

Rawalpindi Medical University

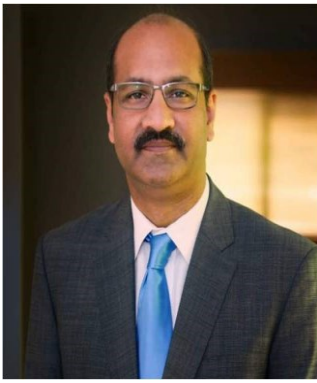


University Residency Program 2021

Curriculum for MD Psychiatry

Institute of Psychiatry

Rawalpindi Medical University



It is indeed a milestone development to initiate the MD Psychiatry Program at the Institute of Psychiatry, Rawalpindi Medical University. Behavioral Sciences and Psychiatry form a vital and an essential component of any post graduate training in any specialty to achieve competence as a specialized Health Professional.

I would like to take this opportunity to acknowledge the vision and efforts of Prof. Muhammad Umar, Vice Chancellor, Rawalpindi Medical University, for his support and wisdom in the creation of this document and look forward for his enduring leadership towards accomplishing the MD Program in Psychiatry.

I remain grateful to the Director, Department of Medical Education, Professor Rai Muhammad Asghar and his staff for facilitating me and my team in formulating this curriculum.

I am indebted to my faculty members, Assistant Professors Dr. Sadia Yasir & Dr. Qurat ul Ain, Senior Registrars Dr Zarnain Umar & Dr Zona Tahir at the Institute of Psychiatry for organizing and formulating this curriculum with me, they all have performed very well within a limited time frame.

I am also grateful to Mr Asif Siddique for the final editing, compiling and formatting of this document.

A handwritten signature in black ink, reading "Asad Tamizuddin Nizami". The signature is written in a cursive, flowing style.

Prof Asad Tamizuddin Nizami
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S NO	CONTENT
SECTION - I	
GENERAL	
1.	Mission statement
2.	Statuses
3.	Admission criteria
4.	Registration and enrolment
5.	Aims and objectives of course
6.	Other required core competencies for the residents
7.	Electives / rotations
8.	Scheme of course MD Psychiatry Program
9.	General road map of the MD degree program of Rawalpindi Medical University
10.	Methods of teaching and learning during course conduction
11.	Tools of assessment for the course
12.	Intermediate examination of MD Psychiatry
13.	Final examination of MD Psychiatry
14.	Submission /evaluation of synopsis
15.	Submission of thesis
16.	Thesis evaluation
17.	Award of MD Psychiatry degree
SECTION – II	
THE CURRICULUM	
18.	Details of curriculum of MD Psychiatry
19.	First year curriculum
20.	Second year curriculum

21.	Third and fourth year curriculum
SECTION- III	RESEARCH AND THESIS WRITING
22.	Details about research component and Thesis writing
SECTION -IV	RESEARCH CURRICULUM AND MENDATORY WORKSHOPS
23.	Details of research curriculum and mandatory workshops
SECTION - V	MILESTONES TO BE ACHIEVED BY THE RESIDENTS
24.	Charting the road to competence: developmental milestones for MD psychiatry program at Rawalpindi Medical University
SECTION - VI	EVALUATION AND ASSESSMENT STRATEGIES
25.	Evaluation and assessment strategies a general overview
26.	Details of MD Psychiatry examination (written and clinical)
27.	MD Psychiatry Final thesis examination
SECTION VII	LOG BOOK & PORTFOLIO
29.	Log Book for Psychiatry (Templates)
30.	Log Book for Research (Templates)
31.	Portfolio (Templates)
SECTION- VIII	REFERENCES
SECTION- IX	MISCELLANEOUS

General Overview of the MD Psychiatry Curriculum:

SECTION – I

MISSION STATEMENT

The mission of Internal Medicine Residency Program of Rawalpindi Medical University is:

1. To provide exemplary medical care, treating all patients who come before us with uncompromising dedication and skill.
2. To set and pursue the highest goals for ourselves as we learn the science, craft, and art of Medicine.
3. To passionately teach our junior colleagues and students as we have been taught by those who preceded us.
4. To treat our colleagues and hospital staff with kindness, respect, generosity of spirit, and patience.
5. To foster the excellence and well-being of our residency program by generously offering our time, talent, and energy on its behalf.
6. To support and contribute to the research mission of our medical center, nation, and the world by pursuing new knowledge, whether at the bench or bedside.
7. To promote the translation of the latest scientific knowledge to the bedside to improve our understanding of disease pathogenesis and ensure that all patients receive the most scientifically appropriate and up to date care.
8. To promote responsible stewardship of medical resources by wisely selecting diagnostic tests and treatments, recognizing that our individual decisions impact not just our own patients, but patients everywhere.
9. To promote social justice by advocating for equitable health care, without regard to race, gender, sexual orientation, social status, or ability to pay.
10. To extend our talents outside the walls of our hospitals and clinics, to promote the health and well-being of communities, locally, nationally, and internationally.

11.To serve as proud ambassadors for the mission of the Rawalpindi Medical University MD internal Medicine Residency Program for the remainder of our professional lives.

Statuses

1. **Nomenclature:**

The name of degree program shall be MD Psychiatry. This name is well recognized and established for the last many decades worldwide.

2. **Course Title:**

MD psychiatry

3. **Training Centre:**

Institute of Psychiatry, Rawalpindi Medical University (RMU).

4. **Duration of Course:** The duration of MD Psychiatry course shall be four 4 with structured training in a Rawalpindi Medical University recognized department (Institute of Psychiatry) under the guidance of an approved supervisor.

5. **Overview of the course structure:**

The course is structured in 4 parts; each part will have duration of 1 year.

After admission, during the 4 years in MD Psychiatry program the trainee will be stationed in various sub specialty units of psychiatry and medicine. Additionally the trainee will get an in depth understanding of clinical aspects of basic medical sciences and neurosciences with a salient focus on psychological sciences. The trainees will also undergo training in basic principles of research and will work at the development and completion of a research project.

After completion of each year training, the trainees will have an exam. During the training period, trainees will work as registrars in the aforementioned department, where experienced psychiatrists will supervise them. The trainee will be able to undertake the

MD Psychiatry final exam provided the yearly exams have been cleared and a research project report/thesis has been submitted to Rawalpindi Medical University. The final degree will be awarded upon completion of all the requirements stipulated in the document.

Admission Criteria

Applications for admission to MD Training Programs will be invited through advertisement in print and electronic media Mentioning closing date of applications and date of Entry Examination.

Eligibility: The applicant on the last date of submission of applications for admission must possess the:

- i. Basic Medical Qualification of MBBS or equivalent medical qualification recognized by Pakistan Medical & Dental Council.
- ii. Certificate of one year's House Job experience in institutions recognized by Pakistan Medical & Dental Council is essential at the time of interview. The applicant is required to submit House Certificate from the concerned Medical Superintendent that the House Job shall be completed before the Interview.
- iii. Valid certificate of permanent or provisional registration with Pakistan Medical & Dental Council.

Registration and Enrolment

- As per policy of Pakistan Medical Council the number of PG Trainees/ Students per supervisor shall be maximum 05 per annum for all residency programs including minor programs (if any).
- Beds to trainee ratio at the approved teaching site shall be at least 5 beds per trainee.
- The University will approve supervisors for MD courses.
- Candidates selected for the courses: after their enrollment at the relevant institutions shall be registered with UHS as per prescribed Registration Regulation

AIM

The aim of four years MD program in Psychiatry is to train residents to acquire the competency of a specialist in the field of psychiatry so that they can become good teachers ,researchers and clinicians .

General Objectives

- i. Sufficient understanding of the basic sciences relevant to the subject of psychiatry.
- ii. To diagnose and manage both the common and novel presentations of psychiatric conditions
- iii. To gain an understanding of cultural presentations of the psychiatric conditions.
- iv. To plan and advise measures for the prevention and rehabilitation of the mentally unwell.
- v. To gain adequate knowledge and understanding about the evidence based management of psychiatric conditions.
- vi. To demonstrate skills in the documentation of individual case records of morbidity and mortality.
- vii. To uphold and practice the ethical principles thereby safeguarding the rights of the mentally unwell.
- viii. To have empathy and a humane approach toward patients and their families
- ix. To have skills for the implementation of a national health program effectively and efficiently.
- x. To organize and supervise healthcare services, demonstrating adequate managerial skills in the clinical/ hospital setting
- xi. To develop a self-directed learning ability, recognize continuing educational needs; select and use the appropriate learning resources
- xii. To develop skills in using educational methods and techniques for teaching of medical students
- xiii. To demonstrate being an effective leader of a health team

SPECIFIC OBJECTIVES

(A) Knowledge

1. The development of a basic understanding of core concepts of psychology and psychiatry.
2. Etiology, clinical manifestation, disease course and prognosis, investigation and management of common psychiatric disorders.
3. Scientific basis and recent advances in pathophysiology, diagnosis and management of psychiatric disorders.
4. Spectrum of clinical manifestations and interaction of multiple diseases in the same patient.
5. Psychological and social aspects of co morbid medical illnesses.
6. Effective use and interpretation of investigation and special diagnostic procedures.
7. Critical analysis of the efficacy, cost-effectiveness and cost-utility of treatment modalities.
8. Patient safety and risk management
9. Medical audit and quality assurance
10. Ethical principles and medico legal issues related to medical illnesses.
11. Updated knowledge on evidenced-based medicine and its implications for diagnosis and treatment of psychiatric patients.
12. Familiarity with different care approaches and types of health care facilities towards the patients care with Comorbid medical illnesses, including convalescence, rehabilitation, palliation, long term care, and medical ethics.
13. Knowledge on patient safety and risk assessment and management.
14. Awareness and concern for the cost-effectiveness and risk-benefits of various advanced treatment modalities.
15. Familiarity with the concepts of administration and management and overall forward planning for a psychiatric unit.

(B)Skills

1. Interpret and integrate the history and examination findings and arrive at an appropriate differential diagnosis and final diagnosis

2. Demonstrate competence in identification, analysis and management of the problem at hand by using appropriate resources, and interpretation of investigation results
3. Prioritize clinical problems for the start of interventions
4. Use evidence-based pharmacologic, psychological and social interventions
5. Independently undertake counselling and informational care sessions
6. Independently conduct supportive psychotherapy, group therapy and behaviour therapy
7. Independently use electroplexy (electroconvulsive therapy) and other evidence-based physical methods of psychiatric treatment
8. Ability to relate clinical findings with psychopathological states and diagnosis of diseases.
9. Ability to select appropriate psychometric investigation tools/scales for confirmation of diagnosis and patients' management.
10. The formulation of a differential diagnosis with up-to—date scientific evidence and clinical judgment using history and physical examination data and the development of a prioritized problem list to select tests and make effective therapeutic decisions.
11. Assessing the risks, benefits, and costs of varying, effective treatment options; involving the patient in decision making via open discussion; selecting drugs from within classes; and the design of basic treatment programs and using critical pathways when appropriate.
12. Residents must be able to perform competently all procedures essential for the practice of psychiatry. This includes technical proficiency in taking informed consent, de escalation techniques, motivational interview ,conflict resolution ,psychotherapeutic interventions as outlined in the syllabus.
13. Ability to present clinical problems and literature review in grand rounds and seminars.
14. Good communication skills and interpersonal relationship with patients, families, medical colleagues, nursing and allied health professionals.

18. Diagnostic skills to effectively manage complex cases with unusual presentations.
19. Ability to implement strategies for preventive care and early detection of diseases in collaboration with primary and community care doctors.
20. Ability to understand medical statistics and critically appraise published work and clinical research on disease presentations and treatment outcomes. Experience in basic and/or clinical research within the training program should lead to publications and/or presentation in seminars or conferences.
21. Practice evidence—based learning with reference to research and scientific knowledge pertaining to their discipline through comprehensive training in Research Methodology
22. Ability to recognize and appreciate the importance of cost-effectiveness of treatment modalities.
23. The identification of key information resources and the utilization of the psychiatric literature to expand one's knowledge base and to search for answer to medical problems. They will keep abreast of the current literature and be able to integrate it to clinical practice.
24. Ability to write forensic case reports and formulate opinions.

(C) Attitudes

1. The well-being and restoration of health of patients must be of paramount consideration.
2. Empathy and good rapport with patient and relatives are essential attributes.
3. An aspiration to be the team-leader in total patient care involving nursing and allied medical professionals should be developed.
4. The cost-effectiveness of various investigations and treatments in patient care should be recognized.
5. The privacy and confidentiality of patients and the sanctity of life must be respected.
6. The development of a functional understanding of informed consent, advanced directives, and the physician-patient relationship.
7. Ability to appreciate the importance of the effect of disease on the psychological and socio-economic aspects of

individual patients and to understand patients' psycho-social needs and rights, as well as the medical ethics involved in patient management.

8. Willingness to keep up with advances in Internal Medicine and other Specialties.

9. Willingness to refer patients to the appropriate specialty in a timely manner.

10. Aspiration to be the team leader in total patient care involving nursing and allied medical professionals.

11. The promotion of health via adult immunizations, periodic health screening, and risk factor assessment and modification.

12. Recognition that teaching and research are important activities for the advancement of the profession.

(D) Other required core competencies:

1. PATIENT CARE

- Residents are expected to provide patient care that is compassionate, appropriate and effective for the promotion of health, prevention of illness, treatment of disease and at the end of life.
- Gather accurate, essential information from all sources, including psychiatric interviews, physical examinations, mental state examination, previous medical records and psychometric assessment tools.
- Make informed recommendations about preventive, diagnostic and therapeutic options and interventions based on clinical judgment, scientific evidence, and patient preference.
- Develop, negotiate and implement effective patient management plans and integration of patient care.
- Perform competently the diagnostic and therapeutic procedures considered essential for psychiatric practice.

2. INTERPERSONAL AND COMMUNICATION SKILLS

- Residents are expected to demonstrate interpersonal and communication skills that enable them to establish and maintain professional relationships with patients, families, and other members of health care teams.
- Provide effective and professional consultation to other physicians and health care professionals and sustain therapeutic and ethically sound professional relationships with patients, their families, and colleagues.

- Use effective listening, nonverbal, questioning, and narrative skills to communicate with patients and families.
- Interact with consultants in a respectful, appropriate manner.
- Maintain comprehensive, timely, and legible medical records.

3. PROFESSIONALISM

- Residents are expected to demonstrate behaviors that reflect a commitment to continuous professional developmental, ethical practice, an understanding and sensitivity to diversity and a responsible attitude toward their patients, their profession, and society.
- Demonstrate respect, compassion, integrity, and altruism in relationships with patients, families, and colleagues.
- Demonstrate sensitivity and responsiveness to the gender, age, culture, religion, sexual preference, socioeconomic status, beliefs, behavior and disabilities of patients and professional colleagues.
- Adhere to principles of confidentiality, scientific/academic integrity, and informed consent.
- Recognize and identify deficiencies in peer performance.
- Understand and demonstrate the skill and art of end of life care.

4. PRACTICE-BASED LEARNING AND IMPROVEMENT

- Residents are expected to be able to use scientific evidence and methods to investigate, evaluate, and improve patient care practices.
- Identify areas for improvement and implement strategies to enhance knowledge, skills, attitudes and processes of care.
- Analyze and evaluate practice experiences and implement strategies to continually improve the quality of patient practice.
- Develop and maintain a willingness to learn from errors and use errors to improve the system or processes of care.
- Use information of technology or other available methodologies to access and manage information, support

patient care decisions and enhance both patient and physician education.

5. SYSTEMS-BASED PRACTICE

- Residents are expected to demonstrate both an understanding of the contexts and systems in which health care is provided, and the ability to apply this knowledge to improve and optimize health care.
- Understands accesses and utilizes the resources, providers and systems necessary to provide optimal care.
- Understand the limitations and opportunities inherent in various practice types and delivery systems, and develop strategies to optimize care for the individual patient.
- Apply evidence-based, cost-conscious strategies to prevention, diagnosis, and disease management.
- Collaborate with other members of the health care team to assist patients in dealing effectively with complex systems and to improve systematic processes of care

Methods of Teaching & Learning during course conduction

1.InpatientServices:All residents will have rotations in general medicine, neurology, psychology ,child and adolescent psychiatry. The required knowledge and skills pertaining to the training in following areas shall be demonstrated;

1. ECT under GA
2. General medicine
3. Neurology and Organic Psychiatry
4. Psychosocial rehabilitation
5. Psychometric tests
6. Risk Assessment
7. Counseling Sessions /NPIs
8. Supportive and Group, Behavior therapy
9. Specialized Investigations (Lab, Radiological, Electrophysiological)

Outpatient Services

1. Adult Psychiatry
2. Child Psychiatry
3. Geriatric Psychiatry
4. Substance use
5. Liaison Services

3. Emergency services: Our residents take an early and active role in patient care and obtain decision-making roles quickly. Within the Emergency duties residents will actively manage patients presenting with psychiatric emergencies including conversion disorders, violent patients, acute stress reaction, panic attacks,

4. Liaison psychiatry : Our residents should be able to provide liaison services to these departments regarding patients' management; Pediatrics, Medicine, Dermatology, Emergency Medicine, General Surgery, Gynecology, Neurology, Occupational Medicine, Ophthalmology, Orthopedics ,Otolaryngology and Urology.

5. Community Practice: Residents experience the practice of psychiatry in a non-academic, non-teaching hospital setting. The rotation may be used to try out a practice that the resident later joins, to learn the needs of referring physicians or to decide on a future career path.

6. Mandatory Workshops: residents achieve hands on training while participating in mandatory workshops of Research Methodology, Advanced Life Support, Communication Skills, Computer & Internet and Clinical Audit.

Specific objectives are given in detail in the relevant section of Mandatory Workshops.

7. Core Faculty Lectures (CFL): The core faculty lecture's focus on monthly themes of the various specialty medicine topics for eleven months of the year .Good lectures can introduce new material or synthesize concepts students have through text-, web-, or field-based activities. Buzz groups can be incorporated into the lectures in order to promote more active learning.

8. Introductory Lecture Series (ILS): Various introductory topics are presented by arranging lectures involving faculty of medicine and neurology to introduce interns to basic and essential topics in respective disciplines.

9.Long and short case presentations:– Giving an oral presentation on ward rounds is an important skill for medical student to learn. It is a concise, edited presentation of the most essential information. Basic structure for oral case presentations includes Identifying information/chief complaint (ID/CC) ,History of present illness (HPI) including relevant ROS (Review of systems) questions only , Detailed mental state examination ,identifying other active problems , Medications/allergies/substance use (note: e. The complete ROS should not be presented in oral presentations , detailed personnel, premorbid personality and social history (current situation and major issues only) . Physical examination (pertinent findings only) , One line summary & Assessment and plan.

10.Seminar Presentation: Seminar is held in a noon conference format. Upper level residents present an in-depth review of a medical topic as well as their own research. Residents are formally critiqued by both the associate program director and their resident colleagues.

11.Journal Club Meeting (JC):A resident will be assigned to present, in depth, a research article or topic of his/her choice of actual or potential broad interest and/or application. Two hours per month should be allocated to discussion of any current articles or topics introduced by any participant. Faculty or outside researchers will be invited to present outlines or results of current research activities. The article should be critically evaluated and

its applicable results should be highlighted, which can be incorporated in clinical practice. Record of all such articles should be maintained in the relevant department

12.Small Group Discussions/ Problem based learning/ Case based learning: Traditionally small groups consist of 8-12 participants. Small groups can take on a variety of different tasks, including problem solving, role play, discussion, brainstorming, debate, workshops and presentations. Generally students prefer small group learning to other instructional methods. From the study of a problem students develop principles and rules and generalize their applicability to a variety of situations PBL is said to develop problem solving skills and an integrated body of knowledge. It is a student-centered approach to learning, in which students determine what and how they learn. Case studies help learners identify problems and solutions, compare options and decide how to handle a real situation.

13.Discussion/Debate: There are several types of discussion tasks which would be used as learning method for residents including: guided discussion, in which the facilitator poses a discussion question to the group and learners offer responses or questions to each other's contributions as a means of broadening the discussion's scope; inquiry-based discussion, in which learners are guided through a series of questions to discover some relationship or principle; exploratory discussion, in which learners examine their personal opinions, suppositions or assumptions and then visualize alternatives to these assumptions; and debate in which students argue opposing sides of a controversial topic. With thoughtful and well-designed discussion tasks, learners can practice critical inquiry and reflection, developing their individual thinking, considering alternatives and negotiating meaning with other discussants to arrive at a shared understanding of the issues at hand.

14.Grand Rounds (GR): The Department of Medicine hosts Grand Rounds on weekly basis. Speakers from local,

regional and national medicine training programs are invited to present topics from the broad spectrum of internal medicine. All residents on inpatient floor teams, as well as those on ambulatory block rotations and electives are expected to attend.

15. Professionalism Curriculum (PC): This is an organized series of recurring large and small group discussions focusing upon current issues and dilemmas in medical professionalism and ethics presented primarily by an associate program director.

16. Evening Teaching Rounds: During these sign-out rounds, the inpatient Chief Resident makes a brief educational presentation on a topic related to a patient currently on service, often related to the discussion from morning report. Serious cases are mainly focused during evening rounds.

17. Clinico-pathological Conferences: The clinic pathological conference, popularly known as CPC primarily relies on case method of teaching medicine. It is a teaching tool that illustrates the logical, measured consideration of a differential diagnosis used to evaluate patients. The process involves case presentation, diagnostic data, discussion of differential diagnosis, logically narrowing the list to few selected probable diagnoses and eventually reaching a final diagnosis and its brief discussion.

18. Evidence Based Medicine (EBM): Residents are presented a series of noon monthly lectures presented to allow residents to learn how to critically appraise journal articles, stay current on statistics, etc. The lectures are presented by the program director.

19. Clinical Audit based learning: “Clinical audit is a quality improvement process that seeks to improve patient care

and outcomes through systematic review of care against explicit criteria...Where indicated, changes are implemented...and further monitoring is used to confirm improvement in healthcare delivery.” Principles for Best Practice in Clinical Audit (2002, NICE/CHI)

20. Peer Assisted Learning: Any situation where people learn from, or with, others of a similar level of training, background or other shared characteristic. Provides opportunities to reinforce and revise their learning. Encourages responsibility and increased self-confidence. Develops teaching and verbalization skills. Enhances communication skills, and empathy. Develops appraisal skills (of self and others) including the ability to give and receive appropriate feedback. Enhance organizational and team-working skills.

21. Morbidity and Mortality Conference (MM): The M&M Conference is held occasionally at noon throughout the year. A case, with an adverse outcome, though not necessarily resulting in death, is discussed and thoroughly reviewed. Faculty members from various disciplines are invited to attend, especially if they were involved in the care of the patient. The discussion focuses on how care could have been improved.

22. Clinical Case Conference: Each resident, except when on vacation, will be responsible for at least one clinical case conference each month. The cases discussed may be those seen on either the consultation or clinic service or during rotations in specialty areas. The resident, with the advice of the Attending Physician on the Consultation Service, will prepare and present the case(s) and review the relevant literature

23. SEQ as assignments on the content areas: SEQs assignments are given to the residents on regular basis to enhance their performance during written examinations.

24. Skill teaching in ward settings:

- Residents must develop a comprehensive understanding of the indications, contraindications, limitations, complications, techniques, and interpretation of results of those technical procedures integral to the discipline (mentioned in the Course outlines)

 - Residents must acquire knowledge of and skill in educating patients about the technique, rationale of treatment and informed consent. Faculty supervision of residents in their performance is required, and each resident's experience in such procedures must be documented by the program director

 - Residents must have instruction in the evaluation of medical literature, clinical epidemiology, clinical study design, relative and absolute risks of disease, medical statistics and medical decision-making
 - Training must include cultural, social, family, behavioral and economic issues, such as confidentiality of information, indications for life support systems, and allocation of limited resources
 - Residents must be taught the social and economic impact of their decisions on patients, the primary care physician and society.
 - Residents should have instruction and experience with patient counseling skills and community education
 - This training should emphasize effective communication techniques for diverse populations, as well as organizational resources useful for patient and community education
- .Bedside teaching is regularly included in the ward rounds. Learning activities include the physical exam, a discussion of particular psychiatric disorder, psychosocial and ethical themes, and management issues

25. Directly Supervised Procedures - (DSP): Residents learn procedures under the direct supervision of an attending or fellow during some rotations.

26. Self-directed learning: self-directed learning residents have primary responsibility for planning, implementing, and evaluating their effort. It is an adult learning technique that assumes that the learner knows best what their educational needs are. The facilitator's role in self-directed learning is to support learners in identifying their needs and goals for the program, to contribute to clarifying the learners' directions and objectives and to provide timely feedback. Self-directed learning can be highly motivating, especially if the learner is focusing on problems of the immediate present, a potential positive outcome is anticipated and obtained and they are not threatened by taking responsibility for their own learning.

27. Follow up clinics: it includes regular follow up of the patients ,advising medications and ensuring compliance along with provision of psychotherapies. Rehabilitation information and support: We discuss with patients and relatives their individualized recovery from severe illness. This includes expectations, realistic goals, change in family dynamics and coming to terms with life style changes.(c)Identifying physical, psychological or social problems Some of our patients have problems either as a result of their critical illness or because of other underlying conditions. The follow-up team will refer patients to various specialties, if appropriate. (d)Promoting a quality service: Feedback from patients and relatives about their ward experience is invaluable.

28. Core curriculum meeting: All the core topics of psychiatry should be thoroughly discussed during these sessions. The duration of each session should be at least two hours once a month. It should be chaired by the chief resident (elected by the residents of the relevant discipline). Each resident should be given an opportunity to brainstorm all topics included in the course and to generate new ideas regarding the improvement of the course structure

29. Annual Grand Meeting : Once a year all residents enrolled for MD psychiatry should be invited to the annual meeting at RMU. One full day will be allocated to this event. All the chief residents from affiliated institutes will present their annual reports. Issues and concerns related to their relevant courses will be discussed. Feedback should be collected and suggestions should be sought in order to involve residents in decision making. The research work done by residents and their literary work may be displayed. In the evening an informal gathering and dinner can be arranged. This will help in creating a sense of belonging and ownership among students and the faculty.

30. Learning through maintaining log book: it is used to list the core clinical problems to be seen during the attachment and to document the student activity and learning achieved with each patient contact.

31. Learning through maintaining portfolio: Personal Reflection is one of the most important adult educational tools available. Many theorists have argued that without reflection, knowledge translation and thus genuine “deep” learning cannot occur. One of the Individual reflection tools maintaining portfolios, Personal Reflection allows students to take inventory of their current knowledge skills and attitudes, to integrate concepts from various experiences, to transform current ideas and experiences into new knowledge and actions and to complete the experiential learning cycle.

32. Task-based-learning: A list of tasks is given to the students: participate in consultation with the attending staff, interview and examine patients, review a number of new radiographs with the radiologist.

33. Community Based Medical Education: CBME refers to medical education that is based outside a tertiary or large secondary level hospital. Learning in the fields of epidemiology, preventive health, public health principles, community development, and the social impact of illness and understanding how patients interact with the

health care system. Also used for learning basic clinical skills, especially communication skills.

34.E-learning/web-based medical education/computer-assisted instruction:Computer technologies, including the Internet, can support a wide range of learning activities from dissemination of lectures and materials, access to live or recorded presentations, real-time discussions, self-instruction modules and virtual patient simulations. distance-independence, flexible scheduling, the creation of reusable learning materials that are easily shared and updated, the ability to individualize instruction through adaptive instruction technologies and automated record keeping for assessment purposes.

35.Research based learning: All residents in the categorical program are required to complete an academic outcomes-based research project during their training. This project can consist of original bench top laboratory research, clinical research or a combination of both. The research work shall be compiled in the form of a thesis which is to be submitted for evaluation by each resident before end of the training. The designated Faculty will organize and mentor the residents through the process, as well as journal clubs to teach critical appraisal of the literature.

36.Other teaching strategies specific for different specialties as mentioned in the relevant parts of the curriculum Some of the other teaching strategies which are specific for certain domains of internal medicine are given along with relevant modules.

Training pathway and Rotations

1. Clinical Psychology (Three months)

While the trainee will work in constant liaison with psychological services, throughout the period of his/her training, he or she will undergo three months exclusive training, covering the following areas:

- Undertake detailed psychosocial history and evaluation of 30 cases.
 - Use basic principles of psychology (motivation, perception, thinking, emotions, etc) in his/her assessment of various psychopathological phenomena
 - Link stages and theories of personality development to the assessment of personality in clinical settings.
 - Develop a psychoanalytic, psychodynamic, behavioral and cognitive formulation.
 - Run and interpret psychometric tests of personality, intelligence, memory, and organicity.
 - Use and interpret patient and interviewer filled diagnostic and prognostic tests of common psychiatric conditions.
 - Assist the group therapy, and individual supportive, behavioral and cognitive psychotherapy sessions
- Neurology (Three months)

2. Neurology

Rotation in Neurology will train the candidate to:

- Undertake detailed neurological examination of 20 cases(sensory and motor system, cranial nerves including fundocopy, cerebral and cerebeller functions)
- Identify common neurological conditions that appear in the differential diagnoses of psychiatric disorders
- Delineate the site, type, and pathological basis of lesions in patients presenting with neurological symptoms
- Interpret laboratory, radiological and electrophysiological tests commonly undertaken in neurological cases
- Undertake emergency, outpatient and indoor management of common neurological disorders
- Apply the knowledge of drug interactions between psychotropics and various common drugs used in neurological conditions
- Detect the psychosocial correlates and psychiatric co-morbidities in patients with common neurological conditions

3. Medicine (Three months)

Rotation in Medicine will be focused so that the candidate is able to:

- Undertake detailed physical and systemic examination of 20 cases
- Identify common medical conditions that appear in the differential diagnoses of psychiatric disorders
- Interpret laboratory, radiological and electrophysiological tests commonly undertaken in medical cases
- Undertake emergency, outpatient and indoor management of common medical disorders
- Apply the knowledge of drug interactions between psychotropics and various common drugs used in medical conditions
- Detect the psychosocial correlates and psychiatric co-morbidities in patients with common medical conditions

Non Clinical Electives

Research

Residents are encouraged to engage in clinical or basic science research during their training through our comprehensive mentoring program. At the beginning of this rotation, resident will be asked to identify a research topic or project and be linked with a research mentor. Resident will gain broad understanding of the fundamental principles and methods of research: developing research questions, analyzing current literature, designing studies (including statistical analysis), presenting research projects and writing them up. Residents receive close supervision by their preceptor throughout all phases of the research project, learning the process from hypothesis development to IRB (Institutional Review Board) submission through experimentation, data collection and analysis, and formal writing for presentation and publication. At the Resident Research Forum, residents present their work-in-progress to peers and faculty.

Medical Education:

Designed for residents interested in exploring the option of a career as a clinician educator, the medical education elective exposes residents to the variety of educational activities common to medical educators in academic centers. Residents choosing a medical education elective can learn curriculum development, participate in peer review of teaching for faculty and residents; develop skills in web based education and can initiate an educational scholarship project. Residents can also participate in small group teaching of students in physical diagnosis, clinical problem solving, procedural skills, and diagnostic test interpretation.

A crisp detail about modern Tools of Assessment intended to be used for the course**• 360-DEGREE EVALUATION INSTRUMENT-MULTI-SOURCE FEEDBACK (MSF):**

360-degree evaluations consist of measurement tools completed by multiple people in a person's sphere of influence. Evaluators completing rating forms in a 360-degree evaluation usually are superiors, peers, subordinates, and patients and families. A 360-degree evaluation can be used to assess interpersonal and communication skills, professional behaviors, and some aspects of patient care and systems-based practice

CHART STIMULATED RECALL ORAL EXAMINATION (CSR)

In a chart stimulated recall (CSR) examination patient cases of the examinee (resident) are assessed in a standardized oral examination. A trained and experienced physician examiner questions the examinee about the care provided probing for reasons behind the work-up, diagnoses, interpretation of clinical findings, and treatment plans. The examiners rate the examinee using a well-established protocol and scoring procedure. In efficiently designed CSR oral exams each patient case (test item) takes 5 to 10 minutes. A typical CSR exam is two hours with one or two physicians as examiners per separate 30 or 60-minute session. These exams assess clinical

decision-making and the application or use of medical knowledge with actual patients.

CHECKLIST EVALUATION

Checklists consist of essential or desired specific behaviors, activities, or steps that make up a more complex competency or competency component. Typical response options on these forms are a check () or “yes” to indicate that the behavior occurred or options to indicate the completeness (complete, partial, or absent) or correctness (total, partial, or incorrect) of the action. The forms provide information about behaviors but for the purpose of making a judgment about the adequacy of the overall performance, standards need to be set that indicate, for example, pass/fail or excellent, good, fair, or poor performance. Checklists are useful for evaluating any competency and competency component that can be broken down into specific behaviors or actions.

GLOBAL RATING OF LIVE OR RECORDED PERFORMANCE

Global rating forms are distinguished from other rating forms in that (a) a rater judges general categories of ability (e.g. patient care skills, medical knowledge, interpersonal and communication skills) instead of specific skills, tasks or behaviors; and (b) the ratings are completed retrospectively based on general impressions collected over a period of time (e.g., end of a clinical rotation) derived from multiple sources of information (e.g., direct observations or interactions; input from other faculty, residents, or patients; review of work products or written materials). All rating forms contain scales that the evaluator uses to judge knowledge, skills, and behaviors listed on the form.

OBJECTIVE STRUCTURED CLINICAL EXAMINATION (OSCE)

In an objective structured clinical examination (OSCE) one or more assessment tools are administered at 12 to 20

separate standardized patient encounter stations, each station lasting 10-15 minutes. All candidates move from station to station in sequence on the same schedule. Standardized patients are the primary assessment tool used in OSCEs, but OSCEs have included other assessment tools such as data interpretation exercises using clinical cases and clinical scenarios with mannequins, to assess technical skills.

PATIENT SURVEYS

Surveys of patients to assess satisfaction with hospital, clinic, or office visits typically include questions about the physician's care. The questions often assess satisfaction with general aspects of the physician's care, (e.g., amount of time spent with the patient, overall quality of care, physician competency (skills and knowledge), courtesy, and interest or empathy). More specific aspects of care can be assessed including: the physician's explanations, listening skills and provision of information about examination findings, treatment steps, and drug side effects.

PORTFOLIOS

A portfolio is a collection of products prepared by the resident that provides evidence of learning and achievement related to a learning plan. A portfolio typically contains written documents but can include video- or audio-recordings, photographs, and other forms of information. Reflecting upon what has been learned is an important part of constructing a portfolio. In addition to products of learning, the portfolio can include statements about what has been learned, its application, remaining learning needs, and how they can be met. In graduate medical education. Teaching experiences, morning report, patient rounds, individualized study or research projects are examples of learning experiences that lend themselves to using portfolios to assess residents.

RECORD REVIEW

Trained staff in an institution's medical records department or clinical department perform a review of patients' paper or electronic records. The staff uses a protocol and coding form based upon predefined criteria to abstract information from the records, such as medications, tests ordered, procedures performed, and patient outcomes. The patient record findings are summarized and compared to accepted patient care standards. Often residents will confer with other clinical team members before documenting patient decisions and therefore, the documented care may not be directly attributed to a single resident but to the clinical team.

SIMULATIONS AND MODELS

Simulations used for assessment of clinical performance closely resemble reality and attempt to imitate but not duplicate real clinical problems. Key attributes of simulations are that: they incorporate a wide array of options resembling reality, allow examinees to reason through a clinical problem with little or no cueing, permit examinees to make life-threatening errors without hurting a real patient, provide instant feedback so examinees can correct a mistaken action, and rate examinees' performance on clinical problems that are difficult or impossible to evaluate effectively in other circumstances.

STANDARDIZED ORAL EXAMINATION

The standardized oral examination is a type of performance assessment using realistic patient cases with a trained physician examiner questioning the examinee. The examiner begins by presenting to the examinee a clinical problem in the form of a patient case scenario and asks the examinee to manage the case. Questions probe the reasoning for requesting clinical findings, interpretation of findings, and treatment plans. In efficiently designed exams each case scenario takes three to five minutes. Exams last approximately 90 minutes to two and one-half hours with two to four separate 30 or 60-minute sessions.

STANDARDIZED PATIENT EXAMINATION (SP)

Standardized patients (SPs) are well persons trained to simulate a medical condition in a standardized way or actual patients who are trained to present their condition in a standardized way. A standardized patient exam consists of multiple SPs each presenting a different condition in a 10-12 minute patient encounter. The resident being evaluated examines the SP as if (s) he were a real patient,

Using a checklist or a rating form, a physician observer or the SPs evaluate the resident's performance on appropriateness, correctness, and completeness of specific patient care tasks and expected behaviors

WRITTEN EXAMINATION (MCQ)

A written or computer-based MCQ examination is composed of multiple-choice questions (MCQ) selected to sample medical knowledge and understanding of a defined body of knowledge, not just factual or easily recalled information. Each question or test item contains an introductory statement followed by four or five options in on a coded answer sheet. Only one option is keyed as the correct response. The introductory statement often presents a patient case, clinical findings, or displays data graphically. A separate booklet can be used to display pictures, and other relevant clinical information. In computer-based examinations the test items are displayed on a computer monitor one at a time with pictures and graphical images also displayed directly on the monitor. In a computer-adaptive test fewer test questions are needed because test items are selected based upon statistical rules programmed into the computer to quickly measure the examinee's ability. Medical knowledge and understanding can be measured by MCQ examinations.

Mini-Clinical Evaluation Exercise (mini-CEX)

This tool evaluates a clinical encounter with a patient to provide an indication of competence in skills essential for good clinical care such as history taking, examination and clinical reasoning. The trainee receives

immediate feedback to aid learning. The can be used at any time and in any setting when there is a trainee and patient interaction and an assessor is available.

Direct Observation of Procedural Skills (DOPS)

A DOPS is an assessment tool designed to evaluate the performance of a trainee in undertaking a practical procedure, against a structured checklist. The trainee receives immediate feedback to identify strengths and areas for development.

Case-based Discussion (CbD)

The CbD assesses the performance of a trainee in their management of a patient to provide an indication of competence in areas such as clinical reasoning, decision-making and application of medical knowledge in relation to patient care. It also serves as a method to document conversations about, and presentations of, cases by trainees. The CbD should focus on a written record (such as written case notes, out-patient letter, and discharge summary). A typical encounter might be when presenting newly referred patients in the outpatient department.

Audit Assessment (AA)

The Audit Assessment tool is designed to assess a trainee's competence in completing an audit. The Audit Assessment can be based on review of audit documentation OR on a presentation of the audit at a meeting. If possible the trainee should be assessed on the same audit by more than one assessor.

Teaching Observation (TO)

The Teaching Observation form is designed to provide structured, formative feedback to trainees on their competence at teaching. The Teaching Observation can be based on any instance of formalized teaching by the trainee who has been observed by the assessor. The process should be trainee-led (identifying appropriate teaching sessions and assessors).

Decisions on progress (ARCP)

The Annual Review of Competence Progression (ARCP) is the formal method by which a trainee's progression through her/his training programme is monitored and recorded. ARCP is not an assessment – it is the review of evidence of training and assessment.

ROTATIONS

Year of training	Rotations			Assessment
Year 1	12 months general Adult psychiatry			MCQs
Year 2	3 months general adult psychiatry	3 months psychology	6 months neurology and medicine	MCQS and TOACS
Year 3	12 months Adult Psychiatry			MCQs and SEQs
Year 4	9 months Adult Psychiatry	3 months Child Psychiatry		MCQs, SEQs and TOACS

Table of contents of first year clinical component

S No.	Content
1.	History taking (knowledge)
2.	History taking (skills)
3.	History taking (behaviors)
4.	Clinical examination (knowledge)
5.	Clinical examination (skills)
6.	Clinical examination (behaviors)
7.	Time management and decision making
8.	Decision making and clinical reasoning
9.	Phenomenology
10.	Classification of common psychiatric disorders
11.	Bio-Psycho-Social model
12.	Non pharmacological interventions
13.	Medical Ethics and professionalism
14.	Biological basis of human behavior
15.	Psychology and psychometrics
16.	Sociology
17.	Anthropology
18.	Common psychiatric disorders

CURRICULUM FOR FIRST YEAR MD PSYCHIATRY TRAINING

Topics to be taught	Learning objectives Students should be able to know:	Teaching method	Assessment
History taking (knowledge)	<p>To progressively develop the ability to obtain a relevant focused history from increasingly complex patients and challenging circumstances</p> <ul style="list-style-type: none"> • To record accurately and synthesize history with mental state examination and formulation of management plan according to likely clinical evaluation • Recognizes the importance of different elements of history • Recognizes the importance of clinical (particularly cognitive impairment), psychological, social, cultural and nutritional factors particularly those relating to ethnicity, race, cultural or religious beliefs and preferences, sexual orientation, gender and disability • Recognizes that patients do not present history in structured fashion and that the history may be influenced by the presence of acute and chronic medical conditions • Knows likely causes and risk factors for conditions relevant to mode of presentation • Recognizes that history should inform examination, investigation and management 	Bedside teaching in wards and outpatient departments	mini-CEX MCQs

History taking (skills)	<ul style="list-style-type: none"> • Identify and overcome possible barriers (eg cognitive impairment) to effective communication • Manage time and draw consultation to a close appropriately • Supplement history with standardized instruments or questionnaires when relevant • Manage alternative and conflicting views from family, carers and friends • Assimilate history from the available information from patient and other sources • Recognize and interpret the use of non verbal communication from patients and carers • Focus on relevant aspects of history 	Bedside teaching in wards and outpatient department	mini-CEX
History taking (behaviors)	Show respect and behave in accordance with Good Medical Practice	Bedside teaching in wards and outpatient departments	ACAT mini-CEX
Mental state and clinical examination (Knowledge)	<p>To progressively develop the ability to perform focused and accurate mental and clinical examination in increasingly complex patients and challenging circumstances</p> <ul style="list-style-type: none"> • To elicit relevant psychopathology in mental state examination and physical findings to history in order to 	Bedside teaching in wards and outpatient departments	CbD mini-CEX ACAT

	<p>establish diagnosis and formulate a management plan</p> <ul style="list-style-type: none"> • Understand the need for a valid mental state clinical examination • Understand the basis for mental state findings and the relevance of positive and negative findings • Recognize constraints to performing mental state and physical examination and strategies that may be used to overcome them • Recognize the limitations of mental state and physical examination and the need for adjunctive forms of assessment to confirm diagnosis 		
<p>Mental state and clinical examination (skills)</p>	<ul style="list-style-type: none"> • Perform MSE relevant to the presentation and risk factors that is valid, targeted and time efficient • Recognize the possibility of deliberate harm in vulnerable patients and report to appropriate agencies • Interpret findings from the history, physical examination and mental state examination, appreciating the importance of clinical, psychological, religious, social and cultural factors • Actively elicit important clinical findings • Perform relevant adjunctive examinations including cognitive examination such as Mini Mental state Examination (MMSE) and Abbreviated Mental Test 	<p>Bedside teaching inwards and outpatient departments</p>	<p>CbD mini-CEX ACAT</p>

	Score (AMTS)		
Mental state and clinical examination (behaviors)	<ul style="list-style-type: none"> • Show respect and behaves in accordance with Good Medical Practice 	Bedside teaching in wards and outpatient departments	CbD, miniCE X, MSF
Time management and decision making	To become increasingly able to prioritize and organize clinical and clerical duties in order to optimize patient care. To become increasingly able to make appropriate clinical and clerical decisions in order to optimize the effectiveness of the clinical team resource	Bedside teaching in wards and outpatient departments	ACAT, CbD
Decision making and clinical reasoning	<ul style="list-style-type: none"> • To progressively develop the ability to formulate a diagnostic and therapeutic plan for a patient according to the clinical information available • To progressively develop the ability to prioritize the diagnostic and therapeutic plan • To be able to communicate the diagnostic and therapeutic plan appropriately 	Bedside teaching in wards	ACAT, CbD, mini-CEX
Phenomenology	To identify and elicit disorders of <ul style="list-style-type: none"> • Consciousness • Thinking and Speech • Emotions • Perception • Memory 	Large class format (interactive lecture), ward rounds, small group discussion	MCQs & SEQs Long case Short case

Classification	<ul style="list-style-type: none"> • To classify common psychiatric disorders according to diagnostic criteria of ICD-11 and DSM-V • To compare the two diagnostic criteria and identify the etiological and contextual factors according to multiaxial system 	Ward rounds Journal clubs	MCQs SEQs Long and short case
Bio-psycho-social model and non pharmacological interventions	<ul style="list-style-type: none"> • To formulate a case in accordance with biological, psychological and social factors involved in the causation, maintenance and progression of disease • To be able to formulate a management plan keeping in view bio-psycho-social model • To apply and demonstrate the common NPIs i.e. counseling, breaking bad news, informational care, conflict resolution, problem solving, anger management, crisis intervention, de escalation techniques through observation and under supervision 	Ward rounds Role plays Bedside teaching SGDs	MCQs SEQs OSCE
Medical ethics and professionalism	<ul style="list-style-type: none"> • To define the basic concepts of the Hippocratic Oath, The issues of transference and counter-transference, Doctor-Patient relationship, Patient's and Doctor's rights, Peculiar ethical issues in Psychiatry, Relationship with pharmaceutical industry, media and other social institutions 	Small and large group discussions Role plays	MCQs SEQs OSCE

	Professionalism		
Biological basis of human behavior	<ul style="list-style-type: none"> To define the basics of Neuroanatomical structures and associated syndromes, Neurochemical and Neurophysiological concepts, Psych neuroendocrinology, Psychoneuroimmunology and Chronobiology. 	Lectures Journal club LGIS, SGDs	MCQs SEQs
Psychology and psychometrics	<ul style="list-style-type: none"> To define the perspectives in Psychology, history of Psychology, Learning, Memory, Perception, Intelligence, Consciousness and unconsciousness, Thinking and language, Motivation, Emotions Personality development, Childhood, Adolescence, Adulthood, Old age Cognitive, Social, Moral, Emotional, Sexual, Temperament Trait Theorists, Developmental Theorists, Schools of Psychopathology, Psychoanalytic, Psychodynamic, Cognitive, Interpersonal, Behavioral Psychological Assessment To administer and interpret the results of Psychometrics Assessment of personality (ability to choose, administer and interpret at least one projective and two non-projective personality assessment tools), measurement and Rating of Anxiety, Depression, Schizophrenia and Mania Scales, psychometric tools in assessing organicity 	SGDs, LGIS, bedside teaching	SEQs, MCQs, OSCE

Sociology	<ul style="list-style-type: none"> • To enumerate social factors Influencing Human Development, Mental Health and Illness • To define Stigma, Sick Roles, Deviance, Myths and Misconceptions. • To extrapolate the concept of Social Class and Mental Disorders, Social causation theory, Drift Hypothesis, Segregation Hypothesis, Holmes and Rahe's Social Risk factors, Therapeutic Community, Institutionalization, Deinstitutionalization. • To explain Parenting and Child Rearing Practices, Impact of Discord, Violence, Child abuse, Divorce, Influence of Illness and Death on Child development. • To explain Social Theories of Weber, Marx, Durkheim, Foucault, Parsons, Goffman and Heberman. • To explain the concept of Family, Family Types, Social systems and stratifications, Social change, Gender differences, stereotyping, patriarchy, social roles and sexual harassment. • To document the Relationship between culture, society, ethnicity, race, religion, attitudes and values - the pluralist model. • To categorize and identify Pathoplastic effects of culture and its impact on doctor patient relationship. 	LGIS, SGDs	MCQs, SEQs
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<p>Anthropology</p>	<ul style="list-style-type: none"> • To describe the influence on mental health, and illness, of culture, society and environment. • To describe the evolutionary processes of civilization, society, ethnicity, culture, language, ways of living and their influence on causing differences in thinking, conduct, perception of reality, and behavior, across the world, in general and across Pakistan's provinces in particular. • To Study of people in their natural habitats e.g. subcultures of deserts, river beds, mountainous terrains, coastal areas and plains of Pakistan. Influence of the cultures and subcultures of Pakistan on presentation and treatment of psychiatric disorders. • To identify the Significance and influence of shrines, faith healers, charlatans, quacks and alternative medicine on mental health issues and their management, Influence of culture on personality development, social roles, gender issues. • To describe Culture bound syndromes: Dhaat Syndrome, Gas and Gola Syndrome, Possession state, Jin, Bhoot, Amok, Latah, Voodoo Cultural methods of psychotherapy and treatment of mental illness 	<p>LGIS, SGDs</p>	<p>MCQs, SEQs</p>
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Common psychiatric disorders	<ul style="list-style-type: none"> • To define and classify the common psychiatric disorders presenting in general adult psychiatry • To identify the common presentations in psychiatric settings and relate it to ICD-11 and DSM V. • To devise a management plan keeping in view the list of important differentials • Depression, bipolar affective disorder, schizophrenia, substance use disorders, suicide and deliberate self-harm, dementia, epilepsy 	SGDs, OPD and inpatient teaching	MCQs and SEQs, CBD
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CURRICULUM FOR SECOND YEAR MD PSYCHIATRY TRAINING

TABLE OF CONTENTS

S. No	CONTENT
1.	Stress related disorders
2.	Mood disorders
3.	Schizophrenia and schizoaffective disorders
4.	ECT
5.	Organic psychiatry
6.	Substance use disorders
7.	Emergency psychiatry
8.	Psychopharmacology

CURRICULUM FOR SECOND YEAR MD PSYCHIATRY TRAINING

Topics to be taught	Learning objectives Students should be able to:	Teaching method	Assessment
Stress related disorders	<ul style="list-style-type: none"> • To diagnose, enlist differential diagnosis, identify predisposing, precipitating and perpetuating factors in disease causation • To identify epidemiological factors contributing to psychiatric disorders • To relate the common psychiatric presentation with underlying psychopathology • To identify medical comorbidities in general and special population • To demonstrate the relevant mental state findings and categorize according to ICD-11 diagnostic criteria • To formulate the history, Mental state examination and devise a management plan under supervision • Stress Related Disorders <ul style="list-style-type: none"> • Dissociative disorders • Adjustment Disorders 	<ul style="list-style-type: none"> • Bedside teaching • Seminars • SGDs • PBL • CBD • SDL • Follow up clinics • CPC • Skilled teaching in ward settings 	<ul style="list-style-type: none"> • OSCE • MCQs • SEQs • Long case • Short case

	<ul style="list-style-type: none"> • Acute and Chronic Stress Disorder • Acute stress reaction, PTSD • Grief reactions 		
Mood disorders	<ul style="list-style-type: none"> • To diagnose, enlist differential diagnosis, identify predisposing, precipitating and perpetuating factors in disease causation • To identify epidemiological factors contributing to psychiatric disorders • To relate the common psychiatric presentation with underlying psychopathology • To identify medical comorbidities in general and special population • To demonstrate the relevant mental state findings and categorize according to ICD-11 diagnostic criteria • To formulate the history, Mental state examination and devise a management plan under supervision <ul style="list-style-type: none"> • To identify high risk patients and manage under supervision <p>Mood disorders</p> <p>- Bipolar Affective disorders</p>	<ul style="list-style-type: none"> • Bedside teaching • Seminars • SGDs • PBL • CBD • SDL • Follow up clinics • CPC • Skilled teaching in ward settings 	<ul style="list-style-type: none"> • OSCE • MCQs • SEQs • Long case • Short case

	<ul style="list-style-type: none"> - Depression - Persistent mood disorder 		
Schizophrenia and schizoaffective disorders	<ul style="list-style-type: none"> • To diagnose, enlist differential diagnosis, identify predisposing, precipitating and perpetuating factors in disease causation • To identify epidemiological factors contributing to psychiatric disorders • To relate the common psychiatric presentation with underlying psychopathology • To identify medical comorbidities in general and special population • To demonstrate the relevant mental state findings and categorize according to ICD-11 diagnostic criteria • To formulate the history, Mental state examination and devise a management plan under supervision 	<ul style="list-style-type: none"> • Bedside teaching • Seminars • SGDs • PBL • CBD • SDL • Follow up clinics • CPC • Skilled teaching in ward settings 	<ul style="list-style-type: none"> • OSCE • MCQs • SEQs • Long case • Short case
ECT	<ul style="list-style-type: none"> • To describe the different parts of ECT machine and its working • To predict the indications/ contraindications • To prepare the patient for ECT using standard protocols • To administer ECT under supervision 	<ul style="list-style-type: none"> • Skilled teaching through observation and performance • Seminars • SGDs 	<ul style="list-style-type: none"> • OSCE • MCQs • SEQs

	<ul style="list-style-type: none"> • To monitor short and long term side effects and their management 	<ul style="list-style-type: none"> • CBD • SDL • Skilled teaching in ward settings 	
Organic psychiatry	<ul style="list-style-type: none"> • To diagnose, enlist differential diagnosis, identify predisposing, precipitating and perpetuating factors in disease causation • To identify epidemiological factors contributing to psychiatric disorders • To relate the common psychiatric presentation with underlying psychopathology • To identify medical comorbidities in general and special population • To demonstrate the relevant mental state findings and categorize according to ICD-11/DSM-V diagnostic criteria <ul style="list-style-type: none"> • To identify and manage psychiatric presentations of underlying organic pathologies • To advise relevant lab tests and radiological investigations, interpret the results and correlate with clinical findings 	<ul style="list-style-type: none"> • Bedside teaching • Seminars • SGDs • PBL • CBD • SDL • Follow up clinics • CPC • Skilled teaching in ward settings 	<ul style="list-style-type: none"> • OSCE • MCQs • SEQs • Long case • Short case

	<ul style="list-style-type: none"> • Delirium, Dementia, Focal cerebral syndrome, Amnesias, Neuro-degenerative disorders, Cerebro-vascular syndromes, Intracranial infections, Brain tumors, Multiple sclerosis, Dyskinesias, Epilepsy, Sleep disorders, Mental retardation 		
Substance use disorders	<ul style="list-style-type: none"> • To enumerate various drugs of abuse according to ICD-11/DSM-V diagnostic criteria • To classify substances of abuse in relation to their presentations and differentiate among harmful use, abuse, withdrawal, dependence, intoxication • To describe the neuroanatomical and neurophysiological changes due to different substances of abuse • To manage the cases under supervision <p>Drug Abuse</p> <ul style="list-style-type: none"> - Alcohol related disorders - Opioids - Anxiolytics and Hypnotics 	<ul style="list-style-type: none"> • Bedside teaching • Seminars • SGDs • PBL • CBD • SDL • Follow up clinics • CPC • Skilled teaching in ward settings 	<ul style="list-style-type: none"> • OSCE • MCQs • SEQs • Long case • Short case

	<ul style="list-style-type: none"> - Cannabis - Stimulants - Solvents, Inhalants 		
Emergency psychiatry	<ul style="list-style-type: none"> • To identify psychiatric emergencies • To actively participate in management of psychiatric emergencies under supervision • Suicide and deliberate self harm • Handling a violent patient • Conversion disorder and Panic attacks • Intoxication 	<ul style="list-style-type: none"> • Bedside teaching • Seminars • SGDs • PBL • CBD • SDL • Follow up clinics • CPC • Skilled teaching in ward settings 	<ul style="list-style-type: none"> • OSCE • MCQs • SEQs • Long case • Short case
Psychopharmacology	<p>To describe Mechanism of action, indications, contraindications, side effects, monitoring, drug drug interactions of neuroleptics like</p> <ul style="list-style-type: none"> •- Anxiolytics •- Hypnotics •- Anti-psychotics 	<ul style="list-style-type: none"> • Bedside teaching • Seminars • SGDs • PBL • CBD • SDL 	<ul style="list-style-type: none"> • OSCE • MCQs • SEQs • Long case • Short case

	<ul style="list-style-type: none"> •- Anti-parkinsonians •- Anti-depressants •- Mood stabilizers •- Psycho-stimulants •- Drug Interactions •- Non-psychotropics with neuro-psychiatric effects •To order relevant investigations before starting medication and continuous monitoring during continuation phase •To use this knowledge in management of patients 	<ul style="list-style-type: none"> • Follow up clinics • CPC • Skilled teaching in ward settings 	
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ROTATIONS

NEUROLOGY

Educational Purpose:

To give residents formal instruction, clinical experience, and the opportunity to acquire expertise necessary to evaluate and manage neurological diseases.

