

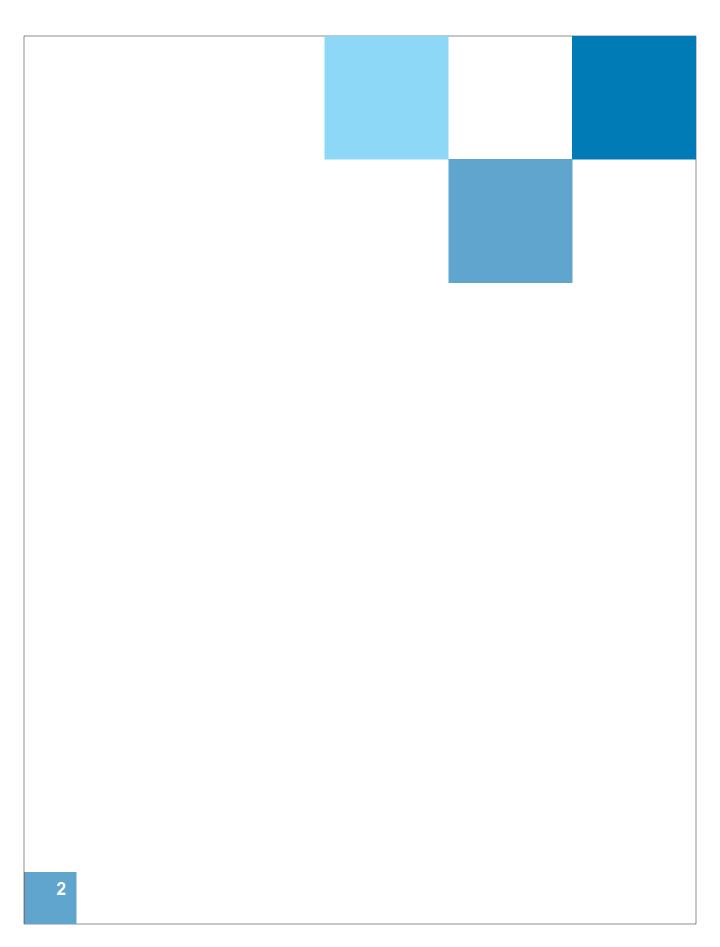
ADMISSION SESSION PROSPECTUS 2024-25

INSTITUTE OF ALLIED HEALTH SCIENCES

RAWALPINDI MEDICAL UNIVERSITY

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MESSAGE OF VICE CHANCELLOR

The importance of Allied Health Sciences is increasingly being recognized. Institute of Allied Health Sciences, Rawalpindi Medical University believes in developing a multidimensional comprehensive health care approach encompassing all the four elements of health service. i.e prevention, promotion, treatment and rehabilitation. We aspire to include a health care team approach at all levels of health care delivery for a comprehensive health care delivery system. Allied Health Sciences training programs at par with the international standards are generally lacking in the country especially in the public sector. The fields like Medical Imaging Technology, Doctor of Physical Therapy, Medical Laboratory Technology, Orthotics & Prosthetics and Optometry & Orthoptics have a wide scope in public & private sector.

The numbers of specialities are increasing day by day and the need for corresponding increase of Allied Health professionals is need of the day. It is relevant to mention that in foreign countries, these professionals play major role in the treatment and rehabilitation. Punjab and Federal Government are taking initiative for the establishment and development of these services.

University of Health Science identified the gap in our health delivery system & pioneered the idea of filling these gaps. Allied Health Sciences professions are very important component of health care system which has been neglected so for. Rawalpindi Medical College affiliated with UHS decided to start the degree programmes for Allied Health Sciences in five disciplines in 2007. Now Rawalpindi Medical University has continued this vision and taking its first batch of Allied Health Sciences.

All the disciplines of Allied Health Sciences at RMC have dedicated team working under the leadership of their Supervisors, Coordinators. The necessary teaching and training atmosphere as well the required audiovisual aids are available for students of all disciplines.

