



MGM INSTITUTE OF HEALTH SCIENCES

(Deemed University u/s 3 of UGC Act, 1956)

Grade 'A++' Accredited by NAAC

Sector-01, Kamothe, Navi Mumbai - 410 209

Tel 022-27432471, 022-27432994, Fax 022 - 27431094

E-mail : registrar@mgmuhs.com ; Website : www.mgmuhs.com

Logbook for

Doctor of Philosophy

(With effect from 2023-24 Batch Onwards)

Doctor of Philosophy **Medical Microbiology**

Approved as per AC-49/2024, [Resolution no. 4.15, Annexure-46], Dated 25/04/2024

Amended History

1. Approved as per AC-49/2024, [Resolution no. 4.15, Annexure-46], Dated 25/04/2024.

MGM UNIVERSITY OF HEALTH SCIENCES, NAVI MUMBAI

(Established u/s.3 of UGC Act 1956)

Photograph

LOG BOOK FOR PhD MEDICAL MICROBIOLOGY

Name of Course : _____

Name of PhD Scholar : _____

Year of Admission : _____

Date of Joining : _____

Name of the Guide & Mentor : _____

Date of Course work exam : _____

**Date of Ethical Approval of
Dissertation** : _____

Date of Thesis Submission : _____

Terms & Conditions of PhD Program

(As per PhD Ordinance of MGMIHS followed by University Grants Commission (Minimum Standards and Procedures for Award of Ph.D. Degree) Regulations, 2022 and approved in AC-48/2023 dated 12/12/2022 & BOM-77/2022 dated 17/12/2024)

1. Duration of the Program:

1. Ph.D. Program has a minimum duration of three years, including course work, and a maximum duration of six (6) years from the date of admission to the Ph.D. program.
2. A maximum of an additional two (2) years can be given through a process of reregistration as per the Statute/Ordinance of the Higher Educational Institution concerned; provided, however, that the total period for completion of a Ph.D. program should not exceed eight (8) years from the date of admission in the Ph.D. program.
3. Provided further that, female Ph.D. scholars and Persons with Disabilities (having more than 40% disability) may be allowed an additional relaxation of two (2) years; however, the total period for completion of a Ph.D. program in such cases should not exceed ten(10) years from the date of admission in the Ph.D. program.
4. Female Ph.D. Scholars may be provided Maternity Leave/Child Care Leave for up to 240 days in the entire duration of the Ph.D. program.
5. In-house faculty: The regular employee of MGIMHS promote to carryout PhD. Minimum duration of Ph.D. will be one additional year over and above normal prescribed duration of 3 years i.e. 4 years.
6. A candidate shall be required to complete his/her research under the direct supervision of his Supervisor or Research Supervisor. However, a candidate who is a full-time teacher or the person in service, shall be permitted to complete the research work at his college or place of his duty or appointment. In such condition, it shall be mandatory for such teacher candidate or person in Government / Private Service to work at least 180 days in the full tenure of the Ph. D. course, by way of leave / Vacation / deputation, etc. under direct supervision of his Supervisor or research Supervisor before submission of the final thesis. The certificate from the Supervisor or Research Supervisor regarding mandatory attendance of the Ph. D. scholar, along with signature of Head of Institution shall be pre-condition for submission of final thesis through the Institution.

Part-time PhD:

1. The Ph.D. program for part-time will be for minimum Four Year and maximum for Six Year duration.
2. Should have “No Objection” from the parent Institute in which candidate is presently working.
3. The Candidate after registration as Ph.D. Student should spend at least 7 days per month 84 days per year and 366 days in all four years of Ph.D., under direct supervision of the Supervisor at the registered institute. Active Ph.D. Research should be carried out at MGMIHS only. The supportive part of Ph.D. research may be permitted at the place of work of the individual.
4. If the attendance is not fulfilled in a year, the year of Ph.D. will be extended by the number of days equal to shortage of attendance.
5. Six monthly satisfactory research progress approved the Scientific Advisory Committee is mandatory.
6. The Ph.D. Course Work attendance and passing of exam as per the Ph.D. Ordinance is mandatory.

