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MD HEALTH SCIENCES (BIOCHEMISTRY) LOGBOOK

**POSTGRADUATE DEPARTMENT
(Basic Sciences)**

Rawalpindi Medical University
Main Campus, Tipu Road, Rawalpindi, Pakistan



1. Prologue



Rawalpindi Medical University and the Postgraduate department (Basic Sciences) are committed to excellence in research, teaching, patient care, and the advancement of the art and science of medicine.

To this end, mission is to provide the finest education possible for medical students and students pursuing advanced degrees in the biomedical sciences, to contribute to the lifelong education of physicians throughout their careers, to conduct research at the cutting edge of knowledge, to improve the healthcare of the nation and the world both now and for future generations, and to provide the highest quality of clinical care for the communities we serve. Success in any of these areas contributes to success in the others.

The observation and assessment of performance of medical students is an integral part of curriculum. It can be accomplished by different modalities of assessments at different times. Similarly, exposing the students to different clinical activities during postgraduate program is essential. Supervising these activities is mandatory. For that purpose, keeping record of these events is important for student evaluation and inclusion of these activities in grading students' performance. Logbook system is in use for many decades in the field of medicine throughout the world and has some weaknesses like falsification of data, but still it is considered useful in assessing the performance of students and record keeping of different activities.

For this purpose, the Rawalpindi Medical University is introducing the LOG BOOK for MD Scholars and beyond to help the students as well as the faculty in streamlining the teaching, assessment and certification of students' performance. This activity will ensure structuring and recording of intellectual and research activities based on the assigned learning objectives. The logbook system will be transformed into portfolio system in near future.

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Rawalpindi Medical University & Allied Hospitals

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2. Purpose of Logbook

Logbook: The report of students' activities during their academic study and research period.

This Logbook is intended to develop, record, assess and certify student`s activities during the program at postgraduate department (Basic Medical Sciences) These activities are based on the learning objectives defined in the curriculum. Recording and certification of academic and research activities provide an objective evidence during assessment of student and evaluation of the overall performance of institution and curriculum. Adding reflection by students during activity log enhances the academic performance of students. A section of reflection had been added to this log book with an intent to convert this document into a reflective portfolio in future.

3. UNIVERSITY INTRODUCTION

Rawalpindi Medical College (RMC) was established in Faisalabad on 18th March 1974 and later shifted to Rawalpindi on 5th November 1974 in an incomplete building at Tipu Road (Science block of Gordon College Rawalpindi) that was later handed over to Rawalpindi Medical College. The founder Principal of RMC worked hard to establish the institution. First Rawalian Principal, Prof. Mohammad Umar after taking over the office in 2013, started working on multi-dimensional approach to further develop the institution.

Since 1974 more than 7900 students have been graduated and are serving nationally and internationally. RMC was privileged to claim top positions in university examination several times. Best of the best graduates at University of Health Sciences (UHS) was also a Rawalian. Because of the untiring and dedicated efforts of Prof. Muhammad Umer Rawalpindi Medical College was upgraded to Rawalpindi Medical University recently by Government of Punjab, Health Department on 6th May 2017. Higher Education Commission has given NOC to RMU in this regard.

The institute strived for upgradation to the level of an independent University after which the annual system of MBBS degree has been changed to the internationally preferred modular system. University has already been successfully launched the MS/MD programs in various disciplines of medical sciences.

Around the world, there is a strong wave of advocacy for practicing evidence-based medicine. This has led academia in pursuit of high-level research to generate evidence-based medicine for better health. For this purpose, there is an increasing demand of research experts in the field of health sciences; especially in the context of Pakistan with double burden of disease, devolution of health department, epidemics of new infections, underused primary health care, overburdened tertiary health care, demographic transitions and the international pressure of ending polio. For the same, in 2021, university has started its first MD program in Microbiology and Molecular Biology. Two more programs (MD-Health Sciences & MD-Chemical and Molecular Biology) are successfully running after their approval by Higher Education Commission Pakistan, in 2022.

RMU MISSION, VISION AND VALUES



3.1 RMU Vision Statement:

Highly recognized and accredited center of excellence in Medical Education, using evidence-based training techniques for development of highly competent health professionals.

