



MD
NEPHROLOGY
PROGRAM

STUDY GUIDE

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INFORMATION AND PROGRAMGOALS:

The Master of Nephrology (MD) in Nephrology is a four-year program designed for individuals aspiring to become skilled and competent Nephrologists.

The MD Nephrology program at Sharif Medical City Hospital provides state-of-the-art facilities and a supportive learning environment for aspiring Nephrologists. With access to advanced clinical training and experienced faculty, students are equipped to excel in their Nephrological careers.

The curriculum emphasizes structured teaching and the development of knowledge, skills, and professional competence. Through rigorous training, students are groomed to become adept researchers, enabling them to practice evidence-based Nephrology . Graduates of the MD Nephrology program are expected to exhibit advanced expertise, refined clinical skills, and a patient-centered approach in the Procedure/ management and care of patients.



INTRODUCTION

The *Nephrology* MD Residency Program at Sharif Medical City Hospital is a structured four-year postgraduate training pathway culminating in the award of a Master of *Nephrology* (MD) in *Nephrology*. The curriculum is meticulously designed to encompass comprehensive training in both and specialized *Nephrological* disciplines. It adheres to Level 7 category competencies and serves as a benchmark for the acquisition of essential knowledge, technical skills, and professional attitudes required at various stages of Nephrological training.

Key Objectives

1. **Competency Development:** Equip residents with a robust foundation in and specialized Nephrological principles, ensuring proficiency in essential Nephrological skills and clinical decision-making.
2. **Patient Safety:** Safeguard public interest by establishing clear competency standards and ensuring residents meet these benchmarks throughout their training.
3. **Enhanced Access to Specialty Training:** Provide a well-structured pathway to advanced Nephrological training, distinguishing it from medical practice.
4. **Flexible Learning Framework:** Offer residents the flexibility to benefit from mentorship under a diverse team of experienced instructors, fostering a holistic learning environment.
5. **Workforce Preparedness:** Develop a skilled cadre of Nephrologists capable of addressing a wide spectrum of treatment complexities while catering to diverse patient demographics and healthcare needs.
6. **Research and Scholarly Contribution:** Foster an academic culture by enabling residents to undertake impactful research projects, critically appraise scientific literature, and contribute to the advancement of medical science through publications and presentations at professional forums.

This program is designed to ensure excellence in clinical expertise, academic rigor, and research innovation, producing highly competent Nephrologists equipped to meet the demands of modern healthcare at Sharif Medical City Hospital.

COURSE DESCRIPTION

COURSE DESCRIPTION

Nomenclature of the Degree Program

The proposed degree program is designated as **MD Nephrology**, a globally recognized and established nomenclature upheld for several decades.

Course Title

Master of Nephrology (MD) in Nephrology

Training Center

The program's training will be conducted in **Departments of Nephrology at Sharif medical city hospital, Lahore, accredited** by the **University of Health Sciences (UHS), Lahore**.

Program Duration and Structure

The MD Nephrology program spans **five (5) years**, encompassing structured training under the supervision of accredited faculty within recognized departments.

1. Induction Period (First 6 Months):

- Orientation to the field of Nephrology.
- Completion of mandatory workshops.
- Development of a research project and preparation of a synopsis.

2. Basic Principles of Nephrology (Next 18 Months):

- Comprehensive training in the foundational aspects of Nephrology.
- Submission and approval of the research synopsis by the Advanced Studies and Research Board (ASRB).
- Completion of the **Intermediate Examination** at the conclusion of this period.

3. Advanced Training and Research (Final Two Years):

- **Clinical Training:** Hands-on practice in Nephrology, including rotations in relevant sub-specialties to achieve competency-based learning objectives.
- **Research and Thesis Writing:** Research is conducted as a continuous block or through periodic rotations over four years.

Competency-Based Framework:

- The program is structured to ensure the development of both generic and specialty-specific competencies, monitored through **Continuous Internal Assessments**.

