DEPARTMENT OF MEDICAL MICROBIOLOGY AND PARASITOLOGY
FACULTY OF BASIC CLINICAL SCIENCES
COLLEGE OF HEALTH SCIENCES
OBAFEMI AWOLOWO UNIVERSITY, ILE_IFE, NIGERIA

HANDBOOK
2025/2026

Table of Contents

1. INTRODUCTION AND GENERAL INFORMATION

Medical Microbiology and Parasitology are essential disciplines in medical science, focusing on the causative agents of infectious diseases, their mechanisms of pathogenesis, and approaches for diagnosis, treatment, and prevention. Medical Microbiology and Parasitology provide students with crucial knowledge and hands-on skills, laying the groundwork for training competent, evidence-based physicians and scientists who can operate at internationally recognized standards.

2. HISTORICAL BACKGROUND

The Department of Medical Microbiology and Parasitology was established in 1983 as an independent unit, separating from the former Department of Medical Microbiology and Parasitology, Morbid Anatomy, and Forensic Medicine. Since its inception, the department has been fully operational and is now one of the five departments within the Faculty of Basic Clinical Sciences at the College of Health Sciences.

3. MISSION

(i) To equip undergraduate and postgraduate students with an in-depth knowledge of infectious disease agents.

(ii) To provide undergraduate and postgraduate students with a sound knowledge of the principles and practice of infectious diseases.

(iii) To carry out research on the aetiology, pathogenesis, biology and epidemiology of infectious diseases.

(iv) To apply current advances and knowledge in the diagnosis and management of infectious diseases.

4. VISION

To be a department that builds capacity in training in all branches of Medical Microbiology and Parasitology at both undergraduate and postgraduate levels; To carry out cutting-edge research that will enhance management of infectious diseases.

5. OBJECTIVES

(i) To teach Medical Microbiology and Parasitology so that medical, dental, and postgraduate students can have a good understanding of microorganisms that cause infectious disease with a view to enhancing health care delivery with emphasis on the areas of aetiology, epidemiology, pathogenesis, clinical features, diagnosis, treatment, and prevention of infectious diseases.

(ii) To build the capacity of the department for research activities in bacteriology, parasitology, virology, mycology, and molecular biology.

(iii) To become a centre of excellence and training in Medical Microbiology and Parasitology.

6. ACADEMIC PROGRAMMES

A. Undergraduate programme

Medical Microbiology and Parasitology is taught at the 300 and 400 levels in accordance with CCMAS guidelines for both Medicine (MBChB) and Dentistry (B.Ch.D.) students. The programme is designed to provide medical and dental students with adequate exposure to achieve the stated learning objectives. The disciplines of Microbiology and Parasitology are delivered through courses in Bacteriology, Virology, Mycology, Parasitology, Entomology, and Clinical Microbiology. These areas encompass the study of pathogenic organisms that constitute major public health challenges in tropical and developing settings. Emphasis is placed on understanding the biology of these organisms, including their life cycles, where applicable, before progressing to clinical and applied aspects such as pathogenesis, pathology, clinical manifestations, diagnosis, treatment, and prevention. This structured approach ensures a comprehensive appreciation of disease processes. Teaching methods employed by the Department of Medical Microbiology and Parasitology include lectures, practical laboratory sessions, seminars and tutorials, as well as clinical instruction. Block postings are conducted through structured and planned rotational schedules. Additionally, the department provides essential theoretical and practical instruction to third-year nursing students and fourth-year pharmacy students to round out their clinical education.

I. SUMMARY OF UNDERGRADUATE COURSES

Course Code	**Course Title**	**Unit(s)**	**Status**	**LH**	**PH**
MMP 302	Introductory Microbiology and General Bacteriology	1	C	15	15
MMP 304	General Parasitology	1	C	15	15
MMP 306	General Virology	1	C	15	15
MMP 308	General Mycology	1	C	15	15
MMP 401	Medical Bacteriology	2	C	30	45
MMP 403	Medical Mycology	2	C	30	45
MMP 405	Medical Parasitology	2	C	30	45
MMP 407	Applied Medical Microbiology	2	C	30	45
MMP 402	Medical Virology	2	C	30	45
MMP 404	Medical Entomology	2	C	30	45
MMP 406	Medical Protozoology	2	C	30	15
MMP 408	Medical Helminthology	2	C	30	15
MMP 410	Microbial Genetics	2	C	30	15
Total Number of Units		**22**		**330**	**345**

II. COURSE DESCRIPTION

MMP 302: Introductory Microbiology and General Bacteriology (1 Unit C: LH 15; PH 15)

History and scope of Microbiology. Bacteria structure and function. Mode of transmission of infectious disease. Nature and classification of bacteria of medical importance. Mechanisms of pathogenicity and virulence. Microbial metabolism and cultivation. Defence mechanisms

against bacteria. The process of bacterial destruction (sterilisation and disinfection). The normal flora of the human body.

MMP 304: General Parasitology (1 Unit C: LH 15; PH 15)

Taxonomy of parasites. Classification of protozoa and helminths of medical importance. Historical development of medical protozoology and helminthology. General properties of Helminths and protozoa. Host/parasite relationship.