Ph.D. Student Fee and Payments:

1. The students will pay the full tuition fee every year, until the time of submission of Ph.D. Synopsis and submission of final Thesis to the MGMIHS.
2. Ph.D. Fee will be decided and notified by MGMIHS from time to time
3. The prescribed fee shall be paid in full. Part payment of fees shall not be accepted.
4. The admission fee for foreign students shall be inclusive of test for the English Language and Medical Test fees.
5. The In-House Faculty perusing Ph.D. will pay a subsidized fee till submission of Thesis

6. Along with the fee, the student shall submit six monthly progress report of the work done and recommendations by the Research Supervisor.

7. Fees shall be paid by the due date. Non-payment of fees, as scheduled, will require the student to pay late fee of Rs. 500/- for every month of delay. Student whose fee is to be paid by Government/University or any other sponsoring agencies shall be exempt from paying late fees.

8. For re-registration to the Ph.D. course, a student shall pay tuition and other compulsory fees beginning from the first installment. Before re-registration the student should have paid all the fees which were pending up to the cancellation of his earlier registration.

9. In case of conflict of opinion in the interpretation of any rule regarding payment of fees, refund etc., the decision of the competent authority shall be final and binding on all concerned.

10. PhD Student will pay PhD thesis defense fee as per MGMIHS norms.

Cancellation of Registration:

The registration of a Ph.D. student can be cancelled under any of the following circumstances:

1. Ph.D. student can cancel registration at any time after joining the program. This necessitates a written application from the student, duly forwarded by Ph.D. Supervisor and Head of the Department, to the Registrar of the University for cancellation of registration. At the time of application, the candidate should have paid all the tuition and other compulsory fees (up to the time of cancellation) and should enclose No Dues Certificates from the Library, Stores Department and Research Secretariat. The cancellation of registration shall be effective from the date the student applies for the same.
2. Ph.D. registration of a student who could not pass the Orientation Program in two attempts will be cancelled by the University.

3. A Full time Student who remains absent, without prior permission from Ph.D. Supervisor and/or Competent Authority, for more than 30 days in a year, is liable to lose Ph.D. registration.
4. Ph.D. registration of a student, who fails to submit thesis within the stipulated period of six years, shall automatically stand cancelled after the expiry of the registration period, unless permission for extension has been obtained.
5. Failure to pay the fee as prescribed and scheduled by the Institute, i.e. beyond six months from due date, will lead to cancellation of admission.
6. Admission shall be summarily cancelled at any time of the course in case of misconduct, in any form, on the part of a student.
7. Every research scholar shall submit six monthly progress report of the work done, duly signed by research Supervisor, along with receipt of having paid the fee. In the event of a student not submitting the progress report and/or the fees for three consecutive semesters the Ph.D. registration of the student shall be cancelled by the Institute. Cancellation of registration shall be effective from the period the progress report had not been submitted and/or the fees had not been paid.
8. Students provisionally admitted in Ph.D. program, but are subsequently unable to comply with the statutory requirements as defined in the Rules and Regulations of MGMIHS, are liable to lose registration. In such cases, the refund of fee will be governed by university rules.

Leave Rules for Full Time Students:

1. Full time Students are permitted to avail leave with stipend (inclusive of all types) not exceeding 20 days for each completed year of tenure. Leave can be carried over to the next year. However, not more than 30 days can be accumulated at any time during the tenure. During the first year of enrolment or any uncompleted year, leave may be granted on pro-rata basis.
2. Supervisor can grant leave with concurrence from Head of the Department. Leave records must be maintained by the Supervisor and the Department.

3. Ph.D. student shall not be allowed to proceed on leave to go abroad for attending conference or seminars without prior approval by the Competent Authority. The entire duration of such foreign visits if funded by any national/international agency, whether partially or fully, would be treated as leave due to student.
4. Sanction of leave without stipend, beyond the entitlement, may be considered by the Institute under special circumstances. Such cases will be decided by the Competent Authority, on the recommendation of Ph.D. Supervisor and Head of the Department.
5. Lady students are entitled to Maternity Leave and/or Child Care Leave once in the entire duration of Ph.D. program for up to 240 days.
6. Ph.D. students are allowed to participate in conferences and/or workshops either with or without financial support from the University. The period of absence from the University, subject to maximum of 10 days in an academic year, will be considered as on duty and no leave will be deducted.