General objectives of Neurology course:

At the end of the Neurology course the resident should have achieved the following objectives:

1. The general internist should possess a broad range of competency in neurology and the knowledge should encompass the prevention and management of disorders of the central and peripheral nervous systems.

2. Knowledge of therapeutics, surgical and medical and primary and secondary prevention of neurologic diseases and should be familiar with the presenting features, diagnosis, and treatment of common neurologic disorders and other conditions, such as headache, caused by non-neural dysfunction
3. Interpreting the significance of neurological symptoms.
4. He or she should be able to perform and interpret a detailed neurologic examination.
5. Interpreting the signs obtained in the examination
6. Localization of diseases process in the nervous system
7. Integration of symptoms and signs into neurological syndromes and recognizing neurological illnesses
8. Making a differential diagnosis
9. Learning the basis of neuroimaging (CT scan, MRI), and electro diagnostic studies (EEG's and EMG's)
10. Utilizing laboratory data to complete topographic and etiologic diagnoses
11. Defining pathophysiologic mechanisms of disease processes
12. Formulating plan for investigation and management
13. Assessing prognosis
14. Understanding main neurological manifestations of systemic diseases
15. Identifying emergencies and need for expert assistance
16. The general internist may encounter neurologic disorders in various settings, including ambulatory care, hospital, long-term care, and home care.
17. In communities where a neurologist is not available, the general internist may be a consultant for some complex neurologic disorders (for example, control of status epileptics).

Content of required knowledge:

Common Clinical Disorders:

- Headache
- Facial Pain
- Inflammatory meningeal and encephalitic lesions
- Epilepsy
- Syncope and Dysautonomia
- Sensory Disturbances
- Weakness and Paralysis
- Transient Ischemic Attacks
- Stroke
- Intracranial and Spinal Space-Occupying Lesions.
- Non metastatic Neurologic Complications of Malignant Disease.
- Pseudo tumor Cerebri
- Selected Neurocutaneous Diseases
- Movement Disorders

Dementia

- Multiple Sclerosis
- Vitamin E Deficiency
- Spasticity
- Myelopathies in AIDS
- Myelopathy of Human T Cell Leukemia Virus
- Subacute Combined Degeneration of the Spinal Cord.
- Wernicke's Encephalopathy

- Stupor and Coma
- Head Injury
- Spinal Trauma
- Syringomyelia
- Motor Neuron Diseases
- Peripheral Neuropathies
- Discogenic Neck Pain
- Brachial and Lumbar Plexus Lesions
- Disorders of Neuromuscular Transmission
- Myopathic Disorders
- Periodic Paralysis Syndrome

Common Clinical Presentations

- Abnormal speech
- Abnormal vision
- Altered sensation
- Confusion
- Disturbed gait or coordination
- Dizziness, vertigo
- Headache
- Hearing loss
- Localized pain syndromes: Facial pain, radiculopathy
- Loss of consciousness
- Memory impairment

- Seizure
- Sleep disorder
- Tremor
- Weakness/paresis (generalized, localized)

Procedure Skills

- Lumbar Puncture
 - Fundoscopy

Ordering and Understanding Tests

- Anticonvulsant drug levels
- Computed tomography, magnetic resonance imaging of central nervous system
- Electroencephalography, evoked potentials (visual, auditory, sensory)
- Electromyography, nerve conduction studies
- Myelography
- Screen for toxins, heavy metals
- Sleep study

MEDICINE

Educational Purpose:

To give residents formal instruction, clinical experience, and the opportunity to acquire expertise necessary to evaluate and manage medical diseases.

General objectives of Medical Rotation:

At the end of the medical rotation the resident should have achieved the following objectives:

1. The general internist should possess a broad range of competency in medicine and the knowledge should

encompass the prevention and management of medical disorders.

2. Knowledge of therapeutics, surgical and medical and primary and secondary prevention of medical diseases and should be familiar with the presenting features, diagnosis, and treatment of common medical disorders
3. Interpreting the significance of medical symptoms.
4. He or she should be able to perform and interpret a detailed medical examination.
5. Interpreting the signs obtained in the examination
6. Integration of symptoms and signs into medical disorders
7. Making a differential diagnosis
8. Utilizing laboratory data to complete topographic and etiologic diagnoses
9. Defining pathophysiologic mechanisms of disease processes
10. Formulating plan for investigation and management
11. Assessing prognosis
12. Identifying emergencies and need for expert assistance

Content of required knowledge:

Common Clinical Disorders:

- cardiovascular disorders
- Respiratory disorders
- Gastrointestinal disorders
- Urogenital disorders
- Musculoskeletal disorders

Procedure Skills

Fundoscopy

Ordering and Understanding Tests

- Baseline investigations
- ECG
- Chest X-ray
- Arterial blood gases
- Thyroid function tests

PSYCHOLOGY

Educational Purpose:

To give residents formal instruction, clinical experience, and the opportunity to acquire expertise necessary to evaluate and manage psychological basis of psychiatric disorders.

General objectives of Psychology Rotation:

At the end of the Psychology rotation the resident should have achieved the following objectives:

- Undertake detailed psychosocial history and evaluation of 30 cases.
- Use basic principles of psychology (motivation, perception, thinking, emotions, etc) in his/her assessment of various psychopathological phenomena
- Link stages and theories of personality development to the assessment of personality in clinical settings
- Develop a psychoanalytic, psychodynamic, behavioral and cognitive formulation.
- Run and interpret psychometric tests of personality, intelligence, memory, and organicity.

- Use and interpret patient and interviewer filled diagnostic and prognostic tests of common psychiatric conditions.
- Assist the group therapy, and individual supportive, behavioral and cognitive psychotherapy sessions

Content of required knowledge:

- History of Psychology
- Learning
- Memory
- Perception
- Intelligence
- Consciousness and unconsciousness
- Thinking and language
- Motivation
- Emotions
- Personality development
- Childhood, Adolescence, Adulthood, Old age Cognitive, Social, Moral, Emotional, Sexual developmental theorists
- Temperament Trait Theorists
- Schools of Psychopathology
- Psychoanalytic, Psychodynamic, Cognitive, Interpersonal, Behavioral Psychological Assessment
- Psychotherapies
- Psychometric scales

PROCEDURE SKILLS

Psychotherapies

- Supportive psychotherapy
- Cognitive behavioral therapy
- Couples and family therapy
- Group therapy
- Psychoanalytical psychotherapy
- Behavioral techniques

CURRICULUM FOR THIRD AND FOURTH YEAR MD PSYCHIATRY TRAINING

TABLE OF CONTENTS

S. NO.	CONTENTS
1.	Stress related disorders
2.	Mood disorders
3.	Schizophrenia and schizoaffective disorders
4.	Organic psychiatry
5.	Substance use disorders
6.	Child and adolescent mental health
7.	Geriatric psychiatry
8.	Forensic psychiatry
9.	Community psychiatry
10.	Eating, sleep and sexual disorders
11.	Perinatal psychiatry
12.	Personality disorders
13.	Emergency psychiatry

CURRICULUM FOR THIRD AND FOURTH YEAR MD PSYCHIATRY

Topics to be taught	Learning objectives Students should be able to:	Teaching method	Assessment
Stress related disorders	<ul style="list-style-type: none"> • To formulate a detailed management plan • To manage the patient independently • To predict the short and long term prognosis of patient 	• Bedside	• OSCE
Mood disorders		teaching	• MCQs
Schizophrenia and schizoaffective disorders		• Seminars	• SEQs
Organic psychiatry		• SGDs	• Long case
Substance use disorders		• PBL	• Short case
Child and Adolescent Mental Health	<ul style="list-style-type: none"> • To diagnose, enlist differential diagnosis, identify predisposing, precipitating and perpetuating factors in disease causation related to family, school and home environment • To identify epidemiological factors contributing to emotional and behavioral problems • To relate the common psychiatric presentation with underlying psychopathology • To evaluate and manage the patients presenting with comorbid intellectual disability 	<ul style="list-style-type: none"> • CBD • SDL • Follow up clinics • CPC • Skilled teaching in ward settings 	

	<ul style="list-style-type: none"> • To demonstrate the relevant mental state findings and categorize according to ICD-11 diagnostic criteria • To formulate the history, Mental state examination and devise a management plan under supervision <ul style="list-style-type: none"> • Normal development • Pervasive developmental disorders • Hyperkinetic disorders • Conduct disorders • Anxiety disorders • Mood disorders • Mental retardation • Specific learning disorders • Child abuse • Disorders of elimination 		
Geriatric psychiatry	<p>To diagnose, enlist differential diagnosis, identify predisposing, precipitating and perpetuating factors in disease causation</p> <ul style="list-style-type: none"> • To identify epidemiological factors contributing to psychiatric disorders • To relate the common psychiatric 	<p>Bedside teaching</p> <ul style="list-style-type: none"> • Seminars • SGDs • PBL • CBD • SDL 	<p>OSCE</p> <ul style="list-style-type: none"> • MCQs • SEQs • Long case • Short

	<p>presentation with underlying psychopathology</p> <ul style="list-style-type: none"> • To identify medical comorbidities in geriatric population • To demonstrate the relevant mental state findings and categorize according to ICD-11/DSM-V diagnostic criteria • To identify and manage psychiatric presentations of underlying medical comorbidities and formulate a holistic management plan <ol style="list-style-type: none"> 1. Psychological issues of aging 2. Mood disorders in elderly 3. Anxiety disorders in elderly 4. Psychotic disorders in elderly 5. Abuse and neglect of elderly 6. Neuropsychiatric disorders 7. Primary and secondary pre-senile and senile dementias 8. Organization of community services for elderly 9. Rehabilitation 10. Care of the carers 	<ul style="list-style-type: none"> • Follow up clinics • CPC • Skilled teaching in ward settings 	<p>case</p>
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Forensic psychiatry	<ul style="list-style-type: none"> • To formulate a forensic case report • To identify various forensic psychiatric syndromes • To assess risk in forensic cases and management • To manage the administrative aspects of forensic cases • To understand the role of psychiatrist in court • To incorporate legal aspects in management plan according to Mental Health Act 	<p>Bedside teaching</p> <ul style="list-style-type: none"> • Seminars • SGDs • PBL • CBD • SDL • Follow up clinics • CPC • Skilled teaching in ward settings 	<p>OSCE</p> <ul style="list-style-type: none"> • MCQs • SEQs • Long case • Short case
Community psychiatry	<ul style="list-style-type: none"> • To organize and evaluate a community health program • MhGAP • National program for mental health 		
Eating, sleep and sexual disorders	<ul style="list-style-type: none"> • To diagnose these disorders on the basis of diagnostic criteria of ICD 11 and DSM V. • To classify sexual, sleep and eating disorders • To formulate a comprehensive 		

	management plan keeping the biopsychosocial model of health care and evidence based medicine		
Perinatal psychiatry	<ul style="list-style-type: none"> • To define, classify and formulate a comprehensive management plan of perinatal psychiatric disorders e.g antenatal depression and anxiety ,post partum depression and anxiety /panic disorders ,post partum psychosis ,post partum obsessive compulsive disorder, post traumatic stress disorder . • To provide essential psychotherapy for management of these disorders • To formulate a comprehensive short term and long term management plan in these patients 	<p>Bedside teaching</p> <ul style="list-style-type: none"> • Seminars • SGDs • PBL • CBD • SDL • Follow up clinics • CPC • Skilled teaching in ward settings 	<p>OSCE</p> <ul style="list-style-type: none"> • MCQs • SEQs • Long case • Short case
Personality disorders	<p>To define, classify and diagnose different personality disorders through history taking, mental state examination and psychometric assessment tools.</p> <p>To formulate a comprehensive short</p>	<p>Bedside teaching</p> <ul style="list-style-type: none"> • Seminars • SGDs • PBL • CBD • SDL 	<p>OSCE</p> <ul style="list-style-type: none"> • MCQs • SEQs • Long case • Short

	<p>term and long term management plan based on evidence and national and international guidelines.</p>	<ul style="list-style-type: none"> • Follow up clinics • CPC • Skilled teaching in ward settings 	<p>case</p>
Emergency Psychiatry	<ul style="list-style-type: none"> • To identify psychiatric emergencies • To actively manage psychiatric emergencies independently as Suicide and deliberate self harm • Handling a violent patient • Conversion disorder and Panic attacks • Managing substance use emergencies like Intoxication and severe withdrawal <ul style="list-style-type: none"> • Managing severe side-effects like Extrapiramidal symptoms, Neuroleptic malignant syndrome, serotonin syndrome and neuroleptic overdose. 	<p>Bedside teaching</p> <ul style="list-style-type: none"> • Seminars • SGDs • PBL • CBD • SDL • Follow up clinics • CPC • Skilled teaching in ward settings 	<p>OSCE</p> <ul style="list-style-type: none"> • MCQs • SEQs • Long case • Short case

RESOURCES

- The Maudsley Prescribing Guidelines in Psychiatry, 13th Edition
- New Oxford Textbook of Psychiatry, 3rd Edition
- Internal classification of Diseases, 11th Edition (ICD-11)
- Psychology: Themes and Variations, 10th Edition
- Shorter Oxford Textbook of Psychiatry, 7th Edition
- Lishman's Organic Psychiatry, A Textbook of Neuropsychiatry, 4th Edition
- Stahl's Essential Psychopharmacology: Neuroscientific Basis and Practical Applications , 4th Edition

ATTRIBUTES REQUIRED OTHER THAN KNOWLEDGE DURING FOUR YEARS OF TRAINING:

System based learning	Professionalism	Interpersonal and Communication Skills	Practice Based Learning Improvement	Evaluation of Medical Knowledge
<ul style="list-style-type: none"> • Residents should gain insight into and appreciation of the psychosocial effects of chronic illness. • Residents should enhance their utilization of communication with many health services and professionals such as nutritionists, nurse clinicians, physician assistants, social workers podiatrist, ophthalmologist, physical therapist, surgeon, radiologist and nuclear medicine specialist. • Residents should learn the importance of preventive medicine in routine health care and specifically in the area of neurological disease management. 	<ul style="list-style-type: none"> • Development of ethical behavior and humanistic qualities of respect, compassion, integrity, and honesty • Willing to acknowledge errors and determine how to prevent them in the future • Responsibility and reliability at all times • Consideration of needs from patients, families, colleagues and support staff • Professional appearance at all times 	<ul style="list-style-type: none"> • Residents should be able to decide when to call another specialist for evaluation and management on a patient with a psychiatric disease. • Residents should be able to clearly present the problem to the consultant and ask a precise question to the consultant. • Residents should continue to develop their ethical behavior and the humanistic qualities of respect, compassion, empathy, and rapport with patients and family to promote the patient's welfare. • Residents should provide effective education and 	<ul style="list-style-type: none"> • Use feedback and self evaluation to improve performance • Read the required material from textbook, journals and handouts • Use medical literature search tools at the library and through on-line to find appropriate articles that apply to interesting cases. 	<ul style="list-style-type: none"> • Answer specific questions and to participate in didactic sessions • Properly present assigned topics (these will be examined for complete accuracy, organization and resident's understanding of the subject • Apply the learned information on patients care. • Give more than Their share and demonstrate interest and enthusiasm in learning

<ul style="list-style-type: none"> • Residents should be knowledgeable on the use of cost effective medicine • Residents will assist in development of systems of improvements to correct identified problems. 		<p>counseling to patients.</p> <ul style="list-style-type: none"> • Residents must write organized and legible notes. • Residents must communicate to the staff in a timely fashion any problem or conflict that arouse during interaction with the patients. 		
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SECTION – III

RESEARCH & THESIS WRITING

Total of one year will be allocated for work on a research project with thesis writing. Project must be completed and thesis be submitted before the end of training. Research can be done as one block in 4th year of training or it can be stretched over four years of training in the form of regular periodic rotations during the course as long as total research time is equivalent to one calendar year.

Research Experience

The active research component program must ensure meaningful, supervised research experience with appropriate protected time for each resident while maintaining the essential clinical experience. Recent productivity by the program faculty and by the residents will be required, including publications in peer-reviewed journals. Residents must learn the design and interpretation of research studies, responsible use of informed consent, and research methodology and interpretation of data. The program must provide instruction in the critical assessment of new therapies and of the medical literature. Residents should be advised and supervised by qualified staff members in the conduct of research

Clinical Research

Each resident will participate in at least one clinical research study to become familiar with

1. Research design

2. Research involving human subjects including informed consent and operations of the Institutional Review Board and ethics of human experimentation
3. Data collection and data analysis
4. Research ethics and honesty
5. Peer review process

This usually is done during the consultation and outpatient clinic rotations

Case Studies or Literature Reviews

Each resident will write, and submit for publication in a peer-reviewed journal, a case study or literature review on a topic of his/her choice

Laboratory Research

1. **Bench Research** Participation in laboratory research is at the option of the resident and may be arranged through any faculty member of the Division. When appropriate, the research may be done at other institutions

2. **Research involving animals**

Each resident participating in research involving animals is required to:

1. Become familiar with the pertinent Rules and Regulations of the Rawalpindi Medical University i.e. those relating to "Health and Medical Surveillance Program for Laboratory Animal Care Personnel" and "Care and Use of Vertebrate Animals as Subjects in Research and Teaching".

2. Read the "Guide for the Care and Use of Laboratory Animals".
3. View the videotape of the symposium on Humane Animal Care

3. **Research involving Radioactivity**

Each resident participating in research involving radioactive materials is required to:

1. Attend a Radiation Review session
2. Work with an Authorized User and receive appropriate instruction from him/h

**SECTION – IV Details of RESEARCH Curriculum & Mandatory
workshops**

**CURRICULUM OF RESEARCH & MANDATORY WORKSHOPS
2019**

FOR

MD SCHOLARS & POST GRADUATE TRAINEES

Of

RAWALPINDI MEDICAL UNIVERSITY

INTRODUCTION

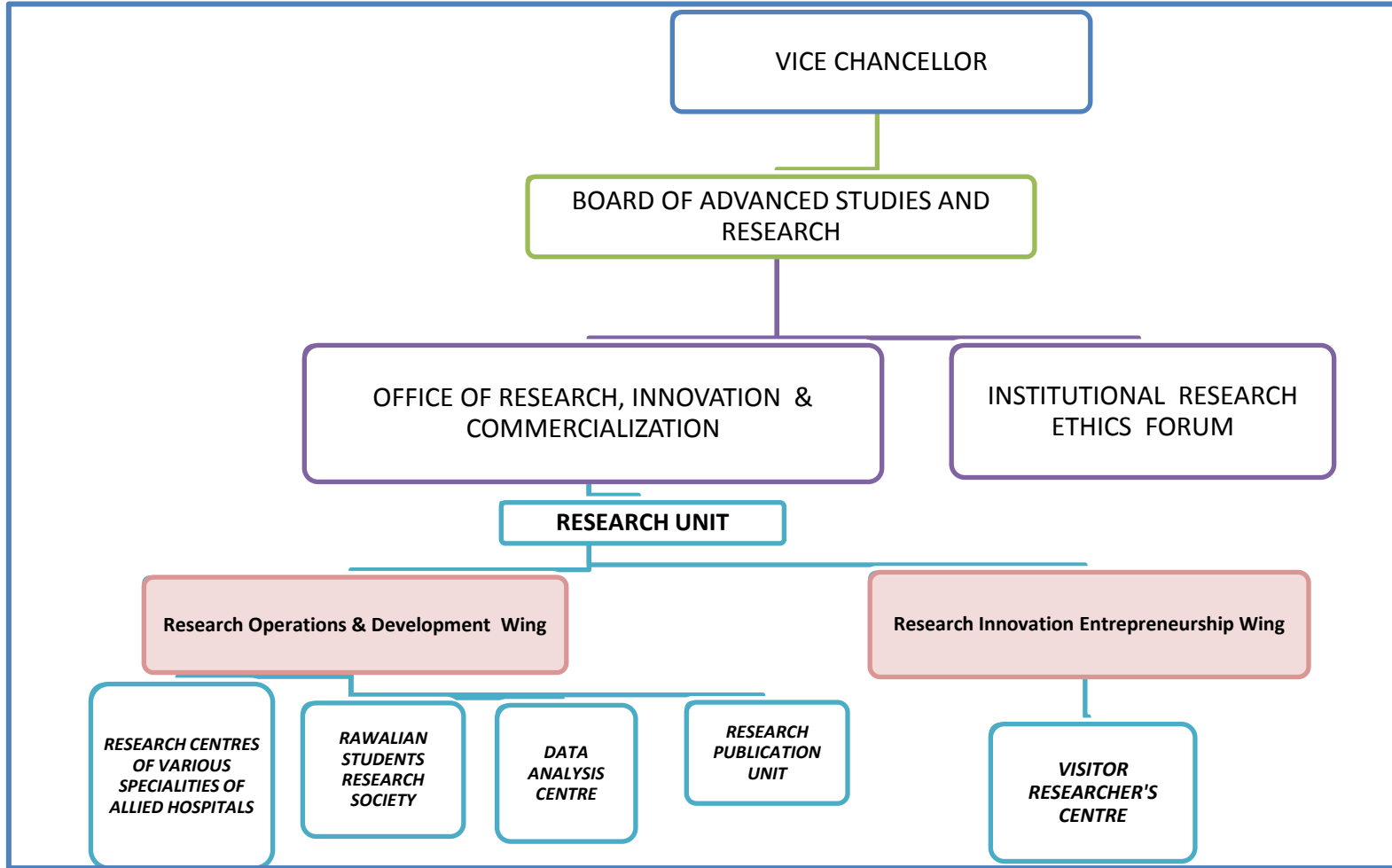
With advent of Evidence Based Practice over last two to three decades in medical science, merging the best research **evidence** with good clinical expertise and patient values is inevitable in decision making process for patient care. Therefore apart from receiving per excellence knowledge of the essential principles of medicine and necessary skills of clinical procedures, the trainees should also be well versed and skillful in research methodologies. So the training in research being imperative is integrated longitudinally in all four year's training tenure of the trainees.

The purpose of the research training is to provide optimal knowledge and skills regarding research methods and critical appraisal. The expected outcome of this training is to make trainees dexterous and proficient to practically conduct quality research through amalgamation of their knowledge, skills and practice in research methodologies.

ORIENTATION SESSION FOR POST GRADUATE TRAINEES:

- I. At the beginning of the research course, an orientation session or an introductory session of one hour duration will be held, organized by Director, Deputy Directors of ORIC (Office of Research Commercialization and Innovation) of RMU to make trainees acquainted to the research courses during four years post graduate training, the schedule of all scholarly and academic activities related to research and the assessment procedures.
- II. Trainees will also be introduced to all the facilitators of the course, organizational structure of ORIC (Annexure 1) and the terms of references of corresponding authorities (Annexure 2) for any further information and facilitation.
- III. All the curriculum details and materials for assistance and guidance will be provided to trainees during the orientation session.
- IV. The research model of RMU as given in Figure 1 and will be introduced to the newly inducted trainees of RMU

Figure 1. MODEL OF RESEARCH AT RAWALPINDI MEDICAL UNIVERSITY



The research training component for Post Graduate Trainees comprises of four years and the Distribution and curriculum for each year is mentioned as follows:

RESEARCH COURSE OF FIRST POST GRAUDATION TRAINING YEAR

R-Y1

PURPOSE OF R-Y1 RESEARCH COURSE:

The RESEARCH YEAR 1 or R-Y1 research course of the post graduate trainees intends to provide ample knowledge to trainees regarding the importance of research, its necessity and types. This course will provide them clarity of concepts that what are the priority problems that require research, how to sort them out and select topics for research. It will also teach them the best techniques for exploring existent and previous evidences in research through well-organized literature search and also how to critically appraise them. The course will not only provide them comprehensive knowledge but will also impart optimum skills on how to practically and logically plan and design a research project by educating and coaching them about various research methodologies. The trainees will get familiarized to research ethics, concepts of protection of human study subjects, practice-based learning, evidence based practice in addition to the standard ethical and institutional appraisal procedures of Rawalpindi Medical University by Board of Advanced Studies and Research and Institutional and Ethics Research Forum of RMU.

LEARNING OUTCOMES OF R-Y1 RESEARCH COURSE

After completion of R-Y1 course the trainees should be efficiently able to:

1. Discuss the value of research in health service in helping to solve priority problems in a local context.
2. Identify, analyse and describe a research problem
3. Review relevant literature and other available information
4. Formulate research question, aim, purpose and objectives
5. Identify study variables and types

6. Develop an appropriate research methodology
7. Identify appropriate setting and site for a study
8. Calculate minimally required sample size for a study.
9. Identify sampling technique, inclusion and exclusion criteria
10. Formulate appropriate data collection tools according to techniques
11. Formulate data collection procedure according to techniques
12. Pre-test data collection tools
13. Identify appropriate plan for data analysis
14. Prepare of a project plan for the study through work plans and Gantt charts
15. Identify resources required for research and means of resources
16. Prepare a realistic study budget in accordance with the work plan.
17. Critically appraise a research paper of any national or international journal.
18. Present research papers published in various national and international journals at journal club.
19. Prepare a research proposal independently.
20. Develop a strategy for dissemination and utilisation of research results.
21. Familiarization with application Performa for submission of a research proposal to BASR or IREF.
22. Familiarization with format of presentations and procedure of presentation and defence of a research proposal to BASR or IREF.
23. Familiarization with the supervisor, nominated by the Dean and to develop a harmonious rapport with supervisor.

RESEARCH COURSE OF FIRST TRAINING YEAR

Following academic and scholarly activities will be carried out during year 1 i-e R-Y1 of Research course catering the post graduate trainees

A. TEACHING SESSIONS:

Research will be taught to the trainees through following methods in various sessions. Each session will comprise of all or either one or two or all five of the following techniques;

1. Didactic lectures through power-point presentations.
2. On spot individual exercises.
3. On spot group exercises.
4. Take home individual assignment
5. Take home group assignment.

The facilitators of these sessions will be staff members (that are director, deputy directors (managers), research associates, statistician and publication in charge) of Office of Research Innovation and commercialization (ORIC) of RMU. While visitor lecturers including renowned national and international public health consultants, researchers, epidemiologists and biostatisticians will also be invited, according to their availability, for some modules of these course

Format of teaching sessions:

- i. During year 1 i.e. R-Y1, 23 teaching sessions in total will be taken, with an average of three sessions per month. Each session will comprise of a didactic lecture delivered initially, to attain the mentioned learning outcomes.
- ii. Each didactic lecture will be of 30 minutes' duration using the power-point medium that will be followed by a 30 minutes on spot individual or group exercises of trainees during the same session.

- iii. By the end of each session, a take home individual task/assignment will be given to trainees, either individually or in groups, that will be duly evaluated and marked each month.

Course content of teaching sessions:

- i. The course materials will be based on an updated modified version of course titled as “Designing Health Services Research (Basic)” that was developed in collaboration of Rawalpindi Medical College & Nuffield Institute for Health, University of Leeds, UK based adapted from “Designing and Conducting Health Systems Research Projects” by CM. Varkevisser KIT Publishers, Amsterdam (International Development Research Centre) in association with WHO Regional Office for Africa.
- ii. The trainees will be provided hard copies as well as soft copies of the course content in a folder at the initiation of the course.
- iii. In addition to it they will be provided various soft copies and links of updated and good resource materials regarding research by the course facilitators.

Curriculum of teaching sessions:

The details of the 22 teaching sessions of the trainees during year one R-Y1 along with the tentative time frame work, teaching strategies, content of curriculum and objectives/Learning outcomes of each sessions are displayed in table 1

TABLE 1. TEACHING SESSIONS OF RESEARCH CURRICULUM OF YEAR 1 OF TRAINEES OF POST GRADUATE TRAINEES/MD SCHOLARS OF RMU

SESSIONS & TIMINGS	TEACHING STRATEGY	TOPIC OF SESSION	SESSION OBJECTIVES i.e. BY THE END OF SESSION THE TRAINEES SHOULD BE ABLE TO;
SESSION 1 WEEK 1 Month 1	Lecture through power point presentation followed by both individual exercise & Group exercise	A. Introduction to health systems research B. Identifying and Prioritizing Research Problems	<ul style="list-style-type: none"> • Describe the purpose, scope and characteristics of health systems research • Identify criteria for selecting health-related problems to be given priority in research
SESSION 2 WEEK 2 Month 1	Lecture through power point presentation followed by Individual exercise	Analysis and statement of problem & Introduction to Literature review	<ul style="list-style-type: none"> • Analyze a selected problem and the factors influencing it and understand how to prepare the statement of the problem for research. • Describe the reasons for reviewing available literature and other information for preparation of a research. • Identify the resources that are available for carrying out such a review.
SESSION 3 WEEK 3 Month 1	Lecture through power point presentation followed by Individual exercise &	Literature review Referencing systems; Vancouver & Harvard referencing systems	<ul style="list-style-type: none"> • Describe the methods for reviewing available literature and other information for preparation of a research. • Should be familiar with referencing systems

	Take home assignment		and its importance. <ul style="list-style-type: none"> • Use Vancouver and Harvard referencing systems and should be able to differentiate between them.
SESSIONS & TIMINGS	TEACHING STRATEGY	TOPIC OF SESSION	SESSION OBJECTIVES i.e. BY THE END OF SESSION THE TRAINEES SHOULD BE ABLE TO;
SESSION 4 WEEK 1 Month 2	Lecture through power point presentation followed by Individual exercise & Take home assignment	Literature review Referencing managing systems	<ul style="list-style-type: none"> • Describe the methods for reviewing available literature and other information for preparation of a research. • Should be familiar with use and importance of reference managing systems; Endnote & Mendeley. • Use the literature review and other information pertaining to a research topic that will adequately describe the context of study and strengthen the statement of the problem.
SESSION 5 WEEK 2 Month 2	Lecture through power point presentation followed by Individual exercise & Take home assignment	Plagiarism	<ul style="list-style-type: none"> • Describe the significance and necessity of plagiarism detection • Use online plagiarism detection tools and turn-it-in for detecting plagiarism through

			assessment of originality scores/similarity index for plagiarism
SESSION 6 WEEK 3 Month 2	Lecture through power point presentation followed by Individual exercise	Formulation of research objectives	<ul style="list-style-type: none"> • State the reasons for writing objectives for a research project. • Define and describe the difference between general and specific objectives. • Define the characteristics of research objectives. • Prepare research objectives in an appropriate format. • Develop further research questions, and research hypotheses, if appropriate for study.
SESSIONS & TIMINGS	TEACHING STRATEGY	TOPIC OF SESSION	SESSION OBJECTIVES i.e. BY THE END OF SESSION THE TRAINEES SHOULD BE ABLE TO;
SESSION 7 WEEK 4 Month 2	Lecture through power point presentation followed by Individual Assignment	Formulation of Hypothesis for a research	<ul style="list-style-type: none"> • State the reasons and scenario for formulating research hypothesis. • Define and describe the types difference between one sided and two sided hypothesis. • Formulate Null hypothesis and Alternate hypothesis in an appropriate format.

			<ul style="list-style-type: none"> • Identify importance of hypothesis testing and to identify type I & type II errors.
SESSION 8 WEEK 1 Month 3	Lecture through power point presentation followed by a group exercise.	Research methodology; Variables and Indicators	<ul style="list-style-type: none"> • Define what study variables are and describe why their selection is important in research. • State the difference between numerical and categorical variables and define the types of scales of measurement. • Discuss the difference between dependent and independent variables and how they are used in research designs. • Identify the variables that will be measured in a research project and development of operational definitions with indicators for those variables that cannot be measured directly.
SESSIONS & TIMINGS	TEACHING STRATEGY	TOPIC OF SESSION	SESSION OBJECTIVES i.e. BY THE END OF SESSION THE TRAINEES SHOULD BE ABLE TO;
SESSION 9 WEEK 2 Month 3	Lecture through power point presentation followed by a group exercise.	Research methodology; Study types	<ul style="list-style-type: none"> • Describe the study types mostly used in HSR. • Define the uses and limitations of each study type. • Describe how the study design can influence

			<p>the validity and reliability of the study results.</p> <ul style="list-style-type: none"> • Identify the most appropriate study design for a study.
<p>SESSION 10 WEEK 1 Month 4</p>	<p>Lecture through power point presentation</p>	<p>Data collection techniques</p>	<ul style="list-style-type: none"> • Describe various data collection techniques and state their uses and limitations. • Advantageously use a combination of different data collection techniques. • Identify various sources of bias in data collection and ways of preventing bias. • Identify ethical issues involved in the implementation of research and ways of ensuring that informants or subjects are not harmed. • Identify appropriate data-collection techniques.
<p>SESSION 11 WEEK 2 Month 4</p>	<p>Lecture through power point presentation</p>	<p>Data collection tools</p>	<ul style="list-style-type: none"> • Prepare data-collection tools that cover all important variables.

SESSIONS & TIMINGS	TEACHING STRATEGY	TOPIC OF SESSION	SESSION OBJECTIVES i.e. BY THE END OF SESSION THE TRAINEES SHOULD BE ABLE TO;
SESSION 12 WEEK 1 Month 5	Lecture through power point presentation	Sampling	<ul style="list-style-type: none"> • Identify and define the population(s) to be studied • Describe common methods of sampling. • Decide on the sampling method(s) most appropriate for a research design.
SESSION 13 WEEK 2 Month 5	Lecture through power point presentation Group exercises	Sampling	<ul style="list-style-type: none"> • List the issues to consider when deciding on sample size. • Calculate minimally required sample size according to study designs • Use WHO's (World Health Organization's) sample size calculator. • Decide on the sample size(s) most appropriate for a research design.
SESSION 14 WEEK 3 Month 5	Lecture through power point presentation	Plan for Data Entry , storage and Statistical Analysis	<ul style="list-style-type: none"> • Identify and discuss the most important points to be considered when starting to plan for data collection. • Determine what resources are available and needed to carry out data collection for study. • Have knowledge of resources, available for data

			<p>recording, storage and to carry out data analysis of a study?</p> <ul style="list-style-type: none"> • Describe typical problems that may arise during data collection and how they may be solved. • Identify important issues related to sorting, quality control, and processing of data.
SESSIONS & TIMINGS	TEACHING STRATEGY	TOPIC OF SESSION	SESSION OBJECTIVES i.e. BY THE END OF SESSION THE TRAINEES SHOULD BE ABLE TO;
			<ul style="list-style-type: none"> • Describe how data can best be analyzed and interpreted based on the objectives and variables of the study • Prepare a plan for the processing and analysis of data (including data master sheets and dummy tables) for the research proposal being developed.
SESSION 15 WEEK 1 Month 6	Lecture through power point presentation and individual exercises	Introduction to Statistical Package of Social Sciences (SPSS)	<ul style="list-style-type: none"> • Introduction to Statistical Package of Social Sciences. • Entry of various types of variables in SPSS.
SESSION 16 WEEK 2 Month 6	Lecture through power point presentation and individual exercises	Pilot and project planning	<ul style="list-style-type: none"> • Describe the components of a pre-test or pilot study that will allow to test and, if necessary, revise a proposed research methodology before

			<p>starting the actual data collection.</p> <ul style="list-style-type: none"> • Plan and carry out pre-tests of research components for the proposal being developed. • Describe the characteristics and purposes of various project planning and scheduling techniques such as work scheduling & GANTT charting. <p>Determine the various tasks and the staff needed for a research project and justify any additional staff (research assistants, supervisors) apart from the research team, their recruitment procedure, training and supervision.</p>
SESSIONS & TIMINGS	TEACHING STRATEGY	TOPIC OF SESSION	SESSION OBJECTIVES i.e. BY THE END OF SESSION THE TRAINEES SHOULD BE ABLE TO;
			<ul style="list-style-type: none"> • Prepare a work schedule, GANTT chart and staffing plan for the project proposal.
SESSION 17 WEEK 3 Month 6	Lecture through power point presentation and individual exercises	Budgeting for a study	<ul style="list-style-type: none"> • Identify major categories for a budget. • Make reasonable estimates of the expenses in various budget categories. • List various ways a budget can be reduced, if necessary, without substantially damaging a

			<p>project.</p> <ul style="list-style-type: none"> • Prepare a realistic and appropriate budget for the project proposal
<p>SESSION 18 WEEK 1 Month 7</p>	<p>Lecture through power point presentation.</p>	<ul style="list-style-type: none"> • Project administration • Plan for dissemination • Research ethics & concepts of protection of human study subjects 	<ul style="list-style-type: none"> • List the responsibilities of the team leader and project administrator related to the administration and monitoring of a research project. • Prepare a brief plan for administration and monitoring of a project. • Identify the ethical considerations mandatory during execution of a research project and their importance. • Prepare a plan for actively disseminating and fostering the utilization of results for a research the project proposal.
<p>SESSION 19 WEEK 2 Month 7</p>	<p>Lecture through power point presentation</p>	<p>Differences between original articles, short communications, case reports, systematic reviews and meta-analysis</p>	<ul style="list-style-type: none"> • Differentiate between original articles, short communications, case reports, systematic reviews and meta-analysis

SESSIONS & TIMINGS	TEACHING STRATEGY	TOPIC OF SESSION	SESSION OBJECTIVES i.e. BY THE END OF SESSION THE TRAINEES SHOULD BE ABLE TO;
SESSION 20 WEEK 3 Month 7	Lecture through power point presentation and group exercises	Writing a Case report	<ul style="list-style-type: none"> • Identify important components of a good case report. • Formulate a quality case report of any rare case presented in the clinical unit during the training period
SESSION 21 WEEK 1 Month 8	Lecture through power point presentation and group exercises	Undertaking a clinical audit.	<ul style="list-style-type: none"> • Identify Clinical audit as an essential and integral part of clinical governance. • Differentiate between research and clinical audit. • Identify types of Clinical Audit • Understand steps of process of Clinical Audit
SESSION 22 WEEK 2 Month 8	Lecture through power point presentation and group project	Critical Appraisal of a research paper	<ul style="list-style-type: none"> • Identify the importance and purpose of critical appraisal of research papers or articles. • Have ample knowledge of important steps of critical appraisal • Can effectively critically appraise a research paper published in any national or international journal.

<p>SESSION 23 WEEK 3 Month 8</p>	<p>Lecture through power point presentation and individual exercises</p>	<ul style="list-style-type: none"> • Making effective power-point presentations • Making effective poster presentations • Presenting a research paper 	<ul style="list-style-type: none"> • Determine various tips for making effective power-point presentations. • Determine various tips for making effective poster and its presentations. • Identify important components of research paper that essentially should be communicated in a presentation. <p>Can effectively and confidently make a power-point presentation of a research paper published in any national or international journal.</p>
<p>SESSIONS & TIMINGS</p>	<p>TEACHING STRATEGY</p>	<p>TOPIC OF SESSION</p>	<p>SESSION OBJECTIVES i.e. BY THE END OF SESSION THE TRAINEES SHOULD BE ABLE TO;</p>
			<ul style="list-style-type: none"> • Can formulate a poster of a research paper published in any national or international journal.

Minimal Attendance of teaching sessions:

The attendance of the trainees in the Research training sessions must be 80% or above during year 1 and it will be duly recorded in each session and will be monitored all the year round.

Assessment of Trainees for teaching sessions:

- i. For didactic lectures, the learning and knowledge of the trainees will be assessed during the end of year examination or Annual Research Paper.
- ii. One examination paper of Research of R-Y1 will be taken that will comprise of 75 marks in total and will consist of two sections. Section one will be of 50 marks in total and will comprise of 25 MCQ's (multiple choice questions) while section two will comprise of 5 SAQ's (Short answer questions) and Problems/Conceptual questions.
- iii. Total duration of the paper will be 90 minutes.
- iv. The papers will be checked by the research associates and Deputy Directors of ORIC.

Assessment of individual and group exercises:

- i. The quality, correctness and completeness of the individual as well as group exercises will be assessed during the teaching sessions, when they will be presented by the end of each session by trainees either individually or in groups respectively.
- ii. The mode of presentations will be oral using media of charts, flip charts & white boards.
- iii. There will be no scores or marks specified for the individual or group exercises but the feedback of evaluation by the facilitators will be on spot by end of presentations.

Assessment of individual or group; take home tasks/assignments:

- i. The correctness, quality and completeness of the individual or group exercises will be determined once these will be submitted after completion to the facilitators after period specified for each task. Assignments should be submitted in electronic version and no manually written assignment will be accepted.
- ii. Each assignment will be checked for plagiarism through turn-it-in soft ware. Any assignment that will have originality score less than 90% or similarity index more than 10% will be returned back to trainees for rephrasing and resubmission.

- iii. Assignments will be assessed and checked during the sessions and will be scored by the facilitators who had taken the session.
- iv. A total of 50 marks in total will be assigned for evaluation of all of these take home tasks/assignments.

B. PARTICIPATION IN JOURNAL CLUB SESSIONS

- i. The journal club of every department will comprise of an academic meeting of the head of department, faculty members, trainees and internees at departmental level.
- ii. The purpose of journal club will be to collectively attempt to seek new knowledge through awareness of current and recent research findings and also to explore best current clinical research and means of its implementation and utilization.
- iii. Apart from the teaching sessions of the trainees should attend the journal club sessions of the departments and should attempt to actively participate in them too.
- iv. One journal club meeting must be organized in the department in every two months of the year and its attendance by the trainees will be mandatory.
- v. The journal club meeting will be chaired by the Dean of specialty.
- vi. The purpose of participation of the trainees in journal club will be to enhance their scientific literacy and to have optimal insight of the relationship between clinical practice and evidenced-based medicine to continually improve patient care.

Format of Journal Club Meetings:

- i. In a journal club meeting, one or two research paper/s published in an indexed national or international journal, selected by the Dean of the department will be presented by year 2 trainees; R-Y2 trainees.
- ii. The research paper will be presented through power-point and the critical appraisal of the paper will follow it.
- iii. The topic will also be discussed in comparison to other evidences available according to the latest research.

- iv. The year one trainee i.e. R-Y1 trainee will only participate in the journal club and will not present during first year of training. He/she will be informed regarding the selected paper one and a half month prior to the meeting and should do extensive literature search on the topic and also of the research paper that will be presented in meeting.
- v. The trainees should actively participate in question & answer session of the journal club meeting that will be carried out following the presentation of the critical appraisal of the research paper. It will be compulsion for each R1 trainee to ask at least one question or make at least one comment relevant to the topic and/or the research paper, during the journal club meeting.

Minimal Attendance of Journal Club meetings by R-Y1 trainee:

The R-Y1 trainees should attend at least 5 out of 6 journal club meetings during their first year of training.

Assessment of Trainees for Journal Club sessions:

There will be no formal quantitative or qualitative assessment of the trainee during year one for their participation in the journal club.

**C. OBSERVATION OF MONTHLY MEETING OF INSTITUTIONAL RESEARCH ETHICS COMMITTEE
(IREF) OF RMU**

- i. In order to provide exposure to R-Y1 trainees regarding standard operational procedures and protocols of the research activities of Rawalpindi Medical University, each R-Y1 trainee should attend at least two monthly meetings of the Institutional Research Ethics Committee of RMU and should observe the proceedings of the meeting.
- ii. He/she will be informed by the research associates of ORIC about the standard procedures of application to IREF step wise including guidance regarding how an applicant should access the RMU website and download the application Performa and then how to electronically fill it in for final submission. They will also be provided format of presentation for their future presentations at IREF meetings.

Minimal Attendance of IREF meetings by R-Y1 trainee:

The R-Y1 trainees should attend at least at least two (out of 12) monthly meetings of IREF during their first year of training.

Assessment of Trainees for participation in the IREF meetings:

There will be no formal quantitative or qualitative assessment of the trainee during year one for their participation in the IREF meetings.

D. NOMINATION OF THE SUPERVISOR OF THE TRAINEE FOR THE DISSERTATION PROJECT

- i. During the first year of training, the supervisor of each trainee must be nominated within first six months. The Dean of the specialty will decide the nomination of the supervisor for the post graduate trainee as well as MD scholars.
- ii. A meeting will be held in the middle of the year, in June preferably, that will be attended by all heads of the departments and the Dean. The list of all the first year trainees and the available supervisors in each department will be presented by respective heads of each department in meeting. All of the eligible trainees and supervisors will also be around for brief interviews during the meeting.
- iii. The head of departments, prior to interviews of the trainees and supervisors, will inform the Dean in the meeting, their own personal observation of the level of performance, talent personality and temperament of both the trainees and the supervisors. Based on their consideration of the compatibility of both eligible trainees and the supervisors, Head of departments (HOD's) will recommend or propose most suitable supervisors for each trainee after eloquent discussions and justifications.
- iv. The Dean will then call each trainee individually to inform him/her the suggested Supervisor for him/her and will also give right and time for objection or reservation in nomination, if any. The Dean will seek the trainee's final consent and then after asking the trainee to leave the meeting room, will call the supervisor for final consent.

- v. If the supervisor will also be willing to happily supervise the trainee, then the Dean will finally approve the nomination.
- vi. A tentative list will be issued by the office of the Dean, within three days of the meeting, copied to the HOD's and the trainees and supervisors.
- vii. Both the trainees and the supervisors will be given two weeks to challenge the nominations, in case either of the two have any qualms or objections regarding the nominations. They will also be given right to personally approach the Dean for any request for change. In case of any objection, the Dean will make changes in consultation with the HOD's, after final consent and satisfaction of both trainee and supervisor
- viii. The final revised list of nominations will be then issued by the office of Dean and will be sent to the Board of Advanced studies and Research of RMU (BASR).
- ix. The Board of Advanced studies and Research of RMU will issue final approval of the list and the Vice chancellor will endorse the nominations as final authority.
- x. During the last few months of the first year of training, the trainees and supervisors will be advised by the Dean, to get familiar with each other and try to identify their abilities to efficiently and successfully work together as a team, especially during the project of Clinical Audit, mentioned in next section.
- xi. In case of any issues, either of both will have right to request any change in nomination to the Dean, till last week of first year of training. The Dean will then consider the case and will seek modification in nomination from the BASR.
- xii. After completion of first year of training, no substitution in nomination will be allowed. In case of any serious incompatibility between the trainee and the supervisor, the issue will be brought to the Vice chancellor directly by the Dean as a special case, who will make the final decision accordingly, as the final authority.
- xiii. As regards the MD scholars, the external supervisors will also be nominated and those nominations will be made by Vice chancellor of RMU in consultation with the Dean of specialty. The consent of the trainees and supervisors will follow the same protocol as specified above and the final list of nominations will then be submitted to BASR for final approval.

- xiv. After finalization of nominations a letter of agreement of supervision will be submitted by the trainee to the office of Dean, including consent and endorsement of both trainee and the internal and/or external supervisor, with copies to HOD, ORIC and BASR.
- xv. The supervisor and the trainee will be bound to meet on weekly basis exclusively for research activity with documented record of the activity done during the meeting in the log book.

E. UNDERTAKING A CLINICAL AUDIT PROJECT

- i. During ninth month of training year 1; R-Y1 the head of department will form groups of trainees, either two or three trainees in one group (along with each supervisor of each trainee), depending on the total number of trainees available in that respective first year.
- ii. These groups will undertake clinical audits on various aspects of the department as a project assignment, on one topic assigned to each group by the Dean and Heads of Departments.
- iii. If the group will compromise of two trainees and their supervisors' then there will be four group members in that group and if three trainees in one group, then there will be six members of that group after inclusion of their supervisors.
- iv. The trainees during session 21 conducted in first week of eighth month of training R-Y1, will already have been taught how to undertake a clinical audit and this task of undertaking a clinical audit will be assigned to them as its group project. This project will also provide the trainees and the supervisors an opportunity to work closely and will help them understand and foresee their group dynamics for future dissertations.
- v. The clinical audits completed in groups will be published as Annual Audit Reports of the departments by the Dean and HOD's and each member of the group will be acknowledged as author in the Annual Audit reports or if also published in any research journal.
- vi. The clinical audit will also be presented in weekly Clinico-pathological conferences (CPC) of the University, if approved by the Dean. The presentation will be supervised by HOD.

- vii. The contribution of the post graduate trainees'/ MD trainees in audits will be qualitatively assessed by the supervisors and the head of departments.

