effectively using a written medical record, electronic medical record, or other digital technology.
٤,٢,٢. استخدام تكنولوجيا المعلومات بما يخدم الممارسة المهنية	4.2.2. Use of information technology (computer to create, process, store, secure and exchange electronic data) in the field of medical practice.
4.2.**3**. لتقييم الذاتي وتحديد احتياجاته التعلمية الشخصية	4.2.3. Assess himself and identify personal learning needs
4.2.**4**. استخدام المصادر المختلفة للحصول على المعلومات والمعارف	4.2.4. Use various sources for information (physical and digital sources).
4.3.**5**. وضع قواعد ومؤشرات تقييم أداء الآخرين	4.2.5. Setting indicators for evaluating the performance of others
4.2.**6**. العمل في فريق، وقيادة فرق في سياقات مهنية مختلفة	4.2.6. Work in a team, and Apply leadership skills to enhance team functioning, the learning environment, and/or the health care delivery system
4.2.**7**. إدارة الوقت بكفاءة	4.2.7. Manage time efficiently
٤,٢,٨.التعلم الذاتي والمستمر	4.2.8. Demonstrate skills of self-learning and lifelong learning needs of medical profession.

ANNEX II: Matrix between Faculty ARS VS. Msc PROGRAM of Medical Parasitology.

Faculty Master (MSC) Program	MSc Program of Medical Parasitology
2.1. **Knowledge & Understanding:** Upon completion of the **Master Program in**……., the graduate should have sufficient knowledge and understanding of:	**2.1. Knowledge and Understanding** Upon completion of the master Program (MSc) in Medical Parasitology the graduate should be able to:
2.1.1. Understand the scientific basis and modern knowledge in the field of specialization and related medical sciences	a1. Discuss detailed knowledge and understanding of the biology, life cycles, world distribution, pathogenesis, diagnosis of parasitic infections in humans and epidemiologic principles and the effect of social and demographic patterns on parasitic disease and vulnerable group. a2. Discuss detailed knowledge and understanding of the biology and strategies for control of the vectors and intermediate hosts of human parasites.
2.1.2. The mutual influence of professional practice on work environment, working conditions, and job characteristics.	a3. Identify different traditional and advanced diagnostic procedures and its reflection on the environment.
2.1.3. Scientific developments in the field of specialization	a4. Define the recent immunological responses and the possible dynamics of immune protective mechanisms.
2.1.4. Recognize basics of medico-legal aspects of practice, malpractice and avoid common medical errors	a5. Recognize the basis of ethical and legal aspect of professional practice, related to the medical parasitology
2.1.5. Quality principles in the scholarly field	a6. Recognize quality control activities to gain accurate and reliable research results
2.1.6. Basis of research methodology and medical ethics.	a7. Identify the clinical research ethics, design principles, implementation, and interpretation and the ability to design a laboratory or field-based research project, apply relevant research skills
2.2. **Intellectual Skills:**	**2.2. Intellectual skills:**

Upon completion of the master program of……, the graduate should be able to:	Upon completion of the master program (MSc) in Medical Parasitology, the graduate must be able to:
2.2.1. Use judgment skills for analytical and critical problem solving	b1. Solve complex problems and reviewing related information to develop and evaluate options and implement solutions.
2.2.2. Capable of integrating knowledge and dealing with complex subjects to solve problems	b2. Analyze clinical and investigational data to develop skill of logic reasoning for clinical problem solving
2.2.3. Be capable of integrating research results and/or results of history, physical and laboratory test findings to solve a research or a clinical problem.	b3. Interpret experimental data in an appropriate scientific format.
2.2.4. Effectively apply research methods and carrying out a medical research thesis	b4. Design an appropriate research work for carrying out a medical research thesis under supervision
2.2.5. Be aware of risk management principles, and patient safety.	b5. Identify and evaluate research hazards and risk (when changes in practices, instrumentation, or facilities)
2.2.6. Establish goals, commitments, and strategies for improved professional performance in the field of specialty	b6. Establish clear goals, quickly learn new technological advancements, attend workshop and training courses.
2.2.7. Take professional situational decisions and logically support them.	b7. Analyze a situation, predict possible outcomes and come up with a solution or action in an efficient time frame.
3.2. Professional Skills: Upon completion of the master program of……, the graduate must be able to:	**3.2. Professional Skills:** Upon completion of the master program (MSc) in Medical Parasitology, the graduate must be able to:
3.2.1. Master the basic and some advanced professional skills in his scholarly field.	c1. Carry out practical laboratory identification of the various parasite stages both free and in tissues and diagnose infections. c2. Prepare the various parasitic stages both free and in tissues and to report properly positive findings in different samples.