Attendance Requirement:

1. Ph.D. students are required to mark attendance on all working days in the Department or College.
2. A candidate, who is pursuing course work (Orientation Program), as a part of Ph.D. Program, is expected to have full attendance in each course, 75% attendance is essential to appear in the examination conducted after the Orientation Course.

Participation in Conferences and Training Workshops:

1. The training/conference in which a Ph.D. student intends to participate should be a related to the Ph.D. topic and recommended by the Supervisor.
2. A maximum period of fifteen days will be permitted in each academic year.
3. Only one visit abroad will be permitted in the entire tenure of Ph.D. work.
4. In case of training whether in India or abroad, the student should obtain performance report from the host Institute and submit to the Research Secretariat along with a brief report of the visit.
5. The registration fees, TA/DA to participate in conferences or training within the country may be paid from contingency grants, if the funds are available.

6. TA / DA and registration fee will not be paid from the contingency grant for meetings outside the country.
7. If a student does not rejoin after availing training/fellowship, within the stipulated period, the admission may be cancelled or terminated without serving notice.
8. The period of absence for any long training or fellowship will be from the allowed leave due to the candidate.

Disciplinary Action:

The Head of the Department and/or Dean/Director can impose disciplinary action, on the recommendations of Ph.D. Supervisor, against the research scholar in any of the following conditions or any other as may arise after making adequate enquiry and satisfying seriousness of the offence:

1. Furnishing false information with bearing on the candidate's selection.
2. Involved in any academic malpractice or involved in any unlawful activity.
3. Causing any damage to the Institute's property or peace.
4. Proceeding on unauthorized leave or visit abroad.
5. Involved in financial irregularity.
6. The quantum and nature of punishment will be decided by the Competent Authority, and may lead to cancellation of enrolment.

Change of PhD Guide:

1. The student can, with the approval of competent authority, change Ph.D. Supervisor. In such cases, if there was no change in the title of Ph.D. thesis or major changes in the objectives of research proposal, the student can continue to work on the topic approved by SAC. A 'No Objection Certificate' from the previous (already approved) Ph.D. Supervisor will be mandatory to continue working on the earlier approved Ph.D. research title.
2. In cases where change of Ph.D. Supervisor would be linked with change in the title of Ph.D. thesis or major changes in research objectives, it will be considered as a new registration. The new research proposal will have to be approved by the SAC and the Institutional Ethics

Committee. The minimum applicable duration (two or three years) for submission of Ph.D. thesis would apply.

First-Six-Months as Ph.D. Student:

All the students admitted to the Ph.D. Degree program in different disciplines will complete, Course Work Program and clear the course work exam. Write the research proposal and attain Approval from the departmental Research Advisory Committee (RAC).

Course Work Program:

Course Work - Credit requirements, number, duration, syllabus, minimum standards for completion, etc. All the students admitted to the Ph.D. Degree program in different disciplines undergo Course Work program which is spread over six months. The course work is a prerequisite for Ph.D. preparation. Recognizing that the students admitted to Ph.D. Degree program are from diverse fields, the focus of the Course Work Program is to familiarize them of research methodologies, biostatistics, Proposal and manuscript writing, ethics and ethical values in research and some other aspects. Faculty members from various departments deliver well-structured lectures during this program. The University conducts examination following the completion of course work. The Course work examination is conducted only once in an academic year.

1. The Credit requirement for the Ph.D. coursework is a minimum of 12 credits, including a “Research and Publication Ethics” course as notified by UGC vide D.O. No. F.11/2018(Journal/CARE) in 2019 and a research methodology course. The Research Advisory Committee can also recommend UGC recognized online courses as part of the credit requirements for the Ph.D. program.
2. All Ph.D. scholars, irrespective of discipline, shall be required to train in teaching / education / pedagogy / writing related to their chosen Ph.D. subject during their doctoral period. Ph.D. scholars may also be assigned 4-6 hours per week of teaching/research assistantship for conducting tutorial or laboratory work and evaluations.