F. MONITORING OF RESEARCH COURSE OF YEAR 1

- i. All the concerned faculty members, at department, research units of specialties (including supervisors, senior faculty members and Head of Department) and the Deputy Directors and Director at the Office of Research Innovation & Commercialization of RMU will keep vigilant and continuous monitoring of all the academic activities of each trainee.
- ii. There will be a separate section of research in Structured Log books of trainees and also section of Research in portfolio record of the trainees specific to research component of the training that will be regularly observed, monitored and endorsed by all the concerned faculty members, supervisor and facilitators. The Log and portfolio for the research curriculum of each training year will be entered separately.
- iii. The Structured Research section in Log books specific to research curriculum of training year 1 will include the record of attendance of all the teaching sessions of the trainee that will be monthly updated and endorsed by the Department of Medical Education (DME) of RMU.
- iv. There will also be submission record and scores attained for the individual and group assignments of the trainees, endorsed by the facilitators of ORIC including Deputy Directors and Research Associates.
- v. The log books will also include the attendance of the trainees in the Journal club sessions of the department and with qualitative assessment of the trainee regarding any active participation of the trainee during the journal club. It will specifically mention whether any question or comment was raised by the trainee during each journal club session. This information will be endorsed by the supervisor of the trainee and the Head of Department.
- vi. The attendance record of the trainees in the monthly meetings of the Institutional Research Ethics Forum (IREF) of RMU will also be part of the Log Book that will be endorsed by the convener of the IREF by the end of each attended meeting.

- vii. The HOD will monitor the weekly meetings through observation of the documented record of meetings in log books by the end of every month.
- viii. The result of the annual research paper of R-Y1 will be entered in the Log books and will be endorsed by Deputy Directors and Research Associates of ORIC.
- ix. The research portfolio of the trainee R-Y1 will be qualitative and quantitative self assessment of the trainee in narrative form. It will also include the individual assessment of the objectives and aims defined by the trainee during the year and elaboration of the extent of attainment of these. The trainee will be able to specify his/her achievements or knowledge gained in any aspect of research that was not even formally part of the research curriculum. It will include reporting of any research courses, online or physically attended by the trainee, contribution in any research paper or publication, any participation and/or presentation in any research conference, competition etc during year R-Y1.
- x. The research portfolio will assist the trainees to reinforce the importance of strategic thinking as a way to understand their context and look to the future. By having a recorded insight of the individual achievements, weaknesses and strengths, the trainee will be able to maximize his/her talent and potential of all the activities and projects of research with an aim of further progression in career development.

G. OVERALL ASSESSMENT OF PERFORMANCE OF TRAINEES FOR YEAR 1

- i. Quantitative assessment of the performance and accomplishment of trainees will be done in an unbiased, impartial and equitable manner by the supervisor, ORIC department and the senior faculty members at the department.
- ii. The assessment of trainees will not only serve as an effective tool for evaluation of the extent and quality of knowledge gained and skills learnt by trainees but it will also effectively provide an evidence of the level of standards of teaching and training by the facilitators, supervisor and the faculty members.
- iii. For annual assessment of every trainee 75 marks of Annual Research Paper of R-Y1 will be included, while 25 marks will be included from the home tasks assignments. The 50 marks of the home task assignments will be converted to 25

marks, to get an aggregate of 100 total marks. Out of these 100 total marks, 40% will be passing marks of this Research course and in case of failure in it, second attempt will be allowed to the trainees and if any one fails in second attempt too then he/she should appear next year with next batch's first attempt.

H. EVALUATION/ FEEDBACK OF RESEARCH COURSE OF YEAR 1

Success of any academic or training activities greatly rely on the honest and constructive evaluation that opens pavements of improved and more effective performances and programs. The research course of the trainees will not only be evaluated by the trainees themselves but also by the deputy directors of ORIC, supervisors and HOD's through end of sessions forms and then collectively through end of course feedback forms.

- i. **The feedback of trainees** will include structured evaluation of each teaching session through structured and anonymous feedback forms/questionnaire that will be regularly distributed amongst the trainees. Anonymity will ensure an honest and unbiased response. They will be requested to provide their feedback regarding various aspects of teaching sessions eg content, medium used, facilitators performance and knowledge, extent of objectives attained etc through Likert scale. They will mark, through their personal choice without any pressure or peer consultation, one particular category amongst five scales specified ranging from 1-5, 1 representing the poorest quality while 5 representing excellence. Apart from this structured assessment, open ended questions will also include an in depth perspective and insight. Similarly, an overall feedback questionnaire will also be rotated amongst trainees.
- ii. **The feedback of trainers** will include structured evaluation of each teaching session by the facilitators, supervisors and senior faculty members involved in the Research training course. They will provide their feedback through structured and anonymous feedback forms/questionnaire, including closed and partially closed questions that will be regularly provided by them. They will provide their inputs and opinions regarding effectiveness of the course contents, curriculum, teaching methodologies, teaching aids and technologies, content and usefulness of the exercises and assessments etc.

- iii. **Three focus group discussions;** one of the R-Y1 trainees, second of the facilitators and third of the supervisors will also be organized by the ORIC to evaluate the research course, its benefits and weaknesses and scope for improvement.
- iv. **The research portfolio** will be checked and endorsed by the supervisor and the Director of ORIC.
- v. **A final evaluation report of the Research Course R-Y1** will be formulated and compiled by the ORIC of RMU. The report will be presented all concerned stake holders, since the course evaluations will play a significant role in curriculum modification and planning.

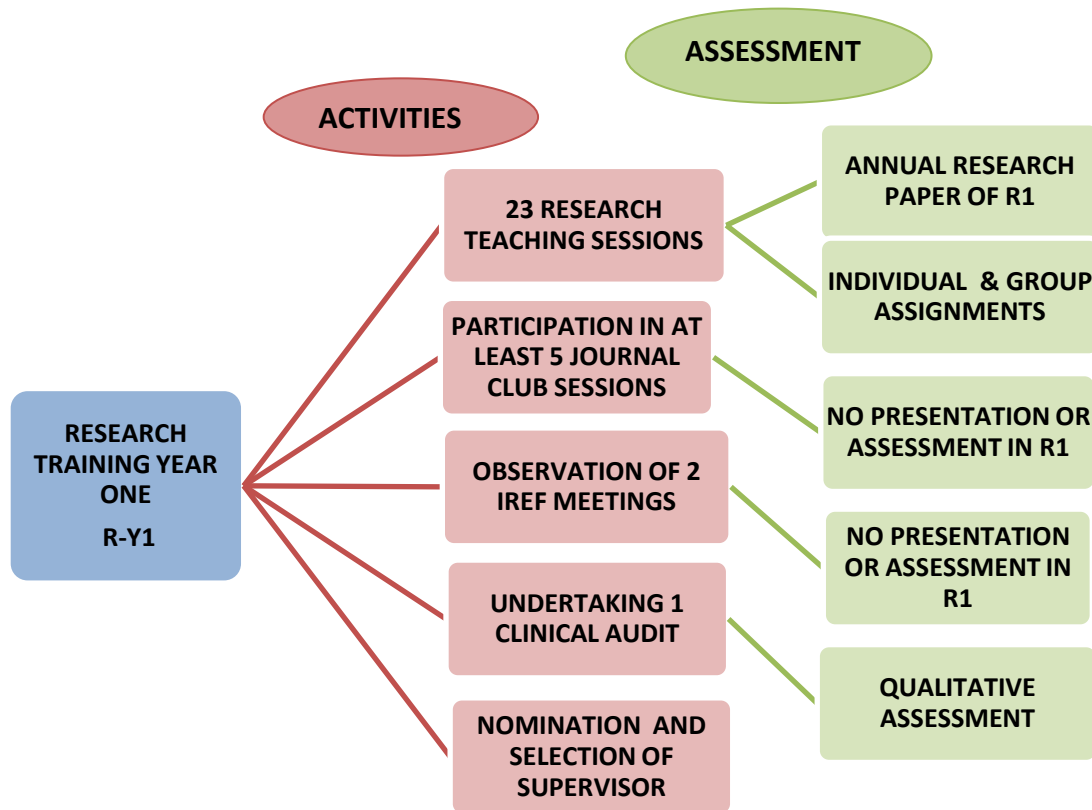
I. QUALITY ASSURANCE OF RESEARCH COURSE OF YEAR 1

- i. The final quality evaluation report along with all the feedback material, randomly selected log books, research portfolios, submitted individual & groups assessments and randomly selected annual research course examination papers will be observed by an evaluation team of Research course. The quality evaluation team of research course will include the Head of departments, Deans, selected representatives of BASR, IREF, Director DME (Department of Medical Education), Director of ORIC, Director of Quality enhancement cell (QEC) and Vice chancellor of RMU, individually. The selection of representatives of the concerned departments will be made by the Vice chancellor of RMU.
- ii. All the materials will be observed and evaluated by the above mentioned once during the course and finally by the end of course year.
- iii. The evaluation during the year will be done at any random occasion by members of evaluation teams individually or in teams and will be done without any prior information to the trainees and trainers.
- iv. The evaluation will include not only physical observation of the materials but the evaluators may also make a visit to observe any proceedings or activities of the research course e.g. a lecture, a group exercise, a journal club session and/or an IREF meeting.

- v. ORIC will be responsible for submission of the evaluation content to all including a copy to the Quality Enhancement Cell (QEC) of RMU for internal evaluation.
- vi. The QEC will organize an external evaluation too through involvement of a third party that may include members of Quality assurance department of Higher Education Department based on their availability.
- vii. An annual meeting of the quality assessment and enhancement will also be organized by the Quality Enhancement Cell of RMU, including representatives of supervisors, Head of Departments, Dean, representative members of BASR, ORIC, DME, QEC & IREF and will be chaired by Vice chancellor. During the meeting all participants will review and discuss all the evaluation material. The quality evaluation team will also share their experiences of their evaluation visits and observations to validate the existing materials.
- viii. In perspective of the quality assessment, the Vice Chancellor and the Board of Advanced study and Research will finalize any modifications or enhancement in the next Research course.

The activities related to research training of post graduate trainees is also displayed in figure 1. Successful completion of above mentioned requirements of research course is one component of the all clinical and scholarly requirements for mandatory advancement to the next Post Graduate Year level i.e. year 2 training year or R-Y2.

Figure 3. A FLOW CHART OF RESEARCH ACTIVITIES OF R-Y1 POST GRADUATE/MD TRAINEE OF RMU AND THEIR ASSESSMENT



RESEARCH COURSE OF SECOND POST GRADUATION TRAINING YEAR

R-Y2

PURPOSE OF R-Y2 RESEARCH COURSE:

The YEAR 2-R2 research course of the post graduate trainees will provide optimum skills to trainees to actually formulate their individual research proposal of the research project/dissertation, prerequisite to their degrees, in perspective of the knowledge acquired during year one of the training i.e. R-Y1. This course will provide them clarity of basic epidemiological and biostatistics concepts that they essentially require to transform their data into substantial evidences, to answer their research questions for their individual research project/dissertation. The course will also make them proficient to follow the standard ethical and institutional appraisal procedures of Rawalpindi medical University by Board of Advanced Studies and Research and Institutional and Ethics Research Forum of RMU. It will also impart them expertise to explore evidences in research through well-organized literature search and also how to critically appraise them.

LEARNING OUTCOMES OF R-Y2 RESEARCH COURSE

After completion of R-Y2 course the trainees should be efficiently able to:

1. Identify and define the basic concepts of Epidemiological measures and biostatistics.
2. Formulate and pretest to finalize all the data collection tools for the research projects
3. Identify and execute proficiently all procedures required for data analysis and interpretation.
4. Analyze and interpret the data collected for a research project and draw conclusions related to the objectives of study.
5. Write a clear and concise research report (paper for a peer reviewed journal/dissertation) and a summary of the major findings and recommendations for each of the different parties interested in the results.

6. Present the major findings and the recommendations of a study to policy-makers managers and other stakeholders to finalize the recommendations.
7. Prepare a plan of action for the dissemination, communication and utilization of the findings and (if required) make recommendations for additional future research.
8. Critically appraise a research paper of any national or international journal.
9. Present research papers published in various national and international journals at journal club.
10. Prepare final draft of the research proposal of the Dissertation project, requisite to the post-graduation degree of trainee, under the guidance of the nominated supervisor.
11. Fill in an application Performa for submission of Dissertation's research proposal to BASR or IREF.
12. Present and defend a research proposal to BASR or IREF.

RESEARCH COURSE OF SECOND TRAINING YEAR

Following academic and scholarly activities will be carried out during year 2 i.e. R-Y2 of Research course catering the post graduate trainees

A. TEACHING SESSIONS:

- i. Basic and advanced Biostatistics and Epidemiological concepts will be taught to the trainees through following methods in various sessions. Each session will comprise of all or either one or two or all four of the following techniques;
 1. Didactic lectures through power-point presentations.
 2. On spot individual exercises.
 3. Take home individual assignment
 4. Take home group assignment.

- ii. The facilitators of these sessions will be staff members of Office of Research Innovation and commercialization (ORIC) of RMC including Director, Deputy Directors, Research Associates, Statistician and Publication In charge. While visitor lecturers including renowned national and international public health consultants, researchers, epidemiologists and biostatisticians will also be invited, according to their availability, for some modules of these courses.

Format of teaching sessions:

- i. During year 2 i.e. R-Y2, 16 teaching sessions in total will be conducted, with an average of three sessions per month.
- ii. Each session will comprise of a didactic lecture delivered initially, to attain the mentioned learning outcomes. Each didactic lecture will be of 30 minutes duration using the power-point medium that will be followed by a 30 minutes on spot individual exercises of trainees during the same session.
- iii. Since most of the curriculum will comprise of quantitative calculations so trainees will be encouraged to work individually on exercises assigned both manually as well on Statistical Package of Social Sciences, instead of group exercises. These exercises will require calculations and numerical solving too.
- iv. By the end of each session, a take home individual task/assignment will be given to trainees, that too preferably individually rather than in groups, that will be duly evaluated and marked each month.

Course content of teaching sessions:

- i. The course materials will be based on an updated modified version of course titled as “Designing Health Services Research (Advanced)” that was developed in collaboration of Rawalpindi Medical College & Nuffield Institute for Health, University of Leeds, UK based adapted from “Designing and Conducting Health Systems Research Projects” by CM. Varkevisser KIT Publishers, Amsterdam (International Development Research Centre) in association with WHO Regional Office for Africa.
- ii. The trainees will be provided hard copies as well as soft copies of the course content in a folder at the initiation of the course.

iii. In addition to it they will be provided various soft copies of various data sets for practicing data analysis in addition to links of updated and good resource materials regarding research by the course facilitators.

Curriculum of teaching sessions:

The details of the 16 teaching sessions of the trainees during year two R-Y2 along with the tentative time frame work, teaching strategies, content of curriculum and objectives/Learning outcomes of each sessions are displayed in table 2.

TABLE 2. TEACHING SESSIONS OF RESEARCH CURRICULUM OF YEAR 2 OF TRAINEES OF POST GRADUATE TRAINEES/MD SCHOLARS OF RMU

SESSIONS & TIMINGS	TEACHING STRATEGY	TOPIC OF SESSION	SESSION OBJECTIVES i.e. BY THE END OF SESSION THE TRAINEES SHOULD BE ABLE TO;
SESSION 1 WEEK 1 Month 1	Lecture through power point presentation followed by individual exercises and Take home individual assignments	<ul style="list-style-type: none"> • Introduction to Biostatistics • Description of Variables • Numerical methods of Data summarization (Manual as well as through Statistical 	<ul style="list-style-type: none"> • Describe the purpose, scope and importance of Biostatics in Health systems research • Identify basic four steps of Biostatistics. • Describe data in terms of frequency distributions, percentages, and proportions. • Explain the difference between mean, median and mode. • Calculate the frequencies, percentages, proportions, ratios, rates, means, medians, and modes for the major

		Package of Social Sciences)	variables of a study manually as well as through Statistical Package of Social Sciences (SPSS).
SESSION 2 WEEK 2 Month 1	Lecture through power point presentation followed by individual exercises & Take home individual assignments.	Graphical presentation of data	<ul style="list-style-type: none"> • Identify various types of graphs • Identify the graphical presentations appropriate for each type of variables • Describe data in terms of figures • Use of Microsoft Excel and SPSS in formulation of graphs.
SESSIONS & TIMINGS	TEACHING STRATEGY	TOPIC OF SESSION	SESSION OBJECTIVES • i.e. BY THE END OF SESSION THE TRAINEES SHOULD BE ABLE TO;
SESSION 3 WEEK 3 Month 1	Lecture through power point presentation followed by Individual exercise & Take home assignment	Cross-tabulation of quantitative data	<ul style="list-style-type: none"> • Describe the difference between descriptive and analytical cross-tabulations. • Construct all important cross-tabulations which will help meet the research objectives manually as well as through SPSS. • Interpret the cross-tabulations in relation to study objectives and study questions.

<p>SESSION 4 WEEK 1 Month 2</p>	<p>Lecture through power point presentation followed by Individual exercise & Take home assignment</p>	<p>Measures of Association based on risk</p>	<ul style="list-style-type: none"> • Define incidence, risk, relative risk and odds ratio. • Calculate relative risk for appropriate study designs (cross-sectional comparative studies, cohort studies, case-control studies and experimental studies) • Calculate measures of association manually and also through SPSS and med-calculator.
<p>SESSION 5 WEEK 2 Month 2</p>	<p>Lecture through power point presentation followed by Individual exercise & Take home assignment</p>	<p>Confounding and methods to control confounding</p>	<ul style="list-style-type: none"> • Identify what is confounding and what are confounder variables • Explain different ways of dealing with confounding at the design and analysis stage of a study. • Evaluate whether an association between two variables may be influenced by another confounding variable/risk factor. • Calculate association in a way that takes into consideration the effect of potential confounding by another variable/risk factor.

SESSIONS & TIMINGS	TEACHING STRATEGY	TOPIC OF SESSION	SESSION OBJECTIVES i.e. BY THE END OF SESSION THE TRAINEES SHOULD BE ABLE TO;
SESSION 6 WEEK 3 Month 2	Lecture through power point presentation followed by Individual exercise & Take home individual assignments	Basic statistical concepts; Measure of dispersion and confidence Intervals	<ul style="list-style-type: none"> • Explain what is meant by a range, a percentile, a standard deviation, a normal distribution, a standard error and a 95% confidence interval. • Calculate ranges, standard deviations, standard errors and 95% confidence intervals for data, manually as well as through SPSS.
SESSION 7 WEEK 1 Month 3	Lecture through power point presentation	Hypothesis testing for a research	<ul style="list-style-type: none"> • State the concept of hypothesis testing. • Define and describe the types difference between one sided and two sided hypothesis. • Formulate Null hypothesis and Alternate hypothesis in an appropriate format. • Identify importance of hypothesis testing and to identify type I & type II errors.
SESSION 8 WEEK 2 Month 3	Lecture through power point presentation followed by a Take home individual	Tests of Significance	<ul style="list-style-type: none"> • Explain what a significance test is and what its purpose is. • Explain what is probability value or p-value • Identifying various tests of significances • Identifying appropriate test of significance for a

SESSIONS & TIMINGS	TEACHING STRATEGY	TOPIC OF SESSION	SESSION OBJECTIVES i.e. BY THE END OF SESSION THE TRAINEES SHOULD BE ABLE TO;
SESSION 9 WEEK 1 Month 4	Lecture through power point presentation followed by an individual exercise & a Take home individual assignment.	Determining difference between two groups- categorical data Paired & unpaired observations	<ul style="list-style-type: none"> • Decide when to apply the chi-square test. • Calculate chi-square values. • Use the chi-square tables to assess whether calculated chi-square values are significant. • Decide when to apply the McNemars test and calculate its values. • Make a decision concerning whether these tests can be used on give data and, if so, what test should be used on which data. • Perform these tests on data manually as well as through SPSS.

<p>SESSION 10 WEEK 2 Month 4</p>	<p>Lecture through power point presentation followed by an individual exercise & Take home individual assignment.</p>	<p>Determining difference between two groups- numerical data Paired & unpaired observations</p>	<ul style="list-style-type: none"> • Decide when to apply the independent and dependent t-test. • Calculate paired and unpaired t- values. • Use the t tables to assess whether calculated t values are significant. <p>Decide when to apply the independent and dependent t test and calculate its values.</p> <ul style="list-style-type: none"> • Make a decision concerning whether these tests can be used on give data and, if so, what test should be used on which data. • Perform these tests on data manually as well as through SPSS.
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SESSIONS & TIMINGS	TEACHING STRATEGY	TOPIC OF SESSION	SESSION OBJECTIVES i.e. BY THE END OF SESSION THE TRAINEES SHOULD BE ABLE TO;
SESSION 11 WEEK 1 Month 5	Lecture through power point presentation followed by an individual exercise & Take home individual assignment.	Determining difference between more than two groups- numerical data ANOVA (Analysis of Variance)	<ul style="list-style-type: none"> • Decide when to apply the ANOVA test. • Calculate F- values. • Use the F tables to assess whether calculated t values are significant. • Make a decision concerning whether this tests can be used on give data and, if so, what test should be used on which data. • Perform ANOVA tests on data through SPSS.
SESSION 12 WEEK 2 Month 5	Lecture through power point presentation followed by an individual exercise	Determining Correlation between variables	<ul style="list-style-type: none"> • Decide when to apply the Pearson's and Spearman's correlation tests. • Calculate Pearson's correlation coefficient and Spearman's Pearson's correlation coefficient. • Use the p-values to assess whether calculated coefficients are significant. • Perform correlation tests on data through SPSS.

SESSION 13 WEEK 3 Month 5	Lecture through power point presentation followed by an individual exercise	Regression Analysis	<ul style="list-style-type: none"> • Explain what is a regression analysis • Differentiate between simple linear and multiple logistic regression analysis. • Decide when to apply the regression analysis and how to interpret. • Make a decision concerning whether these tests can be used on give data and, if so, what test should be used on which data. • Perform these tests on data through SPSS.
SESSIONS & TIMINGS	TEACHING STRATEGY	TOPIC OF SESSION	SESSION OBJECTIVES i.e. BY THE END OF SESSION THE TRAINEES SHOULD BE ABLE TO;
SESSION 14 WEEK 1 Month 6	Lecture through power point presentation and individual exercises	Diagnostic Accuracy of a test	<ul style="list-style-type: none"> • Identify what is a diagnostic accuracy of a test compared to gold standard tests. • Identify what are true positives, true negatives, false positive and false negatives in a diagnostic testing. • Calculate Sensitivity, specificity, Positive and negative predictive values of a diagnostic test using standard formulae.
SESSION 15 WEEK 2	Lecture through power point	Writing a research paper	<ul style="list-style-type: none"> • List the main components of a research paper. • Make an outline of a research paper.

Month 6	presentation and individual exercises		<ul style="list-style-type: none"> • Write drafts of report in stages. • Check the final draft for completeness, possible overlaps for clarity and smoothness of style. • Draft recommendations for action based on research findings.
SESSION 16 WEEK 3 Month 6	Lecture and individual exercises	Writing a dissertation	<ul style="list-style-type: none"> • List the main components of a dissertation • Explain how a research paper differs from a dissertation • Make an outline of a dissertation.

Minimal Attendance of teaching sessions:

The attendance of the trainees in the Research training sessions must be 80% or above during year 2 and it will be duly recorded in each session and will be monitored all the year round.

Assessment of Trainees for teaching sessions:

- i. For didactic lectures, the learning and knowledge of the trainees will be assessed during the end of year examination.
- ii. One examination paper of Research of R-Y2 will be taken that will comprise of 75 marks in total and will consist of two sections. Section one will be of 50 marks in total and will comprise of 25 MCQ's (multiple choice questions) while section two will comprise of 5 Numerical Problems/Conceptual questions.
- iii. Total duration of the paper will be 120 minutes.
- iv. The papers will be checked by the research associates and Bio-statisticians of ORIC.

Assessment of individual exercises:

- i. The quality, correctness and completeness of the individual exercises will be evaluated during the teaching sessions, when they will be presented by the end of each session by trainees.
- ii. The mode of presentations will be oral, electronic or written accordingly and if needed using media of charts, flip charts & white boards.
- iii. Most of the individual exercises will be observed and evaluated by the facilitators directly on computers since it mostly will involve skills of data analysis through Statistical Package of Social Sciences.
- iv. There will be no scores or marks specified for the individual exercises but the feedback of evaluation by the facilitators will be on spot.

Assessment of individual; take home tasks/assignments:

- i.* The take home assignments of the trainees will be checked once these will be submitted after completion to the facilitators after period specified for each task.
- ii.* Most of the take home assignments will be related to numerical problem solving, calculations or tasks of analysis in SPSS.
- iii.* Assignments should be submitted in electronic version and no manually written assignment will be accepted.
- iv.* Each assignment will be checked for plagiarism through turn-it-in soft ware. Any assignment that will have originality score less than 90% or similarity index more than 10% will be returned back to trainees for rephrasing and resubmission.
- v.* They will be assessed and checked within one week of the session and will be scored by the facilitators.
- vi.* A total of 50 marks in total will be assigned for evaluation of all of these take home tasks/assignments.

B. PRESENTATION IN JOURNAL CLUB SESSIONS

- i. During year 2 of training, the trainees should actively participate in the journal club sessions of the department regular basis.
- ii. One journal club meeting must be organized in the department within every two months of a year and apart from mandatory more than 80% yearly attendance, the trainees must present two research paper in year 2 of training individually.
- iii. The purpose of presentation of the second year trainees in journal club is teach them how to form a bridge between research and practice, how to confidently appraise recent research and then how to practically apply best research findings into their clinical setting as their first steps evidenced-based medicine.

Format of Journal Club Meetings:

- i. In a journal club meeting, two research papers, published in an indexed national or international journal, selected by the Dean of the department must be presented by second year trainee during R-Y2 training year, in two different meetings.
- ii. Trainee will be given the selected paper one and a half month prior to the meeting by the Dean of the department.
- iii. After thoroughly going through the research a paper, trainee should do extensive literature search on the topic also and must be familiar with all the recent and current research done on the similar topic by other researchers.
- iv. An approximately 30 minutes long oral presentation will be made by the trainee, in monthly journal club session on the selected research paper. The research paper will be presented through power-point and the critical appraisal of the paper will follow it.
- v. The topic will also be discussed in comparison to other evidences available according to the latest research.
- vi. The other second year trainees should actively participate in question & answer session of the journal club meeting that will be carried out following the presentation of the critical appraisal of the research paper. It will be compulsion for

each R-Y2 trainee to ask at least one question or make at least one comment relevant to the topic and/or the research paper, during the journal club meeting.

Minimal Attendance of Journal Club meetings by R-Y2 trainee:

The R-Y2 trainees should attend at least 5 out of 6 journal club meetings during their second year of training. Out of these 6 journal clubs, he/she must make presentation in any two sessions as a compulsion.

Assessment of presentation of the trainee at Journal Club:

- i. During the presentation, the head of department and two other senior faculty members will evaluate, trainee's ability to make effective presentation of the research paper and also his/her skills to critically appraise a research paper.
- ii. The scoring will not be done for the first paper presentation by the trainee, since that will be the first ever presentation by the trainee. During the first presentation the evaluators will generally qualitatively evaluate the skills of presenter without any quantitative assessment. They will inform the presenter by the end of first paper presentation, his/her mistakes, weaknesses and scope for improvement. The strengths and competences, on the other hand, will also be appreciated for encouragement.
- iii. A structured checklist for scoring the skills and abilities of trainee will be used by the above mentioned senior faculty members. The average of the three total scores will be calculated, out of total attainable score of 25 that will then be used in overall assessment of the trainee.
- iv. The evaluation will include aspects like the presenter's aptitude to identify the strengths and weaknesses of a research article, apart from assessment of the usefulness and validity of research findings. He/she should be able to determine the appropriateness of the study methodology and design for the research question, apart from suitability of the statistical methods used, their appropriate presentation, interpretation and discussion. He/she should also be able to identify and justify relevance of the research to one's own practice.

C. FORMULATION OF RESEARCH PROPOSAL/S OF DISSERTATION/RESEARCH PAPERS AS REQUISITE TO POST GRADUATE DEGREE/MD DEGREE

- i. At the beginning of year 2, the trainee will start sorting out various research questions for his/her research project as dissertation requisite for the post-graduation degree.
- ii. Trainee must submit and seek approval of the research proposal/s from the concerned institutions till end of year 2 i.e. R-Y2.
- iii. Since post graduate trainees seeking Fellowship from the College of Physicians and surgeons of Pakistan (CPSP) have either of the two following options, as per guidelines of CPSP:

OPTION A: Submission of one dissertation in specialty field as requisite to FCPS degree OR

OPTION B: Publication of two original research articles in any CPSP recognized journals, being first author, as requisite to FCPS degree

They will have to submit one research proposal for the dissertation till end of second year of training, if following option A and two research proposals of the original articles, if following option B accordingly.

- iv. The MD scholars will also have to submit one research dissertation, in specialty field, to Rawalpindi Medical University, so they will also submit one research proposal for the dissertation till end of second year of training.
- v. Whatever is the post-graduation academic scenario; the trainee must decide the research question/s under the guidance of the supervisor till third month of R-Y2 and hence decide the final title of the research project/s.
- vi. During these first three months of R-Y2, the trainee under guidance of the supervisor and ORIC will do extensive review of the literature, relevant to topic. He/she will do online as well physical search of printed, Journal articles, reports, books, conference papers, dissertations, Research and program reports- published/ unpublished. He/she will also access the libraries of Rawalpindi medical University, repositories of various institutions.
- vii. The trainee will also consult the research Associates and Deputy Directors at the ORIC for the feasibility of the research question and any modification. The trainees will be encouraged to preferably select research questions that will be

better answered through cross sectional comparative, analytic and experimental study designs instead of simple descriptive cross sectional or case series design. Descriptive cross sectional, exploratory or case series design will be allowed only in special cases when the research question will deal with an exceedingly significant and priority issue, not addressed previously even though published work either locally/nationally or internationally.

- viii. Once the research question and topic is finalized with mutual understanding of the supervisor, trainee will submit the selected topic to the Head of Department and Dean of specialty.
- ix. The Dean of the specialty will give approval of the topic after scrutiny and will confirm that there is no duplication of the topic in the department, after consultation with HOD's.
- x. Then the Dean will finalize the list of the topics of research proposals of all trainees during fourth month of R-Y2 and will submit the list to BASR.
- xi. BASR will give the final approval of all topics within same month.
- xii. For the post graduate trainees following aforementioned option B (Publication of two original research articles in any CPSP recognized journals, being first author, as requisite to FCPS degree) must submit their topics (already approved from BASR) to CPSP for its approval. Once the topics are approved by CPSP, they will initiate research proposal development for these research projects that they will publish as original articles.
- xiii. Once the trainee gets the approval of the topic/s from all concerned authorities, the formal write up of proposal/s must be initiated within fifth month of R-Y2 in consultation with supervisor and the research associates of ORIC for guidance in methodology.
- xiv. The research proposal/s will be brief outline of trainees' future research project/s (approx of 1000-1500 words) and must comprise of the following topics:
 1. Title of research project.
 2. Introduction and rationale (with Vancouver in text citations)
 3. Research aim, purpose and objectives

4. Hypothesis, if required according to the study design.
5. Operational Definitions
6. Research Methodology:
 - a) Setting
 - b) Study Population
 - c) Study Duration
 - d) Study Design
 - e) Sampling: Sample size with statistical justifications, sampling technique, inclusion criteria & exclusion criteria.
 - f) Data Collection technique/s
 - g) Data Collection tool/s
 - h) Data Collection procedure
 - i) Plan for Data entry & Analysis
7. Ethical Considerations
8. Work plan/Gantt chart
9. Budget with justifications
10. Reference list according to the Vancouver referencing style
11. Annexure (including data collection tool or performa, consent form, official letters, scales, scoring systems and/or any other relevant material)
 - xv. The research proposal should be completed in eighth month of R-Y2 and should also be reviewed and finalized by the Supervisor of the trainees.
 - xvi. The finalized research proposal will be reviewed by publication in charge of ORIC for plagiarism through turn-it-in software. Any proposal that will have originality score less than 90% or similarity index more than 10% will be returned back

to trainees for rephrasing and resubmission. Only when the eligible scores will be reached, then the proposal will be further processed.

- xvii. The statistician at data analysis centre of ORIC will facilitate the trainees in sample size calculation through sample size calculators according to their study designs.
- xviii. The trainees should formulate all the data collection tools under guidance of supervisor and research associates of ORIC and should also pretest to finalize all the data collection tools for their research projects.
- xix. These research proposals along with the tools will be submitted to all concerned authorities for appraisal.
- xx. The supervisors and research associates of ORIC will also ensure that the duration of research project should be adequate and realistic so that trainees will be able to complete their project/s during third year of training leaving enough time for its write up during year 4 of training. For the post graduate trainees following option of Publication of two original research articles as requisite to FCPS degree, the study duration will be even briefer.

D. PRESENTATION OF RESEARCH PROPOSAL/S TO INSTITUTIONAL RESEARCH ETHICS COMMITTEE (IREF) OF RMU

- i. The R-Y2 trainees will already be aware of the standard operational procedures and protocols of the Institutional Research Ethics Committee of RMU as they had, as a mandatory activity, participated and observed the proceedings of the meeting during R-Y1. However, he/she will be informed about any modifications or updates regarding the standard procedures of application to IREF if will have occurred during last one year.
- ii. Trainees will be individually provided an updated step wise guidance by the research associates of ORIC, regarding how an applicant should access the RMU website and download the application Performa and then how to electronically fill it in for final submission. They will also be provided updated format of presentation for their Research Proposal presentations at IREF meetings.

- iii. The trainees must submit ten sets of hard copies of all the documentation including the research proposal with all annexes, plagiarism detection report and application performa to ORIC, at least ten days prior to the monthly meeting. ORIC will provide them date and month of the IREF meeting for presentation and the trainee must present in the meeting along with his/her supervisor.
- iv. The trainee must make a five to ten minutes' presentation through power-point at Institutional Research Ethics Forum during 9-10 months of R-Y2. By the end of presentation, he/she will respond to all the queries of the forum and the supervisor will facilitate in defense of the proposal.
- v. The IREF will appraise and scrutinize every aspect of the proposal/s and if found acceptable then will provide on spot verbal approval of the project followed by written approval letter within next two weeks to the trainees.
- vi. If members of IREF will find any modifications required in the proposal/s they will recommend them to trainee and supervisor. The trainee must incorporate those changes and will resubmit the corrected version of proposal/s within next one week's period.
- vii. The written approval letter of IREF will be issued within next two weeks of meeting, to the trainee.
- viii. In case the trainee will be working on option B of CPSP i.e. publication of two research papers, instead of writing dissertation, then he/she will present both research proposals to IREF for the two topics already approved by CPSP.

E. ASSURANCE OF FEASIBILITY & AVAILIBILITY OF RESOURCES FOR RESEARCH PROJECTS

- i. The trainee will ensure that for his/her research project/s ample resources in terms of monetary, human or physical will be available to complete the project. He will also provide documented proof and justification to avoid any unforeseen problems that may lead to incompleteness of research project/s.

- ii. No individual funding will be provided to the trainees for their research projects requisite to their post graduation degrees by Rawalpindi Medical University. The trainee may be bearing all the expenses on individual basis or may be applying to any of national or international funding agencies for research project/s.
- iii. In case the trainee will be applying for any external source of funding from any national or international funding agency, the funding application and approval process must be completed by the end of year 2 of training.
- iv. The trainee may also be pursuing the degree, through any scholarship that also will include the research project expenses.
- v. In either of the above mentioned circumstances, the trainee must provide and submit the budget details and documented evidences of the funding or availability of monetary resources to the supervisor and Dean who will ensure the feasibility of the resources available to the trainees.
- vi. Moreover, if any tools, kits, equipment or physical materials will be required for research project, the trainee will provide documented evidence of its availability.
- vii. If the data collection will require hiring of additional human resources, then the trainee will provide documented evidence like consent of staff members contributing to his/her research or details of training expenses or honorarium details if any to the supervisor.
- viii. The supervisor will also consult the Dean and HOD's in ensuring the feasibility and availability of resources of a trainee during second year of training.

F. SUBMISSION OF RESEARCH PROPOSAL/S TO CPSP/BASR OF RMU

- i. Post graduate trainees applying for their CPSP fellowship using aforementioned option A (Submission of one dissertation in specialty field as requisite to FCPS degree) after receiving appraisal of IREF of RMU, must submit their proposal to CPSP during last quarter of second year of training. The approval process from CPSP takes approximately 3 months on an average but in case any corrections are suggested the resubmission and acceptance procedure may take

6 months on an average. These trainees will initiate data collection as soon as they receive the acceptance by CPSP authorities.

- ii. However, the post graduate trainees who will opt to publish two original research articles in any CPSP recognized journals, as requisite to FCPS degree, will not require any submission of their proposals to CPSP. They will directly initiate the data collection as soon as they will receive the IREF acceptance letter. Hence their data collection phase of both research projects will begin in last quarter of R-Y2.
- iii. The MD scholars of RMU will submit their research proposals to the Board of Advanced Studies and Research (BASR) of RMU for appraisal. BASR will issue an acceptance letter of the research proposal endorsed by the Vice chancellor of RMU copied to the concerned stakeholders and authorities including office of Dean and ORIC. If members of BASR will find any modifications required in the proposal they will recommend them to trainee and supervisor. The trainee must incorporate those changes and will resubmit the corrected version of proposal to BASR within next one-week period. The written approval letter of BASR will then be issued within next two weeks to the trainee. The trainees will thus receive formal permission to initiate data collection phase through this acceptance of BASR.
- iv. All trainees who will require data collection from any RMU or its teaching hospitals that are Benazir Bhutto Hospital, District Headquarters Hospital and Holy Family Hospital, will not require any permission from the administration of these hospitals. The appraisal letters of IREF and BASR will be considered as acceptance by all authorities of the RMU.
- v. If any trainee will need to collect data from any institution other than RMU or its teaching hospital, they must seek that institution's approval too according to their standard protocols parallel to the period when they will have submitted proposals to CPSP/BASR to save their time.
- vi. All the post graduate trainees will follow the guidelines regarding the format and content of the research proposals provided by the authorities to whom they will be presenting their research proposals that are Board of Advanced Studies and Research (BASR) for MD scholars or College of Physicians and Surgeons of Pakistan (CPSP).

G. MONITORING OF RESEARCH COURSE OF YEAR 2

- i. An alert and continuous monitoring of all the scholarly activities of each trainee will be carried out by all the concerned faculty i.e. research units of specialties, supervisor, Head of Department and the deputy Directors and research fellows at the Office of Research Innovation & Commercialization of RMU.
- ii. The structured Research component of Log books and Research portfolio of the trainees specific to research component of the training of year 2; R-Y2 will also be regularly observed, monitored and endorsed by all the concerned faculty members, supervisor and facilitators.
- iii. The Log books section R-Y2 specific to research curriculum of training year 2 will include the record of attendance of all the teaching sessions of the trainee that will be monthly updated and endorsed by the department of Medical Education (DME) of RMU.
- iv. It will also comprise of all the submission record and scores attained for the individual and group assignments of the trainees, endorsed by the supervisor and the research associates and Deputy Directors of ORIC.
- v. The log books will also include the attendance and presentation scores of the trainees in the Journal club sessions of the department. It will also include observation notes catering to qualitative evaluation for active participation by the trainee during each journal club session. This information will be endorsed by the supervisor of the trainee and HOD.
- vi. The record of the trainees regarding timely completion and quality of each activity related to completion of research proposals and its presentation in the monthly meeting of the Institutional Research Ethics Forum (IREF) of RMU will also be part of the Log Book that will be endorsed by the supervisor, research associates of ORIC and conveners of the IREF and BASR.
- vii. The result of the annual research paper of R-Y2 will also be entered in the Log books by Research Associates and will be endorsed by the Deputy Directors of ORIC.
- viii. The research portfolio of the trainee R-Y2 will again include qualitative and quantitative self assessment of the trainee in narrative form. It will include the individual assessment of the objectives and aims defined by the trainee during the

second year of training and extent of their successful attainment. The trainee will also mention individual achievements or knowledge and skills acquired in any aspect of research that was either formally part of the research curriculum or even not. It will also include reporting of any research courses, online or physically attended by the trainee, contribution in any research paper or publication, any participation and/or presentation in any research conference, competition etc during year R-Y2.

H. OVERALL ASSESSMENT OF PERFORMANCE OF TRAINEES FOR YEAR 2

- i. The overall assessment of performance of trainee for R-Y2 will rely on marks attained out of total 100 obtainable marks. These total 100 marks will include 50 marks for the Annual Research Paper of R2 (where the 75 marks of paper will be converted to 50 marks), while 25 marks will be included from the home tasks assignments (by conversion of 50 marks of the home task assignments into 25 marks) and actual 25 marks of presentation of journal club will be included in assessment (without any conversion), to get an aggregate of 100 total marks.
- ii. Out of the total attainable 100 total marks, 40% will be passing marks of this Research course and in case of failure in it, second attempt will be allowed to the trainees and if any one fails in second attempt too then he/she should appear next year with next batch's first attempt.

I. EVALUATION/ FEEDBACK OF RESEARCH COURSE OF YEAR 2

Like evaluation of year one of research course R-Y1, the second year of training R-Y2 will also be evaluated not only by the trainees themselves but also by the Deputy Directors, supervisors and senior faculty through end of sessions forms and then collectively through end of course feedback forms.

- i. **The feedback of trainees** will include structured evaluation of each teaching session of R-Y2 through structured and anonymous feedback forms/questionnaire that will be regularly distributed amongst the trainees. The forms will include questions phrased as Likert scales (1-5 categories) inquiring their responses regarding various aspects of teaching

sessions. Category 1 will represent the poorest quality increasing till category 5 representing excellence and the trainees will choose either of 5 based on their honest and unbiased personal choice. The open ended questions in form will indicate qualitative evaluation of the trainees. There will also an overall feedback questionnaire for entire second year of training course administered to trainees.

- ii. **The feedback of trainers** will be obtained through structured and anonymous feedback forms/questionnaire, including closed and partially closed questions that will be regularly provided by them. They will provide their inputs and opinions regarding effectiveness of the R-Y2 course contents, curriculum, teaching methodologies, teaching aids and technologies, content and usefulness of the exercises and assessments etc.
- iii. **Three focus group discussions;** one of the R-Y2 trainees, second of the facilitators and third of the supervisors will also be organized by the ORIC to evaluate the research course, its benefits and weaknesses and scope for improvement.
- iv. **A final evaluation report of the Research Course R-Y2** will be formulated and compiled by the ORIC of RMU. The report will be presented all concerned stake holders.

J. QUALITY ASSURANCE OF RESEARCH COURSE OF YEAR 2

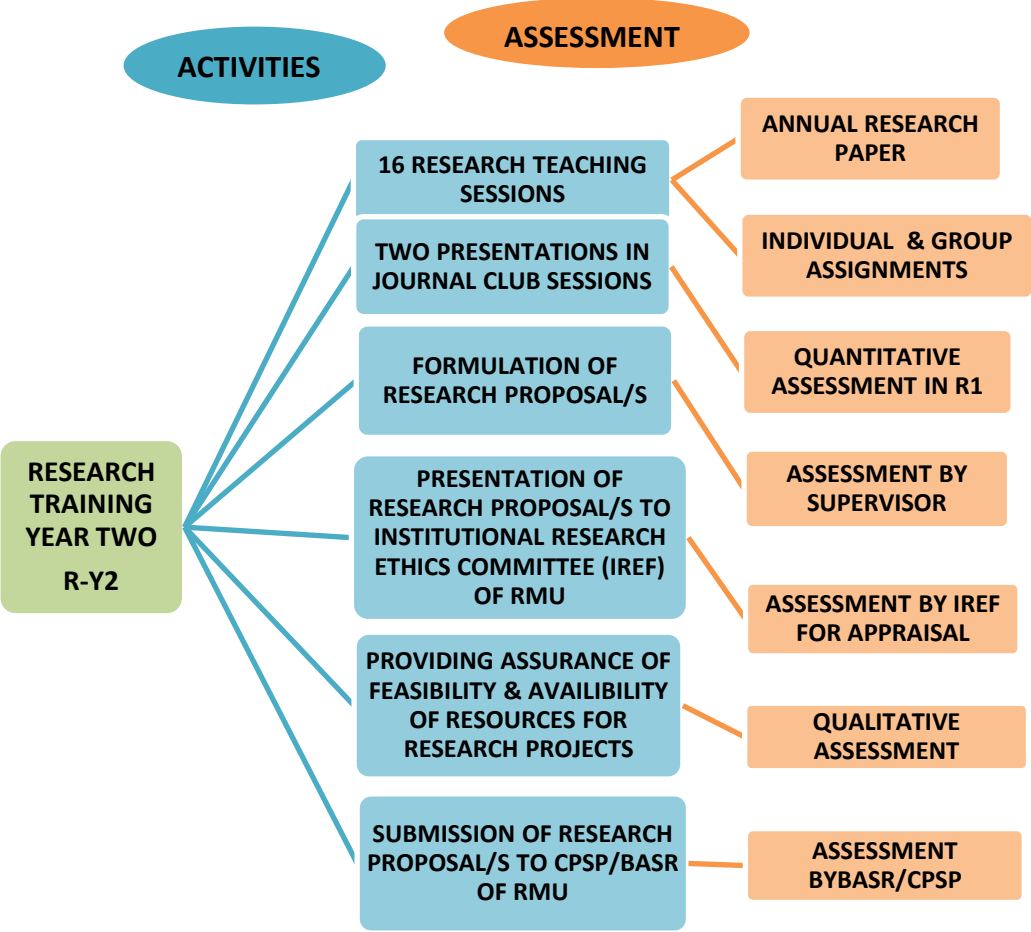
- i. The evaluation of research course of R-Y2 will follow exactly the same pattern of R-Y1, but all the feedback material will pertain to R-Y2 course (including feedback forms of R-Y2, randomly selected log books, research portfolios, individual & group assessment record and randomly selected annual research course examination papers).
- ii. The evaluation team that will observe all these R-Y2 course evidences will be same team that will evaluate R-Y1 course. The team of R-Y2 will include the Head of departments, Deans, selected representatives of BASR, IREF, Director of ORIC, Director DME, Director of Quality enhancement cell (QEC) and Vice chancellor of RMU, individually.
- iii. The random visit for physical observation of the materials and also of all the academic activities through uninformed visits will also follow same protocol as mentioned in quality assurance procedure of R-Y1.

- iv. ORIC will be responsible for submission of the evaluation content of R-Y2 to all including a copy to the Quality Enhancement Cell (QEC) of RMU for internal evaluation.
- v. The QEC will organize an external evaluation too through involvement of a third party that may include members of Quality assurance department of Higher Education Department based on their availability.
- vi. An annual meeting of the quality assessment and enhancement, by end of year 2, will also be organized by the Quality Enhancement Cell of RMU, including representatives of supervisors, Head of Departments, Dean, representative members of BASR, ORIC, DME, QEC & IREF, who will be then collectively, review all the evaluation material of R-Y2. The evaluation team will also share their experiences of their evaluation visits and observations to validate the existing materials.
- vii. The quality of R-Y2 course will be determined with recommendations for further enhancement and modifications.

Successful completion of above mentioned requirements of research course will be mandatory requirement for advancement to the next Post Graduate Year level i.e. year 3 training year or R-Y3.

An over view of activities related to research training in third year, R-Y3 is also displayed in figure 3.

Figure 3. A FLOW CHART OF RESEARCH ACTIVITIES OF R-Y2 POST GRADUATE/MD TRAINEE OF RMU AND THEIR ASSESSMENTS



RESEARCH COURSE OF THIRD POST GRAUDATION TRAINING YEAR

R-Y3

PURPOSE OF R-Y3 RESEARCH COURSE:

Utilizing all the knowledge and skills in research, accrued during first two years, the post graduate trainees of RMU, will be dexterous enough to actually execute a research project and implement efficiently and proficiently all the activities of the research project that they will have planned during period of R-Y1 to R-Y2. During the third year of training post graduate trainees will collect all the information and data and to explore answer to their research questions formulated for their individual research project/dissertation, prerequisite to their degrees. This course will provide them an opportunity to revitalize and update their concepts, knowledge and skills in research methodologies.

LEARNING OUTCOMES OF R-Y3 RESEARCH COURSE

After completion of R-Y3 course the trainees should be efficiently able to:

1. Revise and rejuvenate all the basic concepts of Epidemiological measures and biostatistics.
2. Collate the information gathered through an extensive literature review relevant to study topics finalized and formulate an extensive write up of literature for research project.
3. Collect and store high quality information for their research project in an honest and unambiguous way.
4. Utilize skills to enter, analyze and interpret the data collected for a research project
5. Write a clear and concise research report (research paper for a peer reviewed journal/dissertation) and a summary of the major findings and recommendations for each of the different parties interested in the results.

RESEARCH COURSE OF THIRD TRAINING YEAR

During the third year of training, revision and refreshing up of previously secured knowledge and concepts related to research will enhance the productivity and efficiency of the post graduate trainees.

A. ELECTIVE REFRESHER SHORT COURSES/WORKSHOPS:

The elective refresher short courses of one day to three days duration will be held to rejuvenate concepts Basic and advanced Biostatistics and Epidemiological concepts that will be taught to the trainees during initial first two years of training. The short courses will comprise of one to three days workshops. These workshops will provide the trainees hands on training of all the components of research methodologies, basic and advanced biostatistics and epidemiological calculations. Each workshop will comprise of following teaching methodologies

- Power-point presentations of basic theoretical concepts during workshops.
- On spot individual/group exercises.

These short courses will be conducted by the staff members of Office of Research Innovation and commercialization (ORIC) of RMC including the Statistician, Deputy Directors and Director while they will be facilitated by the Research Associates. Visitor lecturers; including renowned national and international public health consultants, researchers, epidemiologists and biostatisticians will also be invited, according to their availability, for some workshops.

Format of short courses:

- i. A total of 10 short courses will be offered and the post graduate trainee must attend a minimum of 5 of these short courses during R-Y3, according to their needs, choice and preferences.
- ii. Each workshop will comprise of 8-12 modules in total.

- iii. For each module, power-point presentations will be delivered initially, to restore the memories of the trainees regarding the previous knowledge attained by them in R-Y1 and R-Y2. These presentations will be on an average 15-20 minutes of duration for each module and will teach the basic and advanced concepts.
- iv. Following the presentations, on an average 30-60 minutes of individual and group exercises will be supervised by the facilitators to provide the trainees hands on experience. Depending on the type and content of courses, trainees will mostly work through computer soft-wares. These exercises will require calculations and numerical solving too.
- v. By the end of each day of workshop, brief take home individual or group task/assignments will be given to trainees that will be duly evaluated by facilitators within three days of the short course and will provide their feed back to each trainee individually.

Content of short courses:

- i. The course materials for these workshops will be formulated by the Deputy Directors and Director of ORIC, specific to the needs and requirement of the post graduate trainees, using various national and international resource materials.
- ii. The trainees will be provided hard copies as well as soft copies of the course content in a folder at the initiation of the course. This take away resource material will also include handouts of presentations of all the modules taught during the workshops.

Following ten short courses will be offered to the post graduate trainees during year three; R-Y3 along with the tentative time frame work and title of workshops in table 3. However the details of modules, duration and objectives/Learning outcomes of each workshop are not specified right now as these will be formulated based on the needs and requirements of the trainees and also the will depend on the visitor facilitators choice, that will be decided and confirmed at least one month prior to conducting each workshop.

TABLE 3.TEN ELECTIVE SHORT COURSES TO BE OFFERED DURING TRAINING YEAR 3.

TIME FRAME WORK DURING THIRD YEAR R-Y3	TOPICS OF SHORT REFRESHER COURSES
MONTH 1	End note referencing manager
MONTH 2	Mendeley referencing manager
MONTH 3	Effective write up of Literature review
MONTH 4	Data entry in Statistical Package of Social Sciences
MONTH 5	Graphical presentation of data in Microsoft Excel
MONTH 6	Univariate, Bivariate and Multivariate analysis in Statistical Package of Social Sciences
MONTH7	Effectively writing up of a dissertation.
MONTH 8	Research article write up
MONTH9	Critical appraisal of research
MONTH 10	How to Present Research through power-point or posters

Assessment of Trainees for short courses:

No formal assessment through any examination paper will be carried out during year three since they will be already involved in data collection and entry of their research projects. So they will not be strained with any formal examinations.