	c3. Deal with lab animals: infecting, sacrifice, dissecting and examining. c4. Carry out some advanced diagnostic immunological procedures. c8. Design variable epidemiological studies of some parasitic infections in Egypt.
3.2.2. Write and evaluate medical or scientific reports	c5. Prepare a written report including a critical literature review of relevant scientific publications
3.2.3. Assess and evaluate technical tools during research	c6. Demonstrate proficiency in evaluating technical tools used in research. c7. Assess and evaluate findings from appropriate peer-reviewed journals.
4.2. **General and transferable skills** Upon completion of the master program of……, the graduate should be able to:	4.2. **General and transferable skills** Upon completion of the master program (MSc) in Medical Parasitology, the graduate must be able to:
4.2.1. Communicate effectively using a written medical record, electronic medical record, or other digital technology.	d1. Communicate effectively face-to-face, e-mail, and written reports
4.2.2. Use of information technology (computer to create, process, store, secure and exchange electronic data) in the field of medical practice.	d2. Use computers efficiently in reaching biomedical information to remain updated with advances in knowledge and practice
4.2.3. Assess himself and identify personal learning needs	d3. Monitor/Assess his own performance, and other individuals performance to make improvements or take corrective action.
4.2.4. Use various sources for information (physical and digital sources).	d4. Conduct research using the internet and library resources.
4.2.5. Setting indicators for evaluating the performance of others	d5. Perform self and peer evaluation
4.2.6. Work in a team, and Apply leadership skills to enhance team functioning, the learning environment, and/or the health care delivery system	d6. Able to work with others towards a common goal

4.2.7. Manage time efficiently	d7. Manage laboratory work time, scientific meeting deadlines and Prioritizing tasks .
4.2.8. Demonstrate skills of self-learning and lifelong learning needs of medical profession.	d8. Adopt lifelong learning

Annex (III):

Matrix of coverage of program ILOs by Methods of Teaching and Learning (Annex III)

Teaching and learning methods	The assessed ILOs
• **Lectures**	a1, a2, a3, a4, a5, a6, a7, b1, b2, b3, b4, b5, b6, b7.
• **Thesis**	a1, a2, a3, a4, a5, a6, a7, b1, b2, b3, b4, b5, b6, b7 c1, c2, c3, c4, c5, c6, c7, d1, d2, d3, d4, d5, d6, d7, d8.
• **Practical sessions:** **1-Observation of different light microscopic slides** **1- Light microscopic slides preparation and examination** **2- Statistical analysis of different data.**	c1, c2, c3, c4, c5, c6, c7, d2, d3, d6, d7, d8
• **Self-training activities seminars, presentations & assignments.** • **Training courses & workshops.** • **Thesis discussion attendance.** • **Conference attendance**	d1, d2, d3, d4, d5, d6, d7, d8

Annex IV: Matrix of coverage of program ILOs by Methods of assessment

Method of assessment	The assessed ILOs
1. Paper based Exams: • **Short essay** • **MCQs** • **Problem solving**	a1, a2, a3, a4, a5, a6, a7, b1, b2, b3, b4, b5, b6, b7.
2. Practical Exams: • **OSPE** • **Interpret slides with detailed** • **Statistical analysis of data**	c1, c2, c3, c4, c5, c6, c7, d2,d3,d6,d7,d8
3. Oral Exams	a1, a2, a3, a4, a5, a6, a7, b1, b2, b3, b4, b5, b6, b7, d1,d3,d5