MMP 306: General Virology (1 Unit C: LH 15; PH 15)

Basic properties and classification of viruses. Development and cultivation of medically important viruses. Host immune response against viruses. Replication of viruses.

MMP 308: General Mycology (1 Unit C: LH 15; PH 15)

Introduction to medical mycology. Nature and classification of medically important fungi. Mode of reproduction of fungi. General properties of fungi. Host immune response to fungi

MMP 401: Medical Bacteriology (2 Unit C: LH 30 PH 45)

Description and identification of medically important Gram-positive and negative bacteria. Mycobacteria and atypical bacteria. Classification and mode of action of antimicrobial agents. Antibiotic stewardship. Biochemical and genetic basis of antimicrobial resistance

Practical bacteriology. Basic safety procedures in the microbiology laboratory. Staining techniques. Gram's reaction, Ziehl-Nielsen reaction, and spore staining reaction. Use of a light microscope. Cultivation of micro-organisms. Biochemical testing. Slide agglutination tests. Sensitivity testing. MIC.

MMP 403: Medical Mycology (2 Unit C: LH 30 PH 45)

Fungal infections: superficial, subcutaneous, cutaneous, systemic, opportunistic. Laboratory diagnosis of fungal infections

MMP 405: Medical Parasitology (2 Unit C; LH 30; PH 45)

Sources of parasitic infections. Modes of transmission of parasitic infections. Lifecycle of parasites. Pathogenesis of parasitic infections. Laboratory diagnosis of parasitic infections.

Principles of management and control of parasitic infections.

MMP 407: Applied Medical Microbiology (2 Unit C; LH 30; PH 45)

Central nervous system, encephalitis, meningitis, and tetanus. Respiratory tract, mumps, TB, pneumonia, pertussis. Gastrointestinal tract, gastroenteritis, and food poisoning. Genitourinary system, sexually transmitted disease and urinary tract infection, P. I. D. Cardiovascular system, infective endocarditis, rheumatic heart disease. Skin, pyoderma, cellulitis, myiasis, leprosy. Musculoskeletal system, osteomyelitis, abscesses, wound infections and pyomyositis, conjunctivitis, viral vaccines, prophylactic immunization. Pyrexia of unknown origin (PUO). Bacteria/septicaemia (sepsis) Guillain – Barre Syndrome. Reye's Syndrome. Health care-associated infections. HIV/AIDS. Progressive multifocal leukoencephalopathy. Tropical spastic paraparesis.

MMP 402: Medical Virology (2 Unit C; LH 30; PH 45)

Viral Infections. Influenza, poliomyelitis, smallpox, measles, yellow fever, Lassa fever, mumps, rubella, dengue, Herpes I and II, Hepatitis B and C, Ebola, and COVID-19. Practical virology. Serological tests for the identification of viruses. Complement fixation test (CFT), neutralisation test (NT), haemagglutination test (HAT). Cytopathic effect (CPE) in tissue cultures.

MMP 404: Medical Entomology (2 Unit C; LH 30; PH 15)

Introduction to Medical Entomology. Common arthropod vectors of infective agents of medical importance. Practical entomology.

MMP 406: Medical Protozoology (2 Unit C; LH 30; PH 15)

Structure, life cycle and identification of the following protozoa, Plasmodium spp. *Toxoplasma gondii, Cytoisospora hominis and Cytoisospora belli, Entamoeba histolytica* and *Entamoeba gingivalis,* Opportunistic pathogenic Amoeba, Non-pathogenic Amoeba, *Giardia intestinalis, Trichomonas spp. Chilomatixmesnilli, Neobalantidium coli, Trypanosoma spp. Leishmania spp*. Practical Protozoology. Thin and thick films. Staining techniques, Giemsa, Wright's, Field's and Leishman's Stains. Wet mounts and identification of trophozoites, Cysts of *Entamoeba histolytica, Giardia, Trichomonas,* and *Neobalantidium coli.*

MMP 408: Medical Helminthology (2 Unit C; LH 30; PH 15)

Description and identification of the following Helminthes: *Schistosoma spp. Paragonimus westermanii, Fasciolopsis buski, Metagoninus yokogawai, Heterophyes heterophyes, Dicrocoelium spp, Taenia spp. Echinococcus granulosus sensu lato, Hymenolepis nana, Diphyllobothrium latum, Ascaris lumbricoides, Strongyloides stercoralis, Ancylostoma duodenanale, Necator americanus, Enterobius vermicularis, Trichuris trichiura, Wuchereriabancrofti, Loaloa, Brugiamalayi, Dracunculus medinensis, Onchocerca volvulus, Trichinella spiralis.* Practical Helminthology. Wet mounts from stool/urine/sputum. Thin and thick films for identification of microfilaria. Skin snips. Identification of Helminths from tissue biopsy.

MMP 410: Microbial Genetics (2 Unit C; LH 30; PH 15)

Definition of terms: bacterial genetic materials. Genetic Code. Transcription and translation. Mechanism of gene transfer. Transformation. Transduction. Conjugation. Genetic basis of variation. Bacteriophages. Genetic basis of drug resistance.