Admission Criteria:

Applications will be invited through advertisements in print and electronic media, clearly specifying deadlines and entry examination schedules.

Eligibility Requirements:

1. **Educational Qualification:** MBBS or an equivalent qualification recognized by the Pakistan Medical and Dental Council (PMDC).
2. **House Job Experience:**
 - A valid certificate confirming one year of House Job in a PMDC-recognized institution.
 - Applicants yet to complete their House Job must provide a **Hope Certificate** from the relevant Medical Superintendent, ensuring completion before the interview.
3. **PMDC Registration:** A valid certificate of permanent or provisional registration with PMDC is mandatory.

Registration and Enrollment

- The trainee-to-supervisor ratio shall not exceed **5:1 per annum** for all postgraduate programs.
- Our teaching institution maintains a minimum **bed-to-trainee ratio of 5:1**.
- Trainees are enrolled and subsequently registered with UHS as per university regulations.

Accreditation Requirements for Training Institutions

Institutions offering the MD Nephrology program must ensure compliance with the following standards:

A. Faculty

- Availability of adequately qualified teaching staff, meeting PMDC guidelines.

B. Infrastructure and Facilities

- Sufficient infrastructure, including classrooms equipped with audiovisual aids, demonstration rooms, computer laboratories, and clinical pathology facilities.

C. Library Resources

- Well-equipped departmental libraries containing up-to-date editions of recommended texts, reference books, and national and international journals.

Monitoring and Compliance:

- Accreditation may be **temporarily or permanently suspended** by the University if institutions fail to meet prescribed standards for resident training.
- Institutions must submit comprehensive training plans for resident education and maintain detailed monthly documentation of training activities and

evaluations.

- The University reserves the right to conduct **surprise inspections** to ensure compliance and take appropriate corrective actions where necessary.

This proposal highlights the MD Nephrology program's alignment with international best practices and UHS regulations. The structured training, rigorous assessment mechanisms, and adherence to quality standards aim to cultivate highly skilled professionals in the field of Nephrology.

AIMD AND OBJECTIVES OF THE COURSE

AIMS and Objectives of the Course

The primary aim of the four-year MD Nephrology program is to develop residents into competent specialists in the field of Nephrology. Upon completion of the program, trainees will possess the expertise required to excel as skilled clinicians, educators, and researchers in their specialty.

Objectives

The MD Nephrology program is structured to enable residents to acquire the following competencies and skills:

Knowledge Application

1. Integration of Knowledge into Practice

- Utilize relevant and current knowledge in clinical settings.
- Apply scientific evidence to enhance patient care tailored to individual needs and contexts.
- Critically appraise and incorporate emerging technologies and methodologies.

2. Lifelong Learning

- Maintain up-to-date knowledge through self-directed learning.
- Assess and integrate new trends, research, and evidence-based practices in Nephrology.

Nephrological Proficiency

3. Nephrological Skills

- Consistently demonstrate advanced Nephrological techniques with precision.
- Execute procedures safely and competently, ensuring patient and team safety.
- Adapt Nephrological approaches based on patient-specific factors and procedural requirements.
- Exhibit manual dexterity and procedural knowledge commensurate with training levels.

4. Continuous Improvement

- Analyze clinical performance critically for ongoing refinement of skills and strategies.

- Acquire and master new Nephrological skills to meet evolving medical challenges.

Clinical Decision-Making and Patient Procedure/ management

5. Effective Diagnosis and Treatment

- Conduct thorough assessments, including history-taking, physical examinations, and diagnostic evaluations.
- Formulate differential diagnoses and develop evidence-based Procedure/ management plans.
- Address the physical, psychological, social, and cultural needs of patients.

6. Complex Case Procedure/ management.

- Assess and balance risks associated with treatment modalities.
- Navigate uncertainty and complexity in decision-making processes.

Multidisciplinary Collaboration and Resource Procedure/ management

7. Interdisciplinary Teamwork

- Collaborate effectively with healthcare professionals to develop comprehensive care plans.
- Employ a consultative approach in complex cases, ensuring seamless referrals when necessary.
- Leverage interdisciplinary expertise for optimal patient outcomes.