Annex V: Correlations between Program ILOs & program content

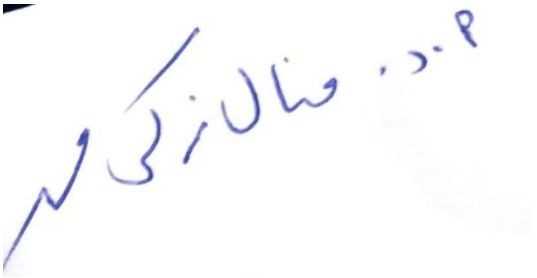
Courses (List of courses in 1st and 2nd parts)	Program Intended Learning Outcomes (ILOs)			
	A. Knowledge & Understanding	B. Intellectual Skills	C. Professional & Practical skills	D. General & Transferable Skills
	a	b	c	D
1. **Public health and Community**	a1,a2,a3, a5, a6, a7	b1, b2, b3, b4, b5, b6, b7, b8	c5,c6, c7,c8	d1,d2,d3, d4,d5,d6, d7
2. Thesis	a1,a2,a3, a5, a6, a7	b2,b3, b4,b5, b6, b7	c1,c2, c3, c4, c5,c6, c7, c8	d1, d2, d4, d6, d7
3. Medical Parasitology	a1,a2,a3, a5, a6, a7	b1,b2,b3,b4,b5,b6,b7	c1,c2,c3,c4,c5.c6,c7, c8	d1,d2,d3,d4,d5,d6,d7

Program Coordinator:

- Prof. Dr Azza Kamal Ahmed
- Dr. Manar Mostafa Nagi
- Dr. Reham Ahmed Abd Rabou
- Ass. Lecturer. Seham Ibrahim Mohamed

Head of the department

Prof. Dr Dr Manal Zaki Mohammed



Annex VI: Course Specifications of 1st part MSC degree in Medical Parasitology

"Public health branches"

2023

University: Minia

Faculty: Medicine

Department: **Public health and preventive Medicine department**

١.Course Information		
Academic Year/level: first part	**Course Title:** **MSC degree in Medical Parasitology**	**Code of program in which the course is involved**: PR-200
• **Number of teaching hours: overall course duration: 30 weeks** - **Lectures:** Total of 6 hours, 2 hours/week - **Practical**/clinical: Total of 30 hours, 1 hours/ week		
2.Overall Aims of the course	*By the end of the course the student must be able to:* 1-Prepare a community-oriented physician capable of anticipating and responding to community health needs according to the policies, regulations, and guidelines of the MOHP. 2- To use precisely the research methodology in researches. 3-Inform public policy, disseminate health information, and increase awareness of public health concerns through disease surveillance, needs assessment, and program evaluation.	
3.Intended learning outcomes of course (ILOs): ***Upon completion of the course, the student should be able to:***		
A- Knowledge and Understanding	- a1. Recognize the importance of food and nutrition. - a2. Describe nutritional needs to all age groups e.g. Children, pregnant and lactating mothers and old age group. - a3. Describe the nutritional requirement for prevention and treatment of disease. - a.4. Describe epidemiology of COVID-19 virus and identify Strategies to Reduce Spread of Covid-19	

	- a.5. Describe basic steps of COVID-19 case investigation -a6. Describe methods of sampling strategies and sample size calculation -a7. Describe normal distribution curve, measures of central tendency and measures of dispersion.
B-Intellectual Skills	-b1. Design a balanced diet according to the required calories of different individuals and diet prescription in different diseases -b2. Reframe the community toward evidence based medicine -b3. Write the symptoms due to lack of food elements and how to manage them. -b4. Able to provide nutritional advise and protocol for patients infected with COVID-19 -b5. Interpret and summarize data
C-Professional and Practical Skills	- c1. Develop disease surveillance - c2. Illustrate early detection and early warning of communicable and non-communicable diseases according to protocol) - c3. Design an epidemiological study for an investigation of an epidemic/outbreak - c4. Evaluate of public health services - c5. Articulate in health promotion - c6. Modify the normal diet into therapeutic diet therapy. - c7. Plan the dietary management for patients with different health conditions. - c.8. Draw chart describing the for surveillance procedure of COVID-19 virus infection - c9. Calculate measures of central tendency and measures of dispersion
D-General and transferable Skills	- d1. Criticize indicators of health and disease - d2. Identify prevalent health problems in a community, using various epidemiological strategies - d3. Articulate in investigation of an epidemic/outbreak as part of a health team - d4. Identify trends in health and disease - d5. Use appropriate health promotion, disease prevention, and control measures - d6. Use disease prevention and control measures to identified priority communicable and non-communicable diseases - d7. Take part in conducting public health surveillance.