To date, fourteen batches of this institution has acquired their degrees in five disciplines and are now serving in different public and private institutions. I am confident that the graduates acquiring their degrees will enjoy prestige, pride and global recognition with expanding career opportunities.

> PROF. DR. MUHAMMAD UMAR Vice Chancellor Rawalpindi Medical University & Allied Hospitals, Rawalpindi

MESSAGE OF DEAN IAHS



It is indeed an honor for me to be the Dean Institute of Allied Health Sciences, Rawalpindi medical University, and what adds to my pleasure and honor is the caliber of students of AHS. They are intelligent, promising, keen learners and bright. They have brought good name to their institute by securing top positions in the university, pursuing higher education and by getting prized jobs in their fields both nationally and internationally. With the upgradation of RMC to RMU, institute of AHS is now an integral part of RMU. It is hoped that this development will further improve the standards of teaching and training of these students. Under the dynamic patronage of Prof Dr Muhammad Umar, Vice Chancellor RMU, this institute is expected to grow, expand and flourish as never before. I take pride in saying that as part of development schemes of RMU, Institute of AHS plans to add further courses and also start post graduate degrees and diplomas in various disciplines. I hope and pray that all the efforts of Vice Chancellor and Faculty of IAHS bear fruit and the institute performs much better in producing highly trained, skilled and professional graduates.

PROF.DR.WAFA OMER

Dean Institute of Allied Health Sciences Rawalpindi Medical University, Rawalpindi



MESSAGE OF DIRECTOR IAHS

Institute of Allied Health Sciences, Rawalpindi Medical University (IAHS-RMU) is dedicated to provide health care education and clinical training to a diverse group of future leaders. Allied Health Sciences is an emerging field in our country, which has a big horizon and a good potential. Throughout the world this specialty is already proving its worth. A career dedicated to allied health sciences could see you providing diagnostic, technical, therapeutic and direct patient care and support. You will treat and provide vital assistance to patients and work with medical teams including doctors and nurses to deliver the best possible patient outcomes.

At Rawalpindi Medical University, we take your potential and ambition for delivering quality health services and make it a reality. Prepare to make a difference in the lives of others and the overall health of your community, as you develop your knowledge and abilities to become a fast-thinking, highly skilled allied health professional. Institute of Allied Health Sciences, RMU is playing a key role in both public and private health care delivery systems. Currently, IAHS-RMU is offering many signature programs including;

- 1. Doctor of Physical Therapy(DPT)
- 2. Medical Imaging Technology

3. Optometry & Orthoptics

4. Medical Laboratory Technology

5. Orthotics & Prosthetics.

The Rawalpindi Medical University provides an excellent academic environment for its students which is not only in line with the societal values but is also synchronized by affection and self respect. It maintains harmony, discipline and strictly follows the academic calendar. We are blessed with knowledgeable, dedicated and distinguished academics and clinicians. We provide our students with ample opportunities for professional and interpersonal growth through career counseling & placement, entrepreneurship, innovative scientific research, sports and a broad range of co curricular activities.

It is my utmost desire that this promising institution continues to attain remarkable successes under the sincere and competent leadership of Prof. Dr. Muhammad Umar, Vice Chancellor, Rawalpindi Medical university, his team and meticulously trained faculty & staff. I also hope for the upcoming students to pave new avenues for Allied Health Sciences with pure zeal and passion.

DR. MUHAMMAD UMAR

Director Institute of Allied Health Sciences Rawalpindi Medical University, Rawalpindi