8. Resource Optimization

- Efficiently allocate resources to balance patient care and system demands.
- Prioritize competing needs in resource-constrained environments.

Communication Proficiency

9. Patient-Centered Communication

- Convey treatment options, risks, and potential outcomes clearly to patients and families, facilitating informed decision-making.
- Tailor communication approaches to accommodate cultural and linguistic differences.

10. Team and Conflict Resolution

- Engage and coordinate with healthcare teams to optimize Nephrological outcomes.
- Address misunderstandings or disputes constructively.

Research and Academic Contribution

11. Research Competency

- Design and execute research projects, critically analyze findings, and contribute to academic publications.
- Facilitate knowledge dissemination through teaching and mentoring.

12. Evidence-Based Practice

- Appraise and implement innovative techniques and emerging technologies with a critical perspective.
-

Professionalism and Ethics

13. Ethical Practice

- Consistently adhere to ethical standards in patient care, research, and professional interactions.
- Understand and comply with legal requirements related to informed consent, confidentiality, and medico-legal obligations.

14. Professional Accountability

- Demonstrate insight into personal limitations and actively seek opportunities for improvement.
- Participate in peer-reviewed audits and maintain transparency in clinical performance.

Leadership and Advocacy

15. Leadership in Healthcare

- Lead clinical teams effectively, recognizing and utilizing diverse expertise to achieve optimal outcomes.
- Maintain accurate, contemporaneous clinical records to support care delivery and accountability.

16. Health Advocacy

- Promote health maintenance and advocate for equitable healthcare resource allocation.
- Serve as an advocate for both patient and community health needs.

This program fosters the development of well-rounded Nephrological specialists who are skilled, ethical, and capable of meeting the evolving challenges in healthcare delivery.

Admission Criteria For MD Training Programs

Application Process

Admissions to the MD training programs are advertised through print and electronic media, specifying the application closing date and the schedule for the Entry Examination.

Eligibility Requirements

Applicants must fulfill the following criteria by the last date for submission of applications:

1. Basic Medical Qualification:

- Possess an MBBS degree or an equivalent qualification recognized by the Pakistan Medical & Dental Council (PMDC).

2. House Job Experience:

- Provide proof of one year of house job experience in a PMDC-recognized institution.
- If the house job is incomplete at the time of application, a **Hope Certificate** must be submitted from the relevant Medical Superintendent, confirming the house job will be completed before the interview date.

3. Registration with PMDC:

- Hold a valid permanent or provisional registration certificate from the PMDC.

Registration and Enrollment

• **Supervisor-Trainee Ratio:**

- As per PMDC policy, each supervisor may mentor a maximum of five postgraduate trainees per annum, including those in minor programs, if applicable.

• **Beds-to-Trainee Ratio:**

- The approved teaching site must maintain a minimum ratio of five beds per trainee to ensure adequate clinical exposure.

• **Supervisor Approval:**

- Supervisors for the MD courses will be approved by the University based on established criteria.

• **Trainee Registration:**

- Candidates selected for MD courses must enroll in the relevant institution and register with the University of Health Sciences (UHS) in accordance with the prescribed registration regulations.

This admission policy ensures that only qualified and eligible candidates are selected, fostering high academic and professional standards in the MD training programs.

ROAD MAP OF MD Nephrology

Admission Process

Eligibility --> Entry Exam --> Selection --> Enrollment at UHS



Year 1

Induction Period (6 Months):

- Orientation***
- Mandatory Workshops***
- Research Synopsis Design***



Basic Principles of Nephrology (18 Months):

- Training under Supervisor***
- Research Synopsis Approval by ASRB***



Year 2

Intermediate Examination



Year 3-4

Clinical Training in Nephrology + Research & Thesis Writing



Completion

Degree Awarded (MD Nephrology)