3. A Ph.D. scholar must obtain a minimum of 55% marks or its equivalent grade in the UGC 10-point scale in the course work to be eligible to continue in the program and submit his or her thesis.
4. More than 75% attendance is essential. Only those fulfilling this requirement are eligible to appear in the examination conducted at the end of Course Work. Students failing in the first attempt will be given another chance to Qualify the examination.
5. The Research Advisory Committee can also recommend UGC recognized online courses as part of the credit requirements for the Ph.D. program.
6. All Ph.D. scholars, irrespective of discipline, shall be required to train in teaching / education / pedagogy / writing related to their chosen Ph.D. subject during their doctoral period. Ph.D. scholars may also be assigned 4-6 hours per week of teaching/research assistantship for conducting tutorial or laboratory work and evaluations.
7. A Ph.D. scholar must obtain a minimum of 55% marks or its equivalent grade in the UGC 10-point scale in the course work to be eligible to continue in the program and submit his or her thesis.

Approval of Research Proposal by Research Advisory Committee and Scientific Advisory Committee (MGMIHS):

1. Research Advisory Committee and its Functions. - There shall be a Research Advisory Committee or an equivalent body (Scientific Advisory Committee) as defined in the Statutes/Ordinances of the Higher Educational Institution concerned for each Ph.D. scholar. The Director (R&D) or Research Supervisor of the Ph.D. scholar concerned shall be the Convener of this committee, this committee shall have the following responsibilities: To review the research proposal and finalize the topic of research.
 - i. To Supervisor the Ph.D. scholar in developing the study design and methodology of research and identify the course(s) that he/she may have to do.
 - ii. To periodically review and assist in the progress of the research work of the Ph.D. scholar. Every six month, a Ph.D. scholar shall appear before the Research Advisory Committee to make a presentation and submit a brief report on the progress of his/her work for

evaluation and further guidance. The Research Advisory Committee shall submit its recommendations along with a copy of Ph.D. scholar's progress report to the Higher Educational Institution concerned. A copy of such recommendations shall also be provided to the Ph.D. scholar. In case the progress of the Ph.D. scholar is unsatisfactory, the Research Advisory Committee shall record the reasons for the same and suggest corrective measures. If the Ph.D. scholar fails to implement these corrective measures, the Research Advisory Committee may recommend, with specific reasons, the cancellation of the registration of the Ph.D. scholar from the Ph.D. program. Prior presentation to the RAC or SAC, the Ph.D. Research proposal / Ethical approval / Progress report should be approved/ recommended by the RAC Six Monthly Progress Report:

- i. Scientific Advisory Committee (SAC) of the MGMIHS which comprises of highly accomplished scientists from both within and outside MGMIHS, reviews all the new Ph.D. proposals.
- ii. Ph.D. scholar, in the presence of Ph.D. Supervisor and Co-Supervisor, makes a detailed presentation of the research proposal with emphasis on rational, objectives, expected outcome and usefulness of study.
- iii. Approval from SAC is mandatory prior to start of research work. The approval can be either with or without modification of the proposal. SAC may even reject the proposal and suggest working on some other related Proposal. It may suggest resubmission of the proposal incorporating changes suggested by the Committee. Recommendations of SAC are final and students have to comply with the same.
- iv. Director Research & Development cell call the RAC or SAC time to time for review and monitoring the progress of Ph.D. students in every six-month interval. PhD students have to submit Proposal to Research Secretariat at least 15 days prior to the meeting.
- v. PhD students must submit the attendance and evaluation report along with progress report duly forwarded by guide, HOD & Head of Institution. Approval of Research Proposal by Ethics Committee:
 1. MGMIHS has two ethics committees namely; Institutional Experimental Animal Ethics Committee, registered with the Committee for the Purpose of Control and Supervision of

Experiments on Animals (CPCSEA), Government of India; and the other Ethics Committee for Research on Human Subjects, registered with Drug Controller General of India. The Proposals necessitating the use of experimental animals or clinical material including clinical trial will have to be cleared by the respective ethics committee before initiating research work. The composition of both the committees is as per the Guidelines of respective regulatory body.

2. The students whose Proposals have been approved by the SAC will submit research proposal in the desired format (available with Research Secretariat) for the consideration of Ethics Committee for Research on Human Subjects. Once again, student along with Ph.D. Supervisor and Co-supervisor will be invited to this meeting. Meetings of Ethics Committee are held 15 to 30 days after the SAC meeting.
3. The candidate in Ph.D. Nursing should submit ethical clearance certificate within one year after provisional registration. Ethical clearance/permission from the Institution/Concerned Authorities should be obtained from where data is being collected
Validation of Tools for Research:

1 Since a number of Ph.D. research Proposals require data collection through well-structured questionnaires, the University has constituted a "Committee to Develop and Validate Tools including Questionnaire for Medical and Health Research". This ensures that the tools to be used for data collection are validated by experts in the field and the research output is valid and acceptable.