3.2 RMU Mission Statement:

- To have contemporary approach in Education and Research
- 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 medicine
- To review and reflect practices continuously for rectification and enhancement

3.3 RMU Values:

- Humanism and compassion
- Integrity, accountability and collaboration
- Creativity, innovation and discovery
- Inclusiveness, diversity and equity
- Dedication to anti-racism
- Social responsibility, both locally and globally
- Community engagement and service
- Commitment to professional development

4. INTRODUCTION OF HEALTH SCIENCES (BIOCHEMISTRY) DEPARTMENT

Department of Biochemistry was established to provide a stimulating and diverse research and training environment comparable with international standards within which important and exciting areas of modern Biochemistry and Molecular Biology can be investigated at the molecular level, encompassing both structural and functional approaches. Furthermore, department has a prime goal of Modern Biology – for full understanding of the structure and dynamic chemistry of the underlying molecular constituents of cells. The knowledge of Biochemistry is essential to all life sciences. Biochemistry and Medicine are intimately related. Biochemistry is central to all areas of medical sciences because it provides molecular knowledge and essential foundation for research in the biomedical sciences and gives a better understanding of other disciplines such as Pathology, Pharmacology and Medicine etc.

The focus of research has shifted towards Molecular Biochemistry, Genomics and Proteomics, Biotechnology, Cellular Biophysics and Structural Biology, Clinical biochemistry, Biochemical Neuropharmacology, Bioinformatics, Nutritional Biochemistry with several independent groups engaged in studies. The Department is devoted to cutting-edge research that addresses basic questions in biology, including the control of gene expression, cell fate determination, protein synthesis, the genetics of behavior, control of the cell cycle, and signaling pathways within the cell. The Department pursues for research through up-to-date equipment and state-of-the-art technologies, the recruitment of high-caliber staff, maintenance of industrial contacts, and the fostering of close links and collaborations with international scientific community.

4.1 Mission of Department

- Provides excellent, pedagogically effective classroom/laboratory for training of the students
- Provides caring, individualized advising for our majors that helps prepare them for success in their chosen careers and in life
- Develops innovative educational resources
- Performs significant original research into the myriad of molecular mechanisms underlying life and disease, creates marketable technologies that practically benefit society, and provides transformative hands-on training for undergraduate and postgraduate students
- Provides service and leadership to our professional communities and through effective outreach helps to educate the public about healthcare sciences.

5. PROGRAM INTRODUCTION

MD Biochemistry is a research-based course which studies living organisms at molecular level and involves in depth study of biomolecules. This advanced degree incorporates various fields of biological sciences such as Genetics, Forensics, Medicine, and Microbiology. It encompasses several seminars, projects, and research in scientific laboratories. Students in Biochemistry Department engage in faculty-mentored research and graduate coursework that develops an understanding of fundamental concepts in Biochemistry, Molecular Biology, as well as the critical analysis of published research. Upon successful completion of doctorate degree in the field of Health sciences (Biochemistry) scholars can aspire for bigger roles in industry as well as academia.

5.1 Mission of Program

To be a diverse, inclusive community that serves students, our professionals and the public through innovative education, individualized advising, holistic mentoring and extensive research that creates knowledge and solves real-life problems.

5.2 Objectives of Program

- Providing aspiring molecular life scientists with an intention to provide a world-class education
- Generating new tools and knowledge that will advance our understanding of the living world and enhance the quality of life
- Leveraging these research activities to provide students with opportunities to participate
- Enhancing public understanding of Biochemistry
- Providing education, training, and work environments characterized with mutual respect, personal responsibility, fairness, equality, and a commitment to providing opportunities and support for all

5.3 Outcomes of Program

- Broadly engage Biochemistry community in efforts to improve diversity across department activities
- Improve communication of departmental values and efforts
- Increase awareness of equity/inclusion challenges in science by diverse communities
- Increase departmental diversity at all levels, especially among postdocs and faculty

6. MD Scholar's Enrolment Proforma

Training Program: _____

Session: _____ Registration Number: _____

Name of Candidate: _____

Father's/Husband's Name: _____

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

Present Address: _____

Permanent Address: _____

E-mail Address: _____ Cell Phone #: _____

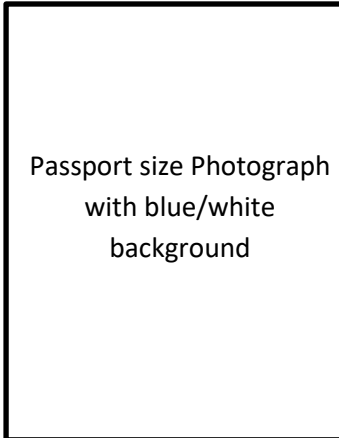
Date of Start of Training: _____ Date of completion of Training: _____

Name & Designation of Supervisor: _____

Name & Designation of Co-Supervisor: _____

Title of Department/Unit: _____

Name of Training Institute/Hospital: _____



7. SECTION-I SCIENTIFIC LECTURES

Course Title: _____

Major/Minor: _____

Credit hours: _____

Semester (Spring/Fall/Summer): Year.....