Assessment of individual and group exercises:

- i. The quality, correctness and completeness of the individual as well as group exercises will be assessed during the workshops by the facilitators.
- ii. The exercises will be presented during each module of workshops by trainees either individually or in groups accordingly.
- iii. The mode of presentations will be oral using media of charts, flip charts & white boards or through power-point presentations depending on the nature of the tasks.
- iv. There will be no scores or marks specified for the individual or group exercises but the feedback of evaluation by the facilitators will be on spot by end of presentations.

Assessment of individual or group; take home tasks/assignments:

- i. The correctness, quality and completeness of the individual or group exercises that will be given during the short courses/workshops will also be determined.
- ii. These will be submitted after completion to the facilitators within three days of the workshop. No Assignments will be acceptable after three days.
- iii. The assignments will be assessed and checked by facilitator within one week of submission along with extensive feedback of these assignments.
- iv. No formal quantitative assessment or scoring of any of these take home tasks/assignments of R-Y3 will be done.

B. PRESENTATION IN JOURNAL CLUB

- i. During third year of training, the trainees should continue to actively participate in the journal club sessions of the department on regular basis.

- ii. The R-Y3 trainees must present at least one research paper in journal club. The format of presentation and procedure for year 3 trainee will exactly be same as it will be for R-Y1 and R-Y2 trainees as mentioned before.
- iii. After oral presentation in monthly journal club session on the selected research paper and the critical appraisal of the paper R-Y3 trainee should actively participate in question & answer session of the journal club too. It will be compulsion for each R-Y3 trainee to ask at least one question or make at least one comment relevant to the topic and/or the research paper, during the journal club meeting.

Minimal Attendance of Journal Club meetings for R-Y3 trainee:

The R-Y3 trainees must attend at least 5 out of 6 journal club meetings during their third year of training and should make at least one presentation as a compulsion.

Assessment of presentation of the trainee at Journal Club:

- i. During the presentation of R-Y3 trainee in journal club, even though the head of department and two other senior faculty members will evaluate trainee's ability to make effective presentation of the research paper and also his/her skills to critically appraise a research paper, but no formal scoring will be done
- ii. The assessment will be qualitative rather than a quantitative assessment. Even though not scored in numbers, but by the end of paper presentation, evaluators will inform the strengths, mistakes, weaknesses and scope for improvement to each trainee.
- iii. The evaluators will assess that how far the presenter was successful to identify the strengths and weaknesses of a research article, to determine the appropriateness of the study methodology and design for the research question and to assess suitability of the statistical methods used. The appropriateness of presentation, interpretation and discussion will also be considered.

C. DATA COLLECTION, ENTRY AND ANALYSIS OF RESEARCH PROJECT/S OF DISSERTATION/RESEARCH PAPERS

- i. By the beginning of year 3, the trainees will have received the approval from the IREF, BASR and respective examination authorities for their research proposals of dissertations or research papers. Moreover, till then all the data collection tools for their research projects will also have been ready after pretesting.
- ii. During first quarter of year 3, it will be mandatory for the trainees to initiate the data collection phase of their project/s. If the trainee will be collecting the data individually for his/her research project, it will be started under continuous guidance of their supervisors and continuous facilitation by the research centers of specialties, the data analysis center and Research Associates of ORIC of RMU.
- iii. In case the data collection will require more human resources, other than trainee himself/herself, either as honorary or hired data collection staff, they should be properly trained for data collection by the trainee. The supervisor will also ensure that the additional data collection staff will be adequate in number within data within the time framework and should also make sure that they will be proficient enough to collect high quality and authentic data.
- iv. The data storage will also be finalized by trainee under the guidance of Supervisor and research center of specialty.
- v. The trainee will initiate data collection phase and will seek assistance of statisticians at Data analysis centre of ORIC for compilation of data sheets in SPSS/or any other statistical software for data coding and entry. The trainees will be encouraged by statisticians to collect the data and enter it simultaneously after cleaning into the soft ware to save time.
- vi. By the end of R-Y3, the data collection and entry of data must be completed.
- vii. In case the trainee will be working on option B of CPSP i.e. publication of two research papers, keeping in consideration, the lengthy period required for submission and then acceptance of papers by journals, he/she should be vigilant in data collection and must do it at faster pace as compared to those writing dissertation. So such trainees should complete data collection of both papers within first half of year 3 of training simultaneously. Otherwise they can also collect data for first paper within first three months of year 3 of training and then will initiate data collection of second paper from

sixth to ninth month of year 3 of training. Whatever is the option followed by the trainee, the data collection phase should not extend beyond ninth month of R-Y3, in order to complete both papers for submission till end of R-Y3.

- viii. The trainees and MD scholars writing dissertation must also complete data collection and analysis till last month of R-Y3.

D. COMPLETION AND SUBMISSION OF TWO RESEARCH PAPERS AS REQUISITE TO CPSP FELLOWSHIP DEGREE

This section D implies only for the trainees who will be following option B of CPSP i.e. publication of two research papers, as requisite to fellowship of CPSP, instead of submitting a dissertation.

- i. The trainees opting for publication of two research papers should complete and submit manuscripts of both research papers by the end of third year of training. Keeping in consideration, the lengthy period required for submission and then acceptance of papers by journals (that varies from journal to journal and may range from 3 months to even one year) he/she should be vigilant in data collection and paper completion at faster pace as compared to those writing dissertation.
- ii. These trainees will be provided the following options and they will choose either of it based on their will and their supervisor's advise:

OPTION 1: The trainees should complete data collection of both papers within first 6 months of year 3 of training simultaneously. Then after analyzing data and completing write up of original article in next 5-6 months must submit both papers during last month of R-Y3 to journals of choice.

OPTION 2: The trainees should complete data collection of first paper within first three months of year 3 of training and then submit first paper after completion of manuscript till sixth month of R-Y3 to journal of choice. Then the trainee will initiate data

collection of second paper till ninth month of year 3 of training and then submit second manuscript after completion till last month of R-Y3 to journal of choice.

- iii. Whatever is the option followed by the trainee, both of his/her paper should be submitted to journals of choice before initiation of year 4 of trainee, keeping adequate time secured in advance, in case any paper will not be accepted and will have to be sent to another journal accordingly.
- iv. During the data collection and entry phase, trainees will receive continuous assistance from the Research Associates and Data analysis unit of ORIC of RMU.
- v. When the data entry will be completed in the statistical software, the trainee will be provided full assistance in data analysis, interpretation and write up of results by the statisticians of ORIC.
- vi. The supervisors and publication in charge of ORIC will also guide the trainee to write the section “Discussion” based on the comparison of the findings of their study with the previously available research nationally as well as internationally.
- vii. They should also be able to identify strengths and weaknesses of their studies and should make recommendations with statement of final conclusion.
- viii. The trainees will identify the target journals for publication and after formatting their write up according to the specific format required by both journals.
- ix. The research papers will be reviewed by publication in charge of ORIC for plagiarism through turn-it-in soft ware. Any article that will have originality score less than 90% or similarity index more than 10% will be returned back to trainees for rephrasing and resubmission. Only when the eligible scores will be reached, then the trainee will be allowed to proceed further and to submit their research in the form of original articles under continuous assistance of Publication unit of ORIC.
- x. The trainee should also submit copies of submitted papers to the Dean, Director of ORIC and Chairperson of BASR that will be kept with them as confidential documents.

- xi. In case the research paper/s is/are sent back with recommended corrections or modifications, the supervisor and associated staff at ORIC will assist the trainee on urgent basis to get it rectified and resubmitted within next 10 days' time.
- xii. In case any of the paper is refused publication by a journal even then the supervisor and publication unit at ORIC will assist the trainee on urgent basis, to get it rectified and resubmitted to another target journal of choice within next 10 days' time and not delaying it all.

Since the trainees who will be submitting dissertation in specialty field as requisite to FCPS degree or as a requisite to their MD degree will not comply with this section D, they will continue with data collection and entry and will also initiate write up of literature review for their dissertations during this last half of R-Y3.

E. MONITORING OF RESEARCH ACTIVITIES OF YEAR 3

- i. Continuous monitoring of all the research activities of each trainee will be carried out by research centers of specialties, supervisors, Head of Departments and the research fellows & Deputy Directors at the Office of Research Innovation & Commercialization of RMU.
- ii. The structured Log books specific to research component of the training of year 3; R-Y3 and Research portfolio of the trainees will also be regularly observed, monitored and endorsed by all the concerned faculty, supervisor and facilitators.
- iii. The section of research training in Structured Log books of R-Y3 will be specific to short refresher courses of research conducted during training year 3. It will also include the record of attendance of all the short course/workshops attended by the trainee endorsed by the facilitators of each course and Office of Research Innovation & Commercialization (ORIC) in addition to the Department of Medical Education of RMU.
- iv. It will also comprise of all the submission record of the individual and group assignments of the trainees, endorsed by the facilitators of ORIC along with their comments.

- v. The log books will also include the attendance and presentation details of the trainees in the Journal club sessions of the department. The observation notes catering to qualitative evaluation for active participation by the trainee during each journal club session will also be inclusive. This information will be endorsed by the supervisor of the trainee and HOD.
- vi. The record of the trainees regarding timely completion and quality of each research activity related to completion of data collection and entry phase will also be part of the Log Book that will be endorsed by the supervisor, research associates and relevant facilitators of ORIC.
- vii. The research portfolio of the trainee R-Y3 will again include qualitative and quantitative self assessment of the trainee in narrative form. It will include the individual assessment of the objectives and aims defined by the trainee during the third year of training and extent of their successful attainment. The trainee will also mention individual achievements or knowledge and skills acquired in any aspect of research that was either formally part of the research curriculum or even not. It will also include reporting of any research courses, online or physically attended by the trainee, contribution in any research paper or publication, any participation and/or presentation in any research conference, competition etc. during year R-Y3.

F. OVERALL ASSESSMENT OF PERFORMANCE OF TRAINEES DURING R-Y3

- i. The overall assessment of performance of trainee will be more qualitative in R-Y3, so it will not rely on any scores or marks attained by trainees hence there will not be any examination paper of research or scoring for the home tasks assignments or presentation of journal club.
- ii. The Heads of department and the director of ORIC will observe the log books for assessments of facilitators of short courses, their comments regarding the home tasks/assignments, comments of evaluators of presentation at journal club and the remarks of supervisor regarding his/her opinion regarding the trainee's overall performance during third year of training.

- iii. The Heads of department and the director of ORIC will also observe the research portfolio of the trainees. Based on their observations, they will evaluate the completeness and quality of performance of each trainee.
- iv. In case of any deficiencies or weaknesses they will personally call the trainee and supervisor and will guide them how to correct or improve accordingly.

G. EVALUATION/ FEEDBACK OF RESEARCH COURSE OF YEAR 3

The research course and activities of third year of training will be evaluated by the trainees, facilitators of ORIC and supervisors.

- i.* **The feedback of trainees** will include structured evaluation of short courses/workshops of R-Y3 through structured and anonymous feedback forms/questionnaire that will be administered by the end of each short course/workshop. The forms will include questions phrased as Likert scales (1-5 categories) inquiring their responses regarding various aspects of workshops. Category 1 will represent the poorest quality while category 5 will represent excellence and the trainees will choose either of 5 based on their honest and unbiased personal choice. The open ended questions in form will indicate qualitative evaluation. There will also an overall feedback questionnaire for entire third year of research training.
- ii.* **The feedback of trainers** will be obtained through structured and anonymous feedback forms/questionnaire to provide their inputs and opinions regarding effectiveness of the R-Y3 short course contents, curriculum, teaching methodologies, teaching aids and technologies, content and usefulness of the exercises and assessments etc.
- iii.* **Three focus group discussions;** one of the R-Y3 trainees, second of the facilitators and third of the supervisors will also be organized by the ORIC to evaluate the research course, its benefits and weaknesses and scope for improvement.

- iv. A final evaluation report of the Research Course R-Y3** will be formulated and compiled by the ORIC of RMU. The report will be presented to all concerned stake holders.

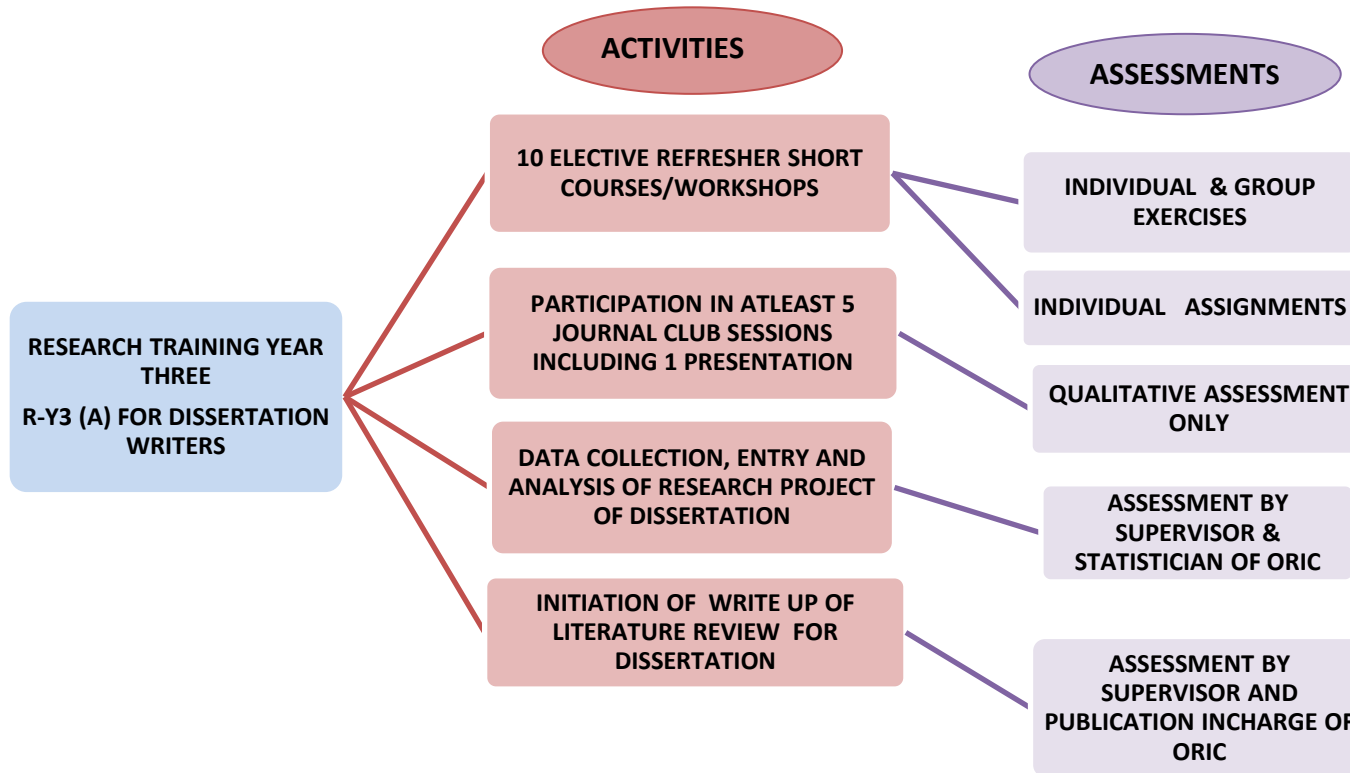
H. QUALITY ASSURANCE OF RESEARCH COURSE OF YEAR 3

- i. The quality assessment of research course of R-Y3 will involve meticulous review of materials of R-Y3 course (including randomly selected data sheets and completed data collection tools, feedback forms of R-Y3 short course/workshops, log books, research portfolios, individual & group assessment records).
- ii. The quality evaluation team of R-Y3 will include the Head of departments, Deans, selected representatives of BASR, IREF, Director of ORIC, Director DME (Department of Medical Education), Director of Quality enhancement cell (QEC) and Vice chancellor of RMU. The random visits for physical observation of the materials and also of all the short courses proceedings through uninformed visits will also follow same protocol as mentioned in quality assurance procedure of R-Y1 and R-Y2.
- iii. The research papers submitted by post graduate trainees following option of publication of two original articles to CPSP accredited journals will be observed as confidential evidences by Director of ORIC, Dean and chairperson of BASR for quality assessment. No other person will have access to these manuscripts in order to avoid any risk of potential plagiarism.
- iv. ORIC will submit evaluation content of R-Y3 to all stake holders including a copy to the Quality Enhancement Cell (QEC) of RMU for internal evaluation.
- v. The QEC will organize an external evaluation too through involvement of a third party that may include members of Quality assurance department of Higher Education Department based on their availability.
- vi. Since the R-Y3 will primarily comprise of the data collection phase of research projects of trainees, therefore, Quality Enhancement Cell (QEC) in liaison with the research centers of the specialty, will ensure the originality, transparency and unambiguity of data, during entire data collection.

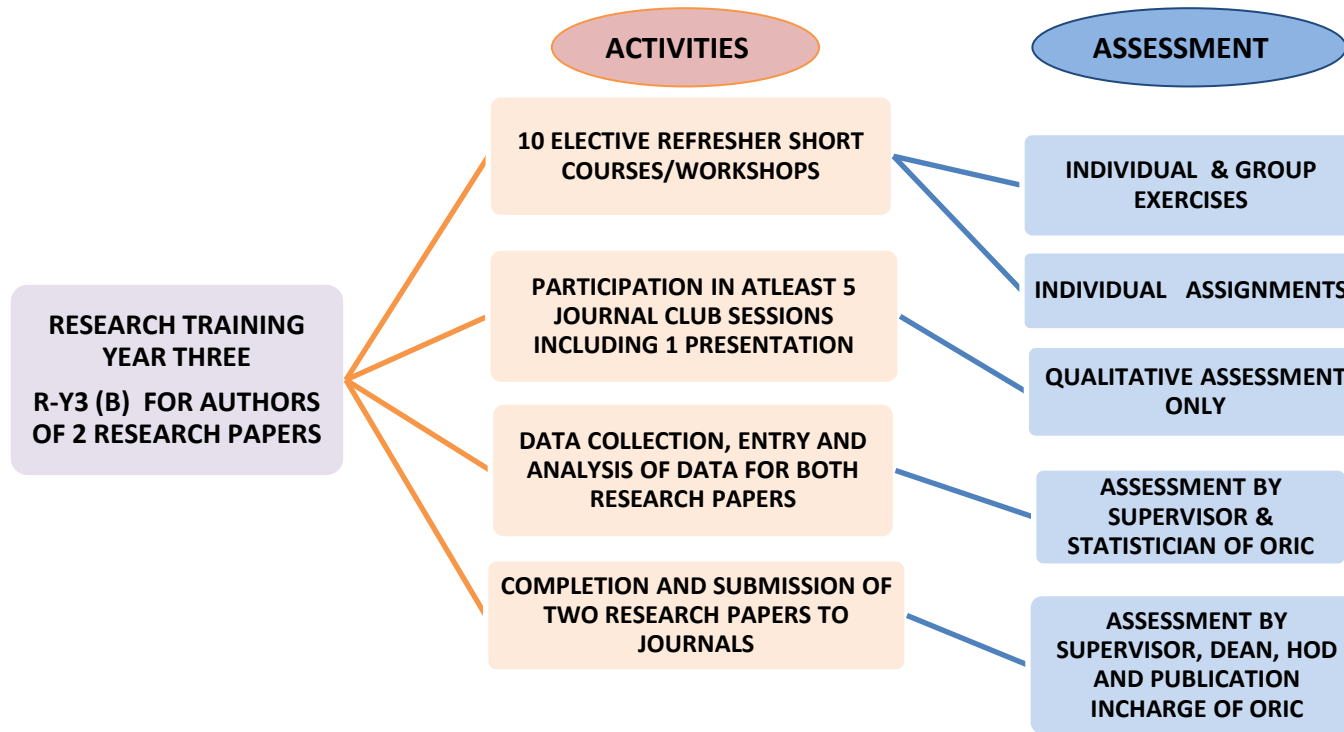
- vii. An annual meeting of Quality assurance, by end of year 3, will be organized by the Quality Enhancement Cell of RMU, including representatives of supervisors, Head of Departments, Dean, representative members of BASR, ORIC, DME, QEC & IREF, who will be then collectively, review all the evaluation material of R-Y3. The meeting will be chaired by the Vice Chancellor of RMU. The evaluation team will also share their experiences of their evaluation visits and observations to validate the existing materials.
- viii. The quality of R-Y3 course will be stringently determined with recommendations for further quality enhancement.

Successful completion of above mentioned requirements of research course, also outlined in Figure 4 ((A) and 4 (B), will be mandatory requirement for advancement to the next Post Graduate Year level i.e. last, final or fourth year or R-Y4.

Figure 4 (A) . A FLOW CHART OF RESEARCH ACTIVITIES AND ASSESSMENTS OF R-Y3 POST GRADUATE/MD TRAINEE OF RMU WHO WILL OPT FOR DISSERTATION WRITING



**Figure 4 (B) . A FLOW CHART OF RESEARCH ACTIVITIES AND RELEVANT ASSESSMENTS
OF R-Y3 POST GRADUATE TRAINEES OF RMU OPTING FOR PUBLICATION OF TWO RESEARCH PAPERS AS
REQUISITE TO CPSP FELLOWSHIP DEGREE**



RESEARCH COURSE OF FOURTH POST GRAUDATION TRAINING YEAR

R-Y4

PURPOSE OF R-Y4 RESEARCH COURSE:

During the fourth year of training the post graduate trainees will receive extensive practical hands on experience of conducting individual research project and then transformation of this project's report into a dissertation or original articles, in perspective of the knowledge and skills they will acquire during year initial three years of post graduate training. This course will make them proficient to conduct extensive literature search and using available information delve into existent findings and evidences of research, critically appraise them and then explore how to transform them into clinical practice. The fourth year of training will be purely practical where no formal didactic lectures or sessions will be held.

LEARNING OUTCOMES OF R-Y4 RESEARCH COURSE

After completion of R-Y4 course the trainees should be efficiently able to:

1. Identify and execute proficiently all procedures required for data analysis and interpretation.
2. Analyze and interpret the data collected for a research project and draw conclusions related to the objectives of study.
3. Write a clear and concise research report (paper for a peer reviewed journal/dissertation) and a summary of the major findings and recommendations for each of the different parties interested in the results.
4. Present the major findings and the recommendations of a study to policy-makers, managers and other stakeholders to finalize the recommendations.
5. Prepare a plan of action for the dissemination, communication and utilization of the findings and (if required) make recommendations for additional future research.
6. Critically appraise a research paper of any national or international journal.
7. Present research papers published in various national and international journals at journal club.

8. Prepare and complete final research Dissertation/ original articles, requisite to the post graduation degree of trainee, under the guidance of the nominated supervisor.
9. Present and defend a research final research Dissertation/ original article project to concerned authorities.

RESEARCH COURSE OF FOURTH TRAINING YEAR

The fourth year of post graduate of training will be purely practical where no lectures, courses or workshops will be held and the trainee will be directly involved under the supervisor's and staff members (of ORIC) guidance in actual implementation of research. The following activities related to research will be carried out by the trainee during the last and final year of research course.

A. COMPLETION OF RESEARCH PROJECT AND ITS WRITE UP AS A DISSERTATION

This section A implies only for the trainees who will be either MD scholars or those post graduate trainees following option A of CPSP i.e. writing dissertation, as requisite to fellowship of CPSP.

- i. The trainees writing dissertations should have completed their data collection and entry by the end of third year of training and will have also initiated write up literature view for the dissertation.
- ii. As soon as the year four of training commences, these trainees should complete the introduction and literature review sections of their dissertations along with proper referencing during first three months of R-Y4. They will be continuously guided in this task by their supervisors, research associates and the publication in charge at the ORIC.
- iii. The trainees, In the meanwhile, will also seek continuous assistance of statisticians of Data analysis unit of ORIC for data analysis in statistical soft ware. Trainees will be guided how to interpret the results, how to determine the statistical significances and how to write these results in textual, tabulated and graphical forms. They will have to complete their data analysis and write up of results till fourth month of year 4.

- iv. The supervisor and publication in charge at ORIC will also guide the trainee to write the section of “discussion” for their dissertations based on the comparison of the findings of their study with the previously available research nationally as well as internationally.
- v. The trainees will also identify strengths and weaknesses of their study and should make recommendations with statement of final conclusion.
- vi. According to the required referencing systems the reference lists and in text citation will also be completed correctly.
- vii. After writing the abstract and cover pages and annexure of the dissertation, the trainee will submit his/her dissertation’s final draft to publication in charge ORIC for plagiarism detection through turn-it-in soft ware. Any dissertation that will have originality score less than 90% or similarity index more than 10% will be returned back to trainees for rephrasing till the eligible scores will be reached.
- viii. Then the trainee should submit final draft of dissertation to the supervisor and head of department till end of fifth month of year for final modifications. Since the supervisor will be incessantly involved in every aspect of the project since the beginning and will be persistently guiding the procedure, so he/she should not take more than 10 days to give final review to dissertation of the trainee with written feedback that will be entered in a structured performa with recommendations for improvement or corrections. The Head of Department will also provide his feedback within 10-15 days.
- ix. Based on the feed back of the reviews, the trainee will make final editing and will get the dissertation printed and submitted to the degree awarding authority accordingly (BASR for MD trainees and CPSP for post graduate trainees of fellowship) for review for acceptance before third week of sixth month of year 4.
- x. The trainee will also submit a copy of dissertation to head of department, the Dean, Director of ORIC and Chair person of BASR that will be dealt as a confidential document in order to avoid potential risk of plagiarism.
- xi. While the dissertations will be under review by the degree awarding authority for acceptance, the trainees will be continuously guided by the supervisor and the research associates at ORIC regarding defense of their dissertation.

They will be guided how to make effective presentations according to the format provided by the examination authorities and also how to successfully and confidently respond to the queries of examiners.

- xii. In case the dissertation is sent back with recommended corrections or modifications, the supervisor and research associates at ORIC will assist the trainee on urgent basis to get it rectified and resubmitted within at least 10 days' time and not more than it.

B. RESUBMISSION OF RESEARCH PAPER/S IN CASE MODIFICATIONS ADVISED OR REJECTED FOR PUBLICATION BY A JOURNAL

This section B implies only for the post graduate trainees who will be opt for two research paper submission as requisite to fellowship of CPSP and provided one or both of their research paper/s is/are sent back for modifications or rejected publication.

- i. In case the research paper/s is/are sent back with recommended corrections or modifications, the supervisor, publication in charge and concerned facilitators at ORIC will assist the trainee on urgent basis to get it rectified and resubmitted within next 10 days' time.
- ii. In case any of the paper is refused publication by a journal even then the supervisor and publication unit at ORIC will assist the trainee on urgent basis, to get it rectified and resubmitted to another target journal of choice within next 10 days' time without any delay.

C. SUBMISSION OF ACCEPTANCE LETTERS OF APPROVED RESEARCH PAPER/PAERS AND SUBMISSION OF HARD AND SOFT COPIES OF PUBLISHED RESEARCH PAPER/S TO CPSP

This section C implies only for the post graduate trainees who will be opt for two research paper submission as requisite to fellowship of CPSP and provided their research paper/s is/are approved by journals and are published.

- i. In case the research paper/s is/are approved by the target journals, the trainee will submit the letter of acceptance/s to CPSP in addition to copies to supervisor, HOD, Dean and Publication in charge of ORIC.
- ii. When the original article will be published in journal/s, then the trainee will submit hard and soft copies of the original journal with his/her published articles to CPSP in addition to copies to supervisor, HOD, Dean and Publication in charge of ORIC and BASR.

D. PARTICIPATION IN JOURNAL CLUB SESSIONS

- i. Since the journal club is one of the best sources to provide awareness of best current clinical research, its implementation and utilization so its importance cannot be overlooked. In spite of a demanding and eventful fourth year of training, the participation of trainee in the journal club will still be mandatory.
- ii. The participation of trainees in journal club during R-Y4 will complement their knowledge and skills that will be beneficent in write up as well as defense of dissertation but also enhance their evidence based clinical skills.
- iii. However, to decrease the trainees' workload during final year of training, only participation in journal club will be mandatory and he/she will be exempted from making a presentation during R-Y4.
- iv. The R-Y4 trainee will still be expected to actively participate in discussion and also in question & answer session of the journal club meeting. It will be compulsion for each R-Y4 trainee to ask at least one question or make at least one comment relevant to the topic and/or the research paper, during the journal club meeting.

Minimal Attendance of Journal Club meetings by R-Y4 trainee:

The R-Y4 trainees should attend at least 5 out of 6 journal club meetings during their last year of training.

Assessment of Trainees for Journal Club sessions:

There will be no formal quantitative or qualitative assessment of the trainee and they will also not make any formal presentation in the journal club during R-Y4.

E. MONITORING OF RESEARCH ACTIVITIES OF YEAR 4

- i. During the last year of training of post graduate trainees, they will be scrutinized for each and every activity of dissertation completion by research centers of specialties, supervisors, Head of Departments and the research associates and Deputy Directors at the Office of Research Innovation & Commercialization of RMU.
- ii. The structured component of research in Log books of fourth training year will pertain to various components of their research projects including timing and completeness of data analysis, result write up, introduction, literature review's write up, methodology, discussion, recommendations, conclusions and cover pages.
- iii. The log books will also include the attendance details of the trainees in the Journal club sessions of the department during R-Y4. This information will be endorsed by the supervisor of the trainee and the HOD.
- iv. The Log Books of the trainees in addition to the Research portfolio during fourth year will be endorsed by the supervisor and Deputy Directors of ORIC. The research portfolio of the R-Y4 will again include self assessment regarding research activities of the trainee in narrative form. In addition to individual assessment of the objectives and aims formulated for fourth year of training and their successful attainment, it will also include participation in any research course/s, conference/s and/or competition/s etc. during year R-Y4.

F. OVERALL ASSESSMENT OF PERFORMANCE OF TRAINEES DURING R4

- i. The overall assessment of performance of trainee will not rely on any scores or marks attained by trainees since there will not be any examination Paper or scoring for the home tasks assignments or presentation of journal club.
- ii. The Heads of department and the director of ORIC will observe research portfolio of trainees in addition to the log books for attendance record and the remarks of supervisor regarding his/her opinion regarding the trainee's overall performance during fourth year of training. Based on their observations, they will evaluate the completeness and quality of performance of each activity of trainee during fourth year.
- iii. In case of any deficiencies or weaknesses, the trainee and supervisor will be called by the Heads of department and the director of ORIC who will direct them on how to improve accordingly.

G. EVALUATION/ FEEDBACK OF RESEARCH COURSE OF YEAR 4

The research course and activities of third year of training will be evaluated by the trainees, facilitators ORIC and supervisors.

- i.* **The end of year R-Y4 and end of four years' research training feedback of trainees** will include structured evaluation through feedback questionnaire not only for fourth year but also for entire four year of research training. It will be anonymous and apart from questions phrased in Likert scale, open ended questions will also be included for the opinions of trainees.
- ii.* **The end of year R4 and end of of four years' research training feedback of trainers** will also reflect the anonymous feedback for the opinions of all supervisors and facilitators regarding benefits, drawbacks or weaknesses of R-Y4 course as well as of entire four year's research training course.
- iii.* **Three focus group discussions;** one of the R-Y4 trainees, second of the concerned facilitators and third of the supervisors will also be organized by the ORIC to evaluate the entire four year's research course, its benefits and weaknesses and scope for improvement.
- iv.* **A final evaluation report of the Research Course R-Y4 and entire 4 years' research training Course** will be formulated and compiled by the ORIC of RMU. The report will be presented to all concerned stake holders.

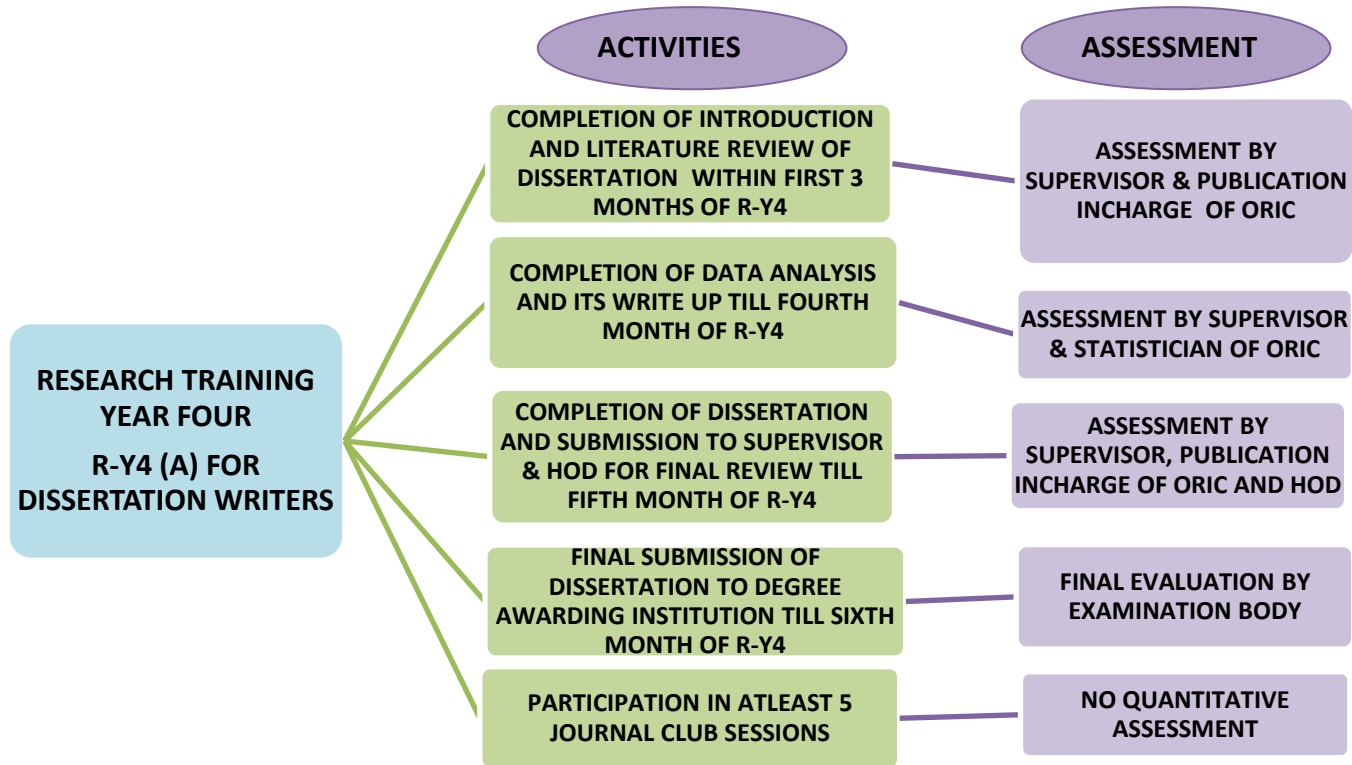
H. QUALITY ASSURANCE OF RESEARCH COURSE OF YEAR 4

- i.* The quality assessment of research course of R-Y4 as well as the entire four years' research course will be carried out through review of materials and observations of proceedings by the evaluation team of RMU.
- ii.* The research dissertations submitted by post graduate trainees will be observed as confidential evidences by Director of ORIC, Dean and chairperson of BASR for quality assessment. No other person will have access to these manuscripts in order to avoid any risk of potential plagiarism.
- iii.* ORIC will submit evaluation content of R-Y4 to all stake holders including a copy to the Quality Enhancement Cell (QEC) of RMU for internal as well as external evaluation.

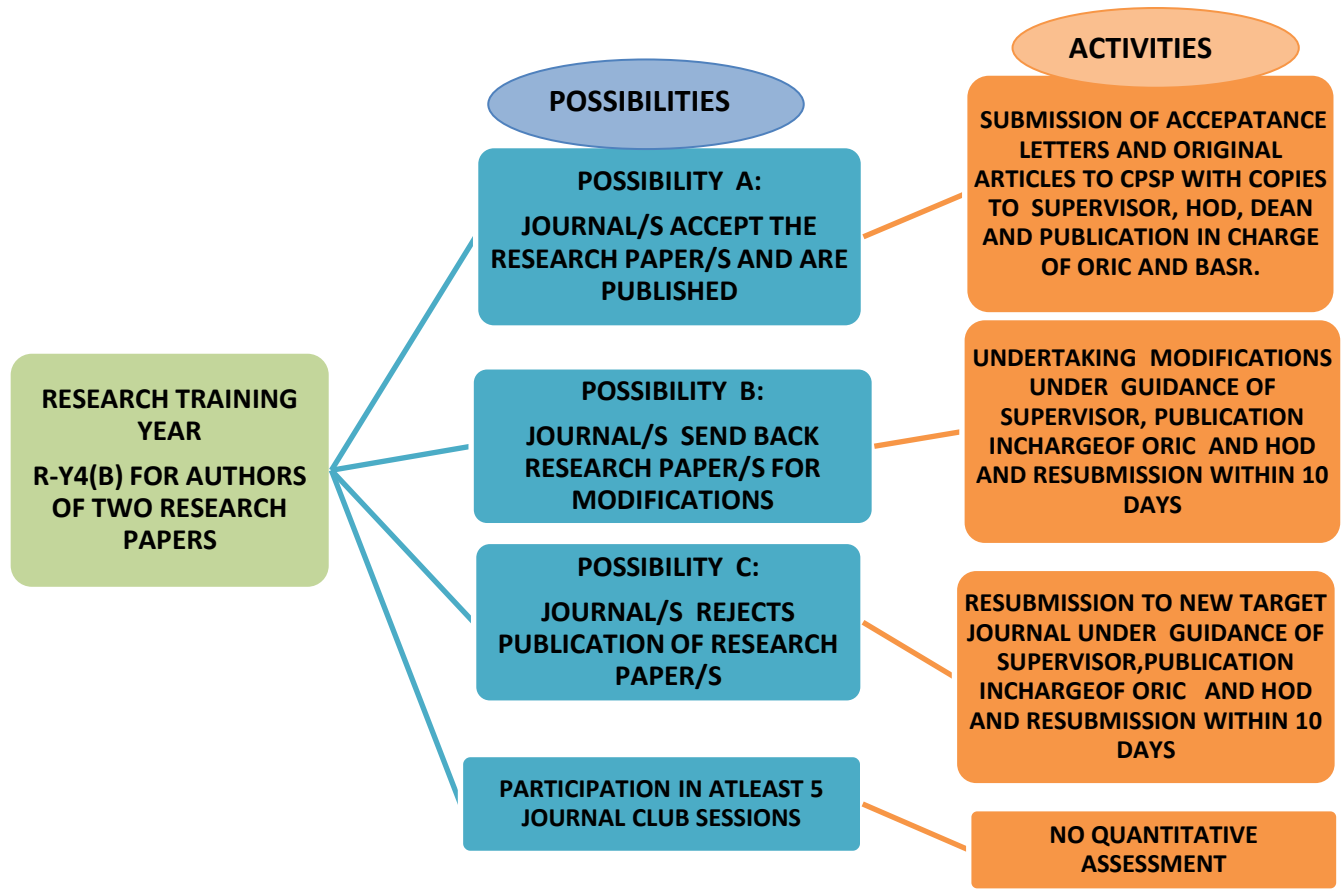
- iv. An annual meeting of the trainers by end of year 4, will be organized by the Quality Enhancement Cell of RMU, including representatives of supervisors, Head of Departments, Dean, representative members of BASR, ORIC, QEC, DME & IREF, to review and discuss all the evaluation materials of R-Y4, its quality and any recommendations for quality enhancement, under the chairman ship of Vice chancellor of RMU.

The activities of trainees of RMU are displayed in figure 5(A) and 5 (B), according to their concerned options. Successful completion of above mentioned requirements of research course will be mandatory requirement for completion of Post Graduate training final year as well as for MD scholar's training at RMU

Figure 5 (A) . A FLOW CHART OF RESEARCH ACTIVITIES AND ASSESSMENTS OF R-Y4 POST GRADUATE/MD TRAINEE OF RMU WHO WILL OPT FOR DISSERTATION WRITING

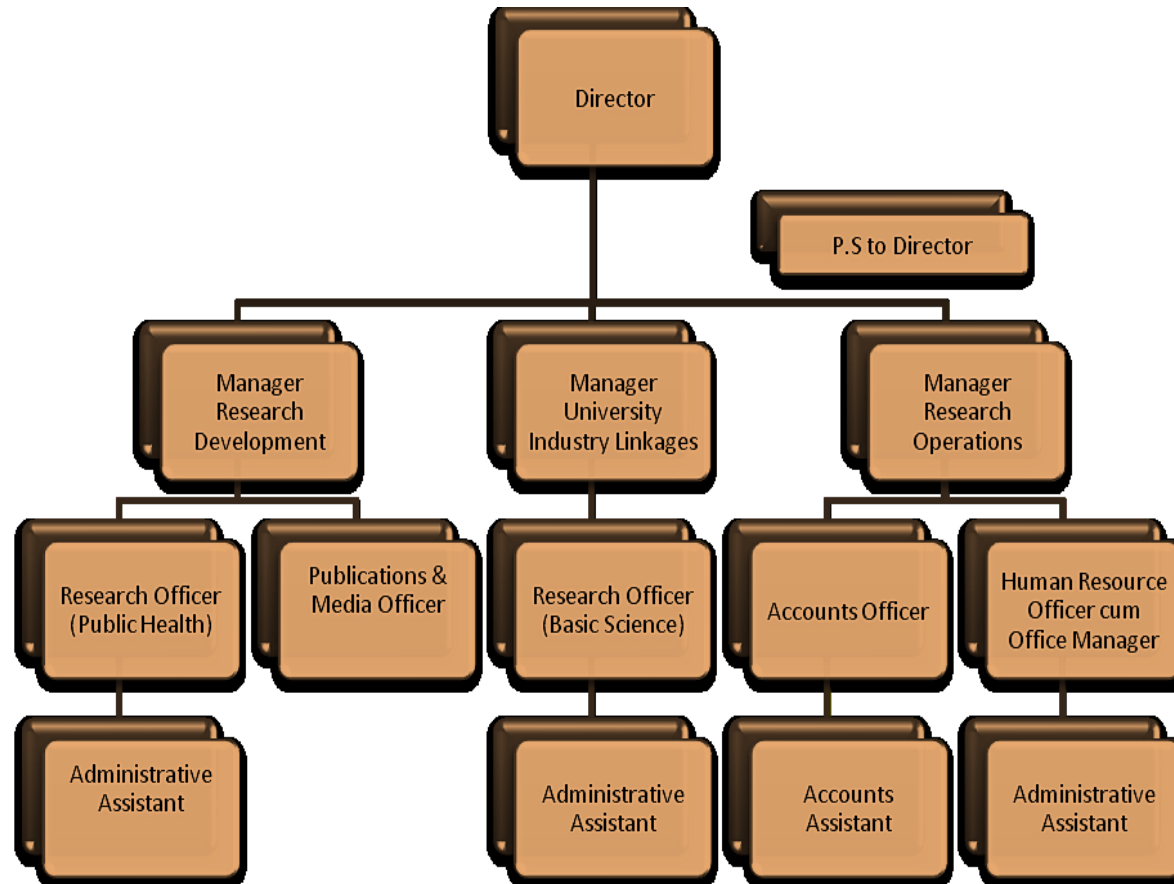


**Figure 6 (B).A FLOW CHART OF RESEARCH ACTIVITIES AND ASSESSMENTS
OF R-Y4 POST GRADUATE OF RMU WHO WILL OPT FOR 2 RESEARCH PAPERS AS REQUISITE TO CPSP
FELLOWSHIP DEGREE**



ANNEXURE 1

THE ORGANIZAITONAL CHART OF ORIC OF RMU



Note: Managers of ORIC are also referred to as Deputy Directors in RMU

ANNEXURE 2

TERMS OF REFERENCES OF STAFF MEMBERS OF RMU WITH REFERENCE TO THE RESEARCH TRAINING PROGRAM OF POST GRADUATE TRAINEES OF RMU

A. THE VICE CHANCELLOR:

1. The vice chancellor of RMU will be final authority to approve nominations of external supervisors of MD scholars, in consultation with the Dean of specialty.
2. Regarding nominations of the internal supervisors of MD trainees and also of Post graduate trainees of fellowship of CPSP, after completion of first year of training, i.e. R-Y1, no substitution in nomination will be allowed. But in case of any serious incompatibility between the trainee and the supervisor, the issue will be brought to the Vice chancellor, directly by the Dean, as a special case. And only the vice chancellor will make the final decision accordingly, as the final authority.
3. The vice chancellor will also be the head of the quality evaluation team of research training courses that will also include the Head of departments, Deans, selected representatives of BASR, IREF, Director of ORIC and Director of Quality enhancement cell (QEC). The selection of above mentioned team members will be made by the Vice chancellor of RMU.
4. The Vice chancellor will have the authority through the research training course, to make surprise visits, evaluations, rounds and checking (without any prior information to the trainees and trainers) at any random occasion, being member of quality evaluation team individually or in team.
5. An annual meeting of the trainers will also be organized by the Quality Enhancement Cell of RMU, including representatives of supervisors, Head of Departments, Dean, representative members of BASR, ORIC, QEC & IREF and this meeting will be chaired by the Vice chancellor.
6. In perspective of the quality assessed through extensive procedure all the year round and also during the Annual meeting of quality assessment and enhancement, the Vice Chancellor and the Board of Advanced study and Research will finalize any modifications or enhancement in the next Research course.
7. When the MD scholars of RMU will submit their research proposals to the Board of Advanced Studies and Research (BASR) of RMU for appraisal, BASR will issue an acceptance letter of the research proposal that will be endorsed by the Vice chancellor of RMU.

B. MEMBERS OF BOARD OF ADVANCED STUDIES AND RESEARCH:

- 1.** The Board of Advanced studies and Research of RMU will finalize, approve and issue final approval list of the supervisors of the trainees of RMU.
- 2.** The Board of Advanced Studies and Research (BASR) of RMU will receive the submitted research proposals of MD scholars of RMU for appraisal. BASR will issue an acceptance letter of the research proposal endorsed by the Vice chancellor of RMU copied to the concerned stake holders and authorities including office of Dean and ORIC. If members of BASR will find any modifications required in the proposal they will recommend them to trainee and supervisor. The trainee must incorporate those changes and will resubmit the corrected version of proposal to BASR within next one-week period. The written approval letter of BASR will then be issued within next two weeks to the trainee. The trainees will thus receive formal permission to initiate data collection phase through this acceptance of BASR.
- 3.** The quality evaluation team of research training course will include selected representatives of BASR who will be nominated and selected byBASR and Vice chancellor of RMU. The members may pay random visits for physical observation of the proceedings and materials of all the research related activities of the trainees and supervisors for quality assessment and assurance.
- 4.** The copies of research papers or dissertations submitted by post graduate trainees following option of publication of two original articles to CPSP accredited journals will also be submitted to the chairperson of BASR for quality assessment to be observed as confidential evidences
- 5.** Representative members of BASR will attend the annual meeting of Quality assurance, by end of each research training year and will also share their experiences of their evaluation visits and observations to validate the existing materials.
- 6.** The quality of Research Training course will be stringently determined by BASR in their meetings and the members will provide recommendations for further quality enhancement and will have the authority for policy formulation or modification regarding the research training course.

C. MEMBERS OF INSTITUTIONAL RESEARCH AND ETHICS FORUM OF (IREF) RMU:

1. Institutional Research Ethics Forum will organize monthly meetings for approval of research proposals of the trainees of RMU in which the trainee must present along with his/her supervisor for presentation and defense of proposals of dissertations/research papers.
2. The members will be provided hard copies of the research proposals prior to the meetings that they will review before coming to the meeting.
3. Members will listen and visualize five to ten minutes' presentation through power-point by the trainees and by the end of presentation will make relevant queries to the trainees.
4. The IREF will appraise and scrutinize every aspect of the proposal/s and if found acceptable then will provide on spot verbal approval of the project followed by written approval letter within next two weeks to the trainees.
5. If members of IREF will find any modifications required in the proposal/s they will recommend them to trainee and supervisor. The trainee must incorporate those changes and will resubmit the corrected version of proposal/s within next one week's period.
6. The written approval letter of IREF will be issued within next two weeks of meeting, to the trainee.
7. In case the trainee will be working on option B of CPSP i.e. publication of two research papers, instead of writing dissertation, then he/she will present both research proposals to IREF for the two topics already approved by CPSP.
8. The quality evaluation team of research training course will include selected representatives of IREF who will be nominated and selected by chairperson of IREF and Vice chancellor of RMU. The members may pay random visits for physical observation of the proceedings and materials of all the research related activities of the trainees and supervisors for quality assessment and assurance.
9. Representative members of IREF will attend the annual meeting of Quality assurance, by end of each research training year and will also share their experiences of their evaluation visits and observations to validate the existing materials.

10. The quality of Research Training course will be stringently determined by IREF in their meetings and the members will provide recommendations for further quality enhancement to BASR, if any, regarding research training course.

D. THE DEAN OF THE SPECIALITY:

1. The journal club meetings will be chaired by the Dean of specialty.
2. In a journal club meeting, one or two research paper/s published in an indexed national or international journal will be selected by the Dean and will be notified to the departments at least one and a half month prior to the meeting.
3. The Dean of the specialty will decide the nomination of the supervisor for the post graduate trainee as well as the internal supervisors of MD scholars within first six months of the first year of training R-Y1.
4. For the selection of supervisors, the Dean will chair meeting for selection of supervisors that will be held in the middle of the first research training year, preferably in June.
5. The list of all the first year trainees and the available supervisors in each department will be presented to the Dean, by respective heads of each department in meeting.
6. The Dean will consider the recommendations and proposals of most suitable supervisors for each trainee after eloquent discussions and justifications with the Head of Departments.
7. The Dean will then call each trainee individually to inform him/her the suggested Supervisor for him/her and will also give right and time for objection or reservation in nomination, if any. The Dean will seek the trainee's final consent and then after asking the trainee to leave the meeting room, will call the supervisor for final consent.
8. If the supervisor will also be willing to happily supervise the trainee, then the Dean will finally approve the nomination.
9. A tentative list will be issued by the office of the Dean, within three days of the meeting, copied to the HOD's and the trainees and supervisors.
10. Both the trainees and the supervisors will be given two weeks to challenge the nominations and will also be given right to personally approach the Dean for any request for change. In case of any objection, the Dean will make changes in consultation with the HOD's, after final consent and satisfaction of both trainee and supervisor
11. The final revised list of nominations will be then issued by the office of Dean and will be sent to the Board of Advanced studies and Research of RMU (BASR).

12. During the last few months of the first year of training, the trainees and supervisors will be advised by the Dean, to get familiar with each other and try to identify their abilities to efficiently and successfully work together as a team.
13. In case of any issues, either of both will have right to request any change in nomination to the Dean, till last week of first year of training. The Dean will then consider the case and will seek modification in nomination from the BASR.
14. After completion of first year of training, no substitution in nomination will be allowed. In case of any serious incompatibility between the trainee and the supervisor, the Dean will have authority to bring it to the notice of the Vice chancellor as a special case.
15. As regards the MD scholars, the external supervisors will also be nominated and those nominations will be made by Vice chancellor of RMU in consultation with the Dean of specialty. After finalization of nominations a letter of agreement of supervision will be submitted by the trainee to the office of Dean, including consent and endorsement of both trainee and the internal and/or external supervisor.
16. Regarding the project of undertaking clinical audits on various aspects of the department during first year of research training, on one topic assigned to each group by the Dean in consultation with Heads of Departments.
17. The clinical audits completed in groups will be published as Annual Audit Reports of the departments by the Dean
18. The Dean will make the decision regarding the presentation of clinical audit weekly Clinico-pathological conferences (CPC) of the University.
19. Once the research question and topic is finalized with mutual understanding of the supervisor, the Dean will also be handed over the selected topic by the trainee. The Dean of the specialty will give approval of the topic after scrutiny and will confirm after consultation with HODs that there is no duplication of the topic in the department.
20. The Dean will finalize the list of the topics of research proposals of all trainees during fourth month of R-Y2 and then will submit the list to BASR.
21. Dean will also ensure the feasibility and availability of resources during second year of research training of the trainees of RMU, before initiation of the research project.
22. The office of Dean will receive a copy of approval of the acceptance letter of BASR once the MD scholars of RMU will get their research proposals approved by to the Board of Advanced Studies and Research (BASR) of RMU.