CONTENTS OF LEARNING AND LEARNING RESOURCES

Recommended Books for MD Nephrology Program

Basic Sciences (Part-I Examination)

1. Anatomy

- *Anatomy* by Professor Tassaduq Hussain
- *Langman's Embryology*

- *Clinical Anatomy* by Shell
- *Basic Histology* by Jenqueira
- *Neuroanatomy* by Snell

2. Pharmacology

- *Lippincott's Illustrated Review of Pharmacology*

3. Pathology

- *Microbiology* by Jawetz
- *Postgraduate Hematology* by Hoffbrand
- *Robin's Pathology: Basic Disease*
- *Chemical Pathology* by Bishop

- | 01 | ABC of Kidney Disease |
- | 02 | Absolute Nephrology Review edited 2016 |
- | 03 | Acid, Base & Electrolytes |
- | 04 | ACP Clinical Guidelines |
- | 05 | Acute Nephrology for the Critical Care Physician |
- | 06 | Biomarkers in Kidney Disease |
- | 07 | Brenner and Rector's The Kidney 9th edition |
- | 08 | Chronic kidney disease |
- | 09 | Clinical Companion in Nephrology |
- | 10 | Clinical Decisions in Nephrology, Hypertension and Kidney TR |
- | 11 | Clinical decisions in Pediatric Nephrology |
- | 12 | Clinical Physiology of Acid-Base and Electrolyte Disorders |
- | 13 | CMDT 2017 |
- | 14 | Comprehensive Clinical Nephrology 5th Edition |
- | 15 | Comprehensive Clinical Nephrology 6th Edition |
- | 16 | Core concepts in dialysis & continuous therapies |
- | 17 | Core Concepts in Hypertension and Kidney Disease |
- | 18 | Core concepts in the disorders of fluids, Acid Base and Electrolytes |
- | 19 | Critical Care Nephrology 2nd Ed |
- | 20 | Current Diagnosis and Treatment Nephrology |
- | 21 | Current Essentials Nephrology & Hypertension |
- | 22 | Diabetes and Kidney Disease-Wiley-Blackwell |
- | 23 | Diseases of the Kidney & Urinary Tract 8th edition |
- | 24 | Fluid, Electrolyte and Acid-Base Physiology |
- | 25 | Fundamental of Renal Pathology |

26	Haemodialysis
27	Hand Book Of Dialysis 5th edition
28	Handbook of Dialysis 4th Edition
29	Handbook of Kidney Transplant 5th edition
30	Handbook of Kidney Transplantation, 5th Edition
31	Handbook of Nephrology
32	Handbook of Nutrition and the Kidney 5th Edition
33	Harrison Acid, Base Disorder
34	Harrison's Nephrology and Acid-Base Disorders, 2nd Edition
35	Harrison's Principles of Internal Medicine-19th Edition
36	Hepinstall's Pathology of the Kidney, 6th 2007
37	IgG4-related Kidney Disease
38	Intensive Care Nephrology
39	Interventional Nephrology
40	Interventional Nephrology
41	Kidney by Robert Scanner
42	Kidney Transplantation - Principles and Practice 7th Ed
43	Kidney Transplantation
44	Management of Acute Kidney Problems
45	Manual of Nephrology 8th edition
46	Manual of Pediatric Nephrology
47	Nephrology Clinical Cases Uncovered
48	Nephrology in 30 Days 2nd Edition
49	Nephrology Secrets 3rd_edited
50	Nephrology Clinical Cases Uncovered
51	Nephrology Secrets Third Edition
52	Obesity and the Kidney
53	Oxford Desk Reference Nephrology
54	Oxford Hand book of Dialysis, 2nd Edi
55	Oxford Hand book of Nephrology and Hypertension 2nd edition
56	Oxford Renal Transplant
57	Oxford Textbook Of Clinical Nephrology 3-Volume
58	Practical Manual of Renal Medicine
59	Primer on Kidney Diseases 6th Edition
60	Renal Drug Handbook
61	Renal Physiology 2015
62	Schrier's Diseases of the Kidney 9th Ed

- | 63 | Self-assessment Renal medicine |
- | 64 | The Kidney BRENNER & RECTOR'S 10th Edition |
- | 65 | The Kidney Seldin and Giebisch's |
- | 66 | Topics of Renal Biopsy Pathology |
- | 67 | Transplantation Drug Manual |

Content of Learning

Training Components

▪ **Defined Standards**

- Establish clear standards of knowledge and skills required to practice Nephrology at secondary and tertiary care levels.