JOURNEY OF RAWALPINDI MEDICAL UNIVERSITY

Rawalpindi Medical College Rawalpindi (Estd.1974) The College was established with Punjab Medical College and classes were initially started at University of Agriculture Faisalabad, in 1974. The college was shifted to the present site at Tipu Road, Rawalpindi, in November 1974, where all the basic departments were developed. The first principal of the college was Prof. M. Latif. In 2008, the new campus at Holy Family Hospital started functioning. At present, first and second year classes are held at Tipu Road (old campus) and third, fourth and final year at Holy Family Hospital Complex (new campus). The teaching hospitals attached to the college are the Holy Family Hospital, Benazir Bhutto Hospital and District Headquarters Hospital, Rawalpindi. These teaching hospitals provide 1278 beds for the patients. A new teaching hospital (650 beds) has been added to the existing facilities. The college has so far produced more than 7500 graduates. The students of RMC are referred to as Rawalians. There are about 1400 Rawalians working in UK, USA, Australia, Canada, South Africa, Gulf States and Far Eastern countries. The college started its Institute of Allied Health Sciences in November 2007 and classes of first batch of B.Sc (Honours) started in first week of February 2008. The purpose of the establishment of the institute was to produce quality Allied Health Professionals to provide quality care / diagnostic services in the field of Physiotherapy, Orthotics & Prosthetics, Optometry, Medical Imaging Technology & Medical Laboratory Technology. All the courses were affiliated with University of Health Sciences.

Institute of Allied Health Sciences is offering an unparalleled academic education as well as access to a wide spectrum of clinical experiences. The faculty of the Institute of Allied Health Sciences has outstanding scholars and clinicians. In addition, many of our faculty members are professional leaders who establish the trends that will affect trainees, their practices and the patients they will serve in the future.

In 2016 under the leadership of Prof. Dr. Muhammad Umar the college was converted in Rawalpindi Medical University (RMU). Aside from other medical courses in RMU it has, its Institute Of Allied Health Sciences, working under the guidance of Dean IAHS.

MISSION STATEMENT

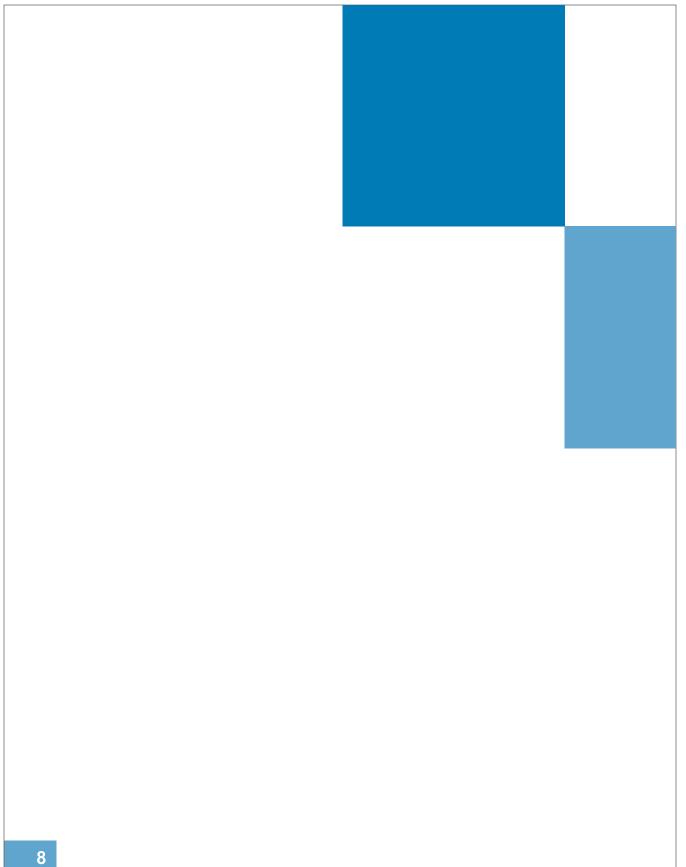
Provide the students with a solid platform on which to pursue higher education, deliver quality services, engage in research, perform their duties with sincerity and obligation to their institution and country and to believe in themselves.

VISION

Institute of Allied Health Sciences, Rawalpindi Medical University strives to produce best allied health care professionals equipped with the best of skills, who are able to apply those skills in the best possible way.