23. The Dean will receive the copies of final manuscript by post graduate trainees following option of publication of two original articles to CPSP accredited journals that will be observed as confidential evidences by Dean for quality assessment. It will be kept strictly confidential by the office of the Dean in order to avoid any risk of potential plagiarism
24. The Dean will also receive the copies of final dissertation manuscript by post graduate trainees and MD trainees that will be observed as confidential evidences by Dean for quality assessment. It will be kept strictly confidential by the office of the Dean in order to avoid any risk of potential plagiarism.
25. The office of Dean must also receive the letter of acceptance/s by the trainees, in case the research paper/s is/are approved by the target journals. When the original article will be published in journal/s, then the trainee will submit hard and soft copies of the original journal with his/her published articles to Dean of specialty for evidence.
26. The Dean of specialty will be member of the quality evaluation team of research course and he/she will have right to make any surprise visit during the four years training research course, at any random occasion, either individually or in teams, without any prior information to the trainees and trainers.
27. The Dean will also attend the annual meeting that will be organized by the Quality Enhancement Cell of RMU. During the meeting, the Dean will share his/her experience of evaluation visits and observations to validate the existing materials.

E. THE HEAD OF THE DEPARTMENT:

1. The Head of the Department (HOD) will oversee all the research activities of the trainees, in close consultation with the Dean and the supervisors at the departmental level.
2. The HOD will attend all the journal club sessions of department.
3. During the first six months of research training year 1 i.e. R-Y1, the HOD will be responsible for consideration of the nominations of the internal supervisor of each trainee. The HOD will decide these nominations based on his/her own personal observation of the level of performance, talent personality and temperament of both the trainees and the supervisors. Based on his/her personal observation of the compatibility of both eligible trainees and the supervisors, Head of department will recommend or propose most suitable supervisors for each trainee after eloquent discussions and justifications to the Dean during a nomination meeting that will be especially held for this purpose.

4. The nominations will be finalized in a special meeting by all heads of the departments and the Dean. The list of all the first year trainees and the available supervisors in each department will be presented by respective heads of each department in meeting.
5. In case of any objection to nominations of supervisors, the Dean will make changes after direct consultation with the HOD's, apart from final consent and satisfaction of both trainee and supervisor.
6. After finalization of nominations a copy of letter of agreement of supervision will be received by the office of HOD, submitted by the trainee.
7. The weekly meetings of the supervisor and the trainee will be monitored by the HOD through observation of the documented record of meeting in log books, by the end of every month.
8. During ninth month of training year 1; R-Y1 the head of department will supervise the project of clinical audit of the trainees. In this regard HOD will firstly form groups of trainees, either two or three trainees in one group (along with each supervisor of each trainee), depending on the total number of trainees available in that respective first year.
9. The HOD in consultation with the Dean of specialty will assign topics of audits to each group.
10. The clinical audits completed in groups will be published as Annual Audit Reports of the departments under supervision of HOD's.
11. The presentation of clinical audit in weekly Clinico-pathological conferences (CPC) of the University, will also be supervised by HOD's.
12. The contribution of the trainees in execution and publication of clinical audit will also be qualitatively assessed by the head of departments.
13. Once the trainee finalizes research question and topic in mutual understanding with supervisor, the HOD will also be handed over the selected topic by the trainee who in consultation with the Dean of the specialty will confirm for non duplication of the topic in the department.
14. HOD will also ensure the feasibility and availability of resources during second year of research training of the trainees of RMU, before initiation of the research project.
15. The trainee should submit final draft of dissertation to the head of department till end of fifth month of year for final modifications and the Head of Department will also provide his /her feedback within 10-15 days.

16. The HOD will receive a copy of final dissertation by the trainee during fourth year of research training that will be kept by him/her as a confidential document in order to avoid any potential risk of plagiarism.
17. In case the research paper/s of the trainees is/are approved by the target journals, the office of HOD trainee will also receive a copy of the letter of acceptance/s and when the original article will be published in journal/s, even then the trainee will submit hard and soft copies of the original journal with his/her published articles to HOD.
18. All the Head of Departments along with other staff members of Office of Research Innovation & Commercialization of RMU will keep vigilant and continuous monitoring of all the research activities of each trainee.
19. The HOD will monthly check and endorse the sections of research in Structured Log books of trainees and also section of Research in portfolio record of the trainees specific to research component of the training.
20. The HOD will also endorse the attendance of the trainees in the Journal club sessions of the department in the log books along with his/her quantitative and/or qualitative assessment of the trainees' active participation and/or presentation during the journal club session. HOD will also endorse the information whether any question or comment was raised by the trainee during each journal club session or not. The Heads of department will observe the log books for assessments of facilitators of short courses during third year of research training and their comments regarding the home tasks/assignments apart from the remarks of supervisor regarding his/her opinion regarding the trainee's overall performance during third year of training.
21. In case of any deficiencies or weaknesses, HOD will personally call the trainee and supervisor and will guide them how to correct or improve accordingly.
22. The research course of the trainees will also be evaluated by the HOD's through end of sessions forms and then collectively through end of course feedback forms.
23. The HODs will also be members of the quality evaluation team of research training course and will vigilantly and equitably observe and evaluate all the documented records and materials during the course and finally by the end of each course year for quality assessment.
24. They will also make surprise visits at any random occasion, without any prior information to the trainees and trainers, individually or in team.

25. HODs will also attend the annual meeting quality assessment and enhancement where they along with other participants will actively review and discuss all the evaluation material. And will also share their experiences of evaluation visits and observations to validate the existing materials.

F. THE DIRECTOR OF OFFICE OF RESEARCH INNOVATION AND COMMERCIALIZATION (ORIC):

1. The Director ORIC (Office of Research Commercialization and Innovation) of RMU will conduct an orientation session or an introductory session of one-hour duration along with Deputy Directors of ORIC at the commencement of first research training year of all post graduate trainees of RMU. During the session, the Director will make trainees acquainted to the complete research course of four years' post graduate training, its schedule of all scholarly and academic activities and the assessment procedures. He/she will also introduce the model of research at RMU, organizational structure of ORIC and all requisites of training along with introduction to the staff members of ORIC who will be involved in their training.
2. The director ORIC will take few research training sessions of first two training years (R-Y1 & R-Y2) that will comprise of didactic lecture followed by taking exercises and then also be responsible for giving and checking the home task assignments (if any) related to session.
3. During the third year of training the Director ORIC will conduct few of short refresher courses/workshops along with other staff members of Office of Research Innovation and commercialization. For the specific course, Director will have to carry out a 20-25 minutes' power-point presentation to restore the memories of the trainees regarding the previous knowledge attained by them in R-Y1 and R-Y2. The director ORIC will also facilitate the individual or groups exercises of trainees in the training session following the presentation and also check the take home assignments.
4. Director at the Office of Research Innovation & Commercialization of RMU will keep vigilant and continuous monitoring of all the academic activities of each trainee related to Research courses.
5. Director of ORIC will check the research portfolio of the trainee and will endorse it.

6. Based on his/her observations, the completeness and quality of performance of each trainee will be evaluated and in case of any deficiencies or weaknesses he/she will personally call the trainee and supervisor and will guide them how to correct or improve accordingly.
7. Director ORIC will supervise the formulation of evaluation report of the research training course and after its endorsement will send it to all concerned departments and stake holders. The director ORIC will also be responsible for submission of the evaluation content to the Quality Enhancement Cell (QEC) of RMU for internal evaluation and external evaluation.
8. The Director will also be member of the quality evaluation team of research training course and will also evaluate all the documented records and materials during the course and finally by the end of each course year for quality assessment.
9. Like all other members of Quality evaluation team, the director will also have the right to make a surprise visit at random individually or in team. The evaluation will include not only physical observation of the materials but the evaluators may also make a visit to observe any proceedings or activities of the research course e.g. a lecture, a group exercise, a journal club session and/or an IREF meeting.
10. The Director will attend the annual meeting quality assessment and enhancement where he/she will actively review and discuss all available material of training course will also share his/her experience of evaluation visits and observations to validate the existing materials.
11. The trainees who will opt for publication of research papers to journals will submit copy of submitted papers to Director of ORIC who will check and keep them secured in records as confidential documents.
12. The Director will receive a copy of dissertation of the trainee for record as a confidential document in order to avoid potential risk of plagiarism.

G. THE DEPUTY DIRECTORS OF OFFICE OF RESEARCH INNOVATION AND COMMERCIALIZATION (ORIC):

1. The Deputy Directors ORIC (Office of Research Commercialization and Innovation) of RMU, along with Deputy Director and other staff members of ORIC will conduct an orientation/introductory session of one-hour duration at the initiation of first research training year of all post graduate trainees of RMU. The Deputy Directors will provide introduction to trainees regarding the research course of

four years' post graduate training, its schedule of all scholarly and academic activities and the assessment procedures. They will also inform the trainees organizational structure of ORIC and all requisites of training along with introduction to the staff members of ORIC who will be involved in their training.

2. The Deputy directors ORIC will take research training sessions of first two training years (R-Y1 & R-Y2) that will comprise of didactic lecture followed by taking exercises and then also be responsible for giving and checking the home task assignments (if any) related to session.
3. The submitted record and scores of trainees attained for the individual and group assignments during first two training years will be endorsed by the Deputy Directors of ORIC.
4. During the third year of training the Deputy Directors ORIC will conduct a few of short refresher courses/workshops. For the specific course, they will have to carry out a 20-25 minutes' power-point presentation to restore the memories of the trainees regarding the previous knowledge attained by them in R-Y1 and R-Y2. In addition, they will also facilitate the individual or groups exercises of trainees in the training session following the presentation and will also check the take home assignments.
5. The submitted record and scores of trainees attained for the individual and group assignments of the short training courses of third year of training will also be endorsed by the Deputy Directors of ORIC.
6. The Deputy Directors will check and mark the written papers of end of year examination or Annual Research Paper of first two training year R-Y1 & R-Y2. They will also endorse the scores of the Annual papers in the log book of the trainees.
7. The research course will be evaluated by the deputy directors of ORIC too through end of sessions forms and then collectively through end of course feedback forms.
8. During these first three months of R-Y2, the Deputy Directors at the ORIC will provide consultation to the trainees regarding feasibility of their research questions and will be advised if any modification required.
9. The deputy directors will be continuously involved in an alert and continuous monitoring of all the scholarly activities of each trainee.
10. The structured Research component of Log books and Research portfolio of the trainees specific to research component of all the training years R-Y1 to R-Y4 will also be regularly observed, monitored and endorsed by the Deputy Directors of ORIC. Based on his/her observations, the completeness and quality of performance of each trainee will be evaluated and in case of any deficiencies or weaknesses he/she will personally call the trainee and supervisor and will guide them how to correct or improve accordingly.

11. The Deputy Director will also monitor the submission of the evaluation content to all including a copy to the Quality Enhancement Cell (QEC) of RMU for internal evaluation.

H. THE RESEARCH ASSOCIATES OF OFFICE OF RESEARCH INNOVATION AND COMMERCIALIZATION (ORIC):

1. The Research Associates of ORIC (Office of Research Commercialization and Innovation) of RMU, along with Deputy Director and other staff members of ORIC will facilitate the orientation/introductory session of one-hour duration at the initiation of first research training year of all post graduate trainees of RMU.
2. The Research Associates will take few research training sessions of first two training years (R-Y1 & R-Y2) that will comprise of didactic lecture followed by taking exercises and then also be responsible for giving and checking the home task assignments (if any) related to session.
3. The Research Associates will also be will be present and will be actively involved in facilitation of all the training sessions that will be taken by Director, Deputy Directors or guest facilitators. They will actively facilitate the individual and group works of the trainees during the sessions.
4. The Research Associates will be responsible for record keeping of the post graduate trainees regarding the training sessions and the records and scores of trainees for the individual and group assignments during all four training years that will also be endorsed by the Deputy Directors of ORIC. They will not only collate the record at the ORIC in computerized versions as well as in the form of hard copies. The Research Associates will also fill in the record in research sections of the log books relevant to the training sessions and other relevant activities that will be supervised by them.
5. During the third year of training, the Research Associates will also be present in the short refresher courses/workshops for facilitating the Director, Deputy Directors or guest facilitators. They will actively facilitate the individual and group works of the trainees during the workshops.
6. The Research Associates along with the Deputy Directors will check and mark the written papers of end of year examination or Annual Research Paper of first two training year R-Y1 & R-Y2. They will enter the the scores of the Annual papers in the log book of the trainees and will also keep its record at the ORIC in computerized versions as well as in the form of hard copies.

7. During the first three months of R-Y2, the Research Associates at the ORIC will provide consultation to the trainees regarding feasibility of their research questions and will advise trainees if any modification required.
8. Once the trainee gets the approval of the topic/s from all concerned authorities during R-Y2 and will initiate the formal write up of proposal/s, the research associates of ORIC will guide them regarding the research methodologies.
9. The research associates of ORIC will also ensure that the duration of research project should be adequate and realistic so that trainees will be able to complete their project/s timely during training leaving enough time for its write up.
10. The research associates of ORIC will also guide the trainees regarding the research formulation of data collection tools, their pre-testing and execution of data collection phase
11. Trainees will be individually provided an updated step wise guidance by the research associates of ORIC, regarding submission of their synopsis to IREF for appraisal. They will be supervised by Research Associates regarding how to access the RMU website, to download the application Performa and then how to electronically fill it in for final submission. They will also be provided updated format of presentation by the Research Associates for their Research Proposal presentations at IREF meetings.
12. The record of the trainees regarding timely completion and quality of each activity related to completion of research proposals and its presentation in the monthly meeting of the Institutional Research Ethics Forum (IREF) of RMU will also be part of the Log Book that will be entered by the research associates of ORIC and conveners of the IREF and BASR.
13. As soon as the year four of training commences, these trainees should complete the introduction and literature review sections of their dissertations along with proper referencing during first three months of R-Y4 and the Research Associates will also guide them along with the supervisors and the publication in charge at the ORIC.
14. While the dissertations will be under review by the degree awarding authority for acceptance, the trainees will be continuously guided by the supervisor and the research associates at ORIC regarding defence of their dissertation. They will be guided how to make effective presentations according to the format provided by the examination authorities and also how to successfully and confidently respond to the queries of examiners.
15. In case the dissertation is sent back with recommended corrections or modifications, research associates at ORIC will guide the trainee along with supervisor on urgent basis to get it rectified and resubmitted within at least 10 days' time.

I. THE PUBLICATION IN CHARGE OF OFFICE OF RESEARCH INNOVATION AND COMMERCIALIZATION (ORIC):

1. The Publication in charge will be actively involved in the Research training course and for the academic sessions relevant to literature search, review and write up, he/she will take didactic lectures, followed by facilitating individual and group exercises and checking of relevant home tasks and assignments.
2. The post graduate trainees and MD scholars submit a copy of their finalized research proposal/s for the dissertation/research papers to the publication in charge of ORIC who will review for plagiarism through turn-it-in soft ware. Any proposal that will have originality score less than 90% or similarity index more than 10% will be returned back to trainees for rephrasing and resubmission. Only when the eligible scores will be reached, then the publication in charge will approve and the proposal will be further processed.
3. The publication in charge of ORIC will also guide the trainees to write the literature review sections and the section of “Discussion” based on the comparison of the findings of their study with the previously available research nationally as well as internationally.
4. The final research papers/dissertations of trainees will also be reviewed by publication in charge of ORIC for plagiarism through turn-it-in software. Any article that will have originality score less than 90% or similarity index more than 10% will be returned back to trainees for rephrasing and resubmission. Only when the eligible scores will be reached, then the trainee will be allowed to proceed further and to submit their research in the form of original articles under continuous assistance of Publication unit of ORIC.
5. In case the research paper/s of trainees is/are sent back with recommended corrections or modifications publication in charge along with the supervisor and concerned facilitators at ORIC will assist the trainee on urgent basis to get it rectified and resubmitted within next 10 days’ time.
6. In case any of the paper of trainee is refused publication by a journal then the publication unit at ORIC along with the supervisor and concerned facilitators at ORIC will assist the trainee on urgent basis, to get it rectified and resubmitted to another target journal of choice within next 10 days’ time and not delaying it all.

J. THE STATISTICIANS AT DATA ANALYSIS UNIT OF OFFICE OF RESEARCH INNOVATION AND COMMERCIALIZATION (ORIC):

1. The statisticians at the Data Analysis Unit of ORIC at data analysis centre of ORIC will also be actively involved in the Research training course specifically those of Basic and advanced Biostatistics and Epidemiological concepts. The statisticians will take didactic lectures, followed by facilitating individual and group exercises and checking of relevant home tasks and assignments.
2. The statisticians will facilitate the trainees in sample size calculation through sample size calculators according their study designs.
3. Trainees will also be assisted by the statisticians in planning the Data analysis for the research projects and also data coding, cleaning and sorting accordingly.
4. The statisticians will facilitate the trainees in formulation of the data entry sheets in SPSS or other data analysis software's and will be continuously assisted in the process till data entry is completed.
5. The trainees will perform the data analysis of their research projects for research papers or dissertations, under continuous guidance and supervision of the statisticians who will also guide them how to interpret analyzed files and to write up results in textual forms, tabulated versions or figures/graphs.
6. In case the research paper/s or dissertation/s of trainees is/are sent back with recommended corrections or modifications in results section then the statisticians along with the supervisor, publication in charge and concerned facilitators at ORIC will assist the trainee on urgent basis to get it rectified and resubmitted within next 10 days' time.

K. DEPARTMENT OF MEDICAL EDUCATION:

1. The quality evaluation team of research training course will include Director of Department of Medical Education who may pay random visits for physical observation of the proceedings and materials of all the research related activities of the trainees and supervisors for quality assessment and assurance.
2. The Director DME will also attend the annual meeting of Quality assurance, by end of each research training year and will also share his/her experiences of evaluation visits and observations to validate the existing materials.
3. The demonstrator at the DME will keep record of attendances of all the post graduate trainees and MD scholars for all the academic sessions attended by them regarding the research training course along with the record of all assessments, scores, marks of annual

papers. They will monitor the log books and research portfolio for the completeness and regularity too. The record will not only be kept and maintained at DME as hard copies as well as computerized version, but they will also regularly share records with ORIC and Quality enhancement cells of RMU.

L. THE SUPERVISOR OF THE TRAINEE FOR THE DISSERTATION PROJECT

1. The supervisor of the trainee must be nominated within first six months of the research training. The Dean of the specialty will decide the nomination of the supervisor for the post graduate trainee as well as MD scholars. In this regards a meeting will be held that will be attended by all heads of the departments and the Dean. The list of all the first year trainees and the available supervisors in each department will be presented by respective heads of each department in meeting. All of the eligible trainees and supervisors will also be around for brief interviews during the meeting. The supervisor for the trainee will be nominated based the the level of performance, talent personality and temperament of both the trainees and the supervisors by the HOD. If the supervisor will also be willing to happily supervise the trainee, then the Dean will finally approve the nomination, apart from other requirements.
2. After finalization of nominations a letter of agreement of supervision will be submitted by the trainee to the office of Dean, including consent and endorsement of both trainee and the internal and/or external supervisor, with copies to HOD, ORIC and BASR.
3. The supervisor will be bound to meet with the trainee, on weekly basis exclusively for research activity and will document the activity performed during the meeting in the log book along with endorsement.
4. During ninth month of training year 1; R-Y1 the supervisor/s will supervise trainees together in groups and will undertake clinical audit on various aspects of the department as a project assignment, on one topic assigned to each group by the Dean and Heads of Departments. The contribution of the post graduate trainees'/ MD trainees in audits will be qualitatively assessed by the supervisors and the head of departments.
5. The supervisor will keep vigilant and continuous monitoring of all the research related academic activities of each trainee.
6. The supervisors will provide their feedback through structured and anonymous feedback forms/questionnaire, including closed and partially closed questions that will be regularly provided by them. They will provide their inputs and opinions

regarding effectiveness of the course contents, curriculum, teaching methodologies, teaching aids and technologies, content and usefulness of the exercises and assessments etc.

7. One Focus group discussion of supervisors will also be organized by the ORIC to evaluate the research course, its benefits and weaknesses and scope for improvement, each year.
8. The supervisor will keep a close and continuous check on the Log books, Research portfolio of the trainee and will endorse it regularly. Based on his/her observations, the supervisor will evaluate the performance of the trainee and will discuss it in monthly meeting with the Head of Department or Dean of the specialty if required.
9. The supervisor will not only guide and facilitate the trainee in preparation of presentation of Journal Club but will also ensure that trainees should actively participate in question & answer session of the journal club meeting and will also ensure the attendance of the trainees in Journal club as per set requirements.
10. During these first three months of R-Y2, supervisor will guide and supervise the trainee to do extensive review of the literature, relevant to topic and finalize the research question/s and research topic/s with mutual understanding and will submit the selected topic to the Head of Department and Dean of specialty.
11. The supervisor will facilitate the trainee at every step, the formal write up of research proposal/s in consultation with the research associates of ORIC for guidance in methodology. The research proposal should be completed in eighth month of R-Y2 and should also be reviewed and finalized by the Supervisor of the trainees.
12. The trainees should formulate all the data collection tools under guidance of supervisor and should also pretest to finalize all the data collection tools for their research projects.
13. The supervisors will also ensure that the duration of research project should be adequate and realistic so that trainees will be able to complete their project/s during third year of training leaving enough time for its write up during year 4 of training. The supervisor will also consult the Dean and HOD's in ensuring the feasibility and availability of resources of a trainee during second year of training.
14. The supervisor will help the trainee to make a five to ten minutes' presentation through power-point at Institutional Research Ethics Forum during 9-10 months of R-Y2. By the end of presentation, the supervisor will facilitate in defence of the proposal.

15. During first quarter of year 3, it will be mandatory for the trainees to initiate the data collection phase of their project/s under continuous guidance of their supervisors. In case the data collection will require more human resources, other than trainee himself/herself, the supervisor will ensure that the additional data collection staff will be adequate in number within data within the time framework and should also make sure that they will be proficient enough to collect high quality and authentic data.
16. The data storage will also be finalized by trainee under the guidance of Supervisor and research centre of specialty.
17. Whether the trainee is opting for dissertation writing or research paper publication, the supervisor will ensure that every step and procedure is being followed effectively and timely meeting all set requirements as per standard operational procedures.
18. The supervisor will actively assist the trainee in write up of dissertation/ research papers.
19. The trainee should submit final draft of dissertation to the supervisor till end of fifth month of year 4 or final modifications. Since the supervisor will be incessantly involved in every aspect of the project since the beginning and will be persistently guiding the procedure, so he/she should not take more than 10 days to give final review to dissertation of the trainee with written feedback that will be entered in a structured performa with recommendations for improvement or corrections.
20. In case the dissertation or research paper/s is/are sent back with recommended corrections or modifications, the supervisor will assist the trainee on urgent basis to get it rectified and resubmitted within next 10 days' time. In case any of the paper is refused publication by a journal even then the supervisor will assist the trainee on urgent basis, to get it rectified and resubmitted to another target journal of choice within next 10 days' time and not delaying it all.
21. In case the research paper/s is/are sent back with recommended corrections or modifications, the supervisor will assist the trainee on urgent basis to get it rectified and resubmitted within next 10 days' time. In case any of the paper is refused publication by a journal even then the supervisor and publication unit at ORIC will assist the trainee on urgent basis, to get it rectified and resubmitted to another target journal of choice within next 10 days' time and not delaying it all.
22. While the dissertations will be under review by the degree awarding authority for acceptance, the trainees will be continuously guided by the supervisor regarding defense of their dissertation. They will be guided how to make effective presentations according to the format provided by the examination authorities and also how to successfully and confidently respond to the queries of examiners

MANDATORY WORKSHOPS

WORKSHOPS (3 hours each for 2-5 days)			
S.NO	NAME OF THE WORKSHOP	LEARNING OBJECTIVES	TOPICS TO BE COVERED
1.	Biostatistics & Research Methodology (4 days)	<ul style="list-style-type: none"> • To understand the basics of Bio-Statistics • To critique why research is important? • To discuss the importance of Selecting a Field for Research • To prepare oneself for Participation in National and International Research • To prepare oneself for Participation in Pharmaceutical Company Research • To interpret the importance of research ideas & Criteria for a good research topic • To discuss Ethics in Health Research • To learn to write a Scientific Paper • To learn to make a Scientific 	<ol style="list-style-type: none"> 1. Introduction to Bio-Statistics 2. Introduction to Bio- Medical Research Why research is important? 3. What research to do? <ol style="list-style-type: none"> i. Selecting a Field for Research ii. Drivers for Health Research iii. Participation in National and International Research iv. Participation in Pharmaceutical Company Research v. Where do research ideas come from vi. Criteria for a good research topic Ethics in Health Research 4. Writing a Scientific Paper 5. Making a Scientific Presentation & Searching the Literature

		<p>Presentation</p> <ul style="list-style-type: none"> To learn to make a purposeful literature search 	
2.	Introduction to computer/Information Technology & Software (5 days)	<p>By the end of this workshop student should be able to:</p> <ul style="list-style-type: none"> Appropriately start up and shut down your computer. Navigate the operating system and start applications. Perform basic functions of file management. Perform basic functions in a word processor and spreadsheet. Manage print settings and print documents. Receive and send email. Use a web browser to navigate the Internet. work with windows, toolbars, and command menus perform basic word processing and graphic tasks make a Power Point presentation 	<p>1. Hardware and Software</p> <ul style="list-style-type: none"> Understand the main components of a computer, including input and output devices. Understand the function of communication devices such as smartphones and tablets. Understand the role of Operating Systems, programs and apps. <p>2. Windows</p> <ul style="list-style-type: none"> Turning on the computer and logging on. The Windows screen. Running programs from the Start Menu. Minimising, maximising, moving, resizing and closing windows. Logging off and shutting down your computer. <p>3. Working with Programs</p> <ul style="list-style-type: none"> Running multiple programs. Desktop icons and creating a desktop shortcut. Managing programs from the taskbar. Closing programs. <p>4. File Management</p> <ul style="list-style-type: none"> Managing Windows Explorer. Creating, moving, renaming and deleting folders and

		<ul style="list-style-type: none"> • explore Web browsing basics • back up files • save, copy, and organize your work • to enter data accurately in software of Statistical Package for Social Sciences 	<p>files.</p> <ul style="list-style-type: none"> • Understandings file extensions. • Viewing storage devices and network connections. • Managing USB flash drives. <p>5.Word Processing</p> <ul style="list-style-type: none"> • Creating documents in Microsoft Word. • Typing text, numbers and dates into a document. • Easy formatting. • Checking the spelling in your document. • Making and saving changes to your document. • <p>6.Power Point</p> <p>Making Power Point presentation</p> <p>7.Spreadsheets</p> <ul style="list-style-type: none"> • Understanding spreadsheet functionality. • Creating spreadsheets in Microsoft Excel. • Typing text numbers and dates into a worksheet. • Easy formulas. • Easy formatting. • Charting your data. • Making and saving changes to your workbook. • Printing a worksheet. <p>8.Printing</p> <ul style="list-style-type: none"> • Print preview.
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			<ul style="list-style-type: none"> • Print settings. • Managing the print queue. <p>9.Using Email</p> <ul style="list-style-type: none"> • The Outlook mail screen elements. • Composing and sending an email message. • Managing the Inbox. <p>10.Accessing the Internet</p> <ul style="list-style-type: none"> • Going to a specific website and bookmarking. • Understanding how to search/Google effectively. • Copy and paste Internet content into your documents and emails. • Stopping and refreshing pages. • Demystifying the Cloud. • Understanding social media platforms such as Facebook and Twitter. • Computer security best practices. <p>11.Statistical Package for Social Sciences</p> <ul style="list-style-type: none"> • general understanding for data entry
3.	communication skills (3 days)	<ul style="list-style-type: none"> • To learn to use Non-medicinal Interventions in Communication Skills of Clinical Practice • To discuss the importance of counseling • To role play as a counselor 	<ol style="list-style-type: none"> 1. Use of Non-medicinal Interventions in Clinical Practice Communication Skills 2. Counseling 3. Informational Skills 4. Crisis Intervention/Disaster 5. Management Conflict Resolution

		<ul style="list-style-type: none"> • To learn to manage a conflict resolution • To learn to break a bad news • To discuss the importance of Medical Ethics, Professionalism and Doctor-Patient Relationship Hippocratic Oath • To learn to take an informed consent • To illustrate the importance of confidentiality • To summarize Ethical Dilemmas in a Doctor's Life 	<ol style="list-style-type: none"> 6. Breaking Bad News 7. Medical Ethics, Professionalism and Doctor-Patient Relationship Hippocratic Oath 8. Four Pillars of Medical Ethics (Autonomy, Beneficence, Non-maleficence and Justice) 9. Informed Consent and Confidentiality 10. Ethical Dilemmas in a Doctor's Life
4.	Advanced Cardiac Life Support (4 days)	<p>Upon successful completion of the workshop, the student will be able to:</p> <ul style="list-style-type: none"> • Recognize and initiate early management of pre-arrest conditions that may result in cardiac arrest or complicate resuscitation outcome • Demonstrate proficiency in providing BLS care, including prioritizing chest compressions and integrating automated external defibrillator (AED) use 	<p>The workshop is designed to give students the opportunity to practice and demonstrate proficiency in the following skills used in resuscitation:</p> <ol style="list-style-type: none"> 1. Systematic approach 2. High-quality BLS 3. Airway management 4. Rhythm recognition 5. Defibrillation 6. Intravenous (IV)/intraosseous (IO) access (information only) 7. Use of medications 8. Cardio version

		<ul style="list-style-type: none"> • Recognize and manage respiratory arrest • Recognize and manage cardiac arrest until termination of resuscitation or transfer of care, including immediate post-cardiac arrest care • Recognize and initiate early management of ACS, including appropriate disposition • Recognize and initiate early management of stroke, including appropriate disposition • Demonstrate effective communication as a member or leader of a resuscitation team and recognize the impact of team dynamics on overall team performance 	<ol style="list-style-type: none"> 9. Transcutaneous pacing 10. Team dynamics 11. Reading and interpreting electrocardiograms (ECGs) <ul style="list-style-type: none"> - Be able to identify—on a monitor and paper tracing—rhythms associated with brady cardiac, tachycardia with adequate perfusion, tachycardia with poor perfusion, and pulseless arrest. These rhythms include but are not limited to: <ul style="list-style-type: none"> ○ Normal sinus rhythm ○ Sinus bradycardia ○ Type I second-degree AV block ○ Type II second-degree AV block ○ Third-degree AV block ○ Sinus tachycardia ○ Supraventricular tachycardias ○ Ventricular tachycardia ○ Asystole ○ Ventricular fibrillation ○ Organized rhythm without a pulse 12. Basic understanding of the essential drugs used in: <ul style="list-style-type: none"> ○ Cardiac arrest ○ Bradycardia ○ Tachycardia with adequate perfusion ○ Tachycardia with poor perfusion ○ Immediate post–cardiac arrest care
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SECTION – V Milestones to be achieved by the residents

Charting the Road to Competence: Developmental Milestones for MD Psychiatry Program at Rawalpindi Medical University

Remember to celebrate for the milestones as you prepare for the road ahead----Nelson Mandela.

High-quality assessment of resident performance is needed to guide individual residents' development and ensure their preparedness to provide patient care. To facilitate this aim, reporting milestones are now required Psychiatry Residency programs. Milestones promote competency based training in Psychiatry. Residency program directors may use them to track the progress of trainees in the 6 general competencies including **patient care, Medical Knowledge, Practice-Based Learning and Improvement, Interpersonal and Communication Skills, Professionalism and Systems-Based Practice**. Milestones inform decisions regarding promotion and readiness for independent practice. In addition, the milestones may guide curriculum development, suggest specific assessment strategies, provide benchmarks for resident self-directed assessment-seeking, assist remediation by facilitating identification of specific deficits, and provide a degree of national standardization in evaluation. Finally, by explicitly enumerating the profession's expectations for graduates, they may improve public accountability for residency training.

Expected Clinical Activities in first and second years of Training:

The areas and minimum activities to be covered during the two years of training are as under:

1.	Outpatients	100 outpatient days
2.	Inpatients	100 patients
3.	ECT	50 applications
4.	Emergency	30 emergency duties
5.	Medicine	20 patients
6.	Neurology and organic Psychiatry	20 patients
7.	Psychometric tests	20 cases
8.	Journal clubs/ Seminars	10 journal clubs and 5 seminars
9.	NPIs	10 cases
10.	Psychosocial rehabilitation	5 patients
11.	Supportive, group and behavior therapy	30 cases
12.	Specialized investigations (lab, radiological, electrophysiological)	15 cases

Expected Clinical Activities in second and third years of Training:

The areas and minimum activities to be covered during the third and fourth years of training are as under:

1.	Outpatients	150 out-patient days
2.	Inpatients	120 patients
3.	ECT	30 Patients
4.	Psychiatric Emergency	60 Patients
5.	Drug dependence, psychoactive substance abuse	15 patients
6.	Geriatric, Adolescent and Child psychiatry	36 patients
7.	Liaison psychiatry	20 patients
8.	Organic psychiatry	20 patients
9.	Psychosocial rehabilitation	20 patients
10.	Forensic Assessments	10 patients
11.	Public Mental Health	5 activities
12.	Psychometric tests administered and interpreted	30 cases
13.	Seminars/journal club	20 Journal 5, Seminar
14.	Counselling Sessions	20 Patients
15.	Supportive, Behaviour therapy/ Cognitive therapy or other evidence based psychotherapies	30 Cases
16.	Specialized Investigations (EEG, CT, MRI etc	15
17.	Conferences/Workshops/symposia	5
18.	Administrative and Managerial tasks	15
19.	Ethical Issues and Dilemmas	10 cases

SECTION –VI

UNIVERSITY RESIDENCY PROGRAM OF RAWALPINDI MEDICAL UNIVERSITY: THE ASSESSMENT STRATEGIES FOR MD PSYCHIATRY

The vision:

To improve health care and population health by assessing and advancing the quality of resident physician's education through accreditation.

The Mission:

We imagine a world characterized by:

- A structured approach to evaluating the competency of all residents and fellows
- Motivated physician role Models leading all program of the university.
- High quality, supervised, humanistic clinical educational experience, with customized formative feedback.
- Clinical learning environments characterized by excellence in clinical care, safety of patients, doctors and paramedics and professionalism.
- Residents and fellows achieving specific proficiency prior to graduation.
- Residents and fellows are prepared to be Virtuous Physicians who place the needs and well-being of patients first

The values:

- Honesty and Integrity
- Excellence and Innovation
- Accountability and Transparency
- Fairness and Equity
- Stewardship and Service
- Engagement of Stakeholders
- Leadership and Collaboration

Back Ground/ Rationale:

- Need for Modernization of the Post Graduate Training in the country.
- Need for structuration of all the components of Post Graduate Medical training in Pakistan.
- Need for better Monitoring of the System for better out comes.

Aims:

- To fulfill the need of Modernization of the Assessment strategies.
- To structure the Assessment strategies.
- To shift the paradigm from an Examination Oriented System towards a Training Oriented System.

The Characteristics of the document on Assessment Strategies:

Following aspects are tried to be accomplished while synthesis of this document on assessment strategies for MD Internal Medicine University Residency Program:

- Should be Technically Sound
- Should be acceptable by all the stakeholders
- Should be feasible for implementation
- Should be concise
- Should be according to the need of our educational system
- Should be reproducible / can be nationalized
- Should be sustainable
- Should be able to assesses all required competencies accurately

Few definitions before we proceed further made to be clear:**1. What Is Competency?**

The ability to do something successfully or efficiently.

2. What Is Competence?

Competency is described what an individual is enable to do while performance should describe what an individual actually does in clinical practice. The terms “performance” and “competency” are often used interchangeably.

3. What is performance based assessment of curriculum?

Performance based assessment measures students’ ability to apply the skills & knowledge learned from a unit of study.

4. What is work place based assessment of curriculum?

The apprenticeship model of medical training has existed for thousands of years: the apprentice learns from watching the master and the master in turn observe the apprentice’s performance & helps them improve. Performance assessment not therefore a new concept higher work in modern healthcare environment with its discourse of accountability, performance assessment increasing role In ensuring that professionals develop and maintain the knowledge and skills required for practice. However now it will be done in a structured manner.

5. What is a Formative Assessment?

- Such an Assessment which creates learning itself, from one’s deficiencies.
- It is non-threatening for the students because it does not decide pass or fail.
- Provision of Feed back to the students is essential component of Formative Assessment

6. What is a Summative Assessment?

- Criteria Based High Stake Examinations
- Provision of Feedback to the students is not essential for Summative Examinations

7. What is continuous Internal Assessment?

A collection of Formative Assessments is called Continuous Internal Assessment

What is the basis of curriculum and Assessment of MD Psychiatry of Rawalpindi Medical University Rawalpindi?

The curriculum of MD Psychiatry of Rawalpindi Medical University Rawalpindi is derived from **Accreditation Council for Graduate Medical Education** which is competency / performance based system depends upon six following competencies.

1. Medical Knowledge

2. Patient Care

- 3. **Interpersonal & Communication Skills**
- 4. **Professionalism**
- 5. **Practice Based Learning**
- 6. **System Based Learning**

Rawalpindi Medical University Rawalpindi has two incorporated one additional component in this basic structure of six core competencies

- 7. **Research**

Model of examination for MD Psychiatry Rawalpindi Medical University:

Distribution of weightage (if we consider total marks as 100) among various desired competencies of RMU MD Psychiatry curriculum:

- | | |
|---|----------|
| 1. Medical knowledge | 40% both |
| 2. Patient care | |
| 3. Interpersonal & communication skills | 40% both |
| 4. Professionalism | |
| 5. Practice based learning | 10% both |
| 6. System based learning | |
| 7. Research | 10% |

Continuous Internal Assessment:

Competencies included CIA	Phases of CIA	Time Line for end of various phases of CIA	Weightage of CIA	Tools for Assessment of CIA
1. Medical knowledge 2. Patient care (40% both) 3. Interpersonal & communication skills 4. Professionalism (40% both) 5. Practice based learning 6. System based learning (10% both) 7. Research 10%)	Phase -1 ➤ CIA Year 1 ➤ CIA Year 2	till end of Year 2	Equal to or more than 75% of the total marks of all formative assessments/ 360 ^o Evaluations	<ul style="list-style-type: none"> • Multi source feedback/360 degree evaluation • MCQs for knowledge • Mini-CEX • Case based discussion • CPC presentations • TOACS/OSCE • Charts stimulated recall • Teaching rounds • Directly observed procedures • Research activities
	Phase -2 ➤ CIA Year 3 ➤ CIA Year 4	till end of Year 4 year training program	Equal to or more than 75% of the total marks of all formative assessments/ 360 ^o Evaluations	

Details about various competencies required for MD Psychiatry along with brief details of Teaching Strategies, Type of Assessment, weightage given to the competency & Tools of Assessment:

Sr. No	Competency to be assessed	Teaching & learning strategies	Type of Assessment for the competency to be assessed	% weightage of the competency	Tools of Assessment
1.	Medical knowledge	Case based discussion & problem based learning, large group interactive session, self-directed learning, teaching rounds, and literature search.	Formative Assessment leading to continue internal assessment and also summative assessment in high stake exams	40% for both Knowledge and Patient Care both	MCQs, SEQs, Directly observe procedure, mini clinical examinations, charts, OSCE, teaching ward rounds, case discussion, seminars, topic presentation
2.	Patient care	Case based discussion, teaching rounds, morbidity & mortality meetings, 360 ⁰ feedback evaluation, DOPS, long case/ short case discussions OPDs, emergency indoor workshops, hands on trainings.	Formative assessment leading to continue internal assessment and also summative assessment in high stake exams		Teaching rounds, case base discussion, presentations, CPC participations, clinical management, problem base learning, peer assisted learning, dealing with paramedics & patient attendants
3.	Professionalism	Teaching rounds, known	Formative assessment	40% for both	Working in OPDs, wards,

	sm	conferences, workshops, hands on training, CPC, morbidity & mortality meetings, journal club	leading to continue internal assessment	professionalism & interpersonal communication skills both	emergency DOPs, clinical case discussion, dealing with paramedics, meeting with supervisor & mentors, mini clinical examination
4.	Interpersonal & communication skills	Teaching rounds, hands on training, workshops related to research methodology, SPSS, data entry, LGIS, session with supervisor & mentors, session with research units, SDL,	Formative assessment leading to continuous internal assessment		Multi source & 360 degree evaluation.
5.	Practice based learning	Case based discussion, teaching rounds, known conferences, morbidity & mortality meetings, OPDs, emergency indoor workshops, hands on trainings.	Formative assessment leading to continuous internal assessment Multi source & 360 degree evaluation (Logbook & portfolio)	10% both Practice Based Learning & System Based Learning both	Working in OPDs, wards, emergency DOPs, clinical case discussion, dealing with paramedics, meeting with supervisor & mentors, mini clinical examination
6.	System based learning	Working in wards, OPDs, Emergency	Formative assessment leading to continuous internal assessment Multi source & 360 degree		Working in OPDs, wards, emergency DOPs, clinical case discussion, dealing with paramedics, meeting with

			evaluation (Logbook & portfolio)		supervisor & mentors, mini clinical examination
7.	Research	Large group Interactive sessions on Research, hands on training & workshops, practical work of research including literature search, finding research question, synopsis writing, data collection, data analysis, thesis writing	Formative leading to continuous internal assessment Multi source & 360 degree evaluation (Logbook & portfolio)&also Summative assessment	10%	Approval of research topic and synopsis & thesis from URTMC, Board of Advanced studies and Research and ethical review board, Requirement of Completion certificate of research workshops as eligibility criteria for examinations, Defense of Thesis examination

Summary of All Assessments in Four Year Training Program of MD Psychiatry

End of Year Assessment	Content	Eligibility Criteria	Questions MCQs/SEQs/TOACS
1 st Year	<ol style="list-style-type: none"> 1. History and Mental State Examination 2. Phenomenology 3. Classification 4. Bio-Psycho-Social Model and Non Pharmacological Interventions 5. Ethics 6. Biological basis of human behavior 7. Psychology and psychometrics 8. Sociology 9. Anthropology 10. Common Psychiatric Disorders 	<ol style="list-style-type: none"> i. Completion of 1 year training ii. Workshops completion <ul style="list-style-type: none"> • Communication skills ----- 3days • Computer & IT skills ----- 3days • Synopsis writing ----- 3days • BLS/ACLS -----1 days iii. Research <ul style="list-style-type: none"> • Allotment of Thesis topic by supervisor • Publication of one article in Resident Research Journal OR Statistical report of one disease iv. CIS- Minimum 75% marks- Certification by DME and Supervisor/s 	<p>Written Paper 100 Marks MCQs</p> <ol style="list-style-type: none"> 1. History and Mental State Examination 5 MCQs 2. Phenomenology... 10 MCQs 3. Classification--- 5 MCQs 4. Bio-Psycho-Social Model and Non Pharmacological Interventions---- 10 MCQs 5. Ethics--- 10 MCQs 6. Biological basis of human behavior---- 5 MCQs 7. Psychology and psychometrics--- 15+5= 20 MCQs 8. Sociology--- 10 MCQs 9. Anthropology--- 5 MCQs 10. Common Psychiatric

		<p>Special note: Students with less than 75% CIS, such cases will be referred to relevant academic review committee which will work under the umbrella of DME/ UTMC</p>	Disorders--- 20 MCQs
2 nd Year	<ol style="list-style-type: none"> 1. Stress related Disorders 2. Mood Disorders 3. Schizophrenia and schizoaffective disorders 4. ECT 5. Medicine 6. Organic Psychiatry 7. Psychology 8. Phenomenology 9. Bio-Psycho-Social Model and Non Pharmacological Interventions 10. Substance use Disorders 11. Psychopharmacology 12. Neurology 13. Emergency Psychiatry 	<p>i- Completion of 2 year training, including rotations as under:</p> <ol style="list-style-type: none"> 1. Psychology 2. Medicine 3. Neurology <p>ii- Passed Year One examination</p> <p>iii-Rotations completion</p> <p>Three rotations (each of 3 months- to be completed in first two years)</p> <p>iv-Research:</p> <ul style="list-style-type: none"> • Formulation of research synopsis with approval of ERB & BASR by the end of 2nd year • Certificate will be issued by UTMC 	<p>Written Paper 150 Marks MCQs Clinical TOACS 150 Marks</p> <p>Written (Pass percentage: 60%)</p> <p><u>Paper 1</u></p> <ol style="list-style-type: none"> 1. Stress related Disorders -- -15 2. Mood Disorders--- 20 3. Schizophrenia and schizoaffective disorders-- - 10 4. Phenomenology---- 5 5. Bio-Psycho-Social Model and Non Pharmacological Interventions---5 6. ECT--- 5 7. Medicine--- 15

v- CIS- Minimum 75% marks
 minimum 75% marks- Certification by
 DME and Supervisor/s
Special note:
 Students with less than 75% CIS,
 such cases will be referred to
 relevant academic review committee
 which will work under the umbrella of
 DME/ UTMC

Topic	MCQs
Cardiology	3
Endocrinology	4
Gastroenterology	3
Autoimmune	3
Respiratory	2

Paper 2

1. Organic Psychiatry--- 5
2. Psychology--- 10
3. Substance use Disorders--
-15
4. Psychopharmacology---
20
5. Emergency Psychiatry---
10
6. Neurology ---15

Area	MCQ
CNS Infections	6
Stroke	3
Degenerative diseases	3
Neuroimaging	3

			<p>Clinical Assessment (TOACS 150 marks)</p> <p>On passing the theory (60% pass percentage), trainee will be eligible to appear in practical exam.</p>
3 rd Year	<ol style="list-style-type: none"> 1. Stress related Disorders 2. Mood Disorders 3. Anxiety Disorders 4. Schizophrenia and schizo affective disorders 5. Medicine 6. Organic Psychiatry 7. Psychotherapy 8. Substance use Disorders 9. Psychopharmacology 10. Neurology 11. Child and Adolescent Mental Health 12. Geriatric Psychiatry 13. Forensic Psychiatry 14. Community Psychiatry 15. Personality Disorders 	<ol style="list-style-type: none"> i. Completion of 3rd year training ii. Passed Intermediate examination iii. Workshops completion <ul style="list-style-type: none"> • Reference Manager(Endnote)---1 day iv. Research <ul style="list-style-type: none"> • data collection • data analysis & interpretation • start writing thesis v. Publication of one article in resident research journal or statistical report of 11 disease(optional) vi. CIS MINIMUM 75 % marks minimum 75% marks certification by 	<p>Written Paper MCQs and SEQs 200Marks</p> <p>100 MCQs---100marks</p> <p>10 SEQs---- 100marks</p> <p>SEQs</p> <p>Child Psychiatry--- 1 SEQ, 15 MCQs</p> <p>Geriatric Psychiatry--- 1 SEQ, 10 MCQs</p> <p>Stress related Disorders--- 1 SEQ, 5 MCQs</p> <p>Mood Disorders---2 SEQ, 10 MCQs</p> <p>Anxiety Disorders--- 1 SEQ, 10 MCQs</p> <p>Schizophrenia and schizo affective disorders--- 1</p>

		<p>DME and Supervisors/s</p> <p>Special note:</p> <p>Students with less than 75% CIS, such cases will be referred to relevant academic review committee which will work under the umbrella of DME/ UTMC</p>	<p>SEQ, 10 MCQs</p> <p>Medicine--- 5 MCQs</p> <p>Organic Psychiatry--- 1 SEQ,</p> <p>Psychotherapy---- 5 MCQs</p> <p>Personality Disorders--- 5 MCQs</p> <p>Substance use Disorders--- 1 SEQ, 10 MCQs</p> <p>Psychopharmacology--- 1 SEQ, 5 MCQs</p> <p>Neurology--- 1 SEQ</p> <p>Forensic Psychiatry--- 5 MCQs</p> <p>Community Psychiatry--- 5 MCQs</p>
4 th Year	<ol style="list-style-type: none"> 1. Stress related Disorders 2. Mood Disorders 3. Schizophrenia and schizoaffective disorders 4. Organic Psychiatry 5. Psychotherapy 6. Substance use Disorders 7. Psychopharmacology 8. Neurology 11. Child and Adolescent Mental 	<ol style="list-style-type: none"> i- Completion of 4th year training ii- Passed 3rd year examination iii-Research/Thesis <ul style="list-style-type: none"> • Completion & submission of Thesis 6 months before completion of training • Defense & Approval of Thesis in BASR • Certificate will be issued by UTMC 	<p>Written Paper MCQs and SEQs</p> <p>200Marks</p> <p>100 MCQs---100marks</p> <p>10 SEQs---- 100marks</p> <p>SEQs</p> <p>Forensic Psychiatry---1 SEQ, 10 MCQs</p> <p>Community Psychiatry---1 SEQ, 10 MCQs</p> <p>Stress related Disorders----5</p>

	<p>Health</p> <p>12. Geriatric Psychiatry</p> <p>13. Forensic Psychiatry</p> <p>14. Community Psychiatry</p> <p>15. Sleep Disorders</p> <p>16. Sexual Disorders</p> <p>17. Prenatal Psychiatry</p> <p>18. Clinical Audit</p> <p>19. Research</p> <p>20. Emergency Psychiatry</p>	<p>iv. Rotations:</p> <p>Completion of one compulsory rotation in Child and adolescent psychiatry for 3 months</p> <p>V. CIS Minimum 75% marks-</p> <p>Certification by DME and Supervisor/s</p> <p>Special note:</p> <p>Students with less than 75% CIS, such cases will be referred to relevant academic review committee which will work under the umbrella of DME/ UTMC</p>	<p>MCQs</p> <p>Mood Disorders--- 1 SEQ, 10 MCQs</p> <p>Schizophrenia and schizoaffective disorders---1 SEQ 5 MCQs</p> <p>Medicine--- 1 SEQ</p> <p>Organic Psychiatry--- 10 MCQs</p> <p>Psychotherapy--- 1 SEQ</p> <p>Substance use Disorders--- 10 MCQs</p> <p>Psychopharmacology--- 1 SEQ</p> <p>Neurology---10 MCQs</p> <p>Child Psychiatry--- 5 MCQs</p> <p>Geriatric Psychiatry--- 10 MCQs</p> <p>Sleep Disorders--- 3 MCQs</p> <p>Sexual Disorders--- 1 SEQ</p> <p>Prenatal Psychiatry--- 1 SEQ, 3 MCQs</p> <p>Clinical Audit---- 4 MCQ</p> <p>Research--- 5 MCQs</p> <p>Emergency Psychiatry--- 1 SEQ</p>
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SECTION – VII

LOG BOOK for Psychiatry (Templates)



MD PSYCHIATRY

RAWALPINDI MEDICAL UNIVERSITY,

RAWALPINDI

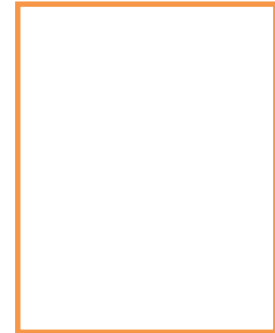


ENROLMENT DETAILS

Program of Admission _____
Session _____
Registration / Training Number _____
Name of Candidate _____
Father's Name _____
Date of Birth ____ / ____ / ____ CNIC No. _____
Present Address _____

Permanent Address _____

E-mail Address _____
Cell Phone _____
Date of Start of Training _____
Date of Completion of Training _____
Name of Supervisor _____
Designation of Supervisor _____
Qualification of Supervisor _____
Title of department / Unit _____
Name of Training Institute / Hospital _____



INTRODUCTION OF LOGBOOK:

A structured book in which certain types of educational activities and patient related information is recorded, usually by hand. Logbooks are used all over the world from undergraduate to postgraduate training, in human, veterinary and dental medicine, nursing schools and pharmacy, either in paper or electronic format .