Seminar topics presented by students during postings.

Infections in immunocompromised patients, Sepsis, Respiratory tract infections, Zoonoses, Sexually transmitted infections, Gastrointestinal infections, Viral hepatitis, Antibiotic stewardship, Urinary tract infections, Healthcare-associated infections, Central nervous system infections, Skin and soft tissue infections, Viral hemorrhagic fevers.

Laboratory posting at Medical Microbiology Laboratory, OAUTHC

Students during rotation are engaged in the Medical Microbiology Laboratory in the hospital, where they observe and participate in the practical work.

III. ASSESSMENTS/ EXAMINATIONS

1. End of Posting Examination: Last Thursday of the four-week posting (9.00 am-10.00 am)
   Theory only (Periodic Assessment- 5% of overall assessment)
2. Practical Assessment/Examination: Last Friday of the four-week posting (Periodic Assessment – 5% of overall assessment)
3. In-Course Theory: Medical Microbiology/Parasitology (Five Questions with 4 to 5 subunits each to be administered to all students at once): At the end of eight and a half (8 ½ months) into the posting; six (6) weeks into the final examination- One and a half hours- 10% of overall assessment.
4. In-Course Multiple Choice Questions, MCQs: (160 MCQs with 4 stems each to be administered to all students at once): At the end of eight and a half (8 ½ months) into the posting; six (6) weeks into the final examination- One and a half hours- 10% of overall assessment
5. In-Course Practical Assessment: (Ten Practical Performance Stations and Ten Slide shows of Practical Questions, to be administered to all students at once): At the end of eight and a half (8 ½ months) into the posting, six (6) weeks into the final examination- One and a half hours- 5% of overall assessment
6. Final/Main Exam Theory: Covering all aspects of Medical Microbiology (Five Questions with 4 to 5 subunits each to be administered to all students at once): At the end of eleven (11) months- One and a half hours- 50% of overall assessment
7. Final/Main Examination Multiple Choice Questions, MCQs: (100-120 MCQs with 4 stems each to be administered to all students at once): At the end of eleven (11) months into the posting- One and a half hours- 50% of the overall assessment
8. Final/Main Oral Examination- 10% of overall assessment

B. Postgraduate Programmes

I. Introduction

The department also runs postgraduate programmes designed to address the growing demand for specialists in teaching, service delivery, and research across medical, public health, environmental, industrial, and research institutions. The programmse offer a balanced and integrated training framework that combines a strong foundation in the fundamental biology, biochemistry, and physiology of pathogens with rigorous instruction in qualitative and quantitative research methodologies. Graduates of each specialization are equipped to apply their expertise to the diagnosis, management, and prevention of diseases caused by the respective microbes and parasites.

II. Postgraduate Programmes offered

(a) Master of Science (M.Sc.) Medical Microbiology or Medical Parasitology,

(b) Master of Philosophy (M.Phil.) Medical Microbiology or Medical Parasitology

(c) Doctor of Philosophy (Ph.D) Medical Microbiology or Medical Parasitology

III. Objective

The programmes offered in the department are balanced and an integrated postgraduate training scheme that combines the acquisition of knowledge of the fundamental biological principles of pathogens, their biochemistry and physiology with research methodology involved in their qualitative and quantitative study.

It places heavy emphasis on the acquisition of knowledge in the pathobiological, biomedical and ecological principles as well as competence in the methodology of medical bacteriology, virology, mycology, protozoology, helminthology and entomology.

The graduate in each area of specialization shall be able to use his knowledge in the investigation and evaluation of diseases caused by the respective microbes and parasites.

The graduate shall further be able to function and cooperate successfully with other members of a health team in any of the institutions mentioned in the introduction.

The graduate shall be able to critically analyze and interpret results of research undertakings and or those of clinical diagnostic findings.

IV. Admission Requirements

(i) M.Sc. Programme

(a) Admission

Candidates who have obtained the degree of Bachelor of Science with at least a Second Class (Lower Division) of the Obafemi Awolowo University Ile-Ife or of another approved university in

(i) The relevant Basic Medical Sciences such as Medical Microbiology, Medical Parasitology,
Immunology

(ii) Biochemistry, Microbiology, Zoology/Biology

(iii) Graduates with MB.Ch.B., B.ChD. DVM

(iv) B. Pharm.

May be admitted and registered as candidates for the degree of Master of Science.

(ii) M.Phil. Programme

Candidates who have obtained M.Sc degree from Obafemi Awolowo University in Microbiology, Medical Microbiology, Medical Parasitology, Zoology whose weighted course average is below (B+) may be admitted directly to the M.Phil. programme. In accordance with the university's regulation, candidates from other approved universities whose M.Sc. programme does not cover all the required courses, such candidates must make up such deficiencies by enrolling for the M.Phil. programme.

(a) Minimum Course Requirement for M.Sc and M.Phil. Programme

The course load required of all candidates will be a minimum of 24 units of which a minimum of 18 units must be from the core courses of the degree programmes, including the thesis (6 units), the seminar course (1 unit), Research Methodology and Principles of Scientific Writing (2 units) all of which shall be compulsory for all candidates. Courses amounting to not more than 9 units may be elected from those offered in other Departments in the College of Health Sciences or in any Faculty of the University upon approval by the supervisor.