2 Meeting of Tool Validation Committee is held about three months after the Ethics Committee. Ph.D. students whose research Proposals necessitates collection of information using structured Questionnaire or Focus Group Discussion will get their tools validated from this committee before initiating data collection.

Change of Research Topic:

Normally a student shall complete doctoral research on the subject title approved by SAC, under the supervision of the research Supervisor. However, under exceptional circumstances, a student may be permitted, only once, to change the title and objectives of research. The change may

necessitate seeking fresh approval from SAC and the Ethics Committee. In such cases, the student has to work for another minimum essential period (two or three years) before being eligible to submit Ph.D. Thesis. If the candidate has already completed the Orientation Program or attended the mandatory lectures he/she will not have to repeat the same.

Ph.D. Synopsis:

1. The primary objective of Ph.D. synopsis is to enable the reader to judge whether prima facie there exists a case for accepting the proposed Ph.D. thesis for the award of Ph.D. Degree. The synopsis should, therefore, clearly list the contributions resulting from the investigations, which have led to advancement of knowledge.
2. Synopsis should also contain a brief account of the existing knowledge and the inadequacy or gaps in knowledge that had led the candidate to pursue work on that topic.
3. List of publications (including published, accepted, submitted in the refereed journals and conferences) or Patents (granted or applied) from the Ph.D. work should be included.
4. The synopsis should be a concise summary (including Figures, Tables, few References, and List of Publications), around 8-10 typed pages having 1.5 spacing.

Approval of Synopsis by SAC:

SAC which had been monitoring the progress of research work, since the registration of student for Ph.D. Degree, will also review Ph.D. Synopsis. Approval of Synopsis by SAC is essential before the submission of Thesis. To seek approval, the candidate will submit 10 copies of the Synopsis at least 15 days prior to the scheduled meeting of SAC. The candidate will be asked to make a detailed presentation during the SAC meeting. SAC may approve the Synopsis without any modification or additional work. SAC may also suggest to the research scholar to: (i) perform some additional work; and/or (ii) incorporate all those feasible comments/suggestions highlighted during the presentation. The decision of SAC will be final.

Eligibility for Submission of Thesis:

A Ph.D. student will be eligible to submit Ph.D. thesis only after meeting the following requirements:

- 1 Completion of minimum essential duration from the time of registration in the Ph.D. Degree program. It is three years for Full-time Ph.D. students and four years for Part-time Ph.D. Students.
- 2 Approval of Ph.D. Synopsis by the Scientific Advisory Committee.
3. Publication of at least two research papers from Ph.D. research work, in any peer reviewed indexed scientific journal, i.e. Scopus, PubMed or Web of Science is mandatory. These would enhance the credibility, competence and confidence of the student to face the thesis defense. In the event a candidate is an author of a Patent/Copyright awarded on the Ph.D. research work, it should be reported.
4. Thesis has been scanned using Plagiarism Software with the certificate of no Plagiarism attached. The plagiarism should be less than 10% to submit the thesis. Plagiarism can also be reported by any person to the Research Secretariat or Head of the Department, who will forward the matter to the Vice Chancellor for consideration and decision. In case plagiarism is confirmed, Research Secretariat will return Ph.D. thesis and / or the research paper to Ph.D. Supervisor and Head of the Department for necessary action.
5. Payment of all dues to the University, and submission of NOC from the Research and Development Cell.

Specifications for Writing Thesis:

Candidate submitting thesis for the award of Ph.D. Degree are required to follow the rules noted below regarding the size, style and binding of thesis:

1. To submit five copies of thesis (MS Word, 6.0 version or higher) along with three soft copies in PDF format. The soft copies should be saved using the file name: "author.doc" i.e puri.doc (author is the surname of the author).
2. There is no formal minimum or maximum length of Ph.D. Thesis, although. It is expected to be around 150 pages (Paper: A4, 22.5 X 29 cm; Font: Times New Roman; Line Spacing: 1.5

Font Size; 12). The Ph.D. thesis should be typed on both sides of the page using 130 gsm sunlit bond white paper.