4.Course Contents

Topic	No. of hours	Lecture	Tutorial/Practical

General Epidemiology - Determinants of health and diseases - Prevention and control - Investigations of outbreak - Surveillance - Emerging diseases - Neglected tropical diseases	12 hours for lectures 6 hour for practical	2 hr. / week	1 hour / weeks
Demography -Basics of demography and population pyramids -Population problem	4 hours for lectures 2 hours for practical	2 hr. / week	1 hour / weeks
Medical Statistics -Sampling and normal distribution curves -Measures of central tendency and deviation -Data presentation and tests of significance -Introduction to research , research terminology -Study design , different types of stydy	6 hours lectures 3 hours practical	2 hours / week	1 hours / week
Epidemiology of communicable diseases: (6 per week) - Determiniats of health and diseses - Prevention and control - Emerging diseases - Neglected tropical diseases - Zonotic diseases - Arthropod born infections - Droplet infection - Blood born infections - sexual transmitted infections **Epidemiology of Non comunicable diseases:**	18 hours lectures 9 hours practical	2hours / week	1 hour / week

- Diabetes and hypertention - Cardiovascular diseases - cancer - Accidents. - Smoking			
In Nutrition (4 per week) - ***Introduction and nutrition:*** - Functions of food and nutrition in relation to human beings - Definition of food, nutrition - Planning balance diet - Measurement of energy - Nutritional Elements - Nutrition via the life cycle - Nutritional requirements in infancy, preschool age, school age, adolescence, adult, pregnancy, lactation and geriatric nutrition. - ***Nutritional assessment*** - ***Malnutrition diseases*** - ***Dietitics***	20 hours lectures 10 hours practical	2 hours/week	1 hour / week
Total	**90**	**60**	**30**
5.Teaching and Learning Methods	**Due to COVID-19 pandemic, blended learning approach was adopted that mixes virtual face-to-face interaction activities with the online learning. 60% of study method is offline and 40% of study is online** **Online learning materials are available at Minia University site** 4.1- Lectures: Face to face lectures, Pre-recorded video lectures 4.2- Practical lessons 4.3- Assignment Online quizzes		
6.Teaching and Learning Methods for students with limited Capacity	1-Providing extra lectures and practical sessions. 2-Timing of lectures and practical sessions according to their schedule. 3-Providing lectures and practical sessions in suitable places for them.		
7.**Student Assessment**			

A.Student Assessment Methods	5.1- Research assignment: to assess general transferable skills, intellectual skills. 5.2- Paper based exam: • Short essay: to assess knowledge. • Commentary: to assess intellectual skills. 5.3- Practical Exams: to assess practical skills, intellectual skills. 5.4- Oral Exams: Oral exams to assess knowledge and understanding, attitude, communication 5.5- Structured oral exams: to assess knowledge.
B.Assessment Schedule (Timing of Each Method of Assessment)	Assessment 1: Final written exam week: 24-28 Assessment 2: Oral exam week: 24-28 Assessment 3: Practical exam week: 24-28
C.Weighting of Each Method of Assessment	Final Written Examination 40 % (120 marks) Oral Examination 30 %(90 marks) Practical Examination 30%(90 marks) Total 100%
8.List of References	
A.Course Notes/handouts	Department notes, lectures and handouts, logbook
B.Essential Books	1-Maxy-Rosenau Public health and preventive medicine, Prentice – Hall International Inc.
C.Recommended Text Books	1- Dimensions of Community Health, Boston Burr Ridge Dubuque.10 2- Short Textbook of preventive and social Medicine. Prentice-Hall International Inc. 3- Epidemiology in medical practice, 5th edition. Churchill Livingstone. New York, London and Tokyo.
D.Periodicals, websites	Amercan Journal of Epidemiologyy International Journal of Epidemiology International Journal of Public Health Egyptian Journal of Community Medicine British Journal of Epidemiology and Community Health WWW. CDC and WHO sites