(b) Thesis

A thesis which will carry 6 units is required of all candidates. The thesis is expected to be based on original research on a topic chosen in consultation with the student's supervisor, and approved by the Board of Postgraduate School.

Minimum Period of Study:
The minimum period of study for the M.Sc. degree shall be 18 calendar months.

M.Sc. Examinations:
Assessment of a candidate for the M.Sc. degree will be based upon:

(i) Course work/written examinations:

Successful performance with an average grade of B or better in all course examinations both in the core and elective courses must be achieved. Other requirements are as stipulated by university regulations in examinations:

(ii) Thesis

This shall consist of a written report of research work carried out in the Department and oral examination. The student's adviser (supervisor) wil recommend to a thesis committee which must consist of at least three persons one of whom must be from outside the department from which work is being carried out. The composition of the committee members as well as she thesis title must be approved by the Board of Postgraduate College.

(b) Maximum Period of Study:

A full-time candidate must complete the requirements for the M.Sc. degree in 8 semesters as required by the university's regulations. Candidates must complete the M.Phil degree in 6 semesters. Candidate who fails to do so shall not be permitted to continue with the programme. This is subject to the Postgraduate college regulations.

(iii) **Ph.D. Programme**

(a) ***Admission***

Candidates who have obtained M.Sc or M.Phil degree from Obafemi Medical Parasitology, Zoology/Biology may be admitted directly to the Ph.D Programme. In accordance with the university's regulation, candidates from other approved universities whose M.Sc. programme does not cover all the required courses, such candidate must make up such deficiencies by first enrolling for the M.Phil.

programme before commencing the Ph.D. programme. The M.Sc. degree of prospective candidates must be with research thesis and a weighted course average which shall not be less than (B+).

(b) ***Minimum Course Requirement***

The course load requirements for the Ph.D degree by all candidates who may not have gone through the M.Sc. programme as outlined above is a minimum of 12 units which shall be made up of the thesis (6 units), core and elective courses from the prescribed list.

Candidates who have not taken course MMP 710 and MMP 720, will be required to take this at the level of the Master's degree.

c) Minimum Time Required

The minimum period of study of the Ph.D Degree shall normally be 4academic semesters of full-time investigation and completion of course work beyond the level of the Master's degree.

(d) Qualifying Examination

A candidate shall sit for and pass a qualifying examination within the first year of registration in accordance with the university regulations.

(e) Examination

Assessment of a candidate for the Ph.D degree will be as follows:

(i) The submission of an approved thesis shall include a detailed report of relevant research work done on the project of investigation

(ii) A successful oral defence of the above thesis

(f) Thesis and Final Examinations

Thesis shall be carried out in accordance the University regulation.

(g) Maximum Period of Study

A candidate must complete the requirement for the Ph.D degree within a period of six semesters from the time of registration; otherwise, he shall not be permitted to continue with the programme.

Electives

Students will have the opportunity to select elective courses in the approved postgraduate programmes of the College of Health of Sciences or other Faculties in the Obafemi Awolowo University Ile-Ife. The Student's adviser will guide the selection of appropriate courses.

Original Research Projects

Students may select original research problems from ongoing and newly developed work in a wide range of bacterial, viral fungal, protozoal, helminthic and entomological projects. Special emphasis shall be placed on areas of relevance to the local environment. A list of current research interests in the Department and related

Departments with the Faculty and the University will be published from time to time for the information and guidance of students.

(v) List of approved courses

(a). Master of Science in Medical Microbiology (M. Sc.)

First Semester (Harmattan) Courses

Course Code	**Units**	**Course Title**	**Remarks**
MMP 800	3	Principles and Clinical Aspects of Bacterial Infections	Compulsory
MMP 802	3	Principles and Clinical Aspects of Viral Infections	Compulsory
MMP 826	3	Viral Oncogenesis	Elective
BCH 810	3	Immunochemistry	Elective
BCH 806	3	Advanced Molecular Biology	Elective
BCH 804	2	Advances in Enzymology	Elective
MIC 809	3	Advanced Bacterial Genetics	Elective
PHC 801	4	Chemistry of Natural Drug Products and Newer Synthetic Drugs	Elective
PUH 801	3	Fundamentals of Epidemiology	Elective
PUH 802	3	Biostatistics and Research Methodology	Elective
IMM 807	3	Parasitism, Infection and Immunity	Elective

Second Semester (Rain) Courses

Course Code	**Units**	**Course Title**	**Remarks**
MMP 801	3	Advanced Medical Mycology	Compulsory
MMP 810	1	Seminar Course	Compulsory
MMP 820	2	Research Methodology and Principles of Scientific Writing	Compulsory
MMP 827	3	Microbial Genetics and Bioinformatics	Elective
MMP 825	3	Biochemistry of Viral Replication	Elective
MIC 801	3	Advanced Microbial Physiology	Elective
MIC 807	3	Advanced Immunology	Elective
BCH 809	2	Current Topic in Cellular Regulation	Elective
PCL 891	2	Biological Membranes and Enzymology	Elective
ANA 801	3	Cytology and Histology	Elective
ANA 803	2	Electron Microscopy	Elective
MMP 850	6	MSc (Thesis)	Compulsory