Sr. No.	Day	Date	Title of Lecture Attended	Lecturer's Signature
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				

8. SECTION-II PRACTICAL SKILLS

Practical Course Title: _____

Credit hours: _____

Sr. No.	Day	Date	Level of Participation Obs./Asst./Ind.	Title of Practical	Instructor's Signature
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					

9. SECTION-III STUDENT TEACHING SESSIONS (SEMINARS)

1. Attendance

Sr. No.	Day	Date	Topic	Supervisor's Signature
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				

2. Presentations

Sr. No.	Day	Date	Topic	Remarks by Supervisor	Supervisor's Signature
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					

10. SECTION-IV SCIENTIFIC ACTIVITIES (WORKSHOP/CONFERENCES)

1 – Workshops

Sr. No.	Day	Date	Workshop's Title	Level of Activity			Workshop Facilitator	Sign of Workshop Facilitator
				Att.	Org.	Pres.		
1.								
2.								
3.								
4.								
5.								
6.								
7.								
8.								
9.								
10.								
11.								
12.								
13.								

14.								
15.								
16.								
17.								
18.								
19.								
20.								
21.								
22.								
23.								

*Att. – Attended, Org. – Organized, Pres. – Presented

2 – Conferences

Sr. No.	Day	Date	Theme of Conference	Level of Activity			Conference Facilitator	Sign of Conference Facilitator
				Att.	Org.	Pres.		
1.								
2.								
3.								
4.								
5.								

6.								
7.								
8.								
9.								
10.								
11.								
12.								
13.								
14.								
15.								
16.								
17.								
18.								
19.								
20.								
21.								
22.								
23.								

*Att. – Attended, Org. – Organized, Pres. – Presented

*The student can paste photocopies of certificates of presentations on next page

11. SECTION-V JOURNAL CLUB

Sr. No.	Day	Date	Discussions' Topic & Journal Name	Supervisors' Remarks
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				

12. SECTION-VI OTHER ACTIVITIES

Table 1. Report of The Students Counselling Meetings With The Supervisor

Semester.....Year.....

Sr. No.	Date	Topic	Outcomes or Conclusion	Remarks & Signature of the concerned Professor

Table 2. Report of Participation in The Sessions Related to The Proposal Defense (A), Progress (B), Pre-Defense (C) and Defense (D) Of The Department’s Theses (Other Students’ Theses)

Semester.....Year.....

Sr. No.	Date	Type of Session (A, B, C, D)	Thesis title (MPhil/MD)	Signature of Supervisor or Organizer

Table 3. Report of Papers Submission and Publication in National or International Journals

Sr. No.	Paper Title	Paper's Status			Journal's information					Signature of Supervisor or Graduate Studies Representative
		Date of Publishing	Date of Acceptance	Date of Submission	Name of Journal	Yr.	Vol No.	Iss.	Pg.	

Table 4. Report of Article Presentation and Participation in Scientific Societies, Congresses and Seminars

Sr. No.	Paper's title	Name of the Congress or Seminar	Presentation Style		Congress or seminar details					Signature of Supervisor or Graduate Studies Representative
			Speech	Poster	Y	M	D	Ctry	City	

Table 5. Reports on Writing and Translation of Books

Sr. No.	Book Title	Type of activity			Book details			Signature of Supervisor or Graduate Studies Representative
		Translating	Writing	Editing	Publisher	Date of publication	No. of Pages	

Table 6. Innovative Activities (e.g., Production of Educational Soft Wares, New Methods, and Providing Instructions for The Lab Equipment)

Sr. No.	Activity's title	Activity Date	Signature of Supervisor or Postgraduate dept. Rep

Table 7. Preparation of The Student’s Thesis Proposal Report

Sr. No.	Activities related to the preparation of the student’s thesis proposal	Time	Signature of Supervisor or Postgraduate dept. Rep

Table 8. Report of the Student’s Participation in Preparing Research Proposals

Title of the proposal:

Sr. No.	Activities related to the Student’s participation in preparing research proposals	Time	Signature of Supervisor or Postgraduate dept. Rep

Table 9. Report of the Student's Collaboration in Teaching Theoretical Courses

Semester.....Year.....

Sr. No.	Course Name	Type of Participation										Time		Signature of Supervisor or Postgraduate dept. Rep	
		Course					Examination					Date	Time		
		Course content Prep	Teaching	Problem solving Session		Qn. Prep	Exam	Paper Corr.	Final		Qn. Prep				Exam
				Distant or Online	Verbal				Qn. Prep	Exam		Paper Corr.			

Table 10. Report of the Student's Collaboration in Teaching Practical Courses

Semester.....Year.....

Sr. No.	Practical Course Title	Type of Participation			Time of Examination		Remarks	Supervisor or Postgraduate dept. Rep
		Practical Course			Date	Time		
		Lab Prep	Teaching	Other Act.				