Logbooks provide a clear setting of learning objectives and give trainees and clinical teachers a quick overview of the requirements of training and an idea of the learning progress. Logbooks are especially useful if different sites are involved in the training to set a (minimum) standard of training. Logbooks assist supervisors and trainees to see at one glance which learning objectives have not yet been accomplished and to set a learning plan. The analysis of logbooks can reveal weak points of training and can evaluate whether trainees have fulfilled the minimum requirements of training.

Logbooks facilitate communication between the trainee and clinical teacher. Logbooks help to structure and standardize learning in clinical settings. In contrast to portfolios, which focus on students' documentation and self-reflection of their learning activities, logbooks set clear learning objectives and help to structure the learning process in clinical settings and to ease communication between trainee and clinical teacher. To implement logbooks in clinical training successfully, logbooks have to be an integrated part of the curriculum and the daily routine on the ward. Continuous measures of quality management are necessary.

Reference

BraunsKS, Narciss E, Schneyinck C, Böhme K, Brüstle P, Holzmann UM, et al. Twelve tips for successfully implementing logbooks in clinical training. *Med Teach*. 2016 Jun 2; 38(6): 564–569.

INDEX: LOG OF

1. MORNING REPORT PRESENTATION/CASE PRESENTATION (LONG AND SHORT CASES)
2. TOPIC PRESENTATION/SEMINAR
3. DIDACTIC LECTURES/INTERACTIVE LECTURES
4. JOURNAL CLUB
5. PROBLEM CASE DISCUSSION
6. EMERGENCY CASES
7. INDOOR PATIENTS
8. OPD AND CLINICS
9. PROCEDURES (OBSERVED, ASSISTED, PERFORMED UNDER SUPERVISION & PERFORMED INDEPENDENTLY)
10. MULTIDISCIPLINARY MEETINGS
11. CLINICOPATHOLOGICAL CONFERENCE
12. MORBIDITY/MORTALITY MEETINGS
13. HANDS ON TRAINING/WORKSHOPS
14. PUBLICATIONS

15. MAJOR RESEARCH PROJECT DURING MD TRAINING/ANY OTHER MAJOR RESEARCH PROJECT
16. WRITTEN ASSESMENT RECORD
17. CLINICAL ASSESMENT RECORD
18. EVALUATION RECORD

SECTION-1

MORNING REPORT PRESENTATION/ CASE PRESENTATION (LONG AND SHORT CASES)

SR#	DATE	REG# OF PATIENT	DIAGNOSIS & BRIEF DESCRIPTION	SIGNATURES OF THE SUPERVISOR

SECTION-2**TOPIC PRESENTATION/seminar**

SR#	DATE	NAME OF THE TOPIC & BRIEF DETAILS OF THE ASPECTS COVERED	SIGNATURES OF THE SUPERVISOR

SECTION-3

JOURNAL CLUB

SR#	DATE	TITLE OF THE ARTICLE	NAME OF JOURNAL	DATE OF PUBLICATION	SIGNATURES OF THE SUPERVISOR

SECTION-4

SR #	DATE	REG.# OF THE PATIENT DISCUSSED	DIAGNOSIS	BRIEF DESCRIPTION OF THE CASE	SIGNATURES OF THE SUPERVISOR

SECTION-5**Didactic lecture/interactive lectures**

SR #	DATE	TOPIC & BRIEF DESCRIPTION	NAME OF THE TEACHER	SIGNATURES OF THE SUPERVISOR

SECTION-6**Record of total emergency cases seen on emergency call days**

SR.#	DATE	TOTAL NUMBER OF CASES ATTENDED	SIGNATURES OF THE SUPERVISOR
1			
2			
3			
4			
5			
6			
7			
9			

10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			

21			
22			
23			
24			
25			
26			
27			

SECTION-6

EMERGENCY cases (repetition of cases should be avoided)

SR#	DATE	REG # OF THE PATIENT	DIAGNOSIS	MANAGEMENT	PROCEDURES PERFORMED	SIGNATURES OF THE SUPERVISOR

SECTION-7

Record of total indoor cases seen on call days in the ward

SR.#	DATE	TOTAL NUMBER OF CASES ATTENDED	SIGNATURES OF THE SUPERVISOR
1			
2			
3			
4			
5			
6			
7			
9			

10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			

21			
22			
23			
24			
25			
26			
27			
28			

SECTION-7

INDOOR patients (repetition of cases should be avoided)

SR#	DATE	REG # OF THE PATIENT	DIAGNOSIS	MANAGEMENT	PROCEDURES PERFORMED	SIGNATURES OF THE SUPERVISOR

SECTION-8**Record of total OPD/clinic cases seen on OPD call days**

SR.#	DATE	TOTAL NUMBER OF CASES ATTENDED	SIGNATURES OF THE SUPERVISOR
1			
2			
3			
4			
5			
6			
7			
9			
10			

11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			

22			
23			
24			
25			
26			
27			
28			

SECTION-8**OPD AND CLINICS** (repetition of cases should be avoided)

SR#	DATE	REG # OF THE PATIENT	DIAGNOSIS	MANAGEMENT	SIGNATURES OF THE SUPERVISOR

SECTION-9**Procedures**

SR.#	DATE	REG NO. OF PATIENT	NAME OF PROCEDURE	OBSERVED/ASSISTED/PERFORMED UNDER SUPERVISION/PERFORMED INDEPENDENTLY	PLACE OF PROCEDURE	SIGNATURES OF THE SUPERVISOR

SECTION-10**MULTI DICIPINARY MEETINGS**

SR#	DATE	BRIEF DESCRIPTION	SIGNATURES OF THE SUPERVISOR

SECTION-11**Clinic pathological conference (CPC)**

SR#	DATE	BRIEF DESCRIPTION OF THE TOPIC/CASE DISCUSSED	SIGNATURES OF THE SUPERVISOR

SECTION-12**Morbidity/mortality meetings**

SR#	DATE	REG. # OF THE PATIENT DISCUSSED	BRIEF DESCRIPTION	COMMENTS/SUGGESTIONS	SIGNATURES OF THE SUPERVISOR

SECTION-13**HANDS ON TRAINING/workshops**

SR#	DATE	TITLE	VENUE	FACILITATOR	SIGNATURES OF THE SUPERVISOR

SECTION-14**Publications**

SNO.	NAME OF PUBLICATION	TYPE OF PUBLICATION ORIGINAL ARTICLE/EDITORIAL/CASE REPORT ETC	NAME OF JOURANL	DATE OF PUBLICATION	PAGE NO.	SIGNATURES OF THE SUPERVISOR

SECTION-15**Major Research project during md training/any other major research project**

SNO.	RESEARCH TOPIC	PLACE OF RESEARCH	NAME AND DESIGNATION OF SUPERVISOR OTHER THAN MD SUPERVISOR UNDER WHOM RESEARCH WAS CONDUCTED	BRIEF DETAILS	SIGNATURES OF THE SUPERVISOR

SECTION-16**WRITTEN ASSESSMENT RECORD**

SNO	TOPIC OF WRITTEN TEST/EXAMINATION	TYPE OF THE TEST MCQS OR SEQS OR BOTH	TOTAL MARKS	MARKS OBTAINED	SIGNATURES OF THE SUPERVISOR

SECTION-17**Clinical ASSESSMENT RECORD**

SR. #	TOPIC OF CLINICAL TEST/ EXAMINATION	TYPE OF THE TEST & VENUE OSPE, MINICEX, CHART STIMULATED RECALL, DOPS, SIMULATED PATIENT, SKILL LAB e.t.c	TOTAL MARKS	MARKS OBTAINED	SIGNATURES OF THE SUPERVISOR

SECTION-18

Evaluation records

(Photocopy of consolidated evaluation record at the end of each block should be pasted here)

Log book of Research (Templates)



**LOG BOOK OF RESEARCH
RAWALPINDI MEDICAL UNIVERSITY
RAWALPINDI**



ENROLMENT DETAILS

Program of Admission _____

Session _____

Registration / Training Number _____

Name of Candidate _____

Father's Name _____

Date of Birth _____ / _____ / _____

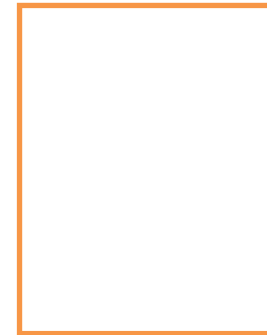
CNIC No. _____

Present Address _____

permanent Address _____

E-mail Address _____

Cell Phone _____



Date of Start of Training _____

Date of Completion of Training _____

Name of Supervisor _____

Designation of Supervisor _____

Qualification of Supervisor _____

Title of department / Unit _____

MOTO OF RAWALPINDI MEDICAL UNIVERSITY

Truth Wisdom & Service

MISSION STATEMENT

- To impart evidence based research oriented medical education.
- To provide best possible patient care.
- To inculcate the **values** of mutual respect and ethical practice of **Psychiatry**
- Highly recognized and accredited center of excellence in **Medical** Education, using evidence-based training techniques for development of highly competent health professionals.

LOG OF RESEARCH ELECTIVE

(RESEARCH ELECTIVE WOULD BE TAUGHT 08:00 AM TO 02:00 PM & RESIDENT WOULD PERFORM THE DUTY OF EVENING CALLS AS PER ROTA.)If required

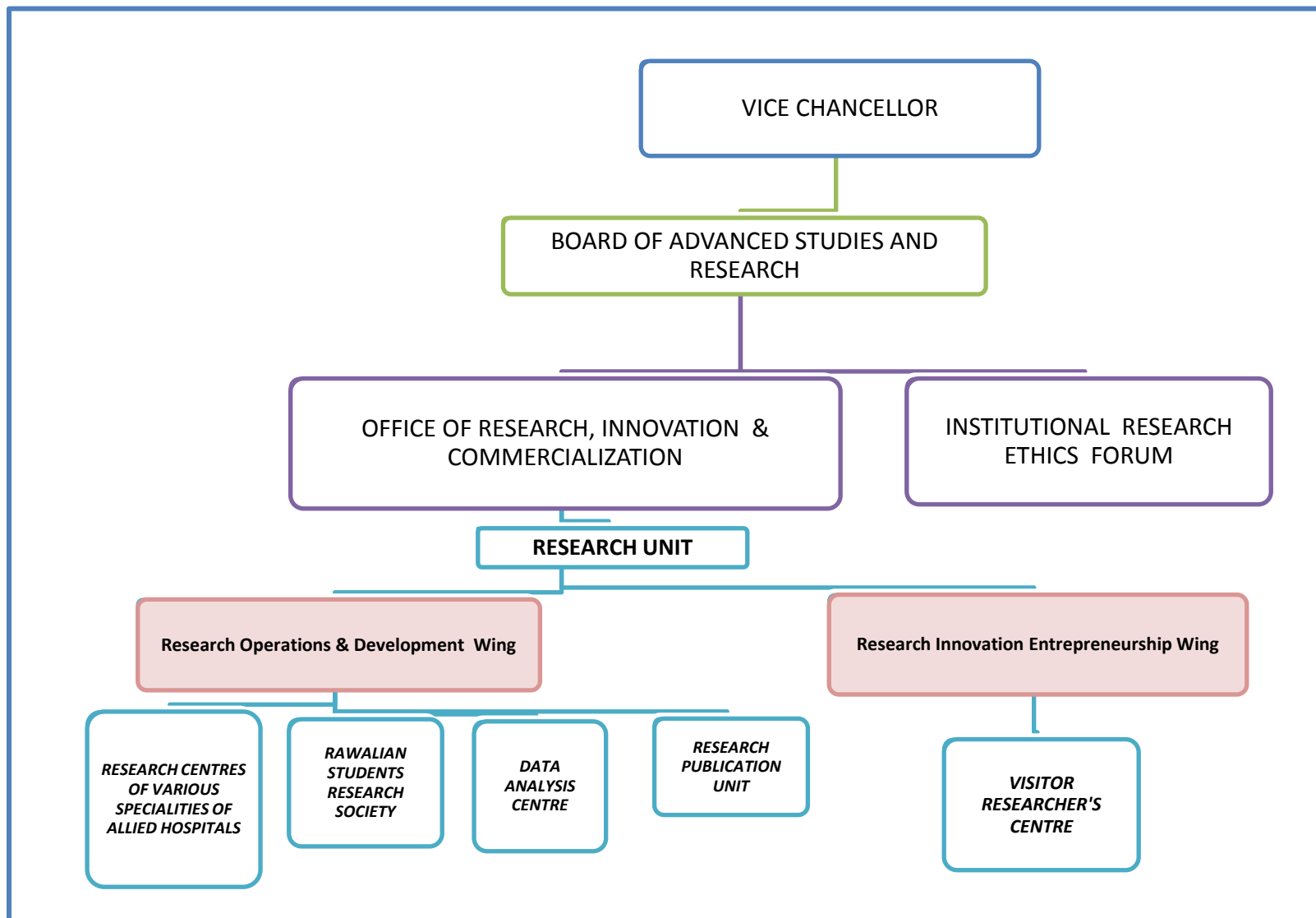
Internal medicine residents' outlook in research can be significantly improved using a research curriculum offered through a structured and dedicated research rotation. This is exemplified by the improvement noted in resident satisfaction, their participation in scholarly activities and resident research outcomes since the inception of the research rotation in our internal medicine training program. Residents' research lead to better clinical care, correlates with the pursuit of academic careers, increases numbers of clinician investigators, and is an asset to those applying for fellowships. We report our success in designing and implementing a "Structured Research Curriculum" incorporating basic principles within a research rotation to enhance participation and outcomes of our residents in scholarly activities within a busy residency training program setting.

REFERENCE:

<https://bmcmmededuc.biomedcentral.com/articles/10.1186/1472-6920-6-52>

ROTATION CURRICULUM OF MD PSYCHIATRY FOR RESEARCH

ORGANIZATIONAL STRUCTURE OF RESEARCH AT RAWALPINDI MEDICAL UNIVERSITY



**BASELINE PERFORMA TO BE FILLED IN BY RESIDENTS
BEFORE ORIENTATION SESSION:
RAWALPINDI MEDICAL UNIVERSITY**

1. Name of Trainee: _____
2. Gender: Male: Female:
3. Specialty: _____
4. Unit/Department: _____
5. Hospital: _____
6. Date Of Commencement of Training: _____
7. Anticipated year of Training: _____
8. Registration No: _____
9. Name of Supervisor: _____
10. A. Have you ever attended any research methodology workshop/course/training: YES: NO:
 11. B If yes, please enters the details of the course/workshop (mention the last 5 workshops/courses in case of exceeding 5, starting from the latest as SR # 1

SR #	Date/Month and year of training course/workshop	Title of training course/workshop	Organizing institution/company.	Duration of course in days	What was the main content/learning outcome of the research course?
1.					
2.					
3.					
4.					
5.					

12. A. Have you ever attended any workshop or course regarding synopsis development or research proposal development:

YES: NO:

1. B. If yes please mention details of the course/workshop (mention the last 3 workshops/courses in case of exceeding 3, starting from the latest as SR # 01):

SR #	Date/Month and year of training course/workshop	Title of training course/workshop	Organizing institution/company.	Duration of course in days	What was the main content/learning outcome of the research course?
1.					
2.					
3.					

13. Do you consider yourself proficient/skilled enough to write a research proposal independently with appropriate methodology:

14. YES NO UNCERTAIN:

15. A. Have you ever formulated a research proposal previously? YES: NO:

14. B. If yes please mention the details of the synopsis/proposals developed by you (mention the last 3 synopsis/proposals in case of exceeding 3, starting from the latest as SR # 01):

SR #	Date/Month and year of formulating proposal	Title of Proposal	Did you formulate as a pre-requisite to any degree or funding? Please mention its purpose and	Was the proposal submitted anywhere for approval/acceptance? If yes, where? And was it approved or modified or accepted?	Did you pursue that synopsis and completed the research? Yes /No. Please mention reason for not completing the research after development of synopsis if answer is no.
1.					
2.					
3.					

A. Have you ever written a research paper/manuscript previously: YES: NO:

14. B. If yes please mention the last five manuscripts in case of exceeding 5, starting from the latest as Sr # 1):

Sr #	Date/Month and year of formulating the manuscript/paper	Title of Paper	Was it an original article/short communication/case study/systematic review/meta analysis/editorial/any other academic writing in a journal? Please specify	Was the manuscript ever submitted any publication? Yes or No. If No give reason please. If yes to which journal/s and was it approved for publication or rejected?	If published please specify title of journal and edition and year of publication.
1.					
2.					
3.					
4.					
5.					

16. Have you ever been involved in any of the following research activities during last 2 years? (Please tick in the appropriate boxes):

a) Review of Medical literature

b) Write up of literature review

c) Vancouver/Harvard referencing

d) Used any Plagiarism detection tool

- e) Formulated research methodology of a research project/synopsis
- f) Formulated any data collection tool/Performa /checklist/questionnaire for research project
- g) Collected data through Performa's/interviews/observations/scales/Focus Group Discussions etc.
- h) Entered data in any computer based software e.g. SPSS, Epi-info, Microsoft Excel etc.
If yes mention name of soft ware: _____
- i) Analyzed quantitative or qualitative data in any computer based software
- j) Write up of results of study with formulation of tables or graphs
- k) Write up of discussion of a paper
- l) Ever submitted a manuscript to any journal

16. Title of research assigned to you by your supervisor you're your MD/MS programme: _____

17. Please mention which of the following activities you already have performed regarding your research project/THESIS as requisite to MD/MS programme: (Please tick in the appropriate boxes):

- a) Topic selection
- b) Review of literature
- _____

- c) Write up of literature review
- a) Vancouver/Harvard referencing
- b) Checked Plagiarism through detection tool
- c) Formulated research methodology of a research project/synopsis
- d) Formulated any data collection tool/Performa /checklist/questionnaire for your research
- e) Collected data through data collection tools/scales
- f) Entered data in any computer based software (e.g. SPSS, Epi info, Microsoft Excel etc)
- g) Analyzed data in any computer based software
- h) Have formulated results of study with tables or graphs
- i) Formulated discussion of THESIS
- j) Written conclusion and abstract of your THESIS
- k) Submitted your THESIS to your supervisor

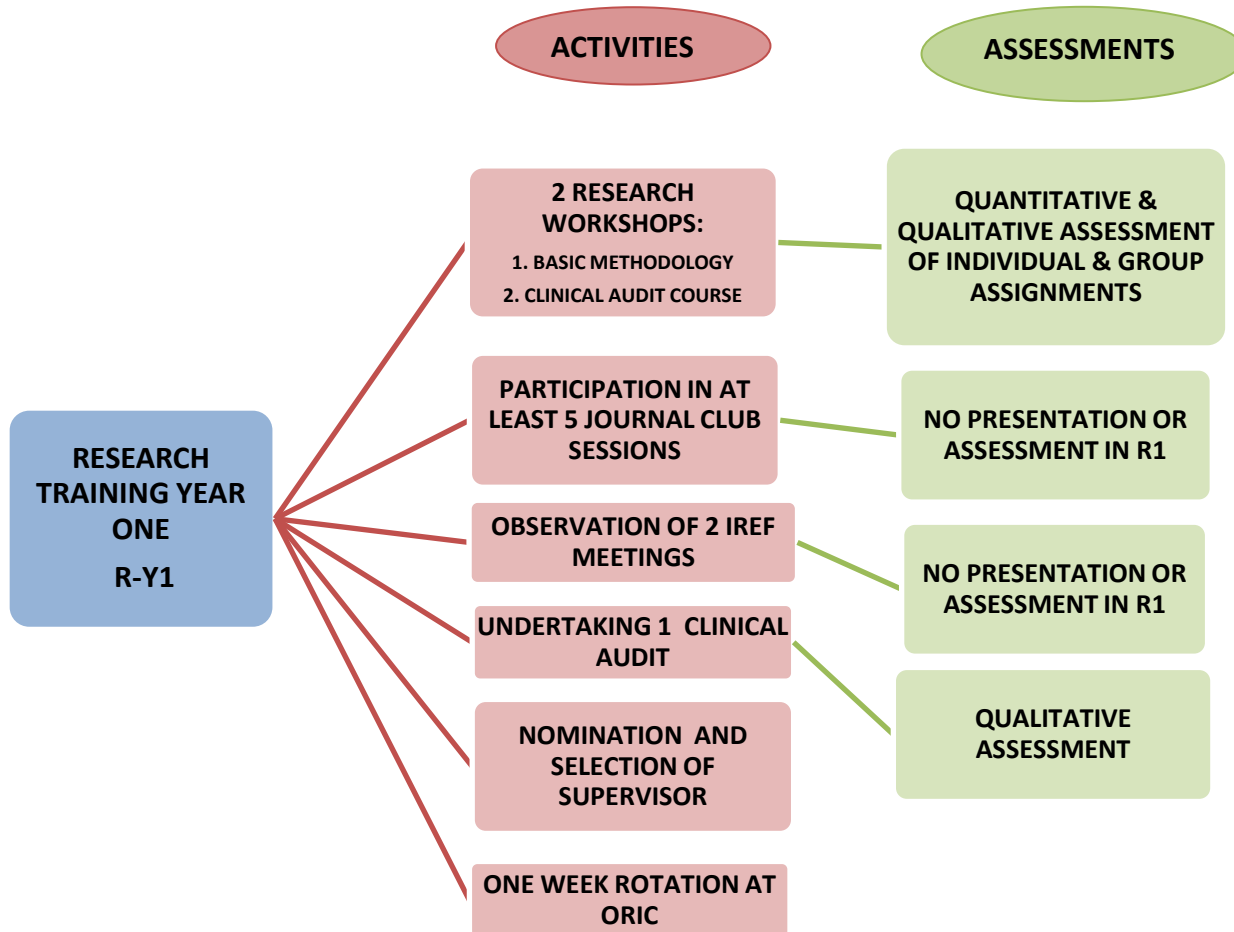
18. What are your expectations from this research course/module of MS/MD programme and any specific areas of training you want to be paid special emphasis by the trainers:?

Date of filling the Performa: _____

Signatures of the resident: _____

Signatures of the Director of ORIC, RMU: _____.

RESEARCH COURSE OF FIRST TRAINING YEAR-Y1



SECTION- 1**3 DAYS -BASIC RESEARCH METHODOLOGY WORKSHOP****DAY 1 OF WORKSHOP:**

Date & Venue: _____

Modules of Day 1 of Workshop	TITLE OF MODULES OF DAY 1	NAMES AND SIGNATURES OF FACILITATORS OF EACH MODULE	FACILITATOR'S FEEDBACK REGARDING COMPLETION AND PERFORMANCE OF RESIDENT IN ON SPOT INDIVIDUAL OR GROUP ASSIGNMENTS OF THE COURSE MODULE	SIGNATURE OF DIRECTOR OF ORIC (NAME/STAMP)
Module 1	Introduction to health systems research Identifying and Prioritizing Research Problems			
Module 2	Analysis and statement of problem & Introduction to Literature review			
Module 3	Literature review Referencing systems; Vancouver & Harvard referencing systems			
Module 4	Literature review Referencing managing systems			

Module 5	Plagiarism			
Module 6	Formulation of research objectives			
Module 7	Formulation of Hypothesis for a research			
Module 8	Research methodology; Variables and Indicators			

DAY 2 OF BASIC RESEARCH METHODOLOGY WORKSHOP:

Date & Venue: _____

Modules of Day 2 of Workshop	TITLE OF MODULES OF DAY 2	NAMES AND SIGNATURES OF FACILITATORS OF EACH MODULE	FACILITATOR'S FEEDBACK REGARDING COMPLETION AND PERFORMANCE OF RESIDENT IN ON SPOT INDIVIDUAL OR GROUP ASSIGNMENTS OF THE COURSE MODULE	SIGNATURE OF DIRECTOR OF ORIC (NAME/STAMP)
Module 1	Research methodology; Study types			
Module 2	Data collection techniques			
Module 3	Data collection tools			
Module 4	Sampling			
Module 5	Plan for Data Entry , storage and Statistical Analysis			

DAY 3 OF BASIC RESEARCH METHODOLOGY WORKSHOP:

Date & Venue: _____

Modules of Day 3 of Workshop	TITLE OF MODULES OF DAY 3	NAMES AND SIGNATURES OF FACILITATORS OF EACH MODULE	FACILITATOR'S FEEDBACK REGARDING COMPLETION AND PERFORMANCE OF RESIDENT IN ON SPOT INDIVIDUAL OR GROUP ASSIGNMENTS OF THE COURSE MODULE	SIGNATURE OF DIRECTOR OF ORIC (NAME/STAMP)
Module 1	Pilot and project planning			
Module 2	Budgeting for a study			
Module 3	Project administration			
Module 4	Plan for dissemination			
Module 5	Research ethics & concepts of protection of human study subjects			
Module 6	Differences between original articles, short communication, case reports, systematic reviews and meta-analysis			
Module 7	Writing a Case report			

Module 8	Critical Appraisal of a research paper			
Module 9	<ul style="list-style-type: none">• Making effective power-point presentations of a Research Project			
Module 10	<ul style="list-style-type: none">• Making effective poster presentations			

SECTION- 2

**INDIVIDUAL AND GROUP (HOME TASK) ASSIGNMENTS OF THE RESIDENTS
REGARDING BASIC RESEARCH METHODOLOGY WORKSHOP**

ASSIGNMENT'S NUMBER	TITLE	DATE OF SUBMISSION:	ORIGINALITY SCORE OF ASSIGNMENT IN TURN-IT-IN PLAGIARISM DETECTION SOFTWARE	FACILITATOR'S REFLECTION ON CORRECTNESS, COMPLETION AND QUALITY OF INDIVIDUAL OR GROUP ASSIGNMENTS OF THE WORKSHOP	SCORES ATTAINED OUT OF TOTAL ATTAINABLE SCORE	SIGNATURE OF FACILITATORS	SIGNATURE OF DIRECTOR OF ORIC (NAME/STAMP)

SECTION- 3**NE DAY – WORKSHOP ON UNDERTAKING CLINICAL AUDIT**

Date & Venue: _____

Modules of Day 1 of Workshop	TITLE OF MODULES OF DAY 1	NAMES AND SIGNATURES OF FACILITATORS OF EACH MODULE	FACILITATOR'S FEEDBACK REGARDING COMPLETION AND PERFORMANCE OF RESIDENT IN ON SPOT INDIVIDUAL OR GROUP ASSIGNMENTS OF THE COURSE MODULE	SIGNATURE OF DIRECTOR OF ORIC (NAME/STAMP)
Module 1	Introduction to a clinical audit and its importance			
Module 2	Types of Clinical Audit			
Module 3	Process and steps of Clinical Audit			
Module 4	Methodology of Clinical Audit			
Module 5	Data Analysis of a Clinical Audit			
Module 6	Clinical Audit Report Writing			
Module 7	Dissemination of the report			

SECTION- 4

JOURNAL CLUB MEETINGS ATTENDED BY RESIDENT AS AN OBSERVER DURING YR 1

JOURNAL CLUB MEETING #	DATE	TITLES OF THE ARTICLES PRESENTED IN THE JOURNAL CLUB MEETING	TITLE OF JOURNAL/ YEAR OF PUBLICATION	ANY QUESTION OR COMMENT MADE ON THE PRESENTATION BY THE OBSERVER	SUPERVISOR'S SIGNATURE	HEAD OF DEPARTMENT'S SIGNATURE (NAME/STAMP)
1.		A.	A.	A.		
		B.	B.	B.		
		C.	C.	C.		
2.		A.	A.	A.		
		B.	B.	B.		
		C.	C.	C.		
3.		A.	A.	A.		
		B.	B.	B.		
		C.	C.	C.		
4.		A.	A.	A.		
		B.	B.	B.		

		C.	C.	C.		
5.		A. B. C.	A. B. C.	A. B. C.		

SECTION- 5**INSTITUTIONAL RESEARCH & ETHICS FORUM MEETINGS ATTENDED BY RESIDENT AS AN OBSERVER DURING
YR 1**

IREF MEETING #	DATE/VENUE	TITLES OF THE RESEARCH PROPOSALS PRESENTED IN THE IREF MEETING	ANY QUESTION OR COMMENT MADE ON THE PRESENTATIONS BY THE OBSERVER	SIGNATURE OF THE CONVENER OF THE MEETING (NAME/STAMP)
1.				
2.				
3.				
4				

SECTION- 6**UNDERTAKING A CLINICAL AUDITS UNDERTAKEN AS A GROUP MEMBER DURING YEAR 1**

TITLE OF THE CLINICAL AUDIT	UNIT/DEPARTMENT WHERE THE AUDIT WAS CONDUCTED/NAME OF SUPERVISOR	PERSON WHO CONDUCTED THE AUDIT AND CONTENT OF CONTRIBUTION IN THE CLINICAL AUDIT	DISSEMINATION OF REPORT OF AUDIT: (A. WAS CLINICAL AUDIT REPORT PUBLISHED AS ANNUAL AUDIT REPORT/IN A RESEARCH JOURNAL? IF YES, DATE AND YEAR OF PUBLICATION AND NAME OF JOURNAL B. WAS CLINICAL AUDIT PRESENTED IN CPC OF RMU? IF YES DATE AND VENUE)	SIGNATURE OF THE DEAN (NAME/STAMP)
1.				
2.				
3.				
4				

SECTION- 7**RECORD OF FORTNIGHTLY MEETINGS OF THE RESIDENT WITH THE SUPERVISOR**

Sr #	DATE/VENUE /DURATION OF MEETING	AGENDA AND OUTLINE OF THE MEETING (IN TERMS OF CONTENT, DISCUSSION POINTS)	ACTION POINTS AND SUPERVISOR'S REFLECTIONS	SUPERVISOR'S SIGNATURE (NAME/STAMP)	HEAD OF DEPARTMENT'S SIGNATURE (NAME/STAMP)
1					
2					
3					
4					
5					

SECTION- 8**RECORD OF RESIDENT'S ONE WEEK'S ROTATION AT ORIC**

DAY #	DATE	ACTIVITY CARRIED OUT AT ORIC AND THE RESEARCH ASSOCIATE/ DEPUTY DIRECTOR WHO SUPERVISED THE ACTIVITY	ORIC STAFF MEMBER'S REFLECTIONS ON THE PERFORMANCE OF THE ACTIVITY	THE RESEARCH ASSOCIATE/ DEPUTY DIRECTOR SIGNATURE (NAME/STAMP)	DIRECTOR ORIC'S SIGNATURE (NAME/STAMP)
1					
2					
3					
4					
5					

6					
7					
8					

SECTION- 9

RESEARCH COURSE COURSE/WORKSHOP ATTENDED (ON OWN) BY THE RESIDENT DURING YEAR 1

Sr#	DATE/MONTH AND YEAR OF TRAINING COURSE/WORKSHOP	TITLE OF TRAINING COURSE/WORKSHOP	ORGANIZING INSTITUTION/COMPANY	DURATION OF COURSE IN DAYS/MODE OF COURSE (online or physically attended)	THE OBJECTIVES OR LEARNING OUTCOMES OF THE RESEARCH COURSE.

SECTION- 10**RECORD OF LITERATURE REVIEW CONDUCTED BY THE RESIDENT IN YEAR 1**

SR #	TITLE OF THE LITERATURE REVIEWED	DATE/MONTH AND YEAR OF PUBLICATION	TITLE OF THE JOURNAL/BOOK	WAS IT AN ORIGINAL ARTICLE/SHORT COMMUNICATION/CASE STUDY/SYSTEMATIC REVIEW/META ANALYSIS/EDITORIAL/ANY OTHER ACADEMIC WRITING (e.g. reports, books, conference papers, THESISs, Research and program reports- published/unpublished)?PLEASE SPECIFY
1				
2				

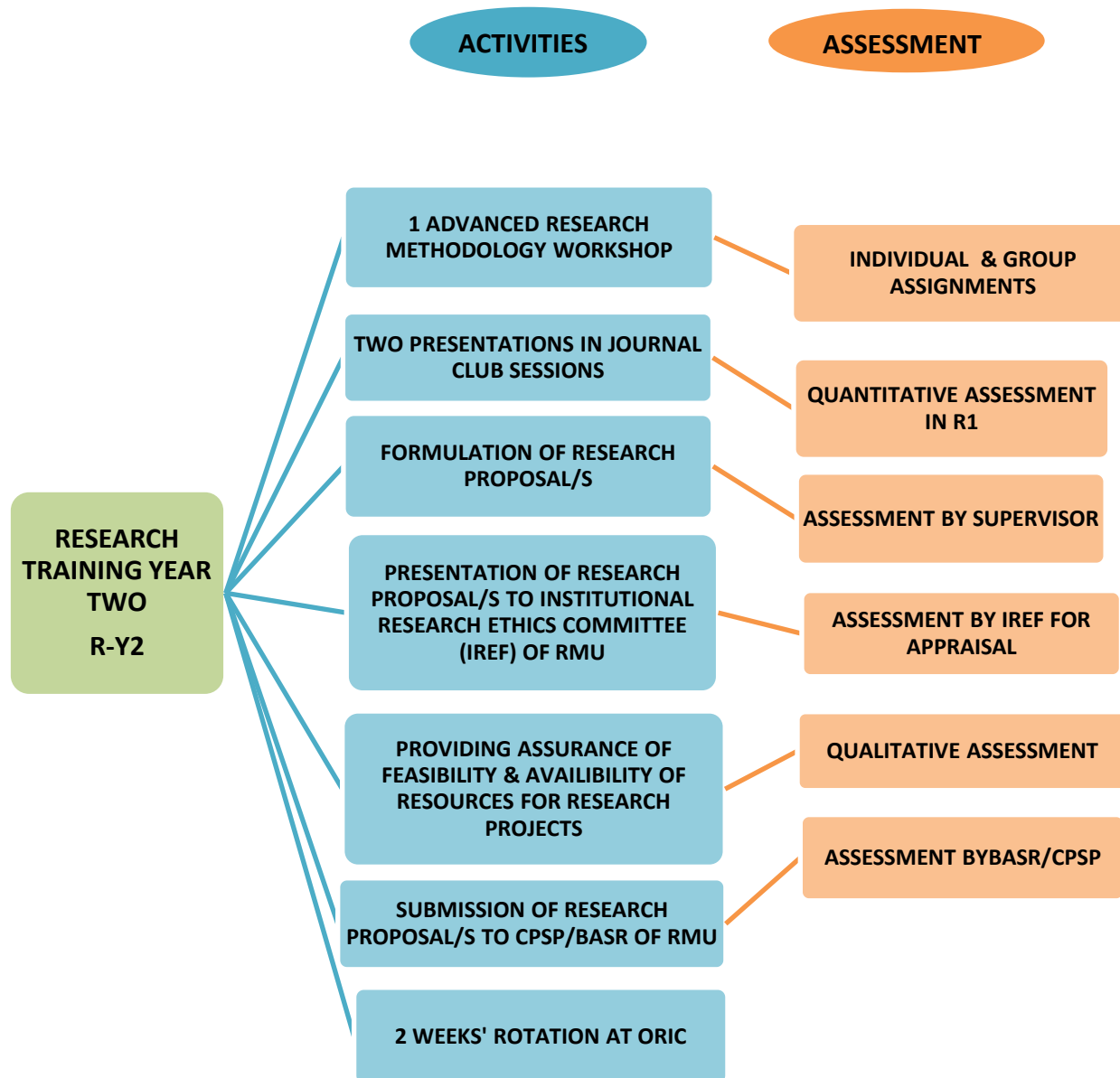
3				
4				

SECTION-11

RECORD OF ANY MANUSCRIPT/RESEARCH PAPER FORMULATED BY THE RESIDENT IN YEAR 1

SL #	TITLE OF THE MANUSCRIPT	IF SUBMITTED FOR PUBLICATION, DATE/MONTH AND YEAR OF PUBLICATION, IF PUBLISHED	TITLE OF THE JOURNAL	WAS IT REVISED, MODIFIED, ACCEPTED OR REJECTED. PLEASE SPECIFY	DIRECTOR ORIC'S SIGNATURE (NAME/STAMP)

RESEARCH COURSE OF SECOND RESEARCH TRAINING YEAR (R-Y2)



SECTION- 1

3 DAYS –ADVANCED RESEARCH METHODOLOGY WORKSHOP

DAY 1 OF WORKSHOP:

Date & Venue: _____

Modules of Day 1 of Workshop	TITLE OF MODULES OF DAY 1	NAMES AND SIGNATURES OF FACILITATORS OF EACH MODULE	FACILITATOR’S FEEDBACK REGARDING COMPLETION AND PERFORMANCE OF RESIDENT IN ON SPOT INDIVIDUAL OR GROUP ASSIGNMENTS OF THE COURSE MODULE	SIGNATURE OF DIRECTOR OF ORIC (NAME/STAMP)
Module 1	<ul style="list-style-type: none"> • Introduction to Biostatistics • Description of Variables Numerical methods of Data summarization (Manual as well as through Statistical Package of Social Sciences) 			
Module 2	Graphical presentation of data			
Module 3	<ul style="list-style-type: none"> • Cross-tabulation of quantitative data 			
Module 4	Measures of Association based on risk			

Module 5	Confounding and methods to control confounding			
Module 6	Basic statistical concepts; Measure of dispersion and confidence Intervals			

DAY 2 OF ADVANCED RESEARCH METHODOLOGY WORKSHOP:

Date & Venue: _____

Modules of Day 2 of Workshop	TITLE OF MODULES OF DAY 2	NAMES AND SIGNATURES OF FACILITATORS OF EACH MODULE	FACILITATOR'S FEEDBACK REGARDING COMPLETION AND PERFORMANCE OF RESIDENT IN ON SPOT INDIVIDUAL OR GROUP ASSIGNMENTS OF THE COURSE MODULE	SIGNATURE OF DIRECTOR OF ORIC (NAME/STAMP)
Module 1	Hypothesis testing for a research			
Module 2	Tests of Significance			
Module 3	Determining difference between two groups- categorical data Paired & unpaired observations			
Module 4	Determining difference between two groups- numerical data Paired & unpaired observations			
Module 5	Determining difference between more than two groups- numerical data ANOVA (Analysis of Variance)			

DAY 3 OF ADVANCED RESEARCH METHODOLOGY WORKSHOP:

Date & Venue: _____

Modules of Day 3 of Workshop	TITLE OF MODULES OF DAY 3	NAMES AND SIGNATURES OF FACILITATORS OF EACH MODULE	FACILITATOR'S FEEDBACK REGARDING COMPLETION AND PERFORMANCE OF RESIDENT IN ON SPOT INDIVIDUAL OR GROUP ASSIGNMENTS OF THE COURSE MODULE	SIGNATURE OF DIRECTOR OF ORIC (NAME/STAMP)
Module 1	Determining Correlation between variables			
Module 2	Regression Analysis			
Module 3	Diagnostic Accuracy of a test			
Module 4	Writing a research paper			
Module 5	Writing a THESIS			

SECTION- 2

**INDIVIDUAL AND GROUP (HOME TASK) ASSIGNMENTS OF THE RESIDENTS
3 REGARDING ADVANCED RESEARCH METHODOLOGY WORKSHOP**

ASSIGNMENT'S NUMBER	TITLE	DATE OF SUBMISSION:	ORIGINALITY SCORE OF ASSIGNMENT IN TURN-IT-IN PLAGIARISM DETECTION SOFTWARE	FACILITATOR'S REFLECTION ON CORRECTNESS, COMPLETION AND QUALITY OF INDIVIDUAL OR GROUP ASSIGNMENTS OF THE WORKSHOP	SCORES ATTAINED OUT OF TOTAL ATTAINABLE SCORE	SIGNATURE OF FACILITATORS	SIGNATURE OF DIRECTOR OF ORIC (NAME/STAMP)

SECTION- 3

4 JOURNAL CLUB MEETINGS ATTENDED BY RESIDENT AS AN OBSERVER DURING YR 2

JOURNAL CLUB MEETING #	DATE	TITLES OF THE ARTICLES PRESENTED IN THE JOURNAL CLUB MEETING	TITLE OF JOURNAL/ YEAR OF PUBLICATION	ANY QUESTION OR COMMENT MADE ON THE PRESENTATION BY THE OBSERVER	SUPERVISOR'S SIGNATURE	HEAD OF DEPARTMENT'S SIGNATURE (NAME/STAMP)
1.		A. B. C.	A. B. C.	A. B. C.		
2.		A. B. C.	A. B. C.	A. B. C.		
3.		A. B. C.	A. B. C.	A. B. C.		

4.		A. B. C.	A. B. C.	A. B. C.		
5		A. B. C.	A. B. C.	A. B. C.		

SECTION- 4

2 JOURNAL CLUB MEETINGS ATTENDED BY RESIDENT AS A PRESENTER DURING YR 2

Journal Club Meeting #	Date	Title Of The Article Presented By Resident In The Journal Club Meeting	Title Of Journal/ Year Of Publication	Reflection Of Two Senior Faculty Members On The Presentation	Senior Faculty Members Signature	Reflection Of The HOD On The Presentation And Scores Given Out Of Attainable Total Score Of 25	Head Of Department's Signature (Name/Stamp)
1.							
2.							

SIGNATURE OF THE DEAN OF SPECIALITY: _____

SIGNATURE (NAME/STAMP): _____

SECTION- 5

**APPROVAL OF TOPIC OF RESEARCH PROPOSAL/SYNOPSIS FOR THESIS FORMULATED BY RESIDENT DURING
YR 2:**

TOPIC OF THE RESEARCH PROPOSAL/SYNOPSIS FOR THESIS

APPROVAL OF THE TOPIC: _____

NAME OF THE PERSON APPROVING THE TOPIC OF SYNOPSIS	DESIGNATION OF THE PERSON APPROVING THE TOPIC OF SYNOPSIS	SIGNATURES	STAMP/DATE
	SUPERVISOR		
	HEAD OF DEPARTMENT		
	DEAN OF SPECILAITY		

	DIRECTOR ORIC		
	CO- CHAIRPERSON OF THE BOARD OF ADVANCED STUDIES & RESEARCH OF RMU		

SECTION- 6

COMPLETION OF RESEARCH PROPOSAL/SYNOPSIS FOR THESIS FORMULATED BY RESIDENT DURING YR 2 (TILL MONTH 8 OF YR 2):

TOPIC OF THE RESEARCH PROPOSAL/SYNOPSIS FOR THESIS:

SR #	DATE	ASPECTS OF THE SYNOPSIS/RESEARCH PROPOSAL REVIEWED	REFLECTION OF RESEARCH ASSOCIATES/DEPUTY DIRECTOR ORIC ON THE CONTENT & QUALITY OF THE PROPOSAL	RESEARCH ASSOCIATES/DEPUTY DIRECTOR'S SIGNATURE	REFLECTION OF THE SUPERVISOR ON THE CONTENT & QUALITY OF THE PROPOSAL	SUPERVISOR'S SIGNATURE (NAME/STAMP)
1.		Introduction and rationale (with Vancouver/Harvard in text citations)				
2.		Research aim, purpose and objectives				

3		Hypothesis, if required according to the study design.				
4		Operational Definitions				
5A		Research Methodology: Setting				
5B		Research Methodology: Study Population				

5C		Research Methodology: Study Duration				
5D		Research Methodology: Study Design				
5E		Research Methodology: j) Sampling: (Sample size with statistical justifications, sampling technique, inclusion criteria & exclusion criteria)				

5F		Research Methodology: Data Collection technique/s				
5G		Research Methodology: Data Collection tool/s				
5H		Research Methodology: Data Collection procedure				
6		Plan for Data entry & Analysis				

7		Ethical Considerations				
8		Work plan/Gantt chart				
9		Budget with justifications				
10		Reference list according to the Vancouver referencing style				

11		Annexure (including data collection tool or Performa, consent form, official letters, scales, scoring systems and/or any other relevant material)				
----	--	---	--	--	--	--

SECTION- 7

APPROVAL OF RESEARCH PROPOSAL/SYNOPSIS FOR THESIS FORMULATED BY RESIDENT DURING YR 2:

TOPIC OF THE RESEARCH PROPOSAL/SYNOPSIS FOR THESIS:

APPROVAL OF THE SYNOPSIS/PROPOSAL: _____

DATE ON WHICH PROPOSAL WAS PRESENTED	NAME OF THE PERSON APPROVING THE SYNOPSIS	DESIGNATION OF THE PERSON APPROVING THE SYNOPSIS	SIGNATURES	STAMP
		SUPERVISOR		
		HEAD OF DEPARTMENT		
		DEAN OF SPECILAITY		
		DIRECTOR ORIC		
		CHAIRPERSON OF THE INSTITUTIONAL RESEARCH AND ETHICS FORUM OF RMU		
		CO- CHAIRPERSON OF THE BOARD OF ADVANCED STUDIES & RESEARCH OF RMU		

SECTION- 8**RECORD OF FORTNIGHTLY MEETINGS OF THE RESIDENT WITH THE SUPERVISOR IN YEAR 2**

SR #	DATE/VENUE /DURATION OF MEETING	AGENDA AND OUTLINE OF THE MEETING (IN TERMS OF CONTENT, DISCUSSION POINTS)	ACTION POINTS AND SUPERVISOR'S REFLECTIONS	SUPERVISOR'S SIGNATURE (NAME/STAMP)	HEAD OF DEPARTMENT'S SIGNATURE (NAME/STAMP)
1					
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6					

SECTION- 9

RECORD OF RESIDENT'S TWO WEEK'S ROTATION AT ORIC DURING YR 2

DAY #	DATE	ACTIVITY CARRIED OUT AT ORIC AND THE RESEARCH ASSOCIATE/ DEPUTY DIRECTOR WHO SUPERVISED THE ACTIVITY	ORIC STAFF MEMBER'S REFLECTIONS ON THE PERFORMANCE OF THE ACTIVITY	THE RESEARCH ASSOCIATE/ DEPUTY DIRECTOR SIGNATURE (NAME/STAMP)	DIRECTOR ORIC'S SIGNATURE (NAME/STAMP)
1					
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8					

SECTION- 10**ANY RESEARCH COURSE/WORKSHOP ATTENDED (ON OWN) BY THE RESIDENT DURING YEAR 2**

SR #	DATE/MONTH AND YEAR OF TRAINING COURSE/WORKSHOP	TITLE OF TRAINING COURSE/WORKSHOP	ORGANIZING INSTITUTION/COMPANY	DURATION OF COURSE IN DAYS/MODE OF COURSE (online or physically attended)	THE OBJECTIVES OR LEARNING OUTCOMES OF THE RESEARCH COURSE.
1.					
2.					
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6					

SECTION- 11**RECORD OF LITERATURE REVIEW CONDUCTED BY THE RESIDENT IN YEAR 2**

SL #	TITLE OF THE LITERATURE REVIEWED	DATE/MONTH AND YEAR OF PUBLICATION	TITLE OF THE JOURNAL/BOOK	WAS IT AN ORIGINAL ARTICLE/SHORT COMMUNICATION/CASE STUDY/SYSTEMATIC REVIEW/META ANALYSIS/EDITORIAL/ANY OTHER ACADEMIC (e.g. reports, books, conference papers, THESISs, Research and program reports- published/unpublished)? PLEASE SPECIFY
1.				
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SECTION- 12

RECORD OF ANY MANUSCRIPT/RESEARCH PAPER FORMULATED BY THE RESIDENT IN YEAR 2

SL #	TITLE OF THE MANUSCRIPT	IF SUBMITTED FOR PUBLICATION, DATE/MONTH AND YEAR OF PUBLICATION, IF PUBLISHED	TITLE OF THE JOURNAL	WAS IT REVISED, MODIFIED, ACCEPTED OR REJECTED. PLEASE SPECIFY	DIRECTOR ORIC'S SIGNATURE (NAME/STAMP)
1					
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SECTION- 13

OVERALL EVALUATION OF RESEARCH THESIS PROGRAM BY SUPERVISOR

SECTION- 13

OVERALL EVALUATION OF RESEARCH THESIS PROGRAM BY BASR (BOARD OF ADVANCED STUDIES AND RESEARCH)

SECTION- 13

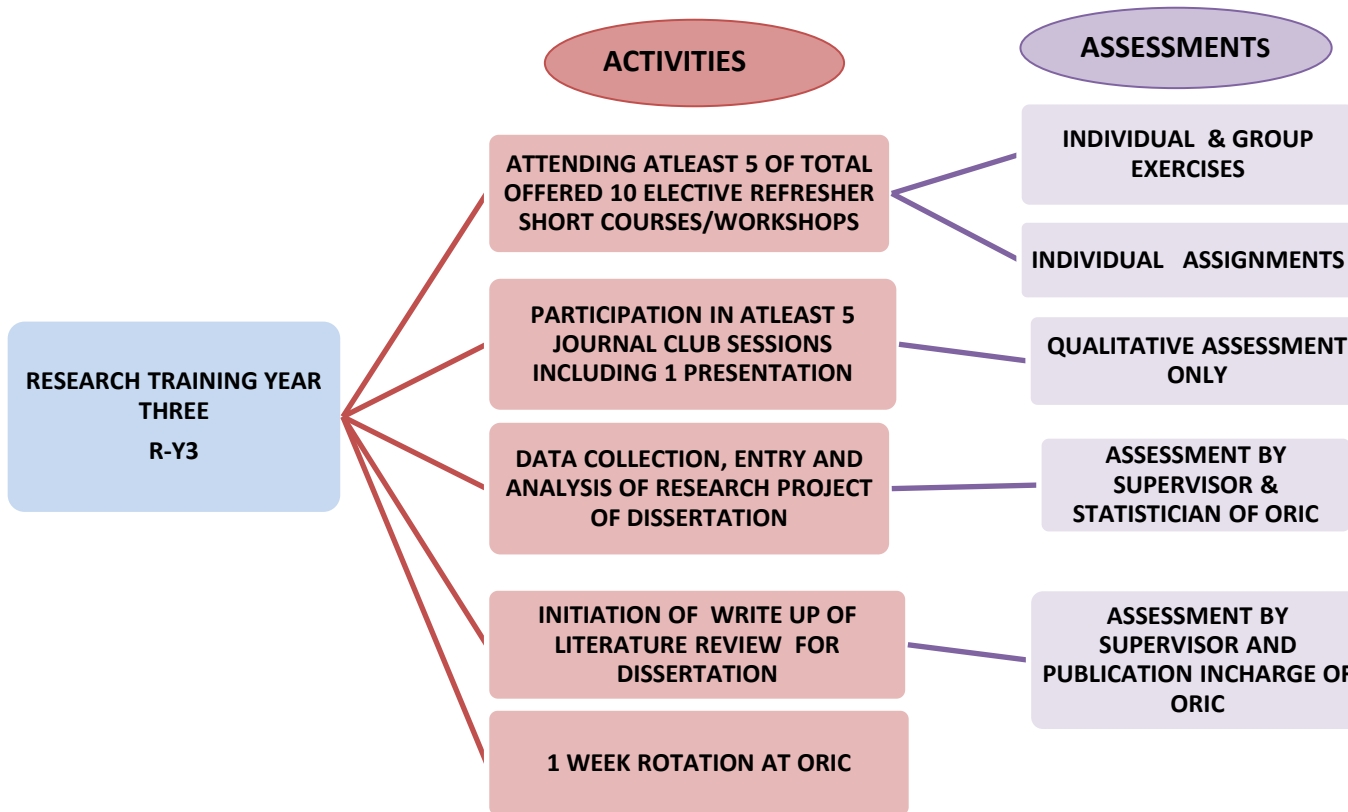
OVERALL EVALUATION OF RESEARCH THESIS PROGRAM BY ORIC (OFFICE OF RESEARCH INNOVATION AND COMMERCIALIZATION)

SECTION- 13

**OVERALL EVALUATION OF RESEARCH THESIS PROGRAM BY DEPARTMENT OF MEDICAL EDUCATION
(DME)**

RESEARCH COURSE OF THIRD RESEARCH TRAINING YEAR

R-Y3



SECTION- 1**10 ELECTIVE RESEARCH WORKSHOPS TO BE OFFERED DURING YEAR 3**

DATE & VENUE & DURATION OF WORKSHOP	TITLE OF ELECTIVE WORKSHOPS ATTENDED	NAMES AND SIGNATURES OF FACILITATORS OF EACH WORKSHOP	FACILITATOR'S FEEDBACK REGARDING COMPLETION AND PERFORMANCE OF RESIDENT IN ON SPOT INDIVIDUAL OR GROUP ASSIGNMENTS OF THE COURSE MODULE	SIGNATURE OF DIRECTOR OF ORIC (NAME/STAMP)
	End note referencing manager			
	Mendeley referencing manager			
	Effective write up of Literature review			
	Data entry in Statistical Package of Social Sciences			

	Graphical presentation of data in Microsoft Excel			
	Univariate, Bivariate and Multivariate analysis in Statistical Package of Social Sciences			
	Effectively writing up of a THESIS.			
	Research article write up			
	Critical appraisal of research			
	How to Present Research through power-point or posters			

SECTION- 2

**INDIVIDUAL AND GROUP (HOME TASK) ASSIGNMENTS OF THE RESIDENTS
3 REGARDING ADVANCED RESEARCH METHODOLOGY WORKSHOP**

ASSIGNMENT'S NUMBER	TITLE OF WORKSHOP	DATE OF SUBMISSION:	ORIGINALITY SCORE OF ASSIGNMENT IN TURN-IT-IN PLAGIARISM DETECTION SOFTWARE	FACILITATOR'S REFLECTION ON CORRECTNESS, COMPLETION AND QUALITY OF INDIVIDUAL OR GROUP ASSIGNMENTS OF THE WORKSHOP	SIGNATURE OF FACILITATORS	SIGNATURE OF DIRECTOR OF ORIC (NAME/STAMP)

SECTION- 3

5 JOURNAL CLUB MEETINGS ATTENDED BY RESIDENT AS AN OBSERVER DURING YR 3

JOURNAL CLUB MEETING #	DATE	TITLES OF THE ARTICLES PRESENTED IN THE JOURNAL CLUB MEETING	TITLE OF JOURNAL/ YEAR OF PUBLICATION	ANY QUESTION OR COMMENT MADE ON THE PRESENTATION BY THE OBSERVER	SUPERVISOR'S SIGNATURE	HEAD OF DEPARTMENT'S SIGNATURE (NAME/STAMP)
1.		A. B. C.	A. B. C.	A. B. C.		
2.		A. B. C.	A. B. C.	A. B. C.		
3.		A. B. C.	A. B. C.	A. B. C.		