3. Provide title in Times New Roman, 14 point along with author's name and required details.
4. Set the margins as follows: Top: 1 inch, Bottom: 1 inch, left 1.5 inches, Right: 1 inch.
5. Page numbers at the bottom of each page, centered on the width.
6. Set the body text justified.
7. Print figures and tables interspersed with text and place them as near the point of mention as possible. Add descriptors to tables and figures.
- 8 All references in the thesis should be using Vancouver Style. It should include: names of all authors, complete title of the work, name of journal, volume, page numbers and year (and editor and publishers as necessary).
9. Use international SI (System of Units). If other units are used, provide approximate Conversion, factors for SI Units.
10. No. Ornamental bordering of the sides is permitted.
11. No. dedication page is permitted.
12. Thesis shall have copies of certificates, as given in Annexure.Evaluation of Ph.D. Thesis:
 1. Upon satisfactory completion of course work and obtaining the marks/grade prescribed in 19.1.7 the Ph.D. scholar shall be required to undertake research work and produce a draft dissertation/thesis.
 2. Before submitting the dissertation/thesis, the Ph.D. scholar shall make a presentation before the Research Advisory Committee of the Higher Educational Institution concerned, which shall also be open to all faculty members and other research scholars/students.
 3. The Higher Educational Institution concerned shall have a mechanism using well-developed software applications to detect Plagiarism in research work and the research integrity shall be an integral part of all the research activities leading to the award of a Ph.D. degree.

4. A Ph.D. scholar shall submit the thesis for evaluation, along with (a) an undertaking from the Ph.D. scholar that there is no plagiarism and (b) a certificate from the Research Supervisor attesting to the originality of the thesis and that the thesis has not been submitted for the award of any other degree/diploma to any other Higher Educational Institution.
5. The Ph.D. thesis submitted by a Ph.D. scholar shall be evaluated by his/her Research Supervisor and at least two external examiners who are experts in the field and not in employment of the Higher Educational Institution concerned. Such examiner(s) should be academics with a good record of scholarly publications in the field. Wherever possible, one of the external examiners should be chosen from outside India. The viva-voce board shall consist of the Research Supervisor and at least one of the two external examiners and may be conducted online. The viva-voce shall be open to the members of the Research Advisory Committee/faculty members/research scholars, and students. Higher Educational Institutions may formulate appropriate rules/ordinances to affect the provisions of this Regulations.
6. The viva-voce of the Ph.D. scholar to defend the thesis shall be conducted if both the external examiners recommend acceptance of the thesis after incorporating any corrections suggested by them. If one of the external examiners recommends rejection, the Higher Educational Institution concerned shall send the thesis to an alternate external examiner from the approved panel of examiners, and the viva-voce examination shall be held only if the alternate examiner recommends acceptance of the thesis. If the alternate examiner does not recommend acceptance of the thesis, the thesis shall be rejected, and the Ph.D. scholar shall be declared ineligible for the award of a Ph.D.
7. The Higher Educational Institution concerned shall complete the entire process of evaluating a Ph. D. thesis, including the declaration of the viva-voce result, within a period of six (6) months from the date of submission of the thesis.
8. Uploading on Shodhganga: Following the successful completion of the evaluation process and before the announcement of the notification of the Ph.D. Degree, the University shall submit an electronic copy of the Ph. D. thesis to the INFLIBNET, for hosting the same on Shodhganga Website so as to make it accessible to all Institutions/Colleges.

9. Notification: After the Viva-voce the controller of Examinations will issue a notification for the award of the Ph.D. Degree to the student. It shall be signed and issued by the Controller of Examinations.

10. Provisional Certificate: A Provisional Certificate will be issued by the Examination section to intimate the student that he/she has cleared the defense of the Ph.D. thesis, and that he/she is eligible for award of Ph.D. Degree.

11. Award of Ph.D. Degree: The final Ph.D. degree will be awarded in the Convocation.

Migration Certificate:

A 'No Objection Certificate' shall be issued to the student upon request to enable him/her to migrate to another recognized University/Institute for higher

Medical Facilities:

Concessional medical facilities will be provided to Ph.D. students for the duration of Ph.D. tenure (up to the time of submission of thesis) at MGM Hospital at Kamothe.