Basic Sciences

- Understand basic sciences relevant to Nephrological diseases and their Procedure/ management.

Nephrology Specialization Areas

Principles of wound healing:

- Knowledge of collagen synthesis (stimulating and inhibitory factors).
- Primary and secondary intention prevention.
- Treatment of dehiscence and Procedure/ management of chronic wounds.
- Suturing techniques.
- Fluid/Electrolyte and Acid/Base Physiology:
 - Understanding normal physiology of body water and minerals.
 - Recognize common derangements and their treatment.
- Critical Care:
 - Basic principles of hemodynamic monitoring, acid/base physiology, oxygen consumption, oxygen delivery, respiratory failure, ventilation support, and nutrition.
- Dialysis:
 - Systematic approach to managing dialysis patients.
 - Indications for dialysis and non dialysis Procedure/ management.
 - Understanding the physiology of dialysis.
- Emergent Nephrology Problems:
 - Evaluation of Electrolyte imbalance, fluid overload .
 - Indications for emergent Nephrological intervention.
 - Diagnosis and treatment of common conditions presenting as Nephrological emergencies.
- Nephrology Infections:
 - Microbiology, predisposing factors, and treatment of nosocomial

infections.

- Procedure/ management of Generalized Sepsis.
- Nephrology Diseases:
 - Familiarity with natural history, diagnosis, and recognition/treatment of complications.
 - Diseases include:
 - Flank pain.
 - Urinary tract infection.
 - Urolithiasis.
 - Nephrological emergencies.
 - Acute kidney injury.
 - Chronic Kidney Injury.
 - Pulmonary Infection.
 - Glomerulonephritis.
 - Nephrotic & Nephritic Syndromes.
 - Electrolyte Imbalance.
 - Cystitis and Pyelonephritis.
 - Renal Replacement Therapy
 - Permanent and temporary line infection.
 - Dialysis disequilibrium Syndrome.
 - Uremic Encephalopathy.

Trauma/Emergency Nephrology Service

- Evaluation of kidney insult and electrolyte imbalance.
- Understanding pathophysiology (hemorrhagic, cardiogenic , hypovolemic shock).
- Role of imaging in acute care.
- Steps in managing nephrological injuries.
- Fluid and electrolyte Procedure/ management.
- Procedure/ management of post dialysis complications.
- Importance of kidney injury prevention.
- Role of nutrition, physical therapy, and rehabilitation.
- History taking and physical examination for acute abdominal pain..
- Chest radiograph, ABG, and ECG interpretation.
- ICU sedation, nutrition, and renal failure Procedure/ management.
- Placement of catheters, chest tubes, and central venous lines.
- **Transplant Nephrology**
 - Basics of pre renal transplantation and dialysis indications.

- Understanding immunology and Procedure/ management of transplant patients.
- Recognizing complications of immunosuppression.

○ **Professional Development**

- Ethical practice and cultural sensitivity.
- Lifelong learning and self-assessment.
- Teamwork and leadership in clinical settings.
- Research and education.

METHODS OF INSTRUCTION/COURSE CONDUCTION

Teaching Modalities

1. Lectures.
2. Seminar presentations and journal club presentations.
3. Group discussions.
4. Grand rounds.
5. Clinico pathological conferences.
6. SEQ as assignments on the content areas.
7. Skill teaching in ICU, operation theatres, emergency, and ward settings.
8. Attendance at genetic clinics and rounds for at least one month.
9. Participation in genetic counseling sessions.
10. Self-study, assignments, and use of the internet.
11. Bedside teaching rounds in wards.
12. OPD and follow-up clinics.
13. Long and short case presentations.