4.		A. B. C.	A. B. C.	A. B. C.		
5.		A. B. C.	A. B. C.	A. B. C.		

SECTION- 4

1 JOURNAL CLUB MEETING ATTENDED BY RESIDENT AS AN PRESENTER DURING YR 3

JOURNAL CLUB MEETING #	DATE	TITLE OF THE ARTICLE PRESENTED BY RESIDENT IN THE JOURNAL CLUB MEETING	TITLE OF JOURNAL/ YEAR OF PUBLICATION	REFLECTION OF TWO SENIOR FACULTY MEMBERS ON THE PRESENTATION	SENIOR FACULTY MEMBERS SIGNATURE	REFLECTION OF THE HOD ON THE PRESENTATION AND SCORES GIVEN OUT OF ATTAINABLE TOTAL SCORE OF 25	HEAD OF DEPARTMENT'S SIGNATURE (NAME/STAMP)
1.							

SIGNATURE OF THE DEAN OF SPECIALITY: _____

(NAME/STAMP): _____

SECTION- 5

**CONFIRMATION OF COMPLETENESS OF DATA COLLECTION OF THE OF RESEARCH PROJECT FOR THESIS BY RESIDENT
DURING YR 3:**

TOPIC OF THE RESEARCH PROPOSAL/SYNOPSIS FOR THESIS:

CONFIRMATION OF COMPLETENESS OF DATA COLLECTION: _____

NAME OF THE PERSON CONFIRMING	DESIGNATION OF THE PERSON CONFIRMING	SIGNATURES	STAMP/DATE
	SUPERVISOR		
	HEAD OF DEPARTMENT		
	STATISTICIAN AT ORIC		
	DIRECTOR ORIC		

SECTION- 6

RECORD OF FORTNIGHTLY MEETINGS OF THE RESIDENT WITH THE SUPERVISOR IN YEAR 3

SR #	DATE/VENUE /DURATION OF MEETING	AGENDA AND OUTLINE OF THE MEETING (IN TERMS OF CONTENT, DISCUSSION POINTS)	ACTION POINTS AND SUPERVISOR'S REFLECTIONS	SUPERVISOR'S SIGNATURE (NAME/STAMP)	HEAD OF DEPARTMENT'S SIGNATURE (NAME/STAMP)
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SECTION- 7**RECORD OF RESIDENT'S ONE WEEK'S ROTATION AT ORIC DURING YR 3**

DAY #	DATE	ACTIVITY CARRIED OUT AT ORIC AND THE RESEARCH ASSOCIATE/ STATISTICIAN/DEPUTY DIRECTOR WHO SUPERVISED THE ACTIVITY	ORIC STAFF MEMBER'S REFLECTIONS ON THE PERFORMANCE OF THE ACTIVITY	THE RESEARCH ASSOCIATE/ DEPUTY DIRECTOR SIGNATURE (NAME/STAMP)	DIRECTOR ORIC'S SIGNATURE (NAME/STAMP)
1					
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7					

SECTION- 8**ANY RESEARCH COURSE COURSE/WORKSHOP ATTENDED (ON OWN) BY THE RESIDENT DURING YEAR 3**

SL #	DATE/MONTH AND YEAR OF TRAINING COURSE/WORKSHOP	TITLE OF TRAINING COURSE/WORKSHOP	ORGANIZING INSTITUTION/COMPANY	DURATION OF COURSE IN DAYS/MODE OF COURSE (online or physically attended)	THE OBJECTIVES OR LEARNING OUTCOMES OF THE RESEARCH COURSE.
1.					
2.					
3.					

4.					
5					

SECTION- 9**RECORD OF LITERATURE REVIEW CONDUCTED BY THE RESIDENT IN YEAR 3**

SR #	TITLE OF THE LITERATURE REVIEWED	DATE/MONTH AND YEAR OF PUBLICATION	TITLE OF THE JOURNAL/BOOK	WAS IT AN ORIGINAL ARTICLE/SHORT COMMUNICATION/CASE STUDY/SYSTEMATIC REVIEW/META ANALYSIS/EDITORIAL/ANY OTHER ACADEMIC (e.g. reports, books, conference papers, THESISs, Research and program reports- published/unpublished)? PLEASE SPECIFY
1.				
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SECTION- 10

RECORD OF ANY MANUSCRIPT/RESEARCH PAPER FORMULATED BY THE RESIDENT IN YEAR 3

SR #	TITLE OF THE MANUSCRIPT	IF SUBMITTED FOR PUBLICATION, DATE/MONTH AND YEAR OF PUBLICATION, IF PUBLISHED	TITLE OF THE JOURNAL	WAS IT REVISED, MODIFIED, ACCEPTED OR REJECTED. PLEASE SPECIFY	DIRECTOR ORIC'S SIGNATURE (NAME/STAMP)
1					
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SECTION- 11

OVERALL EVALUATION OF RESEARCH THESIS PROGRAM BY SUPERVISOR

OVERALL EVALUATION OF RESEARCH THESIS PROGRAM BY BASR (BOARD OF ADVANCED STUDIES AND RESEARCH)

SECTION- 11

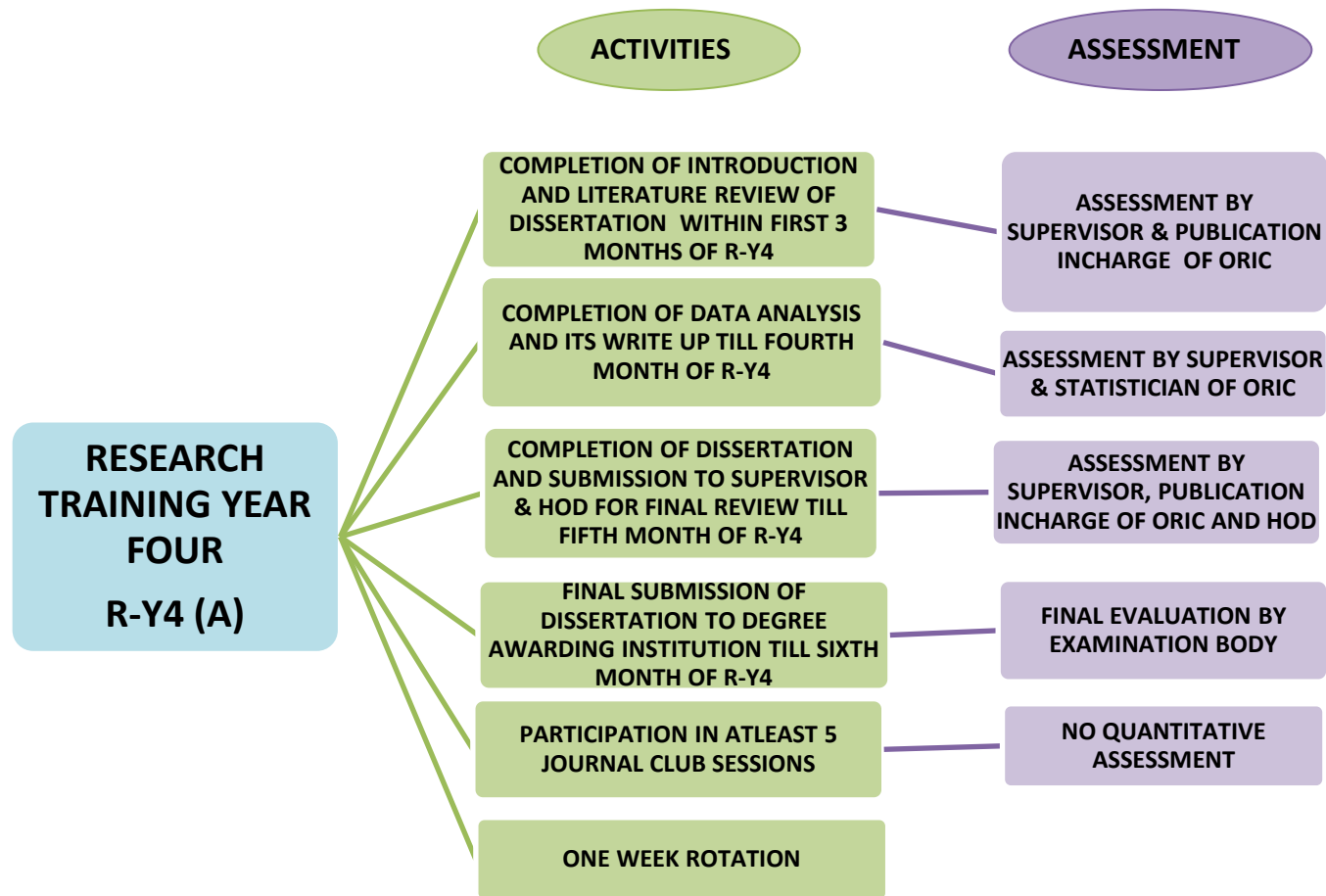
OVERALL EVALUATION OF RESEARCH THESIS PROGRAM BY ORIC (OFFICE OF RESEARCH INNOVATION AND COMMERCIALIZATION)

SECTION- 11

OVERALL EVALUATION OF RESEARCH THESIS PROGRAM BY DEPARTMENT OF MEDICAL EDUCATION (DME)

RESEARCH COURSE OF FOURTH RESEARCH TRAINING YEAR

R-Y4



SECTION- 1**5 JOURNAL CLUB MEETINGS ATTENDED BY RESIDENT AS AN OBSERVER DURING YR 4**

JOURNAL CLUB MEETING #	DATE	TITLES OF THE ARTICLES PRESENTED IN THE JOURNAL CLUB MEETING	TITLE OF JOURNAL/ YEAR OF PUBLICATION	ANY QUESTION OR COMMENT MADE ON THE PRESENTATION BY THE OBSERVER	SUPERVISOR'S SIGNATURE	HEAD OF DEPARTMENT'S SIGNATURE (NAME/STAMP)
1.		A. B. C.	A. B. C.	A. B. C.		
2.		A. B. C.	A. B. C.	A. B. C.		
3.		A. B. C.	A. B. C.	A. B. C.		
4.		A. B.	A. B.	A. B.		

		C.	C.	C.		
5.		A. B. C.	A. B. C.	A. B. C.		

SECTION- 2

**CONFIRMATION OF COMPLETENESS OF WRITE UP OF INTRODUCTION OF RESEARCH PROJECT FOR THESIS BY RESIDENT
TILL**

3RD MONTH OF YR 4:

TOPIC OF THE RESEARCH PROPOSAL/SYNOPSIS FOR THESIS:

**CONFIRMATION OF COMPLETENESS OF INTRODUCTION OF RESEARCH PROJECT FOR THESIS BY RESIDENT TILL 3RD MONTH
OF YR 4:**

NAME OF THE PERSON CONFIRMING	DESIGNATION OF THE PERSON CONFIRMING	SIGNATURES	STAMP/DATE
	SUPERVISOR		
	HEAD OF DEPARTMENT		
	RESEARCH ASSOCIATE/DEPUTY DIRECTOR AT ORIC		
	DIRECTOR ORIC		

SECTION- 3

**CONFIRMATION OF COMPLETENESS OF DATA ANALYSIS & WRITE UP OF RESULTS OF RESEARCH PROJECT FOR THESIS BY
RESIDENT TILL 4TH MONTH OF YR 4:**

TOPIC OF THE RESEARCH PROPOSAL/SYNOPSIS FOR THESIS:

**CONFIRMATION OF COMPLETENESS OF DATA ANALYSIS & WRITE UP OF RESULTS OF RESEARCH PROJECT FOR THESIS BY
RESIDENT TILL 4TH MONTH OF YR 4**

NAME OF THE PERSON CONFIRMING	DESIGNATION OF THE PERSON CONFIRMING	SIGNATURES	STAMP/DATE
	SUPERVISOR		
	HEAD OF DEPARTMENT		
	RESEARCH ASSOCIATE/DEPUTY DIRECTOR AT ORIC		
	STATISTICIAN AT ORIC		
	DIRECTOR ORIC		

SECTION- 4

CONFIRMATIONS OF COMPLETENESS OF THESIS WRITE UP BY RESIDENT TILL 5TH MONTH OF YR 4:

TOPIC OF THE RESEARCH PROPOSAL/SYNOPSIS FOR THESIS:

NAME OF THE PERSON CONFIRMING	DESIGNATION OF THE PERSON CONFIRMING	SIGNATURES	STAMP/DATE
	SUPERVISOR		
	HEAD OF DEPARTMENT		
	RESEARCH ASSOCIATE/DEPUTY DIRECTOR AT ORIC		
	STATISTICIAN AT ORIC		
	DIRECTOR ORIC		

SECTION- 5

**CONFIRMATION OF SUBMISSION OF COMPLETED THESIS BY RESIDENT TILL 6TH MONTH OF YR 4:
TOPIC OF THE RESEARCH PROPOSAL/SYNOPSIS FOR THESIS:**

NAME OF THE PERSON CONFIRMING	DESIGNATION OF THE PERSON CONFIRMING	SIGNATURES	STAMP/DATE
	SUPERVISOR		
	HEAD OF DEPARTMENT		
	RESEARCH ASSOCIATE/DEPUTY DIRECTOR AT ORIC		
	DIRECTOR ORIC		
	CHAIRPERSON OF BOARD OF ADVANCED STUDIES & RESEARCH (BASR)OF RMU		

SECTION- 6**RECORD OF FORTNIGHTLY MEETINGS OF THE RESIDENT WITH THE SUPERVISOR IN YEAR 4**

SR #	DATE/VENUE /DURATION OF MEETING	AGENDA AND OUTLINE OF THE MEETING (IN TERMS OF CONTENT, DISCUSSION POINTS)	ACTION POINTS AND SUPERVISOR'S REFLECTIONS	SUPERVISOR'S SIGNATURE (NAME/STAMP)	HEAD OF DEPARTMENT'S SIGNATURE (NAME/STAMP)
1.					
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SECTION- 7**RECORD OF RESIDENT'S ONE WEEK'S ROTATION AT ORIC DURING YR 4**

DAY #	DATE	ACTIVITY CARRIED OUT AT ORIC AND THE RESEARCH ASSOCIATE/ STATISTICIAN/DEPUTY DIRECTOR WHO SUPERVISED THE ACTIVITY	ORIC STAFF MEMBER'S REFLECTIONS ON THE PERFORMANCE OF THE ACTIVITY	THE RESEARCH ASSOCIATE/ DEPUTY DIRECTOR SIGNATURE (NAME/STAMP)	DIRECTOR ORIC'S SIGNATURE (NAME/STAMP)
1					
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SECTION- 8

ANY RESEARCH COURSE COURSE/WORKSHOP ATTENDED (ON OWN) BY THE RESIDENT DURING YEAR 4

SL #	DATE/MONTH AND YEAR OF TRAINING COURSE/WORKSHOP	TITLE OF TRAINING COURSE/WORKSHOP	ORGANIZING INSTITUTION/COMPANY	DURATION OF COURSE IN DAYS/MODE OF COURSE (online or physically attended)	THE OBJECTIVES OR LEARNING OUTCOMES OF THE RESEARCH COURSE.
1.					
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SECTION- 9

RECORD OF LITERATURE REVIEW CONDUCTED BY THE RESIDENT IN YEAR 4

SR #	TITLE OF THE LITERATURE REVIEWED	DATE/MONTH AND YEAR OF PUBLICATION	TITLE OF THE JOURNAL/BOOK	WAS IT AN ORIGINAL ARTICLE/SHORT COMMUNICATION/CASE STUDY/SYSTEMATIC REVIEW/META ANALYSIS/EDITORIAL/ANY OTHER ACADEMIC (e.g. reports, books, conference papers, THESISs, Research and program reports- published/unpublished)? PLEASE SPECIFY
1.				
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5.				

SECTION- 10

RECORD OF ANY MANUSCRIPT/RESEARCH PAPER FORMULATED BY THE RESIDENT IN YEAR 4

SR #	TITLE OF THE MANUSCRIPT	IF SUBMITTED FOR PUBLICATION, DATE/MONTH AND YEAR OF PUBLICATION, IF PUBLISHED	TITLE OF THE JOURNAL	WAS IT REVIEWED, MODIFIED, ACCEPTED OR REJECTED. PLEASE SPECIFY	DIRECTOR ORIC'S SIGNATURE (NAME/STAMP)
1					
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SECTION- 11

OVERALL EVALUATION OF RESEARCH THESIS PROGRAM BY SUPERVISOR

SECTION- 11

OVERALL EVALUATION OF RESEARCH THESIS PROGRAM BY BASR (BOARD OF ADVANCED STUDIES AND RESEARCH)

SECTION- 11

OVERALL EVALUATION OF RESEARCH THESIS PROGRAM BY ORIC (OFFICE OF RESEARCH INNOVATION AND COMMERCIALIZATION)

SECTION- 11

OVERALL EVALUATION OF RESEARCH THESIS PROGRAM BY DEPARTMENT OF MEDICAL EDUCATION (DME)

Portfolio(Templates)



**RAWALPINDI MEDICAL UNIVERSITY
MD/MS RESIDENCY PROGRAMME**



ENROLMENT DETAILS

Program of Admission _____

Session _____

Registration / Training Number _____

Name of Candidate _____

Father's Name _____

Date of Birth ____ / ____ / ____ CNIC No. _____

Present Address _____

Permanent Address _____

E-mail Address _____

Cell Phone _____

Date of Start of Training _____

Date of Completion of Training _____

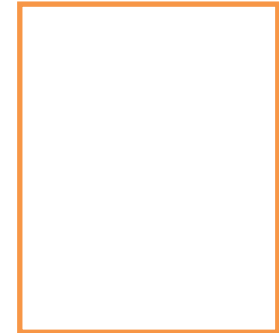
Name of Supervisor _____

Designation of Supervisor _____

Qualification of Supervisor _____

Title of department / Unit _____

Name of Training Institute / Hospital _____



How to write reflections

In the following sections 2-12 (case presentation, topic presentation, journal club, emergency, indoor, opd and clinics, procedural skills/directly observed procedures, multidisciplinary meetings, morbidity/mortality meetings, hands on training) reflect on the key activities that you have performed throughout the year in according to the 6 stages of Gibb's reflective cycle.



Gibb's Reflective Cycle:

Stage 1- Description

Here you set the scene. What happened? When it occurred? Who was there? What did they do? What was the outcome?

Stage 2- Feelings

Discuss your feelings and thoughts about the experience. Consider questions such as:

How did you feel at the time? What did you think at the time? What impact did your emotions, beliefs and values have? What do you think other people were feeling? What did you think about the incident afterwards?

Stage 3- Evaluation

How did things go? Focus on the positive and negative even if it was primarily one or the other. What was good and what was bad about the experience? What went well? What didn't? Were your contributions positive or negative. If you are writing about a difficult incident, did you feel that the situation was resolved afterwards?

Stage 4- Analysis

This is where you make sense of what happened, using the theory and wider context to develop understanding. Why did things go well? Badly? How can the theory explain what happened? How does my experience compare to the literature? What research/theories/models can help me make sense of this? Could I have responded in a different way? What might have helped or improved things?

Stage 5- Conclusion

What have you learnt? Generally, and specifically. What can I now do better? Could/should you have done anything differently? What skills would I need to handle this better?

Stage 6- Action plan

Action plans sum up anything you need to know and do to improve for next time.

How /where can I use my new knowledge and experience? How will I adapt my actions or improve my skills? If the same thing happened again, what would I do differently?

A Sample Reflection

This sample reflection is written from a Postgraduate medical student's perspective. It will help you write reflections in your portfolio.

Topic: Journal Club Presentation on "xx-xx-xx" at "Conference Room Institute of Psychiatry"

Description

This was my first journal club presentation on the research title "_____ " published in "_____ ". The paper was selected by my supervisor as it was a recent study and relevant to what we practice in our unit. It took me 3 days (9 hours) to prepare for this presentation. For guidance I asked mySR

Dr. _____ for help.

Feelings

During the presentation I felt quite nervous. As the presentation progressed, my tone of voice and command over the presentation improved.

Evaluation

The strengths of my presentation were my good grip on the topic.

My weaknesses were that I could not explain the statistical aspects of the study and had to rush through the tables.

Analysis

The Introduction went well because in addition to the paper I also read the topic from the text book and took guidance from my SR.

The methodology and results presentation were weak because I could not understand them myself.

Conclusion

I need to work on my presentation anxiety and need to understand interpretation on methodology and results.

Action plan

I discussed with my supervisor and he informed me that I can self-learn these skills by reading up/attending courses online. However, I have come to know that DME department and Research Unit frequently conducts workshops on presentation skills and research methodology. I intent to register and attend them.

Introduction of portfolio

What is a portfolio?

A collection of a learner's various documents and assessments throughout residency that reflect their professional development over time. May include referral letters and procedure logs (Rider et al., 2007). Portfolios also frequently include self-assessments, learning plans, and reflective essays (Epstein, 2007).

What should be included in a portfolio?

resident may include the following components in his or her portfolio:

- Curriculum Vitae (CV)
- Personal Publications
- Research abstracts presented at professional conferences
- Presentations at teaching units/departmental meetings and teaching sessions
- Patient (case) presentations

- Log of clinical procedures
- Copies of written feedback received (direct observations, field notes, daily evaluations)
- Quality improvement project plan and report of results
- Summaries of ethical dilemmas (and how they were handled)
- Chart notes of particular interest
- Photographs and logs of medical procedures performed
- Consult/referral letters of particular interest
- Monthly faculty evaluations
- 360-degree evaluations
- Copies of written instructions for patients and families
- Case presentations, lectures, logs of medical students mentored
- Learning plans
- Writing assignments, or case-based exercises assigned by program director
- List of hospital/university committees served on
- Documentation of managerial skills (e.g., schedules or minutes completed by resident)
- Copies of billing sheets with explanations
- Copies of written exams taken with answer sheets
- In-training Evaluation Report (ITER) results
- Format can be as simple as material collected in a three-ringed binder or as sophisticated as information

stored in a handheld Pocket PC (PPC).

- Patient confidentiality should be assured when any clinical material is included in the portfolio.
- Should be resident-driven and include a space for residents to reflect on their learning experiences.

Why portfolio is required?

Can be used as a:

- Formative learning tool: To help develop self-assessment and reflection skills.
- Summative evaluation tool: To determine if a competency has been achieved.
- Useful for evaluating competencies that are difficult to evaluate in more traditional ways such as:
 - Practice-based improvement
 - Use of scientific evidence in patient care
 - Professional behaviors (Rider et al., 2007)
- Purpose is to highlight for the resident the need for ongoing learning and reflection to achieve and maintain competencies.
- Enormous flexibility in using the portfolio as a learning tool: Portfolio may focus on one area (e.g., assessments pertaining to professionalism in a learner with attitudinal issues) without losing its effectiveness for the broader scope of competencies.
- Number and frequency of entries may vary. Expectations, including minimum standards, should be

defined with the resident from the outset.

- Portfolios can be powerful tools for guided self-assessment and reflection (Holmboe & Carracio, 2008).

Evidence:

- Evidence suggests that an assessment of skills is most valid when the tool used places the learner in an environment and/or situation that closely mimics that in which the learner will later practice the mastered skill (Wiggins et al., 1998). In that way, portfolios have the advantage of reflecting not just what residents can do in a controlled examination situation but what they actually do at work with real patients (Jackson et al., 2007).
- As an evaluation tool, the reliability and validity of a portfolio are dependent on the psychometric characteristics of the assessment and judging methods used in the portfolio process (Holmboe & Carracio, 2008).
- Research is still needed to determine whether portfolios can be a catalyst for self-directed, lifelong learning (O'Sullivan et al., 2002).

Practicality/Feasibility:

Portfolios can be time consuming for the resident to assemble and for the preceptor to assess.

References:

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INDEX:

1. CURRICULUM VITAE (CV)
2. CASE PRESENTATION
3. TOPIC PRESENTATION
4. JOURNAL CLUB
5. EMERGENCY
6. INDOOR
7. OPD AND CLINICS
8. PROCEDURAL SKILLS/DIRECTLY OBSERVED PROCEDURES
9. MULTIDISCIPLINARY MEETINGS
10. MORBIDITY/MORTALITY MEETINGS
11. HANDS ON TRAINING
12. RESEARCH PUBLICATIONS/MAJOR RESEARCH PROJECT/
ABSTRACT/SYNOPSIS/DISSERTATION/PAPER PRESENTATION
13. ASSESSMENT RECORDS & EVALUATION PROFORMAS
14. AWARDS/TESTIMONIALS/APPRECIATION LETTERS
15. ANY OTHER SPECIFIC ACHIEVEMENTS
16. FUTURE AIMS & OBJECTIVES

SECTION-1

CURRICULUM VITAE (CV)

Brief curriculum vitae encompassing all academic achievements & work experiences should be written or pasted here

SECTION-2

CASE PRESENTATION

Interesting and unique case presentations should be written in this section with your own opinion and comments of the supervisor

Title:	Date & Time:
	Venue:
<u>Description</u>	<u>Supervisor's Comments:</u>
<u>Feelings</u>	
<u>Evaluation</u>	
<u>Analysis</u>	
<u>Conclusion</u>	
<u>Action plan</u>	

SECTION-3**TOPIC PRESENTATION**

Details of the topic presentations with the comments of the supervisor should be written here

Title:	Date & Time:
	Venue:
<u>Description</u>	<u>Supervisor's Comments:</u>
<u>Feelings</u>	
<u>Evaluation</u>	
<u>Analysis</u>	
<u>Conclusion</u>	
<u>Action plan</u>	

SECTION-4**JOURNAL CLUB**

Title:	Date & Time:
	Venue:
<u>Description</u>	<u>Supervisor's Comments:</u>
<u>Feelings</u>	
<u>Evaluation</u>	
<u>Analysis</u>	
<u>Conclusion</u>	
<u>Action plan</u>	

Details of the selected critical appraisals of research articles discussed in journal club meetings should be written here

SECTION-5**EMERGENCY**

Details of complicated and interesting emergency cases along with comments of the supervisor should be written in this section

Title:	Date & Time:
	Venue:
<u>Description</u>	<u>Supervisor's Comments:</u>
<u>Feelings</u>	
<u>Evaluation</u>	
<u>Analysis</u>	
<u>Conclusion</u>	
<u>Action plan</u>	

SECTION-6**INDOOR**

Memorable cases seen in and managed in the medical ward along with comments of the supervisor should be mentioned in this

Title:	Date & Time:
	Venue:
<u>Description</u>	<u>Supervisor's Comments:</u>
<u>Feelings</u>	
<u>Evaluation</u>	
<u>Analysis</u>	
<u>Conclusion</u>	
<u>Action plan</u>	

SECTION-7**OPD AND CLINICS**

Outpatient experiences along with supervisor's comments should be written here

Title:	Date & Time: Venue:
<u>Description</u>	<u>Supervisor's Comments:</u>
<u>Feelings</u>	
<u>Evaluation</u>	
<u>Analysis</u>	
<u>Conclusion</u>	
<u>Action plan</u>	

SECTION-8

Procedural skills/Directly observed procedures

Experiences during learning of procedures and details of directly observed procedures should be written here along with

Title:	Date & Time:
	Venue:
<u>Description</u>	<u>Supervisor's Comments:</u>
<u>Feelings</u>	
<u>Evaluation</u>	
<u>Analysis</u>	
<u>Conclusion</u>	
<u>Action plan</u>	

comments of the supervisor

SECTION-9**MULTI DICIPINARY MEETINGS**

Title:	Date & Time:
	Venue:
<u>Description</u>	<u>Supervisor's Comments:</u>
<u>Feelings</u>	
<u>Evaluation</u>	
<u>Analysis</u>	
<u>Conclusion</u>	
<u>Action plan</u>	

Details of Multidisciplinary meetings attended should be written here with comments of the supervisor

SECTION-10**Morbidity/mortality meetings**

Title:	Date & Time:
	Venue:
<u>Description</u>	<u>Supervisor's Comments:</u>
<u>Feelings</u>	
<u>Evaluation</u>	
<u>Analysis</u>	
<u>Conclusion</u>	

Action plan

Details morbidity/mortality meetings attended should be written here with comments of the supervisor

Title:	Date & Time:
	Venue:
<u>Description</u>	<u>Supervisor's Comments:</u>
<u>Feelings</u>	
<u>Evaluation</u>	
<u>Analysis</u>	
<u>Conclusion</u>	

SECTION-11

Action plan

HANDS ON TRAINING

Brief description of learning outcomes achieved by workshops attended should be written here along with the reason of need to have a specific workshop and also get endorsed the comments of the supervisor for each workshop separately

SECTION-12

Research Publications/Major Research project/

abstract/synopsis/dissertation/paper presentation in a conference

Title:	Date & Time:
	Venue:
<u>Description</u>	<u>Supervisor's Comments:</u>
<u>Feelings</u>	
<u>Evaluation</u>	

Analysis

Conclusion

Action plan

All research experiences should be mentioned in this section along with comments of the supervisor

SECTION-13

ASSESSMENT Records/evaluation proformas

Evidence of all available result cards and end of block (four months) evaluation record should mentioned in this section to have a reflection about resident's Medical knowledge, patient care, Interpersonal and Communication Skills, system based learning, practice based learning and professionalism.

SECTION-14

Awards/testimonials/ appreciation letters

Evidence of awards, testimonials and appreciation letters if any should be given in this section with comments of the supervisor

SECTION-15

ANY OTHER SPECIFIC ACHIEVEMENT

Evidence of any other specific achievement done under forceful circumstances as a compulsion or done by chance without any previous plan or done as a passion should be mentioned in this section along with comments of supervisor

SECTION-16

Future aims & objectives

Brief overview of the future aims and objectives should mentioned in this section

SECTION –VIII

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SECTION – IX

List of Appendices

1. Workplace Based Assessments-Multi source feedback profoma- 360⁰ evaluation ----Appendix “ A”
2. Proforma for feedback by Nurse for core competencies of the resident -----“Appendix B”
3. Proforma for patient Medication Record -----“Appendix C”
4. Workplace Based Assessments- guidelines for assessment of Generic & specialty specific Competencies ----- Appendix “ D”
5. Supervisor’s Annual Review Report----- Appendix “ E”
6. Supervisors evaluation Proforma for continuous internal assessments-----Appendix “ F”
7. Evaluation of resident by the faculty----- Appendix “ G”
8. Evaluation of faculty by the resident----- Appendix “ H”
9. Evaluation of program by the faculty----- Appendix “ I”
10. Evaluation of program by the resident----- Appendix “ J”
11. Guidelines for program evaluation----- Appendix “ K”
12. Evaluation of Project Director by the residents----- Appendix “ L”

Workplace Based Assessments-Multi Source Feedback profoma-360⁰EvaluationAppendix “A”



Rawalpindi Medical University

Quality Enhancement Cell

360 Degree Evaluation Proforma (by Senior)

PGT, MO, HO Proforma

Reviewer

Evaluation for

Name:

Name:

Designation:

Designation:

Performance ratings

Assessment Date: _____

The following guidelines are to be used in selecting the appropriate rating:

1=Never

2= Rarely

3= Occasionally

4= Frequently

5= Always

6= Not Applicable

1. Patients Care

Implements the highest standards of practice in the effective and timely treatment of all patients regardless of gender, ethnicity, location, or socioeconomic status.

1 2 3 4 5 6

2. Medical Knowledge

Keeps current with research and medical knowledge in order to provide evidence-based care.

1 2 3 4 5 6

3. Interpersonal and Communication Skills

Works vigorously and efficiently with all involved parties as patient advocate and/or consultant.

1 2 3 4 5 6

4. Practice based Learning and Improvement

Assesses medical knowledge and new technology and implements best practices in clinical setting.

1 2 3 4 5 6

5. Professionalism

Displays personal characteristics consistent with high moral and ethical behaviour.

1 2 3 4 5 6

6. Systems Based Practice

Efficiently utilizes health-care resources and community systems of care in the treatment of patients.

1 2 3 4 5 6

Reference: Competencies Identified by ACGME & ABMS

ACGME Accreditation Council for graduate medical education

ABMS American Board of Medical Specialties



Rawalpindi Medical University

Quality Enhancement Cell

360 Degree Evaluation Proforma (by Colleague)

PGT, MO, HO Proforma

Reviewer

Evaluation for

Name:

Name:

Designation:

Designation:

Performance ratings

Assessment Date: _____

The following guidelines are to be used in selecting the appropriate rating:

- 1=Never 2= Rarely 3= Occasionally
- 4= Frequently 5= Always 6= Not Applicable

1. He/she is often late to work?

1 2 3 4 5 6

2. He/she meets his deadlines oftenly?

1 2 3 4 5 6

3. He/she is willing to admit the mistakes?

1 2 3 4 5 6

4. He/she communicates well with others?

1 2 3 4 5 6

5. He/she adjusts quickly to changing Priorities?

1 2 3 4 5 6

6. He/she is hardworking?

1 2 3 4 5 6

7. He/she works well with the other colleague?

1 2 3 4 5 6

8. He/she co-worker behave professionally?

1 2 3 4 5 6

9. He/she co-worker treat you, respect fully?

1 2 3 4 5 6

10. He/she co-worker handles criticism of his work well?

1 2 3 4 5 6

11. He/she follow up the patient's condition quickly?

1 2 3 4 5 6

Reference: <http://www.surveymonkey.com/r/360-Degree-Employee-Evaluation-Template>



Rawalpindi Medical University

Quality Enhancement Cell

360 Degree Evaluation Proforma (Self-Assessment)

PGT, MO, HO Proforma

Reviewer

Evaluation for

Name:

Name:

Designation:

Designation:

Performance ratings

Assessment Date: _____

The following guidelines are to be used in selecting the appropriate rating:

1= Poor

2= Less than Satisfactory

3= Satisfactory

4= Good

5= Very Good

6= Don't know

1. Clinical knowledge

1

2

3

4

5

6

2. Diagnosis

1

2

3

4

5

6

3. Clinical decision making

1

2

3

4

5

6

4. Treatment (including practical procedures)

1

2

3

4

5

6

5. Prescribing

1 2 3 4 5 6

6. Medical record keeping

1 2 3 4 5 6

7. Recognizing and working within limitations

1 2 3 4 5 6

8. Keeping knowledge and skills up to date

1 2 3 4 5 6

9. Reviewing and reflecting on own performance

1 2 3 4 5 6

10. Teaching (student, trainees, others)

1 2 3 4 5 6

11. Supervising colleagues

1 2 3 4 5 6

12. Commitment to care and wellbeing of patients

1 2 3 4 5 6

13. Communication with patients and relatives

1 2 3 4 5 6

14. Working effectively with colleagues

1 2 3 4 5 6

15. Effective time management

1 2 3 4 5 6

Reference: www.gmc-uk.org



Rawalpindi Medical University

Quality Enhancement Cell

360 Degree Evaluation Proforma (by Paramedical Staff)

PGT, MO, HO Proforma

Reviewer

Evaluation for

Name:

Name:

Designation:

Designation:

Performance ratings

Assessment Date: _____

کبھی نہیں کم سے کم کبھی کبھار اکثر ہمیشہ لاگو نہیں

1- مریض کی تشخیص بالکل ٹھیک کرتا/ کرتی ہے۔

کبھی نہیں کم سے کم کبھی کبھار اکثر ہمیشہ لاگو نہیں

2- دستاویزات وقت پر تیار ہوتے ہے اور اس پر عمل کرنے میں آسانی ہوتی ہے۔

کبھی نہیں کم سے کم کبھی کبھار اکثر ہمیشہ لاگو نہیں

3- ٹیم ورک کو اہمیت دیتا/ دیتی ہے۔

کبھی نہیں کم سے کم کبھی کبھار اکثر ہمیشہ لاگو نہیں

4- موقع ملنے پر عملہ اور طالب علم کو تعلیم دیتا/ دیتی ہے۔

کبھی نہیں کم سے کم کبھی کبھار اکثر ہمیشہ لاگو نہیں

5- عملہ کی بات پر جلدی جواب دیتا/ دیتی ہے۔

کبھی نہیں کم سے کم کبھی کبھار اکثر ہمیشہ لاگو نہیں



Rawalpindi Medical University

Quality Enhancement Cell

360 Degree Evaluation Proforma (by Attendant)

PGT, MO, HO Proforma

Reviewer

Evaluation for

Name:

Name:

Designation:

Designation:

Performance ratings

Assessment Date: _____

کبھی نہیں کم سے کم کبھی بکھار اکثر ہمیشہ لاگو نہیں

1- ڈاکٹر نے مریض کی صورتحال تشخیص و تفصیل سے بتائی ہے۔

کبھی نہیں کم سے کم کبھی بکھار اکثر ہمیشہ لاگو نہیں

2- ڈاکٹر نے اپنی پریشانی بتانے کے لئے مجھے حوصلہ دیا۔

کبھی نہیں کم سے کم کبھی بکھار اکثر ہمیشہ لاگو نہیں

3- ڈاکٹر نے عزت سے میرا علاج کیا۔

کبھی نہیں کم سے کم کبھی بکھار اکثر ہمیشہ لاگو نہیں

4- ڈاکٹر نے مجھے جو تفصیلات بتائیں وہ آسانی سے سمجھا گئی۔

کبھی نہیں کم سے کم کبھی بکھار اکثر ہمیشہ لاگو نہیں

5- ڈاکٹر نے میرے احساسات کا خیال رکھا۔

کبھی نہیں کم سے کم کبھی بکھار اکثر ہمیشہ لاگو نہیں



Rawalpindi Medical University

Quality Enhancement Cell

360 Degree Evaluation Proforma (by Patient)

PGT, MO, HO Proforma

Reviewer

Evaluation for

Name:

Name:

Designation:

Designation:

Performance ratings

Assessment Date: _____

کبھی نہیں کم سے کم کبھی کبھار اکثر ہمیشہ لاگو نہیں

1- ڈاکٹر نے آپ کا معائنہ عزت اور احترام سے کیا ہے۔

کبھی نہیں کم سے کم کبھی کبھار اکثر ہمیشہ لاگو نہیں

2- ڈاکٹر نے آپ کی بیماری کے متعلق آپ کو روکے ٹوکے بغیر تسلی سے سنا۔

کبھی نہیں کم سے کم کبھی کبھار اکثر ہمیشہ لاگو نہیں

3- ڈاکٹر نے آپ کی بات بہت توجہ سے سنی۔

کبھی نہیں کم سے کم کبھی کبھار اکثر ہمیشہ لاگو نہیں

4- ڈاکٹر نے آپ کی زندگی کے متعلق تفصیل سے سوالات کیے۔

کبھی نہیں کم سے کم کبھی کبھار اکثر ہمیشہ لاگو نہیں

5- ڈاکٹر نے آپ کے حدیثات کو اچھی طرح سمجھا ہے۔

کبھی نہیں کم سے کم کبھی کبھار اکثر ہمیشہ لاگو نہیں

6- ڈاکٹر نے مجھے بیماری سے متعلق تفصیل اور وضاحت سے آگاہ کیا ہے۔

کبھی نہیں کم سے کم کبھی کبھار اکثر ہمیشہ لاگو نہیں

7- ڈاکٹر نے مجھے بیماری سے متعلق صحیح فیصلہ کرنے میں مدد کی۔

کبھی نہیں کم سے کم کبھی کبھار اکثر ہمیشہ لاگو نہیں

8- ڈاکٹر نے بیماری کے علاج کا لائحہ عمل بنانے میں مجھے شامل کیا۔

کبھی نہیں کم سے کم کبھی کبھار اکثر ہمیشہ لاگو نہیں

Resident Evaluation by Nurse/ Staff for core competencies Appendix “B”

Please take a few minutes to complete this evaluation form. All information is confidential and will be used constructively. You need not answer all the questions.

Name of Resident _____

Location of care or interaction _____

(For example OPD/Ward/Emergency/Endoscopy Department)

Your position (for example: nurse, ward servant, endoscopy attendant) _____

S #	Professionalism	Poor	Fair	Good	V.Good	Excellent	Insufficient Contact
1	Resident is Honest and trustworthy						
2	Resident treats patients and families with courtesy, compassion and respect						
3	Resident treats me and other member of the team with courtesy and respect						
4	Resident shows regard for my opinions						
5	Resident maintains a professional manner and appearance						
Interpersonal and communication skills							
6	Resident communicates well with patients, families, and members of the healthcare team						

7	Resident provides legible and timely documentation						
8	Resident respect differences in religion, culture, age, gender, sexual orientation and disability						
System based practice							
9	Resident works effectively with nurses and other professionals to improve patient care						
Patient Care							
10	Resident respects patient preferences						
11	Resident take care of patient comfort and dignity during procedures						
Practice based learning and improvement							
12	Resident facilitates the learning of students and other professionals						
Comments							
13	Please describe any praises or concerns or information about specific incidents						

Thanks you for your time and thoughtful input. You play a vital role in the education and training of the internal medicine resident

Poor: 0, Fair: 1, Good: 2, V.

Good: 3, Excellent: 4

Total Score _____/52

Evaluation of Patient Medical Record/ Chart Evaluation Proforma

Appendix "C"

Name of Resident _____

Location of Care or Interaction _____

(OPD/Ward/Emergency/Endoscopy Department)

S#		Poor	Fair	Good	V. Good	Excellent
1.	Basic Data on Front Page Recorded	O	O	O	O	O
2.	Presenting Complaints written in chronological order	O	O	O	O	O
3.	Presenting Complaints Evaluation Done	O	O	O	O	O
4.	Systemic review Documented	O	O	O	O	O
5.	All Components of History Documented	O	O	O	O	O
6.	Complete General Physical Examination done	O	O	O	O	O
7.	Examination of all systems documented	O	O	O	O	O
8.	Differential Diagnosis framed	O	O	O	O	O
9.	Relevant and required investigations	O	O	O	O	O

	documented					
10.	Management Plan framed	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11.	Notes are properly written and eligible	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12.	Progress notes written in organized manner	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
13.	Daily progress is written	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
14.	Chart is organized no loose paper	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
15.	Investigations properly pasted	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
16.	Abnormal findings in investigations encircled.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
17.	Procedures done on patient documented properly	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
18.	Medicine written in capital letter	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
19.	I/v fluids orders are proper with rate of infusion mentioned	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
20.	All columns of chart complete	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Poor: 0, Fair: 1, Good: 2, V.Good: 3, Excellent: 4

TOTAL SCORE _____/8

Appendix “D”

Workplace Based Assessments - Guidelines for Supervisors for Assessment of Generic & Specialty Specific Competency

The Candidates of all MD programs will be trained and assessed in the following five generic competencies and also specialty specific competencies.

A. Generic Competencies:

i. Patient Care.

- a. Patient Care competency will include skills of history taking, examination, diagnosis, counseling Plan care through ward teaching departmental conferences, morbidity and mortality meetings core curriculum lectures and training in procedures and operations.
- b. The candidate shall learn patient care through ward teaching departmental conferences, morbidity and mortality meetings, care curriculum lectures and training in procedures and operations.
- c. The Candidate will be assessed by the supervisor during presentation of cases on clinical ward rounds, scenario based discussions on patients management multisource feedback evaluation, Direct observation of Procedures (DOPS) and operating room assessments
- d. These methods of assessments will have equal weightage.

ii. Medical knowledge and Research

- a. The candidate will learn basic factual knowledge of illnesses relevant to the specialty through lectures/discussions on topics selected from the syllabus, small group tutorials and bed side rounds
- b. The medical knowledge/skill will be assessed by the teacher during

- c. The candidate will be trained in designing research project, data collection data analysis and presentation of results by the supervisor.
- d. The acquisition of research skill will be assessed as per regulations governing thesis evaluation and its acceptance.

iii. Practice and System Based Learning

- a. This competency will be learnt from journal clubs, review of literature policies and guidelines, audit projects medical error investigation, root cause analysis and awareness of health care facilities,.
- b. The assessment methods will include case studies, personation in mobility and mortality review meetings and presentation of audit projects if any.
- c. These methods of assessment shall have equal weight-age

iv. Communication Skills

- a. These will be learn it from role models, supervisor and workshops.
- b. They will be assessed by direct observation of the candidate whilst interacting with the patients, relatives, colleagues and with multisource feedback evaluation.

v. Professionalism as per Hippocratic oath

- a. This competency is learnt from supervisor acting as a role model ethical case conferences and lectures on ethical issues such as confidentially informed consent end of life decisions, conflict of interest, harassment and use of human subjects in research.
- b. The assessment of residents will be through multisource feedback evaluation according to preforms of evaluation and its scoring method.

B. Specialty Specific Competences.

- i. The candidates will be trained in operative and procedural skills according to a quarterly based schedule.
- ii. The level of procedural Competency will be according to a competency table to be developed by each specialty
- iii. The following key will be used for assessing operative and procedural competencies:
 - a. **Level 1 Observer status**
 - b. The candidate physically present and observing the supervisor and senior colleagues
 - c. **Level 2 Assistant status** The candidate assisting
procedures and operations
 - d. **Level 3 Performed under supervision** The candidate operating or
performing a procedure under direct supervision
 - e. **Level 4 Performed independently** The candidate operating or performing a
procedure without any supervision
- vi. **Procedure Based Assessments (PBA)**
 - a. Procedural competency will assess the skill of consent taking, preoperative preparation and planning, intraoperative general and specific tasks and postoperative management
 - b. Procedure Based assessments will be carried out during teaching and training of each procedure.
 - c. The assessors may be supervisors, consultant colleagues and senior residents.
 - d. The standardized forms will be filled in by the assessor after direct observation.
 - e. The resident's evaluation will be graded as satisfactory, deficient requiring further training and not assessed at all.
 - f. Assessment report will be submitted
 - g. A satisfactory score will be required to be eligible for taking final examination.

Appendix “E”

Supervisor’s Annual Review Report.

This report will consist of the following components: -

- I. Verification and validation of Log Book of operations & procedures according to the expected number of operations and procedures performed (as per levels of competence) determined by relevant board of studies.
- II. A 90% attendance in academic activities is expected. The academic activities will include: Lectures, Workshops other than mandatory workshops, journal Clubs Morbidity & Mortality Review Meetings and Other presentations.
- III. Assessment report of presentations and lectures
- IV. Compliance Report to meet timeline for completion of research project.
- V. Compliance report on personal Development Plan.
- VI. Multisource Feedback Report, on relationship with colleagues, patients.
- VII. Supervisor will produce an annual report based on assessments as per proforma in appendix-G and submit it to the Examination Department.
- VIII. 75% score will be required to pass the Continuous Internal Assessment on annual review.

Supervisor's Evaluation of the Resident (Continuous Internal Assessment) Appendix

“F”

1	Unsatisfactory
2	Below Average
3	Average
4	Good
5	Superior

Resident's Name: _____

Evaluator's Name(s): _____

Hospital Name: _____

Date of Evaluation: _____

Please circle the appropriate number for each item using the scale above.