Total Minimum of Course Units Required to Graduate

<table>
<tr><th>Session</th><th colspan="2">Compulsory</th><th colspan="2">Electives</th><th>Total Units</th></tr>
<tr><td rowspan="3">1st</td><td>Harmattan</td><td>Rain</td><td>Harmattan</td><td>Rain</td><td rowspan="3">24</td></tr>
<tr><td>6</td><td>12</td><td>3</td><td>3</td></tr>
<tr><td colspan="2">18</td><td colspan="2">6</td></tr>
<tr><td>2nd</td><td colspan="5">Harmattan: Proposal/Seminar Stage of Thesis</td></tr>
</table>

	Rain: Thesis Defence/Oral Examination

(b). Master of Philosophy in Medical Microbiology (M. Phil.)

First Semester (Harmattan) Courses

Course Code	**Units**	**Course Title**	**Remarks**
MMP 800	3	Principle and Clinical Aspects of Bacterial Infections	Compulsory
MMP 802	3	Principles and Clinical Aspects of Viral Infections	Compulsory
MMP 826	3	Viral Oncogenesis	Elective
BCH 810	3	Immunochemistry	Elective
BCH 806	3	Advanced Molecular Biology	Elective
BCH 804	2	Advances in Enzymology	Elective
MIC 809	3	Advanced Bacterial Genetics	Elective
PHC 801	4	Chemistry of natural drug products and newer synthetic drugs	Elective
PUH 802	3	Fundamentals of Epidemiology	Elective
IMM 807	3	Biostatistics and Research Methodology Parasitism, Infection and Immunity	Elective

Second Semester (Rain) Courses

Course Code	**Units**	**Course Title**	**Remarks**
MMP 801	3	Advanced Medical Mycology	Compulsory
MMP 810	1	Seminar Course	Compulsory
MMP 820	2	Research Methodology and Principles of Scientific Writing	Compulsory
MMP 827	3	Microbial Genetics and Bioinformatics	Elective
MMP 825	3	Biochemistry of Viral Replication	Elective
MIC 801	3	Advanced Microbial Physiology	Elective
MIC 807	3	Advanced Immunology	Elective
BCH 809	2	Current Topic in Cellular Regulation	Elective
PCL 891	2	Biological Membranes and Enzymolog	Elective
ANA 801	3	Cytology and Histology	Elective
ANA 803	2	Electron Microscopy	Elective
MMP 850	6	MPhil (Thesis)	Compulsory

Total Minimum of Course Units Required to Graduate

Session	**Compulsory**		**Electives**		**Total Units**
1st	Harmattan	Rain	Harmattan	Rain	24
	6	12	3	3	
	18		6		
2nd	Harmattan: Proposal/Seminar Stage of Thesis				
	Rain: Thesis Defence/Oral Examination				

(c). Doctor of Philosophy in Medical Microbiology (PhD)

First Semester (Harmattan) Courses

Course Code	**Units**	**Course Title**	**Remarks**
MMP 921	4	Pathogenesis of Microbial Infections	Compulsory
MMP 923	3	Chemotherapy of Microbial Infections	Compulsory
MMP 826	3	Viral Oncogenesis	Elective
BCH 810	3	Immunochemistry	Elective
BCH 806	3	Advanced Molecular Biology	Elective
BCH 804	2	Advances in Enzymology	Elective
MIC 809	3	Advanced Bacterial Genetics	Elective
PHC 801	4	Chemistry of Natural Drug Products and Newer Synthetic Drugs	Elective
PUH 801	3	Fundamentals of Epidemiology	Elective
PUH 802	3	Biostatistics and Research Methodology	Elective
IMM 607	3	Parasitism, Infection and Immunity	Elective

Second Semester (Rain) Courses

Course Code	**Units**	**Course Title**	**Remarks**
MMP 810	1	Seminar Course	Compulsory
MMP 820	2	Research Methodology and Principles of Scientific Writing	Compulsory
MMP 827	3	Microbial Genetics and Bioinformatics	Elective
MMP 825	3	Biochemistry of Viral Replication	Elective
MIC 801	3	Advanced Microbial Physiology	Elective
MIC 807	3	Advanced Immunology	Elective
BCH 809	2	Current Topic in Cellular Regulation	Elective
PCL 891	2	Biological Membranes and Enzymology	Elective
ANA 801	3	Cytology and Histology	Elective
ANA 803	2	Electron Microscopy	Elective
MMP 970	6	PhD (Thesis)	Compulsory

Total Minimum of Course Units Required to Graduate

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<tr><td>7</td><td>9</td><td>3</td><td>3</td></tr>
<tr><td colspan="2">16</td><td colspan="2">6</td></tr>
<tr><td>2nd</td><td colspan="5">Harmattan: Proposal/Seminar Stage of Thesis</td></tr>
<tr><td></td><td colspan="5">Rain: Thesis Qualifying</td></tr>
<tr><td>3rd</td><td colspan="5">Harmattan: Thesis Post-field</td></tr>
<tr><td></td><td colspan="5">Rain: Thesis Defence/Oral Examination</td></tr>
</table>

(d). Master of Science in Medical Parasitology (M. Sc.)