- **Interactive Strategies**

- Conferences to improve communication and clinical skills for upcoming consultants.
- Regularly scheduled conferences attended by faculty and residents.
- Participation in autopsies and review of pathological material.

- **Clinical Case Conferences**

- Each resident responsible for at least one clinical case conference monthly.
- Cases may be from consultation or clinic service or specialty rotations.
- Residents, with attending Nephrologists, prepare and present cases and review relevant literature.

- **Monthly Student Meetings**

- Each affiliated medical college provides a room for student meetings and discussions.

- Activities include: a. Journal club meetings. b. Core curriculum meetings. c. Skill development sessions.

a. Journal Club Meetings

- Residents present and discuss research articles of broad interest.
- Two hours per month allocated for discussions.
- Faculty or external researchers present outlines or results of current research.
- Articles critically evaluated for clinical practice relevance.
- Records of articles maintained in relevant departments.

b. Core Curriculum Meetings

- Monthly discussions on core Nephrology topics.
- Sessions last at least two hours and chaired by the elected chief resident.
- Residents brainstorm and generate ideas for course improvement.

c. Skill Development Sessions

- Two hours twice a month for clinical skill practice.
- Skills include:
 1. Understanding indications, contraindications, and complications of technical procedures.
 2. Educating patients about procedures and obtaining informed consent.
 3. Evaluating medical literature, study design, risks of disease, and medical statistics.
 4. Addressing cultural, social, family, and economic aspects in decision-making.
 5. Counseling skills and community education.
 6. Communication techniques for diverse populations.
 7. Performing clinical laboratory and radionuclide studies with quality control standards.
 8. Managing essential Nephrological cases under supervision and independently.

• Annual Grand Meeting

- Once a year, residents enrolled in MD Nephrology gather at UHS Lahore.
- One full day allocated to:
 - Presenting annual reports by chief residents from affiliated institutes.
 - Discussing issues and concerns related to courses.
 - Collecting feedback and suggestions to involve residents in

decision-making.

- Research and literary work by residents displayed.
- Evening informal gathering and dinner arranged to foster a sense of belonging.

LOG BOOK

The residents must maintain a log book and get it signed regularly by the supervisor. A complete and duly certified log book should be part of the requirement to sit for MD examination. Log book should include adequate number of diagnostic and therapeutic procedures observed and performed the indications for the procedure, any complications and the interpretation of the results, routine and emergency Procedure/ management of patients, case presentations in CPCs, journal club meetings and literature review.

Proposed Format of Log Book is as follows:

Candidate's Name: _____

Roll No. _____

Sr.#	Date	Name of Patient, Age, Sex & Admission No.	Diagnosis	Procedure/management	Supervisor's Signature
1					
2					
3					
4					

Emergencies Handled

Sr.#	Date	Name of Patient, Age, Sex & Admission No.	Diagnosis	Procedure/management	Supervisor's Signature
1					
2					
3					

Sr.#	Date	Name of Patient, Age, Sex & Admission No.	Diagnosis	Procedure/management	Supervisor's Signature
4					

Case Presented

Sr.#	Date	Name of Patient, Age, Sex & Admission No.	Case Presented	Supervisor's Signature
1				
2				
3				
4				

Evaluation Record

Sr.#	Date	Method of Evaluation (Oral, Practical, Theory)	Rating (Excellent, Good, Adequate, Inadequate, Poor)	Supervisor's Signature
1				
2				
3				
4				

EVALUATION & ASSESSMENT STRATEGIES

Evaluation & Assessment Strategies

Assessment Overview

- Focus on action- and professional growth-oriented, student-centered integrated assessments.

- Includes informal internal, formative, and summative assessments.

Student-Centered Integrated Assessment

- Empowers students as decision-makers, promoting responsibility for evaluation and self-improvement.
- Characteristics: Growth-oriented, student-controlled, collaborative, dynamic, informal, flexible, and action-oriented.