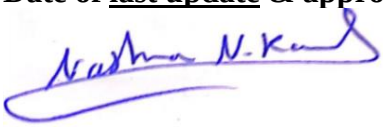
Course Coordinators:

Dr Shimaa Mahmoud

Dr Chrestina Mounir

Head of Department: Prof Dr Nashwa Nabil

Date of last update & approval by department council: 6 /3 /2023



نموذج رقم (١١أ)

جامعة/أكاديمية : المنيا

كلية / معهد: الطب

قسم: الصحة العامة والطب الوقائي

Post-Graduate Course Specifications of Community Medicine for **2nd part MSC** degree	**مسمى المقرر**
Code of program in which the course is involved: PR-200	**كود المقرر**

a. Matrix of Coverage of Course ILOs By Contents

(List of course topics) **Contents**	**Intended Learning Outcomes (ILOs)**			
	A. Knowledge & Understanding	**B. Intellectual Skills**	**C. Professional & Practical skills**	**D. General & Transferable Skills**
	a	**B**	**C**	**d**
General Epidemiology - Determinants of health and diseases - Prevention and control - Investigations of outbreak - Surveillance - Emerging diseases -Neglected tropical diseases	a4	b2	c1,c4,c5	d1,d2,d4,d5,d6
Demography -Basics of demography and population pyramids -Population problem	a7			
Medical statistics -Sampling and normal distribution curves -Measures of central tendency and deviation -Data presentation and tests of significance -Introduction to research, research terminology -Study design , different types of stydy	a6,a7	b5	c1,c3,c9	d7

Epidemiology of communicable diseases: 3. Determiniats of health and diseses 4. Prevention and control 5. Emerging diseases 6. Neglected tropical diseases 7. Zonotic diseases 8. Arthropod born infections 9. Droplet infection 10. Blood born infection 11. sexual transmitted infections **Epidemiology of Non comunicable diseases:** 12. Diabetes and hypertention 13. Cardiovascilar diseases 14. Accidents 15. Cancer 16. Smoking	a4,a5	b2	c2,c8	d3
In Nutrition - *Introduction and nutrition:* Functions of food and nutrition in relation to human beings Definition of food, nutrition, calories Planning balance diet Measurement of energy - *Nutritional Elements* - *Nutrition throughout the life cycle* Nutritional requirements in infancy, preschool age, school age, adolescence, adult, pregnancy, lactation and geriatric nutrition. - *Nutritional assessment* - *Malnutrition diseases* - *Dietitics*	a1,a2,a3	b1,b3,b4	c6,c7	d5

B. Matrix of Coverage of Course ILOs by Methods of Teaching & Learning

Methods of Teaching & Learning	Intended Learning Outcomes (ILOs)			
	A. Knowledge & Understanding	B. Intellectual Skills	C. Professional & Practical skills	D. General & Transferable Skills
	A	b	C	D
Lecture	a1-7	b1-5		
Practical			c1-9	
Assignment	a1-7	b1-5	c1-9	d1-7

C. Matrix of Coverage of Course ILOs by Methods of Assessment

Methods of Assessment	Intended Learning Outcomes (ILOs)			
	A. Knowledge & Understanding	B. Intellectual Skills	C. Professional & Practical skills	D. General & Transferable Skills
	a	b	C	D
Written exam	a1-7	b1-5		
Practical exam (OSPE)			c1-9	
Oral Exam				d1-7

Test blueprint for 1st part Medical Parasitology of public health master written paper examination

Topic	Hour	% of topic	Total No. of items	Written exam		Marks	Modified marks
				Knowledge (marks)	Intellectual (marks)		
General Epidemiology	12	20%	2	12	12	24	24
Demography	4	6.7%	2	8.04		8.04	8
Medical statistics	6	10%	3	8	4	12	12
Epidemiology of communicable and non-communicable diseases	18	30%	3	24	12	36	36
Nutrition	20	33.3%	6	20	20	40	40
Total	60	100				120	120