GOALS

The purpose of PG education is to create specialists who would provide high quality health care and advance the cause of science through research & training

The purpose of preparing these guidelines is to standardize Microbiology teaching at Post Graduate level

This document is to provide teachers and learners illustrative guidelines to achieve defined outcomes through learning and assessment.

OBJECTIVES

A post graduate student upon successfully qualifying in the PhD (Medical Microbiology) examination should be able to:

1. Demonstrate competence as a Medical Microbiologist
2. Interact effectively with the allied departments by rendering services in basic as well as in advanced laboratory investigations
3. Demonstrate application of Microbiology in a variety of clinical settings to solve diagnostic and therapeutic problems along with preventive measures.
4. Play a pivotal role in hospital infection control, including formulation of antibiotic policy and management of biomedical waste.
5. To acquire skills in conducting collaborative research in the field of Microbiology and allied sciences
6. Conduct such clinical/experimental research as would have significant bearing on human health and patient care
7. Demonstrate effective communication skills required for the practice of clinical microbiology and while teaching undergraduate students
8. Establish good clinical Microbiological services in a hospital and in the community in the fields of bacteriology, virology, parasitology, immunology, serology and mycology.
9. Plan, execute and evaluate teaching assignments in medical microbiology.
10. Conduct a research project independently in medical microbiology.
11. To participate in various workshops/seminars/journal clubs/demonstration in the allied departments
12. Develop inter personnel and leadership skills.

Ph.D. Course Work Choice Based Credit System (CBCS)
(Approved in BOM-70/202250)

Aims of the Program

The course intends to build knowledge and skills of students in research. The aim of course is to learn how research is being done, and how to apply a great number of statistical techniques, draw conclusions from those, and determine what statistical technique would be appropriate for a given dataset and/or research design. The course intends to build knowledge and skills of students in statistics, basic scientific competence, basic Philosophy of Science and Ethics, Research Integrity and Publication Ethics

Ph. D Course work guidelines

As per UGC Regulations 2016: UGC Circular D.O. No.F.1-1/2018(Journal/CARE) dated December, 2019, Minimum Standards and procedure for Award of Ph.D. Degree, after admission I Ph. D, a research scholar shall be required to undertake course work for a minimum period of one semester.

All candidates admitted to the PhD Program shall be required to complete the course work prescribed by the Department during the initial one or two semesters.

The women candidates may be allowed a relaxation of two terms/semesters in case of maternity. However, if the student is not in a position to complete the course work in the prescribed time limit as above, due to genuine reasons, may file an appeal and on the recommendation of the RAC, the VC (Vice Chancellor) may grant extension up to additional one semester. Failing to complete the course work in the extended period may lead to cancellation of admission.

All candidates admitted to the Ph.D. program shall be required to complete the Ph.D. course work prescribed by MGMIHS.

Duration of the course work:

The duration of PhD course work will be 240 hours spread over one semester

Course Structure:

Total Credits -12

Total hours -144

Lectures in this course are meant to be a complement to the knowledge student can obtain by reading the textbook and related literature from various sources.

These objectives will be achieved by means of lectures, interactive sessions, group discussion, exercise or solving the problems, hands on training on computers and practical for analyzing the data using SPSS (version 24.0) and interpretation of output.

Attendance: 75% attendance for coursework classes in compulsory.

Credit & Grade Point:

A PhD scholar has to obtain a minimum of 50% of marks or its equivalent grade in the UGC 7-point scale (or an equivalent grade/CGPA in a point scale wherever grading system is followed) in the course work in order to be eligible to continue in the program and submit the thesis. - Maximum two chances shall be given to the scholar for clearing the coursework, failing to which may lead to cancellation of admission.