First Semester (Harmattan) Courses

Course Code	**Units**	**Course Title**	**Remarks**
MMP 803	3	Principles and Clinical Aspects of Protozoal Infections	Compulsory
MMP 805	3	Advanced Parasitology	Compulsory
BCH 810	3	Immunochemistry	Elective
BCH 806	3	Advanced Molecular Biology	Elective
BCH 804	2	Advances in Enzymology	Elective
MIC 809	3	Advanced Bacterial Genetics	Elective
PHC 801	4	Chemistry of Natural Drug Products and Newer Synthetic Drugs	Elective
PUH 801	3	Fundamentals of Epidemiology	Elective
PUH 802	3	Biostatistics and Research Methodology	Elective
IMM 807	3	Parasitism, Infection and Immunity	Elective

Second Semester (Rain) Courses

Course Code	**Units**	**Course Title**	**Remarks**
MMP 804	3	Principles and Clinical Aspects of Helminthic Infections	Compulsory
MMP 806	3	Advanced Medical Entomology	Compulsory
MMP 810	1	Seminar Course	Compulsory
MMP 820	2	Research Methodology and Principles of Scientific Writing	Compulsory
MMP 824	3	Advanced Ecology of Transmission of Parasitic Diseases	Elective
MMP 807	3	Advanced Parasite Immunology	Elective
MMP 827	3	Microbial Genetics and Bioinformatics	Elective
MIC 801	3	Advanced Microbial Physiology	Elective
MIC 807	3	Advanced Immunology	Elective
BCH 809	2	Current Topic in Cellular Regulation	Elective
PCL 891	2	Biological Membranes and Enzymology	Elective
ANA 801	3	Cytology and Histology	Elective
ANA 803	2	Electron Microscopy	Elective
MMP 850	6	MSc (Thesis)	

Total Minimum of Course Units Required to Graduate

Session	**Compulsory**		**Electives**		**Total Units**
1st	Harmattan	Rain	Harmattan	Rain	24
	6	15	3	0	
	21		3		
2nd	Harmattan: Proposal/Seminar Stage of Thesis				
	Rain: Thesis Defence/Oral Examination				

(e). Master of Philosophy in Medical Parasitology (M. Phil.)

First Semester (Harmattan) Courses

Course Code	**Units**	**Course Title**	**Remarks**
MMP 803	3	Principle and Clinical Aspects of Protozoal Infections	Compulsory
MMP 805	3	Advanced Parasitology	Compulsory
BCH 810	3	Immunochemistry	Elective
BCH 806	3	Advanced Molecular Biology	Elective
BCH 804	2	Advances in Enzymology	Elective
MIC 809	3	Advanced Bacterial Genetics	Elective
PHC 801	4	Chemistry of natural drug products and newer synthetic drugs	Elective
PUH 801	3	Fundamentals of Epidemiology	Elective
PUH 802	3	Biostatistics and Research Methodology	Elective
IMM 807	3	Parasitism, Infection and Immunity	Elective

Second Semester (Rain) Courses

Course Code	**Units**	**Course Title**	**Remarks**
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MMP 806	3	Advanced Medical Entomology	Compulsory
MMP 810	1	Seminar Course	Compulsory
MMP 820	2	Research Methodology and Principles of Scientific Writing	Compulsory
MMP 824	3	Advanced Ecology of Transmission of Parasitic Diseases	Elective
MMP 807	3	Advanced Parasite Immunology	Elective
MMP 827	3	Microbial Genetics and Bioinformatics	Elective
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BCH 809	2	Current Topic in Cellular Regulation	Elective
PCL 891	2	Biological Membranes and Enzymology	Elective
ANA 801	3	Cytology and Histology	Elective
ANA 803	2	Electron Microscopy	Elective
MMP 850	6	MPhil (Thesis)	

Total Minimum of Course Units Required to Graduate

Session	**Compulsory**		**Electives**		**Total Units**
1st	Harmattan	Rain	Harmattan	Rain	24
	6	15	3	0	
	21		3		
2nd	Harmattan: Proposal/Seminar Stage of Thesis				
	Rain: Thesis Defence/Oral Examination				

(f). Doctor of Philosophy in Medical Parasitology (PhD)

First Semester (Harmattan) Courses

Course Code	**Units**	**Course Title**	**Remarks**
MMP 930	4	Immunopathology of Parasitic Diseases	Compulsory
MMP 923	3	Chemotherapy of Microbial Infections	Elective
MMP 826	3	Viral Oncogenesis	Elective
BCH 810	3	Immunochemistry	Elective
BCH 806	3	Advanced Molecular Biology	Elective
BCH 804	2	Advances in Enzymology	Elective
MIC 809	3	Advanced Bacterial Genetics	Elective
PHC 801	4	Chemistry of Natural Drug Products and Newer Synthetic Drugs	Elective
PUH 801	3	Fundamentals of Epidemiology	Elective
PUH 802	3	Biostatistics and Research Methodology	Elective
IMM 807	3	Parasitism, Infection and Immunity	Elective