Components:

1. Self-Assessment

- Students complete a self-assessment form to evaluate their comfort and competency in clinical situations.
- Responsibility lies with students to identify weaknesses and address them.

2. Peer Assessment

- Students evaluate peers after monthly group meetings.
- Focused on constructive, non-judgmental feedback, fostering mentorship skills.

3. Informal Internal Assessment by Faculty

- No marks allocation, encouraging students to openly confront weaknesses.
- Components:
 - a. Punctuality
 - b. Ward Work
 - c. Monthly Assessments (written tests highlighting areas of weakness)
 - d. Participation in Interactive Sessions

Formative Assessment

- Continuous assessment of progress and competence conducted through workplace-based assessments during the training period.
- Involves a range of assessors and covers procedures suitable to the stage of training.
- Methods include:
 - Directly Observed Practical Skills (DOPS)
 - Case-Based Discussion (CbD)
 - Mini Clinical Examination Exercises (Mini-CEX)
 - Multiple Source Feedback (MDF)
- Supervisors will evaluate residents quarterly based on the syllabus/curriculum.

Summative Assessment

- Conducted in two stages:
 1. **Mid-Term Assessment (MTA) Examination:** Held at the end of the 2nd year.
 2. **Final/Exit Examination:** Held at the end of the final year.
- Performance requirements will be based on the knowledge and skills necessary for acceptable performance.
- Passing criteria will be determined through careful analysis and judgment without regulating the number or proportion of candidates passing.

THESIS

Thesis Evaluation Guidelines

1. **Thesis Submission Timeline:**

- The candidate must submit the thesis at least six months before the completion of training.

2. **Submission Process:**

- The thesis, along with a certificate of approval from the supervisor, is to be submitted to the Registrar's office.
- The Registrar will record the date and time of submission and ensure the thesis is forwarded to the Controller of Examinations within five working days.

3. **Examiner Selection:**

- The Controller of Examinations will submit a panel of eight examiners within seven days for the Vice Chancellor to select four examiners.
- The Vice Chancellor must return the final panel within five working days.
- In case of delays, the Controller of Examinations will personally bring the case to the Vice Chancellor.

4. **Supervisor's Role:**

- The supervisor will not act as an examiner or participate in the thesis evaluation.

5. **Thesis Distribution:**

- The Controller of Examinations will ensure the thesis is sent to examiners properly and will issue reminders every ten days.

6. **Evaluation Timeline:**

- Examiners must complete the evaluation within six weeks.
- If delays occur, the Controller of Examinations will send two fortnightly reminders and, if needed, notify the Vice Chancellor in person.

7. **Appointment of Examiners:**

- If an internal examiner cannot be found, the Vice Chancellor, in consultation with the concerned Deans, may appoint a relevant person as an examiner.
- There will be two internal and two external examiners. In case of difficulty, at least three examiners (one internal and two external) will be appointed.

8. **Evaluation Marks:**

- The thesis evaluation carries 400 marks, with a minimum of 60% required to pass.

- The thesis will be accepted if the cumulative score from all examiners is 60%.

9. Eligibility for Final Examination:

- Clinical training ends with the stipulated training period.
- The candidate becomes eligible for the final examination after completing clinical training and thesis acceptance.
- If clinical training ends earlier, the training slot will remain vacant until the stipulated period concludes.

MANDATORY WORKSHOPS

MANDATORY WORKSHOPS

1. Each candidate of the MD/MD/MDS program must attend the four mandatory workshops and any other workshop as required by the university.
2. The four mandatory workshops will include the following:
 - Research Methodology and Biostatistics
 - Synopsis/Writing
 - Communication Skills
 - Introduction to Computer / Information Technology and Software Programs
3. The workshops will be held on a three-monthly basis.
4. An appropriate fee will be charged for each workshop.
5. Each workshop will last for 2–5 days.
6. Certificates of attendance will be issued upon satisfactory completion of workshops.