Annex VII: Course Specifications of

Medical Parasitology (Second part) For MSC Degree in Medical Parasitology

University: Minia
Faculty: Medicine

Department: Medical Parasitology

1. Course Information		
• **Academic Year/level:** Second part Msc of Medical Parasitology	• **Course Title:** **Medical Parasitology**	**Code of program in which course is involved**: PR-200
• **Number of teaching hours:** **Lectures:** 90 hours; 3 hours/week. **Practical/clinical:** 90 hours; 3 hours/week. **The total number of weeks:** 30 weeks excluding public holidays.		
2. Overall Aims of the course	***By the end of the course the student must be able to:*** **1.** Acquire excellent level of medical knowledge in the Medical Parasitology and be able to correlate it with relevant basic biomedical, clinical, behavioural sciences, clinical sciences, and medical ethics and apply such knowledge scientific practice. **2.** Demonstrate profound awareness by current health problems and recent theories in the Medical Parasitology. **3.** Demonstrate effective communication skills and leadership competencies in different professional situations. **4.** Show appropriate attitudes and professionalism that reflect adherence to credibility and principles of scientific practice. **5.** Demonstrate commitment for lifelong learning and maintenance of competence and ability for continuous	

	medical education in subsequent stages in the Medical Parasitology as well as teaching others.
3. Intended learning outcomes of course (ILOs): Upon completion of the course, the student should be able to:	
A. Knowledge and Understanding	-a1. Outline the main parasites affecting human beings all over the world and zoonoses. -a2. Discuss the geographical distribution, morphological basis, and life cycle of human infected parasites and vectors. -a3. Identify the pathology, clinical symptoms and complications of each parasite and parasitic immunity bases -a4. Identify the laboratory diagnosis needed for parasitic infection. -a5. Outline the drugs and instructions used for treating parasitic infection. -a6. Recognise the control methods used against parasites and vectors. -a7. Recognize host parasite interaction and methods of parasitic evasion
B. Intellectual Skills	-b1. Review and synthesize the literature for thesis based research -b2. Outline a clear set of research objectives, research approach methodology. -b3. Interpret clinical data to reach to provisional diagnosis. -b4. Formulate a systematic approach for laboratory diagnosis of common parasitic clinical conditions. -b5. Select the most appropriate tool to the identification of the causative parasite. -b6. Use self-learning skills in solving problems.
C. Professional and Practical Skills	-c1. Master collection, handling, and preparation of specimens for testing. -c2. Master preservation, fixation, and staining procedures. -c3. Master Routine diagnostic parasitology procedures including the stool Ova & Parasite exam, preparation and examination of blood films and pinworm swabbing tests, occult blood tests, and examination of urine, sputum, duodenal aspirates, urogenital sites, etc. based on morphological criteria and light microscope. -c4. Use a classification key to identify species of parasites and

	vectors. -c5. Perform special procedures such as parasite culture -c6. Perform some advanced serological diagnostic techniques. -c7. Write and evaluate parasitological reports -c8. Perform appropriate statistics and implement quality control procedures necessary for diagnostic parasitology and research work.
D. General and transferable Skills	-d1. Communicate effectively with colleagues and with professor -d2. Use information technology (web sites, journals and dig libraries) to remain current with advances in knowledge and prac (self-learning). -d3. Follow ethical principles and maintain proper etiquette dealings with others and to respect the other opinion -d4. Maintain competences of leading scientific meeting and skill effective time management.

3. Course Contents

Topic	No. of Hours	Lecture	Practical
Introduction	6 hrs	3hrs	3hrs
Trematoda, Fasciola,Heterophyes, paragonimus, schistosomes, far east trematodes	24hrs	12hrs	12hrs
Cestoda,Diphyllobothrium latum, Taenia spp., Echinococcus, Hymenolepis, Dipylidium	24hrs	12hrs	12hrs

	Nematoda, Ascaris, Trichuris, Enterobius, Ancylostoma, Strongyloides, Capillaria,Trichnella spiralis,Dracunculus,Filari	36hrs	18hrs	18hrs
	Total in the first 15 th week	90 hrs	45 hrs	45 hrs
	Protozoa. Entamoeba histolytica, commensal amoebae, Girdia lamblia, Trichomonas, Balantidium,Heamoflagellate s,Toxoplasma, Malaria, Crypto, Iso, Sarco,Microspora	42hrs	21hrs	21hrs
	Arthropoda, Mosquetoes, Flies, fleas, Lice, Bugs, Ticks, Mites, Cyclops, Scorpion	36hrs	18hrs	18hrs
	Immunity	6 hrs	3hrs	3hrs
	Laboratory Technique	6 hrs	3hrs	3hrs
	Total in the second 15th week	90hrs	45hrs	45hrs