Patient Care	Scale				
1. Demonstrates sound clinical judgment	1	2	3	4	5
2. Presents patient information case concisely without significant omissions or digressions	1	2	3	4	5
3. Able to integrate the history and physical findings with the clinical data and identify all of the patient's major problems using a logical thought process	1	2	3	4	5
4. Develops a logical sequence in planning for diagnostic tests and procedures and Formulates an appropriate treatment plan to deal with the patient's major problems	1	2	3	4	5
5. Able to perform commonly used office procedures	1	2	3	4	5
6. Follows age appropriate preventative medicine guidelines in patient care	1	2	3	4	5
Medical Knowledge	Scale				
1. Uses current terminology	1	2	3	4	5
2. Understands the meaning of the patient's abnormal findings	1	2	3	4	5
3. Utilizes the appropriate techniques of physical examination	1	2	3	4	5

4. Develops a pertinent and appropriate differential diagnosis for each patient	1	2	3	4	5
5. Demonstrates a solid base of knowledge of ambulatory medicine	1	2	3	4	5
6. Can discuss and apply the applicable basic and clinically supportive sciences	1	2	3	4	5
Professionalism					Scale
1. Demonstrates consideration for the patient's comfort and modesty	1	2	3	4	5
2. Arrives to clinic on time and follows clinic policies and procedures	1	2	3	4	5
3. Works effectively with clinic staff and other health professionals	1	2	3	4	5
4. Able to gain the patient's cooperation and respect	1	2	3	4	5
5. Demonstrates compassion and empathy for the patient	1	2	3	4	5
6. Demonstrates sensitivity to patient's culture, age, gender, and disabilities	1	2	3	4	5
7. Discusses end-of-life issues (DPOA, advanced directives, etc.) when appropriate	1	2	3	4	5
Interpersonal and Communication Skills					Scale
1. Demonstrates appropriate patient/physician relationship	1	2	3	4	5
2. Uses appropriate and understandable layman's terminology in discussions with patients	1	2	3	4	5
3. Patient care documentation is complete, legible, and submitted in timely manner	1	2	3	4	5
4. Recognizes need for behavioral health services and understands resources available	1	2	3	4	5
Systems-based Practice					Scale
1. Spends appropriate time with patient for the complexity of the problem	1	2	3	4	5
2. Able to discuss the costs, risks and benefits of clinical data and therapy	1	2	3	4	5
3. Recognizes the personal, financial, and health system resources required to carry out the prescribed care plan	1	2	3	4	5
4. Demonstrates effective coordination of care with other health professionals	1	2	3	4	5
5. Recognizes the patient's barriers to compliance with treatment plan such as age, gender, ethnicity, socioeconomic status, intelligence, dementia, etc.	1	2	3	4	5
6. Demonstrates knowledge of risk management issues associated with patient's case	1	2	3	4	5

7. Works effectively with other residents in clinic as if a member of a group practice	1	2	3	4	5
Osteopathic Concepts					Scale
1. Demonstrates ability to utilize and document structural examination findings	1	2	3	4	5
2. Integrates findings of osteopathic examination in the diagnosis and treatment plan	1	2	3	4	5
3. Successfully uses osteopathic manipulation for treatment where appropriate	1	2	3	4	5
4. Practices Patient Centered Care with a "whole person" approach to medicine.	1	2	3	4	5
Practice-Based Learning and Improvement					Scale
1. Locates, appraises, and assimilates evidence from scientific studies	1	2	3	4	5
2. Apply knowledge of study designs and statistical methods to the appraisal of clinical studies to assess diagnostic and therapeutic effectiveness of treatment plan	1	2	3	4	5
3. Uses information technology to access information to support diagnosis and treatment	1	2	3	4	5
Comments					

Resident's Signature _____

Date _____

Supervisor's Signature _____

Date _____

FACULTY EVALUATION OF RESIDENT (PSYCHIATRY)

Appendix “G”

Abbreviations for six Core Competencies

- PC = Patient Care
- MK = Medical Knowledge
- ICS = Interpersonal / Communication Skills
- PBL = Practice-Based Learning and Improvement
- P = Professionalism
- SBP = Systems-Based Practice

Interpersonal and Communication Skills

Note content is appropriate and complete (ICS) (Question 1 of 24)

No Interaction	Unsatisfactory	Failing	Less than Marginal	Below Average	Average	Above Average	Advanced	Outstanding	Superior
0	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>	7 <input type="checkbox"/>	8 <input type="checkbox"/>	9 <input type="checkbox"/>

Interpersonal skills with patients, families and staff is appropriate and skilled (ICS) (Question 2 of 24)

No Interaction	Unsatisfactory	Failing	Less than Marginal	Below Average	Average	Above Average	Advanced	Outstanding	Superior
0	1	2 <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>	7 <input type="checkbox"/>	<input type="checkbox"/> 8	9

Presents cases in clear, concise manner (ICS) (Question 3 of 24)

No Interaction	Unsatisfactory	Failing	Less than Marginal	Below Average	Average	Above Average	Advanced	Outstanding	Superior
0	1	2 <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>	7 <input type="checkbox"/>	<input type="checkbox"/> 8	9

Medical Knowledge

Demonstrates understanding of clinical problems and their pathophysiology (MK) (Question 4 of 24)

No Interaction	Unsatisfactory	Failing	Less than Marginal	Below Average	Average	Above Average	Advanced	Outstanding	Superior
0	1	2 <input type="checkbox"/>	3 <input type="checkbox"/> <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>	7 <input type="checkbox"/>	8 <input type="checkbox"/>	9

Develops appropriate differential diagnosis (MK) (Question 5 of 24)

No Interaction	Unsatisfactory	Failing	Less than Marginal	Below Average	Average	Above Average	Advanced	Outstanding	Superior
0	1	2 <input type="checkbox"/>	3 <input type="checkbox"/> <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>	7 <input type="checkbox"/>	8 <input type="checkbox"/>	9

Evaluates scientific basis of diagnostic tests used (MK) (Question 6 of 24)

No Interaction	Unsatisfactory	Failing	Less than Marginal	Below Average	Average	Above Average	Advanced	Outstanding	Superior
0	1	2 <input type="checkbox"/>	3 <input type="checkbox"/> <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>	7 <input type="checkbox"/>	8 <input type="checkbox"/>	9

Reads service specific literature (MK) (Question 7 of 24)

No Interaction	Unsatisfactory	Failing	Less than Marginal	Below Average	Average	Above Average	Advanced	Outstanding	Superior
0	1	2 <input type="checkbox"/>	3 <input type="checkbox"/> <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>	7 <input type="checkbox"/>	8 <input type="checkbox"/>	9

Patient Care

Obtains accurate clinical history (PC) (Question 8 of 24)

No Interaction	Unsatisfactory	Failing	Less than Marginal	Below Average	Average	Above Average	Advanced	Outstanding	Superior
0	1	2 <input type="checkbox"/>	3 <input type="checkbox"/> <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>	7 <input type="checkbox"/>	8 <input type="checkbox"/>	9

Demonstrates appropriate physical exam (PC) (Question 9 of 24)

No Interaction	Unsatisfactory	Failing	Less than Marginal	Below Average	Average	Above Average	Advanced	Outstanding	Superior
0	1	2 <input type="checkbox"/>	3 <input type="checkbox"/> <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>	7 <input type="checkbox"/>	8 <input type="checkbox"/>	9

0	1	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>	7 <input type="checkbox"/>	8 <input type="checkbox"/>	9
---	---	----------------------------	----------------------------	----------------------------	----------------------------	----------------------------	----------------------------	----------------------------	---

Identifies and reviews relevant existing patient data (PC) (Question 10 of 24)

No Interaction	Unsatisfactory	Failing	Less than Marginal	Below Average	Average	Above Average	Advanced	Outstanding	Superior
0	1	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>	7 <input type="checkbox"/>	8 <input type="checkbox"/>	9

Prioritizes problems and treatment plans appropriately (PC) (Question 11 of 24)

No Interaction	Unsatisfactory	Failing	Less than Marginal	Below Average	Average	Above Average	Advanced	Outstanding	Superior
0	1	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>	7 <input type="checkbox"/>	8 <input type="checkbox"/>	9

Effectively uses consultation services (PC) (Question 12 of 24)

No Interaction	Unsatisfactory	Failing	Less than Marginal	Below Average	Average	Above Average	Advanced	Outstanding	Superior
0	1	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>	7 <input type="checkbox"/>	8 <input type="checkbox"/>	9

Practice-Based learning and improvement.

Identifies areas for improvement and applies it to practice PBL (Question 13 of 24)

No Interaction	Unsatisfactory	Failing	Less than Marginal	Below Average	Average	Above Average	Advanced	Outstanding	Superior
0	1	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>	7 <input type="checkbox"/>	8 <input type="checkbox"/>	9

Applies lessons learned from medical errors into practice PBL (question 14 of 24)

No Interaction	Unsatisfactory	Failing	Less than Marginal	Below Average	Average	Above Average	Advanced	Outstanding	Superior
0	1	2 <input type="checkbox"/>	3 <input type="checkbox"/> <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>	7 <input type="checkbox"/>	8 <input type="checkbox"/>	9

Shows Interest in learning from complex care issues PBL (Question 15 of 24)

No Interaction	Unsatisfactory	Failing	Less than Marginal	Below Average	Average	Above Average	Advanced	Outstanding	Superior
0	1	2 <input type="checkbox"/>	3 <input type="checkbox"/> <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>	7 <input type="checkbox"/>	8 <input type="checkbox"/>	9

Professionalism

Displays a professional attitude and demeanor (P) (Question 16 of 24)

No Interaction	Unsatisfactory	Failing	Less than Marginal	Below Average	Average	Above Average	Advanced	Outstanding	Superior
0	1	2 <input type="checkbox"/>	3 <input type="checkbox"/> <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>	7 <input type="checkbox"/>	8 <input type="checkbox"/>	9

Attends rounds on time. Handles criticism of self in pro-active way (P) (Question 17 of 24)

No Interaction	Unsatisfactory	Failing	Less than Marginal	Below Average	Average	Above Average	Advanced	Outstanding	Superior
0	1	2 <input type="checkbox"/>	3 <input type="checkbox"/> <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>	7 <input type="checkbox"/>	8 <input type="checkbox"/>	9

Cross-covers colleagues when necessary (P) (Question 18 of 24)

No Interaction	Unsatisfactory	Failing	Less than Marginal	Below Average	Average	Above Average	Advanced	Outstanding	Superior
0	1	2 <input type="checkbox"/>	3 <input type="checkbox"/> <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>	7 <input type="checkbox"/>	8 <input type="checkbox"/>	9

System-Based Practices

Understands the different types of medical practice and delivery systems, and alternative methods of controlling health care costs and allocating resources (SBP) (Question 19 of 24)

No Interaction	Unsatisfactory	Failing	Less than Marginal	Below Average	Average	Above Average	Advanced	Outstanding	Superior
0	1	2 <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>	7 <input type="checkbox"/>	8 <input type="checkbox"/>	9

Effectively Utilizes ancillary services SBP (Questions 20 of 24)

No Interaction	Unsatisfactory	Failing	Less than Marginal	Below Average	Average	Above Average	Advanced	Outstanding	Superior
0	1	2 <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>	7 <input type="checkbox"/>	8 <input type="checkbox"/>	9

Uses Patient care venues appropriately SBP (Questions 21 of 24)

No Interaction	Unsatisfactory	Failing	Less than Marginal	Below Average	Average	Above Average	Advanced	Outstanding	Superior
0	1	2 <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>	7 <input type="checkbox"/>	8 <input type="checkbox"/>	9

Advocates for quality patient care and assists patients in dealing with system complexities SBP (Questions 22 of 24)

No Interaction	Unsatisfactory	Failing	Less than Marginal	Below Average	Average	Above Average	Advanced	Outstanding	Superior
0	1	2 <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>	7 <input type="checkbox"/>	8 <input type="checkbox"/>	9

Overall / Summary

Did resident meet course objectives? (Questions 23 of 24)

No Interaction	Unsatisfactory	Failing	Less than Marginal	Below Average	Average	Above Average	Advanced	Outstanding	Superior
0	1	2 <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>	7 <input type="checkbox"/>	8 <input type="checkbox"/>	9

Comments (Please provide Strengths, Weaknesses and Areas for Improvement) (Question 24 of 24)

No Interaction	Unsatisfactory	Failing	Less than Marginal	Below Average	Average	Above Average	Advanced	Outstanding	Superior
0	1	2 <input type="checkbox"/>	3 <input type="checkbox"/> <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>	7 <input type="checkbox"/> <input type="checkbox"/>	8	9

RESIDENT EVALUATION OF FACULTY TEACHING SKILLS Appendix "H"

Faculty Member _____

Department: _____

Period of Evaluation _____

Location _____

Direction: please take a moment to assess the clinical faculty members teaching skills using this scale

1= Poor

2=Fair

3= Very Good

4= Excellent

A. Leadership

Discussed expectations, duties and assignments for each team member and reviewed learning objectives and evaluation process 1 2 3 4 N/A

Treated each team member in a courteous and peaceful manner 1 2 3 4 N/A

Was usually prompt for teaching assignments and was always available and accessible as a supervisor 1 2 3 4 N/A

Showed respect for the physician in other specialties / Subspecialties as well as for other health care professionals 1 2 3 4 N/A

Comments

B. Role of modeling

Demonstrated positive in interpersonal communication skills with patients, family members and staff 1 2 3 4 N/A

Enthusiasm and interest in teaching residents 1 2 3 4 N/A

Recognized own limitations and used these Situation as opportunities to demonstrate how he / she learn 1 2 3 4 N/A

Used Medical / scientific literature to support clinical decision 1 2 3 4 N/A

Comments

C. Patient Care /Teaching and & Feedback

Demonstrate how to handle “difficult” patients encounters 1 2 3 4 N/A

Demonstrated how to perform special physical exam techniques and / or procedures and observed me during my initials attempt 1 2 3 4 N/A

Asked thought provoking questions to help me develop my 1 2 3 4 N/A

critical thinking skills and clinical judgment

Share his/her own thought process when discussing patient workups and patients care decisions with the team 1 2 3 4 N/A

Highlighted important aspects of a patient case and often generalized to boarder medical concepts and principles 1 2 3 4 N/A

Integrated social / ethical aspects of medical (cost containment, patents right , humanism) into discussion of patient care 1 2 3 4 N/A

Provided guidance and specific “instructive feedback to help me correct mistakes and / or increase my knowledge base 1 2 3 4 N/A

Comments:

D. Didactic (Classroom) Instructions

Was usually prompt for teaching sessions, kept interruptions to minimum and kept discussion focused on case or topic 1 2 3 4 N/A

Gave lecture presentations that were well organized and “Interactive” () i.e., and review pertinent topics 1 2 3 4 N/A

Provided references or other materials that stimulated me to read, research and review pertinent topics 1 2 3 4 N/A

Comments

E. Evaluation

Reviewed my overall clinical performance at the end of the rotation pointed out my strengths and areas for improvement 1 2 3 4 N/A

Demonstrated “fairness” by adhering to established criteria, explaining reasons for the scores and following me to respond 1 2 3 4 N/A

Comments

Overall, I would rate this faculty member’s clinical teaching skills as

POOR

FAIR

VERY GOOD

EXCELLENT

Would you recommend that faculty member continue to teach in this program? Yes No

COMMENTS, COMMENDATIONS OR CONCERNS

RESIDENT EVALUATION OF FACULTY (FOR CORE COMPETENCIES)Appendix “I”

A. Interpersonal and Communication Skills

Interpersonal and Communication Skills (Question 1 of 22)

Asks question in a non-threatening manner

Cannot Evaluate	Unsatisfactory (Comment Required)	Marginal (Comment Required)	Satisfactory	Very Good	Excellent
0	1	2	3	4	5

Interpersonal and Communication Skills (Question 2 of 22)

Emphasizes problem-solving (thought processes leading to decisions)

Cannot Evaluate	Unsatisfactory (Comment Required)	Marginal (Comment Required)	Satisfactory	Very Good	Excellent
0	1	2	3	4	5

Interpersonal and Communication Skills (Question 4 of 22)

Effectively communicates knowledge

Cannot Evaluate	Unsatisfactory (Comment Required)	Marginal (Comment Required)	Satisfactory	Very Good	Excellent
0	1	2	3	4	5

B. Medical Knowledge

Medical Knowledge (Question 5 of 22)

Knowledge of specialty

Cannot Evaluate	Unsatisfactory	Marginal	Satisfactory	Very Good	Excellent
-----------------	----------------	----------	--------------	-----------	-----------

	(Comment Required)	(Comment Required)			
0	1	2	3	4	5

Medical Knowledge (Question 6 of 22)

Applies knowledge of specialty to patient problems

Cannot Evaluate	Unsatisfactory (Comment Required)	Marginal (Comment Required)	Satisfactory	Very Good	Excellent
0	1	2	3	4	5

Patient Care (Question 7 of 22)

Applies comprehensive high quality care

Cannot Evaluate	Unsatisfactory (Comment Required)	Marginal (Comment Required)	Satisfactory	Very Good	Excellent
0	1	2	3	4	5

C. Patient Care

Patient Care (Question 8 of 22)

Explains diagnostic decisions

Cannot Evaluate	Unsatisfactory (Comment Required)	Marginal (Comment Required)	Satisfactory	Very Good	Excellent
0	1	2	3	4	5

Patient Care (Question 9 of 22)

Clinical Judgment

Cannot Evaluate	Unsatisfactory	Marginal	Satisfactory	Very Good	Excellent
-----------------	----------------	----------	--------------	-----------	-----------

	(Comment Required)	(Comment Required)			
0	1	2	3	4	5

Patient Care (Question 10 of 22)

Clinical Skills

Cannot Evaluate	Unsatisfactory (Comment Required)	Marginal (Comment Required)	Satisfactory	Very Good	Excellent
0	1	2	3	4	5

D. Practice-Based Learning and Improvement

Practice-Based Learning and Improvement (Question 11 of 22)

Encourages self-education

Cannot Evaluate	Unsatisfactory (Comment Required)	Marginal (Comment Required)	Satisfactory	Very Good	Excellent
0	1	2	3	4	5

Practice-Based Learning and Improvement (Question 12 of 22)

Encourages evidence-based approaches to care

Cannot Evaluate	Unsatisfactory (Comment Required)	Marginal (Comment Required)	Satisfactory	Very Good	Excellent
0	1	2	3	4	5

E. Professionalism

Professionalism (Question 13 of 22)

Sensitive caring respectful attitude towards patients

Cannot Evaluate	Unsatisfactory (Comment Required)	Marginal (Comment Required)	Satisfactory	Very Good	Excellent
0	1	2	3	4	5

Professionalism (Question 14 of 22)

Uses time with patients and residents effectively

Cannot Evaluate	Unsatisfactory (Comment Required)	Marginal (Comment Required)	Satisfactory	Very Good	Excellent
0	1	2	3	4	5

Professionalism (Question 15 of 22)

Sufficient resident teaching on rounds/clinics

Cannot Evaluate	Unsatisfactory (Comment Required)	Marginal (Comment Required)	Satisfactory	Very Good	Excellent
0	1	2	3	4	5

Professionalism (Question 16 of 22)

Respects all members of the health care team

Cannot Evaluate	Unsatisfactory (Comment Required)	Marginal (Comment Required)	Satisfactory	Very Good	Excellent
0	1	2	3	4	5

Professionalism (Question 17 of 22)

Demonstrates Integrity

Cannot Evaluate	Unsatisfactory (Comment Required)	Marginal (Comment Required)	Satisfactory	Very Good	Excellent
0	1	2	3	4	5

Professionalism (Question 18 of 22)

Attains credibility and rapport with patients and their family

Cannot Evaluate	Unsatisfactory (Comment Required)	Marginal (Comment Required)	Satisfactory	Very Good	Excellent
0	1	2	3	4	5

F. Systems- Based Practice

Systems- Based Practice (Question 19 of 22)

Provides useful feedback including constructive criticism to team members

Cannot Evaluate	Unsatisfactory (Comment Required)	Marginal (Comment Required)	Satisfactory	Very Good	Excellent
0	1	2	3	4	5

System Base Practice (Question 20 of 22)

Discusses availability cost and utility of system resources in providing medical care.

Cannot Evaluate	Unsatisfactory (Comment Required)	Marginal (Comment Required)	Satisfactory	Very Good	Excellent
0	1	2	3	4	5

Overall/Summary (Question 21 of 22)

Overall contributions to your training

Cannot Evaluate	Unsatisfactory (Comment Required)	Marginal (Comment Required)	Satisfactory	Very Good	Excellent
0	1	2	3	4	5

Comments: (Question 22 of 22)

Faculty Evaluation of the Residency / Fellowship Program

Appendix “J

Please use this scale to answer question 1-10:

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

1. **PATIENT/CASE VOLUME:** There are a sufficient number and variety of patients/cases to facilitate high quality resident/fellow education.
2. **CURRICULUM:** The residency/fellowship program curriculum provides the appropriate education experiences for residents/fellows to analyze investigate and improve patient care practices.
3. **PROGRAM DIRECTOR:** The program director effectively communicates with program faculty members to understand their role in resident/fellow education and development.
4. **ADMINISTRATIVE SUPPORT:** There is adequate administrative support service to facilitate faculty participation in resident/fellow education.
5. **SUPERVISION:** The Program resident/fellow supervision policy has been clearly communicated to program faculty and is used by the program.
6. **TRANSITION OF CARE:** The program transition of care/hand-off policy and tools have been distributed to program faculty and they are used.
7. **EVALUATION:** Program faculty receives regular and timely feedback about their teaching and supervisors skills.
8. **FACULTY DEVELOPMENT:** There are beneficial resources available for program faculty to improve their teaching and supervision skills.
9. **SCHOLARLY ACTIVITY:** Program faculties have the adequate resources to participate in scholarly activities.
10. **FACULTY:** The program faculty provides the diversity of experience and expertise to accomplish the goals and objectives of the program

RESIDENT EVALUATION OF RESIDENCY PROGRAM

Appendix “K

A. Program Goals and Objectives (Question 1 of 35)

The goals and objectives for each rotation are clearly communicated to residents.

Cannot Evaluate	Unsatisfactory (Comment Required)	Marginal (Comment Required)	Satisfactory	Very Good	Excellent
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

B. Evaluation (Question 2 of 35)

The evaluation process of the residents is constructive (computerized faculty evaluations of residents, daily clinical feedback to residents, yearly PRITE, and Director’s semi-annual resident meeting with resident).

Cannot Evaluate	Unsatisfactory (Comment Required)	Marginal (Comment Required)	Satisfactory	Very Good	Excellent
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

C.

D. Research (Question 3 of 35)

Residents are provided ample opportunity to develop an interest an in research.

Cannot Evaluate	Unsatisfactory (Comment Required)	Marginal (Comment Required)	Satisfactory	Very Good	Excellent
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Research (Question 4 of 35)

Residents are encouraged to participate in research.

Cannot Evaluate	Unsatisfactory (Comment Required)	Marginal (Comment Required)	Satisfactory	Very Good	Excellent
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Research (Question 5 of 35)

Residents are provided the education to develop an understanding of research.

Cannot Evaluate	Unsatisfactory (Comment Required)	Marginal (Comment Required)	Satisfactory	Very Good	Excellent
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

E. Faculty (Question 6 of 35)

The size, diversification and availability of faculty is adequate for the training program.

Cannot Evaluate	Unsatisfactory (Comment Required)	Marginal (Comment Required)	Satisfactory	Very Good	Excellent
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Faculty (Question 7 of 35)

The Knowledge of the faculty is current and appropriate.

Cannot Evaluate	Unsatisfactory (Comment Required)	Marginal (Comment Required)	Satisfactory	Very Good	Excellent
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

F. Facilities (Question 8 of 35)

The available resources necessary (library and computer) to obtain current medical information and scientific evidence are adequate and accessible.

Cannot Evaluate	Unsatisfactory (Comment Required)	Marginal (Comment Required)	Satisfactory	Very Good	Excellent
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Facilities (Question 9 of 35)

On-call rooms, when needed, are adequate to ensure rest, safety, convenience and privacy.

Cannot Evaluate	Unsatisfactory (Comment Required)	Marginal (Comment Required)	Satisfactory	Very Good	Excellent
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Facilities (Question 10 of 35)

The facilities are adequate with regard to support services (nurses, clinic aides) and space for teaching and patient care.

Cannot Evaluate	Unsatisfactory (Comment Required)	Marginal (Comment Required)	Satisfactory	Very Good	Excellent
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

G. Leadership and Logistics (Question 11 of 35)

The Program Director communicates effectively with residents.

Cannot Evaluate	Unsatisfactory (Comment Required)	Marginal (Comment Required)	Satisfactory	Very Good	Excellent
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Leadership and Logistics (Question 12 of 35)

The Associate Program Director communicates effectively with residents.

Cannot Evaluate	Unsatisfactory (Comment Required)	Marginal (Comment Required)	Satisfactory	Very Good	Excellent
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Leadership and Logistics (Question 13 of 35)

The Chief Residents communicates effectively with residents.

Cannot Evaluate	Unsatisfactory (Comment Required)	Marginal (Comment Required)	Satisfactory	Very Good	Excellent
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Leadership and Logistics (Question 14 of 35)

The Program Coordinator communicates effectively with residents.

Cannot Evaluate	Unsatisfactory (Comment Required)	Marginal (Comment Required)	Satisfactory	Very Good	Excellent
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Leadership and Logistics (Question 15 of 35)

The Program Director provides effective leadership of the residency.

Cannot Evaluate	Unsatisfactory (Comment Required)	Marginal (Comment Required)	Satisfactory	Very Good	Excellent
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Leadership and Logistics (Question 16 of 35)

There is adequate departmental support for residency education.

Cannot Evaluate	Unsatisfactory (Comment Required)	Marginal (Comment Required)	Satisfactory	Very Good	Excellent
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Leadership and Logistics (Question 17 of 35)

There is adequate departmental support for residency education.

Cannot Evaluate	Unsatisfactory (Comment Required)	Marginal (Comment Required)	Satisfactory	Very Good	Excellent
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Leadership and Logistics (Question 18 of 35)

The program is responsive regarding scheduling, course materials and other logistical concerns.

Cannot Evaluate	Unsatisfactory (Comment Required)	Marginal (Comment Required)	Satisfactory	Very Good	Excellent
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Leadership and Logistics (Question 19 of 35)

The evaluation system (E-Value) is easy to use.

Cannot Evaluate	Unsatisfactory (Comment Required)	Marginal (Comment Required)	Satisfactory	Very Good	Excellent
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

H. Training (Question 20 of 35)

Faculty adequately supervises residents' care of patients.

Cannot Evaluate	Unsatisfactory (Comment Required)	Marginal (Comment Required)	Satisfactory	Very Good	Excellent
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Training (Question 21 of 35)

Training sites present a wide range of psychiatric clinical problems.

Cannot Evaluate	Unsatisfactory (Comment Required)	Marginal (Comment Required)	Satisfactory	Very Good	Excellent
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Training (Question 22 of 35)

Residents see an appropriate number of patients.

Cannot Evaluate	Unsatisfactory (Comment Required)	Marginal (Comment Required)	Satisfactory	Very Good	Excellent
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Training (Question 23 of 35)

Residents are given sufficient responsibility for decision-making and direct patient care.

Cannot Evaluate	Unsatisfactory (Comment Required)	Marginal (Comment Required)	Satisfactory	Very Good	Excellent
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Training (Question 24 of 35)

Rounds and staffing are conducted professionally.

Cannot Evaluate	Unsatisfactory (Comment Required)	Marginal (Comment Required)	Satisfactory	Very Good	Excellent
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Training (Question 25 of 35)

Rounds and staffing are conducted efficiently.

Cannot Evaluate	Unsatisfactory (Comment Required)	Marginal (Comment Required)	Satisfactory	Very Good	Excellent
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Training (Question 26 of 35)

Faculty teaches and supervises in ways that facilitate learning.

Cannot Evaluate	Unsatisfactory (Comment Required)	Marginal (Comment Required)	Satisfactory	Very Good	Excellent
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Training (Question 27 of 35)

The program is responsive to safety concerns at training.

Cannot Evaluate	Unsatisfactory (Comment Required)	Marginal (Comment Required)	Satisfactory	Very Good	Excellent
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Training (Question 28 of 35)

The program is responsive to feedback from residents.

Cannot Evaluate	Unsatisfactory (Comment Required)	Marginal (Comment Required)	Satisfactory	Very Good	Excellent
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Training (Question 29 of 35)

Residents experience an appropriate balance of educational and clinical responsibilities.

Cannot Evaluate	Unsatisfactory (Comment Required)	Marginal (Comment Required)	Satisfactory	Very Good	Excellent
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Training (Question 30 of 35)

The didactic sessions provide core knowledge of the field.

Cannot Evaluate	Unsatisfactory (Comment Required)	Marginal (Comment Required)	Satisfactory	Very Good	Excellent
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Training (Question 31 of 35)

The morale of the residents is good.

Cannot Evaluate	Unsatisfactory (Comment Required)	Marginal (Comment Required)	Satisfactory	Very Good	Excellent
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Training (Question 32 of 35)

The morale of the faculty is good.

Cannot Evaluate	Unsatisfactory (Comment Required)	Marginal (Comment Required)	Satisfactory	Very Good	Excellent
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Training (Question 33 of 35)

Overall, I am very satisfied with the training our program provides.

Cannot Evaluate	Unsatisfactory (Comment Required)	Marginal (Comment Required)	Satisfactory	Very Good	Excellent
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Recommendations (Question 34 of 35)

What changes in the training program would you suggest to better prepare residents for their careers?

Additional Comments (Question 35 of 35)

Guidelines for program Evaluation Appendix “L”

Program Evaluation Committee (PEC)

Background

The purpose of this committee is to conduct and document a formal, systematic evaluation of the program & curriculum on an annual basis.

Membership

The chair and membership of the committee are appointed by the Program Director. The membership of the committee consists of at least two members of the program faculty, and at least one resident/subspecialty resident.

Meeting Frequency

The committee meets, at a minimum, annually.

Responsibilities of the PEC

- The PEC actively participates in planning, developing, implementing and evaluating the educational activities of the program.
- The PEC reviews and makes recommendations for revision of competency-based goals and objectives.
- Address areas of non-compliance with the standards; and review the program annually using written evaluations of faculty, residents, and others.

Required Documentation of PEC Activities

The PEC provides the GMEC with a written Annual Program Evaluation (APE) in the format that is appended to this document. This document details a written plan of action to document initiatives to improve performance based on monitoring of activities described below.

The APE document provides evidence that the PEC is monitoring the following areas, at a minimum:

1. Resident performance
2. Faculty development
3. Graduate performance ,including performance of program graduates on the certifying examination
4. Assessment of program quality through:

. **Annual confidential and formal feedback** from residents and faculty about the program quality;

b. **Assessment of improvements needed based on program evaluation feedback** from faculty, residents, and others

5. Continuation of progress made on prior year' section plan

6. Prepare and submit a written plan of action to

a. **document initiatives to improve performance in one of more of there as identified,**

b. **Delineate how they will be measured and monitored**

c. **Document continuation of progress made on the prior year's action pla Template for**

d. Documentation of Annual Program Evaluation and Improvement

Date of annual program evaluation meeting: _____

Attendees:

- i. Program Director: _____
- ii. Program Coordinator: _____
- iii. Associate/Assistant PD: _____
- iv. Faculty Members: _____
- v. Residents: _____

	Reviewed √	Discussion, Follow up, Action Plan
1. Current Program Requirements & Institutional Requirements		
2. Most recent Internal Review Summary to ensure all recommendations are addressed		
3. Review Curriculum <ul style="list-style-type: none"> a. effective mechanism in place to distribute Goals & Objectives (G&O) to residents and faculty b. overall program educational goals c. up-to-date competency-based G&O for each assignment d. up-to-date competency-based G&O for each level of training e. G&O contain delineation of resident responsibilities for patient care, progressive responsibility for patient management, and supervision of residents 		
4. Evaluation System <ul style="list-style-type: none"> a. Resident formative evaluation meets or exceeds program requirement b. Resident summative evaluation meets or exceeds program requirement c. Faculty evaluation meets or exceeds program requirement 		

d. program evaluation meets or exceeds program requirement.		
5. Didactic Curriculum a. includes recognizing the signs of fatigue and sleep deprivation b. the didactic curriculum meets program requirements c. the didactic curriculum meets residents needs		
6. Clinical Curriculum – the effectiveness of in-patient and ambulatory teaching experience (structure, case mix, meets resident’s needs)		
7. Volume and variety of patients and procedures (case log data) meets requirements and residents’ needs		
8. Summary of written program evaluations completed by both faculty and residents		
9. Resident supervision complies with Program Requirement		
10. Recruiting results		
11. Duty hour monitoring results		
12. Track all research and scholarly activities of faculty and residents/fellows		
13. Educational outcomes: is the program achieving its educational objectives? What aggregate data (residents as a group) can be used to show the program is achieving its objectives? Board scores, in-service training exam scores, graduate surveys, employer surveys, etc.		
15. Clinical outcomes – specialty-specific metrics aligned with dept./division QI initiatives, disease outcomes, patient safety initiatives (describe resident involvement), QI projects (describe resident involvement)		

Note:

If deficiencies are found during this process, the program should prepare a written plan of action to document initiatives to improve performance in the areas that have been identified. The action plan should be reviewed and approved by the teaching faculty and documented in meeting minutes.

Annual Program Evaluation (APE)

Minutes & Action Plan

Date of the APE meeting:

Date; Minutes & Action Plan were viewed and Approved by teaching faculty:

Please attach the minutes of the meeting where the Minutes & Action Plan were viewed and approved.

Academic Year are viewed:

Faculty Members of the PEC in attendance

Other Members of the PEC in attendance:

Areas reviewed:

1. Resident performance
 - Supporting documents:
2. Faculty development
 - Supporting documents:
3. Graduate performance
 - Supporting documents:
4. Program quality
 - Supporting documents:
5. Policies, Protocols & Procedures
 - Supporting documents:



MENTOR / SUPERVISOR EVALUATION OF TRAINEE

Resident's Name: _____

Evaluator's Name(s): _____

Hospital Name: _____

Date of Evaluation: _____

Traditional Track (10% Clinic) Primary Care Track (20% Clinic)

1	Unsatisfactory
2	Below Average
3	Average
4	Good
5	Superior

Please circle the appropriate number for each item using the scale above.

Patient Care		Scale				
1.	Demonstrates sound clinical judgment	1	2	3	4	5
2.	Presents patient information case concisely without significant omissions or digressions	1	2	3	4	5
3.	Able to integrate the history and physical findings with the clinical data and identify all of the patient's major problems using a logical thought process	1	2	3	4	5
4.	Develops a logical sequence in planning for diagnostic tests and procedures and Formulates an appropriate treatment plan to deal with the patient's major problems	1	2	3	4	5
5.	Able to perform commonly used office procedures	1	2	3	4	5
6.	Follows age appropriate preventative medicine guidelines in patient care	1	2	3	4	5
Medical Knowledge		Scale				
1.	Uses current terminology	1	2	3	4	5
2.	Understands the meaning of the patient's abnormal findings	1	2	3	4	5
3.	Utilizes the appropriate techniques of physical examination	1	2	3	4	5
4.	Develops a pertinent and appropriate differential diagnosis for each patient	1	2	3	4	5
5.	Demonstrates a solid base of knowledge of ambulatory medicine	1	2	3	4	5
6.	Can discuss and apply the applicable basic and clinically supportive sciences	1	2	3	4	5
Professionalism		Scale				
1.	Demonstrates consideration for the patient's comfort and modesty	1	2	3	4	5
2.	Arrives to clinic on time and follows clinic policies and procedures	1	2	3	4	5



Interpersonal and Communication Skills		Scale				
1. Demonstrates appropriate patient/physician relationship	1	2	3	4	5	
2. Uses appropriate and understandable layman's terminology in discussions with patients	1	2	3	4	5	
3. Patient care documentation is complete, legible, and submitted in timely manner	1	2	3	4	5	
4. Recognizes need for behavioral health services and understands resources available	1	2	3	4	5	
Systems-based Practice		Scale				
1. Spends appropriate time with patient for the complexity of the problem	1	2	3	4	5	
2. Able to discuss the costs, risks and benefits of clinical data and therapy	1	2	3	4	5	
3. Recognizes the personal, financial, and health system resources required to carry out the prescribed care plan	1	2	3	4	5	
4. Demonstrates effective coordination of care with other health professionals	1	2	3	4	5	
5. Recognizes the patient's barriers to compliance with treatment plan such as age, gender, ethnicity, socioeconomic status, intelligence, dementia, etc.	1	2	3	4	5	
6. Demonstrates knowledge of risk management issues associated with patient's case	1	2	3	4	5	
7. Works effectively with other residents in clinic as if a member of a group practice	1	2	3	4	5	
Practice-Based Learning and Improvement		Scale				
1. Locates, appraises, and assimilates evidence from scientific studies	1	2	3	4	5	
2. Apply knowledge of study designs and statistical methods to the appraisal of clinical studies to assess diagnostic and therapeutic effectiveness of treatment plan	1	2	3	4	5	
3. Uses information technology to access information to support diagnosis and treatment	1	2	3	4	5	
Comments						

Total Score _____/165

Resident's Signature

Date

Evaluator's Signature

Date



Patient Medical Record / Chart Evaluation Proforma

Name of Resident

Location of Care or Interaction
(OPD/Ward/Emergency/Endoscopy Department)

S#		Poor	Fair	Good	V. Good	Excellent
1.	Basic Data on Front Page Recorded	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2.	Presenting Complaints written in chronological order	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3.	Presenting Complaints Evaluation Done	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4.	Systemic review Documented	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5.	All Components of History Documented	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6.	Complete General Physical Examination done	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7.	Examination of all systems documented	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8.	Differential Diagnosis framed	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9.	Relevant and required investigations documented	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10.	Management Plan framed	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11.	Notes are properly written and eligible	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12.	Progress notes written in organized manner	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
13.	Daily progress is written	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
14.	Chart is organized no loose paper	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
15.	Investigations properly pasted	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
16.	Abnormal findings in investigations encircled.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
17.	Procedures done on patient documented properly	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
18.	Medicine written in capital letter	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
19.	I/v fluids orders are proper with rate of infusion mentioned	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
20.	All columns of chart complete	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



Preview Form

RESIDENT EVALUATION BY NURSE / STAFF

Please take a few minutes to complete this evaluation form. All information is confidential and will be used constructively. You need not answer all the questions

Name of Resident*

Location of care or interaction: (OPD/Ward/Emergency/Endoscopy Department)

Your position (Nurse, Ward Servant, Endoscopy Attendant)

Table with 8 columns: S#, PROFESSIONALISM, Poor, Fair, Good, V Good, Excellent, Insufficient Contact. Rows include questions on honesty, respect, communication, and patient care.

THANK YOU for your time and thoughtful input. You play a vital role in the education and training of the internal



Patient Evaluation of Trainee

Trainee Name: _____

Date of Evaluation: _____

1	Strongly Disagree
2	Disagree
3	Neutral
4	Agree
5	Strongly Agree

Please circle the appropriate number for each item using this scale. Please provide any relevant comments on the back of this form.

	This Trainee:	Scale				
1.	Introduces him/herself and greets me in a way that makes me feel comfortable. ڈاکٹر صاحب نے خود کو متعارف کرایا اور خوش اسلوبی سے پیش آئے	1	2	3	4	5
2.	Manages his/her time well and is respectful of my time. ڈاکٹر صاحب نے میرے اور اپنے وقت کا خیال رکھا۔	1	2	3	4	5
3.	Is truthful, upfront, and does not keep things from me that I believe I should know. ڈاکٹر صاحب نے میرے مرض کی صورتحال پوری سچائی سے بیان کی۔	1	2	3	4	5
4.	Talks to me in a way that I can understand, while also being respectful. ڈاکٹر صاحب نے میرے احساسات کا خیال رکھا اور عزت سے میرا علاج کیا۔	1	2	3	4	5
5.	Understands how my health affects me, based on his/her understanding of the details of my life. ڈاکٹر صاحب نے میرے علاج میں میری صحت پر ذہنی زندگی کو مد نظر رکھا۔	1	2	3	4	5
6.	Takes time to explain my treatment options, including benefits and risks. ڈاکٹر صاحب نے میرے مرض کے علاج کے فوائد اور نقصانات کو تفصیلاً بیان کیا۔	1	2	3	4	5

Total Score _____/30



Resident/Fellow Evaluation of Faculty Teaching

Evaluator: _____

Evaluation of: _____

Date: _____

Evaluation information entered here will be anonymous and made available only in aggregated form.

S#		Strongly Disagree	Disagree Moderately	Disagree Slightly	Agree Slightly	Agree Moderately	Strongly Agree
PATIENT CARE							
1.	Teaches current scientific evidence for daily patient management*						
2.	Explains rationale behind clinical judgements/decisions*						
3.	Teaches clear diagnostic algorithms*						
4.	Teaches clear treatment algorithms*						
PATIENT CARE - OPERATIVE AND PROCEDURAL SKILLS							
5.	Teaches operative/procedural skills during cases*						
6.	Allows learners to perform operative/procedural skills when appropriate*						
MEDICAL KNOWLEDGE							
7.	Teaches relevant pathophysiology needed to evaluate patient medical conditions*						
8.	Teaches how/when to use-order-perform procedures/tests*						
9.	Teaching content adds significantly to my medical knowledge						
10.	Teaches the use of literature / evidence based medicine to support clinical decisions/teaching points*						



PRACTICE-BASED LEARNING & IMPROVEMENT/TEACHING							
11.	Asks questions about differential diagnosis*						
12.	Teaches trainees when to consider referrals/consults with other specialists*						
13.	Actively teaches trainees in clinical settings/labs*						
INTERPERSONAL & COMMUNICATION SKILLS							
14.	Motivates learners to expand medical knowledge*						
15.	Stimulates critical thinking*						
16.	Encourages questions*						
17.	Teaches at the appropriate level for the trainee*						
18.	Provides feedback specific enough to be helpful*						
PROFESSIONALISM							
19.	Demonstrates respect for trainees of all levels*						
20.	Does not belittle/ publicly humiliate learners*						
21.	Teaches professional behavior with respect to patient care.*						
22.	Exhibits professional behavior with respect to patient care*						
23.	Role models professional behavior*						
SYSTEMS-BASED PRACTICE							
24.	Teaches cost/benefit decision making*						
25.	Teaches how to call on resources in the system to provide optimal health care*						
26.	Role models the necessity of working in inter-professional teams to enhance patient safety/outcomes.*						

Strongly Disagree: 0, Disagree Moderately: 1, Disagree Slightly: 2, Agree Slightly: 3, Agree Moderately: 4, Strongly Agree: 5



FINAL Evaluation Scoring Sheet

Name of Resident	Name of Supervisor	Year of Training

Date _____		Faculty #1 (165)	Faculty #2 (165)	Faculty #3 (165)	Average Score	Duration of Assessment _____								
						Specialty _____								
						Hospital _____								
						Unit _____								
Medical Patient Care (30)					___/30	Patient # 1 (30)	Patient # 2 (30)	Patient # 3 (30)	Medical Record Performa #1 (80)	Medical Record Performa #2 (80)	Medical Record Performa #3 (80)	Staff # 1 (56)	Staff #2 (56)	Staff #3 (56)
Medical Knowledge (30)				___/30										
Professionalism (35)				___/35										
Interpersonal and Communication Skills (20)				___/20										
System Based Practice (35)				___/35										
Practice Based Learning and Improvement (15)				___/15										
Overall Rating														
Average:	_____ /165					_____ /30			_____ /80			_____ /56		
											Grand Total			
											_____ /331			



RAWALPINDI MEDICAL UNIVERSITY

Logbook complete incomplete

Portfolio complete incomplete

Leave /absentees: _____

Comments

Supervisor Name (1) _____ Supervisor Name (2) _____ Head of Unit _____

Sign & Stamp _____ Sign & Stamp _____ Sign & Stamp _____



RAWALPINDI MEDICAL UNIVERSITY

7

RESIDENT SELF-ASSESSMENT PROFORMA

Resident Name _____ Date _____

Year of Training _____ Hospital Name _____ Unit _____

<input type="checkbox"/> NA	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
Not Applicable	I rarely demonstrates (<25% of the time)	I do this Sometimes (25-50% of the time)	I do this most of the time (50-75% of the time)	I do this all the time (>75% of time)

1.	I am able to acquire accurate and relevant histories from my patients in an efficient, prioritized and hypothesis driven fashion.	<input type="checkbox"/> NA	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
2.	I am able to seek and obtain appropriate, verified, and prioritized data from secondary sources (e.g. family, records and pharmacy)	<input type="checkbox"/> NA	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
3.	I am able to perform accurate physical examinations that are appropriately targeted to the patient's complaints.	<input type="checkbox"/> NA	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
4.	I am able to synthesize all available data, including interview, physical exam, and preliminary lab data to define each patient's central clinical problem.	<input type="checkbox"/> NA	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
5.	I am able to develop prioritized differential diagnoses, evidence based diagnostic and therapeutic plans for common conditions in Internal Medicine patients.	<input type="checkbox"/> NA	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
6.	I am able to recognize situations with a need for urgent or emergent medical care, including life threatening conditions.	<input type="checkbox"/> NA	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
7.	I am able to recognize when to seek additional guidance.	<input type="checkbox"/> NA	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
8.	I am able to provide appropriate preventive care.	<input type="checkbox"/> NA	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
9.	I am able to manage patients with common clinical disorders in the practice of outpatient internal medicine with minimal supervision.	<input type="checkbox"/> NA	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
10.	I have performed several invasive procedures and documented them in my New Innovations log.	<input type="checkbox"/> NA	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
11.	I demonstrate sufficient knowledge to diagnose and treat common conditions that require hospitalization.	<input type="checkbox"/> NA	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
12.	I understand the indications for and the basic interpretation of common diagnostic tests.	<input type="checkbox"/> NA	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
13.	I have reviewed my in service exam scores and believe my medical knowledge is where it should be for my level of training.	<input type="checkbox"/> NA	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
14.	I am able to identify clinical questions as they emerge	<input type="checkbox"/> NA	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4



RAWALPINDI MEDICAL UNIVERSITY

	in patient care activities.					
15.	I am responsive to feedback from all members of the healthcare team including faculty, residents, students, nurses, allied health professionals, patients and their advocates.	<input type="checkbox"/> NA	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
16.	I am an active participant in teaching rounds and intern report.	<input type="checkbox"/> NA	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
17.	I effectively use verbal and non verbal skills to create rapport with patients and their advocates.	<input type="checkbox"/> NA	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
18.	I communicate effectively with other caregivers to ensure safe transitions in care.	<input type="checkbox"/> NA	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
19.	My patient presentations on rounds are organized, complete and succinct.	<input type="checkbox"/> NA	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
20.	I am able to communicate the plan of care to all the members of the healthcare team.	<input type="checkbox"/> NA	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
21.	My documentation in the medical record is accurate, complete and timely.	<input type="checkbox"/> NA	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
22.	I accept personal errors and honestly acknowledge them.	<input type="checkbox"/> NA	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
23.	I demonstrate compassion and respect to all patients.	<input type="checkbox"/> NA	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
24.	I complete my clinical, administrative and academic tasks promptly.	<input type="checkbox"/> NA	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
25.	I maintain patient confidentiality	<input type="checkbox"/> NA	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
26.	I log my duty hours regularly and make every effort not to violate the rules	<input type="checkbox"/> NA	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
27.	When I feel I am too fatigued to work safely, I understand that I can call the chief medical residents for back-up.	<input type="checkbox"/> NA	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
28.	I understand the unique roles and services provided by the workers in the local health delivery system (social workers, case managers, dept of public health etc...)	<input type="checkbox"/> NA	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
29.	I am able to identify, reflect on, and learn from critical incidents and preventable medical errors.	<input type="checkbox"/> NA	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
30.	I do my best to minimize unnecessary care including tests, procedures, therapies and consultations.	<input type="checkbox"/> NA	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4

Please identify three specific clinical skills that you have improved over the past six months:

Please set three specific goals for the next six months:

Signature _____

Date _____



DIRECT OBSERVATION OF PROCEDURAL SKILLS (DOPS)

Please complete the questions using a cross Please use black ink and CAPITAL LETTERS

Doctor's Name: _____

PMDC Number: _____

Clinical setting:		<input type="checkbox"/> A&E	<input type="checkbox"/> OPD	<input type="checkbox"/> In-patient	<input type="checkbox"/> Acute Admission	<input type="checkbox"/> Other	
Procedure number		<input type="checkbox"/> <input type="checkbox"/>					
Assessors position:		<input type="checkbox"/> Consultant	<input type="checkbox"/> SpSR	<input type="checkbox"/> SpR	<input type="checkbox"/> Specialty doctor	<input type="checkbox"/> Nurse	<input type="checkbox"/> Other
Number of previous DOPS observed by assessor with any trainee		<input type="checkbox"/> 0		<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
		<input type="checkbox"/> 5-9		<input type="checkbox"/> >9			
Number of times procedure performed by trainee:		<input type="checkbox"/> 0	<input type="checkbox"/> 1-4	<input type="checkbox"/> 5-9	<input type="checkbox"/> >10	Difficulty of procedure:	
		<input type="checkbox"/> Low		<input type="checkbox"/> Average		<input type="checkbox"/> High	
Please grade the following areas		Well below expectations	Below Expectations	Borderline	Meets Expectations	Above Expectations	Well above expectations
		1	2	3	4	5	6
1 Demonstrate understanding of indications, relevant anatomy, technique of procedure		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Obtains informed consent		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Demonstrates appropriate preparation pre-procedure		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Appropriate analgesia or preparation pre-procedure		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 Technical ability safe sedation		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6 Aseptic technique		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7 Seeks help where appropriate		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8 Post procedure management		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9 Communication skills		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10 Consideration of Patient/professionalism		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11 Overall ability to perform procedure		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
* U/C Please mark this if you have not observed the behaviour and therefore feel unable to comment.							
Please use this space to record areas of strength or any suggested development							
Anything especially good?				Suggestions for development:			
Have you had training in the use of this assessment tool? <input type="checkbox"/> Face to face <input type="checkbox"/> Have read guidelines <input type="checkbox"/> Web/ CD-Rom							
						Time taken for observation: (in minutes) <input type="checkbox"/> <input type="checkbox"/>	
Assessors signature: _____						Time taken for feedback: <input type="checkbox"/> <input type="checkbox"/>	
Date (mm/yy) <input type="checkbox"/> <input type="checkbox"/> / <input type="checkbox"/> <input type="checkbox"/>							
Assessor's Name: _____							



CASE BASED CLINICAL EVALUATION OF TRAINEE

Resident's Name: _____
Evaluator's Name(s): _____
Hospital Name: _____
Date of Evaluation: _____
Traditional Track (10% Clinic) Primary Care Track (20% Clinic)

Scale table with 5 rows: 1 Unsatisfactory, 2 Below Average, 3 Average, 4 Good, 5 Superior

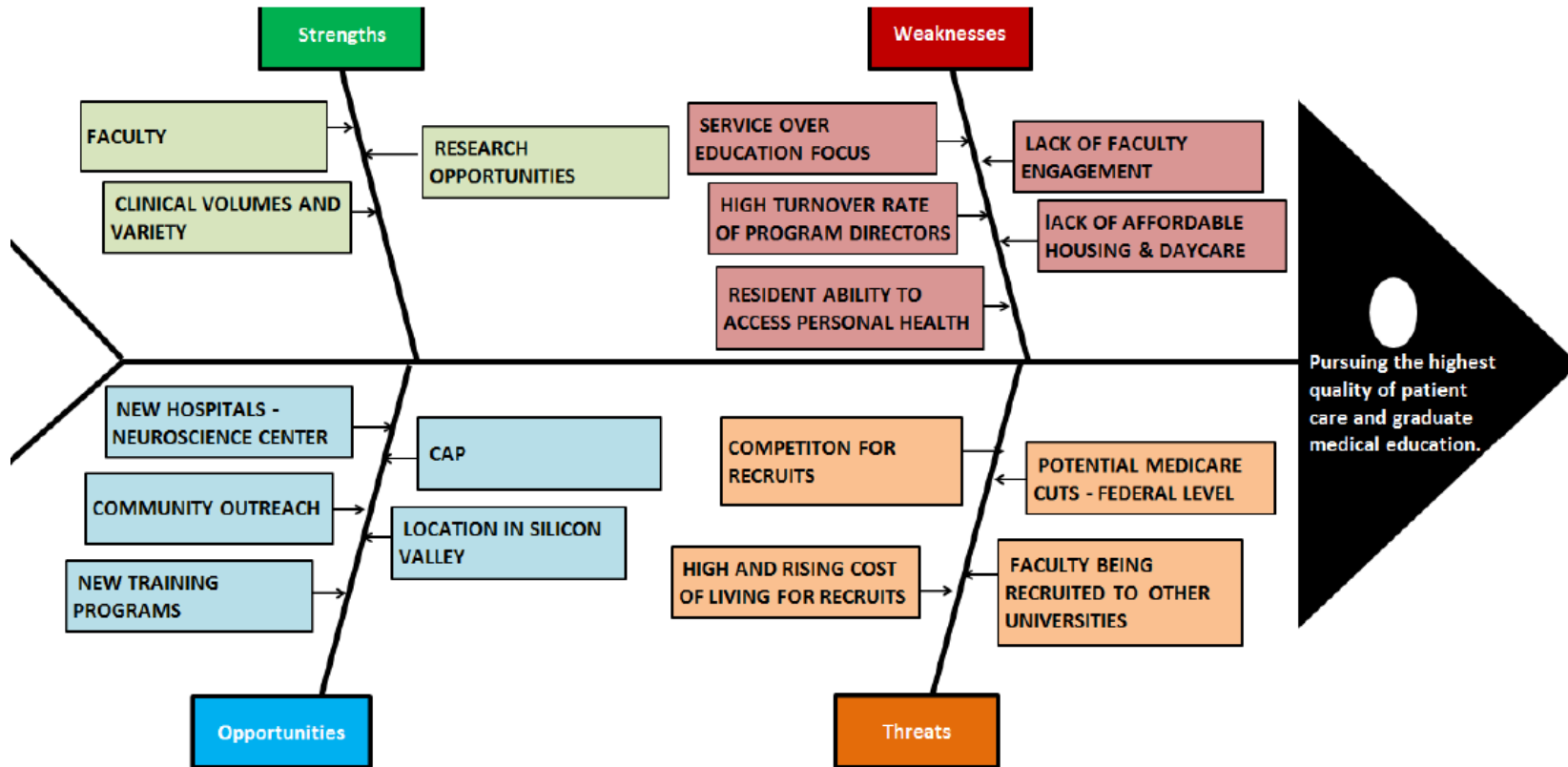
Please circle the appropriate number for each item using the scale above.

Main evaluation table with sections: History, Physical Examination, Assessment Plans, Interpretation and Correlation of Laboratory and Imaging Data. Each section contains 4-5 items with a 5-point scale.

SWOT Analysis

- S: Strengths
- W: Weaknesses
- O: Opportunities
- T: Threats

SOWT Analysis (Fishbone – Ishikawa Diagram)



Action Plan

Item	Strategy	Resources	Timeline	Evaluation
Preservation Goals(Strengths)				
Elimination Goals (Weaknesses)				
Achievement Goals(Opportunities)				
Avoidance Goals(Threats)				

SECTION –X

Miscellaneous attached documents

TEMPLATE FOR LEARNING OBJECTIVES (to be adopted by each specialty)

TOPICS TO BE TAUGHT	LEARNING OBJECTIVES Student should be able to know:	Domains/level of learning			TEACHING METHOD	ASSESSMENT TOOL
		Knowledge (C1-C6)	Skill (P)	Attitude (A)		

THE END

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