Second Semester (Rain) Courses

Course Code	**Units**	**Course Title**	**Remarks**
MMP 810	1	Seminar Course	Compulsory
MMP 820	2	Research Methodology and Principles of Scientific Writing	Compulsory
MMP 840	3	Chemotherapy of Parasitic Infections	Compulsory
MMP 827	3	Microbial Genetics and Bioinformatics	Elective
MMP 825	3	Biochemistry of Viral Replication	Elective
MIC 801	3	Advanced Microbial Physiology	Elective
MIC 807	3	Advanced Immunology	Elective
BCH 809	2	Current Topic in Cellular Regulation	Elective
PCL 891	2	Biological Membranes and Enzymology	Elective
ANA 801	3	Cytology and Histology	Elective
ANA 803	2	Electron Microscopy	Elective
MMP 970	6	PhD (Thesis)	Compulsory

Total Minimum of Course Units Required to Graduate

Session	**Compulsory**		**Electives**		**Total Units**
1st	Harmattan	Rain	Harmattan	Rain	22
	4	12	3	3	
	16		6		
2nd	Harmattan: Proposal/Seminar Stage of Thesis				
	Rain: Thesis Qualifying				
3rd	Harmattan: Thesis Post-field				
	Rain: Thesis Defence/Oral Examination				

(vi) Course Description

MMP 800: Principle and clinical aspects of bacterial infections (3 Credit units)

Application of bacteriological techniques to the diagnosis of human bacterial infections. Underlying principles of the host-parasite relationship will be emphasized. The laboratory work will be extensive, including biotechnology principles.

MMP 801: Advanced Medical Mycology (3 Credit units)

Characteristics of medically important fungi. Isolation, identification, epidemiology and role in infection. Immunological reaction in mycoses and the physiology of parasitism as it applies to fungi-emphasis on those commonly encountered in infection in the tropics

MMP 802: Principles and Clinical Aspects of Viral Infections (3 Credit units)

The course is designed to provide students with fundamental concepts of virology. Viral classification, replication, immunology, oncogenicity and pathogenesis, virus-host interactions at the cellular and molecular levels, as these are related to disease causation and control, are stressed. The role of antiviral agents, particularly interferons, will be detailed.

MMP 803: Principle and Clinical Aspects of Protozoal Infections (3 Credit units)

Clinical diagnostic methods requiring confirmatory procedures involving proper collection, direct demonstration and unequivocal identification of aetiologic agents of protozoal diseases will be presented.

MMP 804: Principles and Clinical aspects of helminthic infections (3 Credit units)

The course teaches the geographical distribution and life cycle of various human helminth parasites, mentioning the pathogenic stages. It then highlights the inducible pathological and clinical (symptomatological) manifestations. Further is the consideration of diagnosis and control strategies, which include prevention and treatment, surgically and or chemotherapeutically.

MMP 805: Advanced Parasitology (3 Credit units)

The course highlights the nature of symbiosis, parasitism and parasites, Biomedical concepts related to pathogenesis, diagnosis and treatment of parasitic infection. The course gives a sound insight into the biology and control of parasites.

MMP 806: Advanced Medical Entomology (3 Credit units)

The course covers medically important arthropods which are vectors of pathogenic agents or which cause disease directly. Their role in infections, as well as studies of the ecosystem and methods of maintenance of selected colonies, will be highlighted. Experimental laboratory projects will supplement lectures.

MMP 807: Advanced Parasite Immunology (3 Credit units)

The course will illustrate the mechanisms involved in immune responses against the parasite organism. It will attempt to trace the complex sequences of events involving a wide variety of defence mechanisms of the body. Topics will include the mechanism of the parasite's immunity response by parasite.

MMP 810: Seminar Course in Medical Microbiology/Medical Parasitology (1 Credit unit)

The course requires a candidate to present at least a seminar and contribute a written paper on selected research topics in any of Medical Bacteriology, Virology, Mycology, Protozoology, Helminthology or Entomology.

MMP 820: Research Methodology and Principles of Scientific Writing (2 Credits units)

Designed to provide understanding and familiarity with a variety of modern methods used to solve problems in basic medical (sciences) research. Students will be guided through a critical discussion of scientific methodology involving deductive and inductive research, principles and style of scientific writing (including research grant application) as well as conceptualization of research problems.

MMP 824: Advanced Ecology of Transmission of parasitic diseases (3 Credit units)

This course covers the mechanisms, patterns and dynamics of the spread of parasitic disease and persistence. The role of parasites in ecosystem functioning.

MMP 825: Biochemistry of Viral Replication (3 Credit units)

The course covers the biology of viruses and the biochemistry of viral infection. The biochemical mechanisms for entry and multiplication of medically important RNA and DNA viruses, and disease mechanisms of viruses.