DISTRIBUTION OF MARKS AND CREDIT HOURS OF COURSE WORK

Code No.	Name of the Course	Credit	Hours per week	Total hours per Semester	Marks
PH101 T	Research Methodology& Biostatics a) Research Methodology b) Bioethics, Bio-safety, GLP & GCLP, IPR & Technology Transfer c) Biostatics d) Computer Application	3	3	36	100
PH102 T	Research and Publication Ethics a) Philosophy and Ethics b) Scientific Conduct c) Publication Ethics d) Publication Misconduct e) Databases and Research Metrics f) Manuscript & Thesis writing: Drafting for Review, Research article, case study etc. g) Selection of Journal and Research paper communication	3	3	36	50
GE 106 T	Disaster management and mitigation resources	1	1	12	50
GE107 T	Human rights				
PH 104 T & P	Communication & Presentation skill: Preparation of Research Proposal for PhD Thesis; Paper, Poster, proposal & Progress Presentation, Preparation of Research Proposal for fellowship & Extramural	5	5	6	100
	Total	12	12	144	300

**CBCS Grading System – Marks Equivalence
Grades and Grade Points:**

Letter Grade	Grade Point	% of Marks
O (Outstanding)	10	86-100
A+ (Excellent)	9	70-85
A (Very Good)	8	60-69
B (Good)	7	55-59
C (Above Average)	6	50-54
F (Fail) / RA (Reappear)	0	Less than 50
Ab (Absent)	0	-
NC – not completed	0	-
RC – Repeat the Course	0	0

Cumulative Grades and Grade Points:

Letter Grade	Grade Point	CGPA
O (Outstanding)	10	9.01 - 10.00
A+ (Excellent)	9	8.01 – 9.00
A (Very Good)	8	7.01 – 8.00
B (Good)	7	6.00 – 7.00
C (Above Average)	6	5.01 - 6.00

PhD Course Work Scheme of University Examination
University Examination - Marks 300 (12 credits)
 Theory- Marks 200 (7 credits) Practical - Marks 100 (5 credits)

Theory Assessment - Marks 200 (7 credits)

Subject	Course code	Question Types	Marks perSection	Total Marks	Duration	Credits
Paper I Research Methodology & Biostatics	PH101 T	Sec.A-SAQ Sec.B-LAQ	10 x 6 =60 20 x2 =40	100	3 hours	3
Paper II Research and Publication Ethics	PH102 T	Sec ASAQ Sec BLAQ	6x5=30 2x10=20	50	2 hours	2
Paper III General Elective Any one <ul style="list-style-type: none"> • Disaster management & mitigation resources/ • Human Rights 	Any one GE 106 T GE107T	Sec ASAQ Sec BLAQ	6x5=30 2x10=20	50	2 hours	2

Practical Assessment Methods -Marks 100 (5 credits)

Assessment of Protocol of PhD Thesis at Research Recognition Committees

Heading	Marks
Subject Knowledge	20 M
Concept and Methodology	20 M
Interpretation Skill and Discussion	20 M
Question and Answer	20 M
General Awareness, Manners, Personality, Enthusiasm	20 M

PhD Course work

Duration:

From -

To –

Total Lectures Conducted	Total Lectures attended

Sign of Student

Sign of Research Director

Timeline of PhD Program

Timeline	Date
Date of Course work Completion	
Protocol Submission to RRC	
Protocol Submission to IEC	
Date of Ethical Clearance of Protocol for Dissertation	
Date of Passing BCBR Exam	
1ST Progress Report to SAC	
2nd Progress Report to SAC	
3rd Progress Report to SAC	
4th Progress Report to SAC	
Submission of Synopsis	
Submission of Thesis	

Signature of Guide

Signature of HOD

Clinical Postings

Year 1

Section	Duration From- To	Competencies Acquired	Sign of Section Incharge

Signature Of Guide

Signature of HOD

Clinical Postings

Year 2

Section	Duration	Competencies Acquired	Sign of Section Incharge

Signature Of Guide

Signature of HOD

Clinical Postings

Year 3

Section	Duration	Competencies Acquired	Sign of Section Incharge

Signature Of Guide

Signature of HOD

Clinical Postings

Year 4

Section	Duration	Competencies Acquired	Sign of Section Incharge

Signature Of Guide

Signature of HOD

Student Appraisal Form for PhD Medical Microbiology

Sr. No.	Elements	Satisfactory	Good	Excellent
1	Scholastic Aptitude and Learning			
2	Knowledge Appropriate for Level of Learning			
3	Participation and Contribution to Learning Activity (Seminar / Journal Club / CME etc.)			
4	Conduct of Research and other Scholarly Activities (Papers, Posters, Publications)			
5	Ability to work with other Team Members			
6	Responsibility and Accountability			
7.	Additional Comments			

Sign of Guide

Sign of HOD