4. Teaching and Learning Methods	• Lectures in the form of discussions. • Practical sessions including practical assignments and quizzes • Attending and participating in scientific conferences, worksh and thesis discussion to acquire the general and transferable skills needed. • Asynchronous learning: Recorded lectures using social media platform (Telegram)
5. Teaching and Learning Methods for students with limited Capacity	• Special sessions to explain any difficult part for students. • Different schedule according to their ability • Providing lectures in places suitable for their ability.
6. Student Assessment	

A. Student Assessment Methods	• **Paper-based exam:** to assess the capability of the student assimilation and application of the knowledge included in course. • **Oral exam:** to assess the student intellectual and communica abilities regarding basic knowledge and understanding of course topics, and to help the teaching staff. • **OSPE:** To assess ability of the student for applying informa studied in the course in diagnosis and drawing of diffe microscopic and projector slides.
B. **Assessment Schedule:** Exam are set twice a year April and September.	• **Assessment 1:** 2 Paper-based exams. • **Assessment 2:** OSPE exam. • **Assessment 3:** Oral exam, after the Written exam
C. Weighting of Each Method of Assessment	• **Paper-based exam**: 280 40% • **OSPE examination:** 280 40% • **Oral examination:** 140 20% • **Total** 100%
7. List of References	
A. Course Notes/handouts	Department book by staff members of Medical Parasitology department
B. Essential Books	• Basic Clinical Parasitology (Brown HW. Basic clinical parasitology. Basic clinical parasitology.. 1969(Edn 3). • Markell and vogue's (John DT, Petri WA. Markell and Voge medical parasitology-e-book. Elsevier Health Sciences; 2006 27). • Atlas of medical helminthology Chiodini PL, Moody AH, Manser DW. Atlas of medical helminthology and protozoolog Churchill Livingstone; 2001.
C. Recommended Textbooks	• Lippincott Illustrated Reviews: Integrated Systems • Integrated Medical Sciences - The Essentials • Oxford Handbook of Medical Sciences
D. Periodicals, websites	• http://www.parasitology-world.com • Egyptian J of parasitology • Parasitologists United journal

Coordinator:

- Prof. Dr Azza Kamal Ahmed
- Dr. Manar Mostafa Nagi
- Dr. Reham Ahmed Abd-Rabou
- Ass.coordinators
- Ass. Lecturer. Seham Ibrahim Mohamed

Head of Department:

- Prof. Dr Manal Zaki Mohammed

Date of last update & approval by department Council: 6- 3- 2023

نموذج رقم (١١أ)

جامعة/أكاديمية: المنيا
كلية / معهد: الطب

قسم: علم الطفيليات الطبية

Medical Parasitology for Msc Degree in Medical Parasitology	مسمى المقرر
Code of program in which the course is involved: PR-200	كود المقرر

A. Matrix of Coverage of Course ILOs By Contents

Contents (List of course topics)	Week No.	Intended Learning Outcomes (ILOs)			
		A. Knowledge & Understanding	B. Intellectual Skills	C. Professional & Practical skills	D. General & Transferable Skills
		a	b	c	d
1. Introduction		a1, a4			
2. Trematoda		a1,a2,a3,a4,a5,a6	b1, b2, b3, b4,b5, b6, b7	c1,c2, c3,c4, c5,c6, c7, c8	d1, d2, d3, d4
3. Cestoda		a1,a2,a3,a4,a5,a6	b1, b2, b3, b4,b5, b6, b7	c1,c2, c3,c4, c5,c6, c7, c8	d1, d2, d3, d4
4. Nematoda		a1,a2,a3,a4,a5,a6	b1, b2, b3, b4,b5, b6, b7	c1,c2, c3,c4, c5,c6, c7, c8	d1, d2, d3, d4
5. Protozoa		a1,a2,a3,a4,a5,a6	b1, b2, b3, b4,b5, b6, b7	c1,c2, c3,c4, c5,c6, c7, c8	d1, d2, d3, d4
6. Arthropoda		a1,a2,a3,a4,a5,a6	b1,b2, b4,b5, b6	c4, c8	d1, d2, d3, d4