MMP 826: Viral Oncogenesis (3 Credit units)

An introduction to the recent concepts and techniques in virus and cancer research. The course is oriented to uncovering the relationships and differences between normal and neoplastic cell division as induced by viruses and viral agents or products of host parasite relationship

MMP 827: Microbial Genetics and Bioinformatics (3 Credit units)

An introduction to the recent concepts and techniques in virus and cancer research. The course is oriented to uncovering the relationships and differences between normal and neoplastic cell division as induced by viruses and viral agents or products of host-parasite relationship.

MMP 850: M.Sc. Thesis (6 Credit units)

All MSc students will be required to submit theses that are related to either Medical Microbiology or Medical Parasitology

MMP 921: Pathogenesis of Microbial Infections (4 Credit units)

A detailed study of bacterial, viral, fungal, rickettsial, chlamydial and mycoplasmal infections of man and those transmitted to and through animals and other vectors. The unifying factor of those is the host-parasite interaction, stressing the pathophysiological mechanism by which infectious agents produce diseases and the mechanism by which the host interacts. Biological characteristics of agents, Immunology and general clinical features of specific infections and diseases, and aspects of chemotherapy and control of infections will be detailed. The course will be complemented with relevant laboratory work.

MMP 923: Chemotherapy of Microbial Infections (2 Credit units)

Application of appropriate, formulated chemical compounds in the interruption of disease processes, based on the knowledge of the physiology of both the aetiologic agent and its host. There will be lectures on experimental trials using laboratory animals and seminars.

MMP 930: Immunopathology of parasitic diseases (3 Credit units)

This course will attempt to illustrate the immunopathologic spectrum that results as a consequence of parasitic infection or infestation. Dissimilar parasitic diseases such as Filariasis, Schistosomiasis, Leishmaniasis, Trypanosomiasis, etc. would be used to illustrate the immunopathology in these diseases, and by analogy, most other parasitic diseases.

MMP 940: Chemotherapy of Parasitic Infections (3 Credit units)

This course will focus on examples of peculiar biochemical and cell biological properties of parasites that are targets for chemotherapy. It will also examine, as best as possible, the evidence for the existence of these differences between host and parasites and the evidence for the explanation of the chemotherapeutic action of the agents designed to exploit these differences.

MMP 970: Thesis (PhD) (6 Credit units)

All PhD students will be required to submit theses that are related to either Medical Microbiology or Medical Parasitology.

7. Past Heads of Department

S/N	Name	Period of service
1.	I. A. Elegbe	1983
2.	J.O. Simaren	1983-1984, 1985-1989
3.	B. A. Williams	1984
4.	M. O. Paul	1984-1985
5.	A. O. Oyelese	1988-2000, 2003-2005
6.	A. O. Onipede	2000-2002, 200-2006, 2008-2012, 2015-2017
7.	A. O. Aboderin	2002-2003, 2006-2008, 2012-2015, 2020-2024
8.	B. O. Olopade (Mrs.)	2018-2020

8. LIST OF STAFF

(i) Academic Staff

S/N	Name	Status	Qualifications	Research Interests and activities
1.	B. W. Odetoyin	Reader and Head	B.Tech. Akure. 2001; MSc., Ile-Ife, 2006; PhD., Ile-Ife, 2011	Antimicrobial resistance, Bacterial pathogenesis, Molecular epidemiology of resistant bacteria, enteric infections, One Health
2.	A. O. Aboderin	Professor	B.Sc., Ile-Ife 1984; MBCHB, Ile-Ife 1989; FMCPath 1998; M.Sc. Ile-Ife, 2003 FRCPath., 2020	Infection management, antimicrobial stewardship, surveillance of antimicrobial resistance and healthcare associated infections
3.	A. O. Onipede	Professor	B.Sc., Ile-Ife 1985; MBCHB, Ile-Ife 1988; FWACP; 1997 M.Sc. Ile-Ife. 1997	Mycobacterial infections, Healthcare associated infections, bloodstream infections, HIV, antimicrobial resistance, sexually transmitted diseases, One Health and Biosecurity
4.	B. O. Olopade (Mrs.)	Senior Lecturer	MBBS, Ogbomoso; 2003; MSC, Ile-Ife; 2014; FMCPath., 2014	Neglected tropical diseases, opportunistic parasites in various settings, Infection in immunocompromised hosts, Infection control, malaria
5.	R.T Ikpe	Lecturer II	BSc., Makurdi, 2014, MSc., Ilorin, 2019, PhD., Ilorin, 2024	Genetic basis of drug resistance in plasmodium species, Mathematical modelling of helminth transmission among endemic populations

ii. Technical Staff

S/N	Name	Status	Qualifications
1.	O. Olaniran	Asst. Chief Technologist	HND 1998; AMLS 2002; FMLS 2004; PGD 2004
2.	O.F. Fatunase	Technologist II	BMLS., Ogbomoso, 2012
3.	P. Daniel	Assistant Principal Technologist	OND, Iree, 2008
4.	D. Falola	Laboratory assistant	BSc., Oye-Ekiti, 2024

iii. Administrative Staff

1.	B. P. Edward	Executive Officer	Diploma, Ile-Ife, 2013
2.	M. Bigman	Higher Executive Officer	BSc., Jalingo, 2022