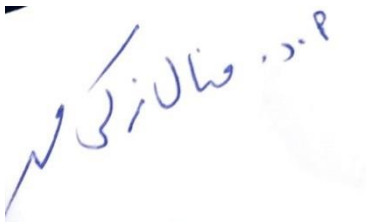
7. Immunity	a7		c6	
8. Laboratory techniques	a4	b3, b4, b5	c1, c2, c3, c5, c6, c7, c8	

A- Matrix of Coverage of Course ILOs by Methods of teaching and learning

Methods of Teaching & Learning	Intended Learning Outcomes (ILOs)			
	A. Knowledge & Understanding	**B. Intellectual Skills**	**C. Professional & Practical skills**	**D. General & Transferable Skills**
	A	**B**	**C**	**D**
Lecture	a1,a2,a3,a4,a5,a6,a7	b1,b2,b3, b4, b5, b6		
Practical			c1, c2, c3, c4,c5,c6,c7, c8,	
Presentation/seminar **Journal club** **Thesis discussion** **Training courses & workshops**				d1, d2, d3, d4

B. Matrix of Coverage of Course ILOs by Methods of Assessment

Methods of Assessment	Intended Learning Outcomes (ILOs)			
	A. Knowledge & Understanding	**B. Intellectual Skills**	**C. Professional & Practical skills**	**D. General & Transferable Skills**
	A	**B**	**C**	**D**
Paper-based exam	a1,a2, a3, a4,a5, a6, a7	b1,b2,b3, b4, b5, b6		
OSPE examination			c1, c2, c3, c4,c5,c6,c7, c8,	
Oral examination	a1,a2, a3, a4,a5, a6, a7	b1,b2,b3, b4, b5, b6,		d1, d2, d3, d4



Test blueprint for Medical Parasitology course Master's degree in Medical Parasitology (2nd part)

Topic	Hour	% of topic	Written exam (240) marks)		Marks	Modified marks
			Knowledge (marks)	Intellectual (marks)		
Introduction	3	3.33%	7.99	--	7.99	8
Trematoda	12	13.34%	16	16.02	32.02	32
Cestoda	12	13.34%	16	16.02	32.02	32
Nematoda	18	20%	24	24	48	48
Protozoa	21	23.33%	27.4	28.4	55.99	56
Arthropoda	18	20%	24	24	48	48
Immunity	3	3.33%	7.99	-	7.99	8
Laboratory Technique	3	3.33%	2	5.99	7.99	8
Total	90	100%				240

Test blueprint for Medical Parasitology OSPE exam of Master's degree in Medical Parasitology (2nd part)

Topic	Hour	% of topic	OSPE exam (200) Marks	Modified marks
Introduction	3	3.33%	6.66	7
Trematoda	12	13.34%	26.86	26.5
Cestoda	12	13.34%	26.86	26.5
Nematoda	18	20%	40	40
Protozoa	21	23.33%	46.66	46
Arthropoda	18	20%	40	40
Immunity	3	3.33%	6.66	7
Laboratory Technique	3	3.33%	6.66	7
Total	90	100%		200

Protocol of OSPE exam of Master's degree in Medical Parasitology (2nd part)

Topic	No of slides/ cards	Method of assessment	Marks
Helminthes	Trematoda: 5	1- Adjust slide 2- Identify the parasite and stage 3- Draw another stage of the same parasite 4- Short assay /MCQ	5 marks /slide
	Cestoda: 5		5 marks /slide
	Nematoda: 7		5 marks /slide
Protozoa	8		5 marks /slide
suspension	1	-Identify the parasites present in it.	
Arthropoda	8		5 marks /slide
Immunity	1 card	1- Identify the apparatus and/ or technique.	7 marks

		2- Short assay about procedure, Adventages or disadvantages	
Laboratory Technique	---	-Perform any of the studied techniques.	7 marks