OBJECTIVES

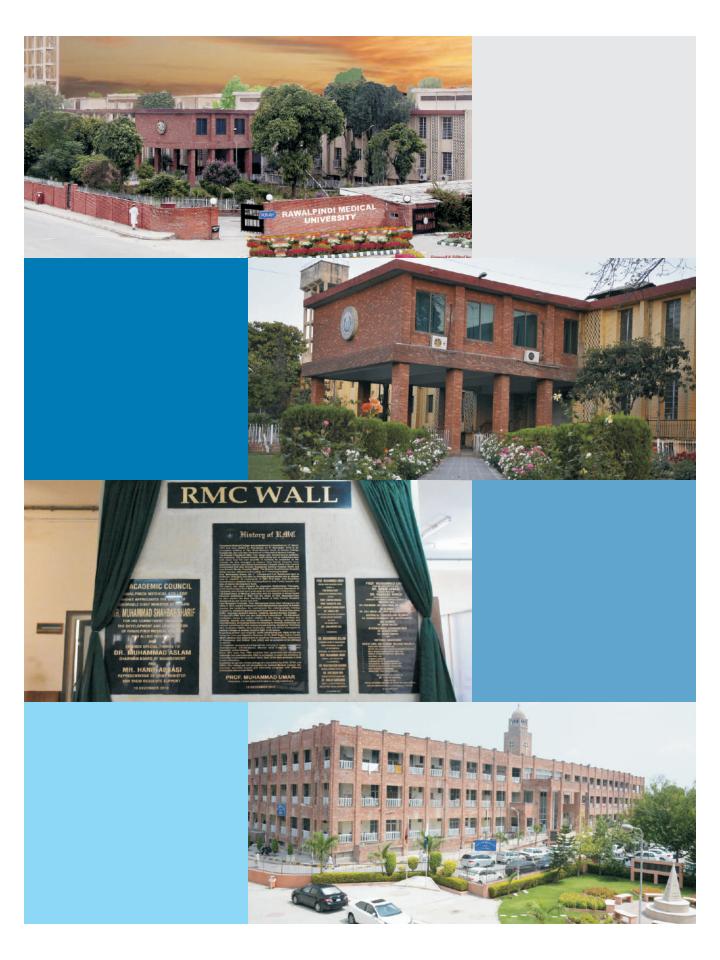
- 1. To provide the best opportunity of pursuing a career in allied health sciences by delivering high quality education in various disciplines of allied health sciences.
- 2. To steer IAHS students and graduates towards post graduation, thus facilitating them in achieving their goals.
- To inculcate values like honesty, sincerity, hard work and loyalty among students and graduates of IAHS.
- 4. To provide the students with a congenial, friendly, professional and healthy environment for learning & acquiring skills and finally polishing of their personalities.
- 5. To groom our students to make better human beings.



RAWALPINDI MEDICAL UNIVERSITY & ALLIED HOSPITALS

The teaching and training activities for the students of Allied health sciences will be in the following places depending on the course

- RMU TIPU ROAD RAWALPINDI
- RMU NEW TEACHING BLOCK, H.F.H
- HOLY FAMILY HOSPITAL
- BENAZIR BHUTTO HOSPITAL
- DISTRICT HEAD QUARTER HOSPITAL





COURSES OFFERED IN INSTITUTE OF ALLIED HEALTH SCIENCES

DOCTOR OF PHYSICAL THERAPY BACHELOR OF SCIENCE IN ORTHOTICS AND PROSTHETICS BACHELOR OF SCIENCE IN OPTOMETRY AND ORTHOPTICS BACHELOR OF SCIENCE IN MEDICAL IMAGING TECHNOLOGY BACHELOR OF SCIENCE IN MEDICAL LABORATORY TECHNOLOGY

FACULITY FOR BASIC SCIENCES

DEPARTMENT OF ANATOMY

ASSOCIATE PROFESSORS

Dr. Ifra Saeed Dr. Ayesha Yousaf

ASSISTANT PROFESSORS

Dr. Mohtasham Hina Dr. Sarwar Zia Dr. Arslan Manzoor Mughal

DEPARTMENT OF PHYSIOLOGY

PROFESSOR Dr. Samia Sarwar

ASSOCIATE PROFESSOR

Dr. Syed Muarraf Hussain Dr. Shmyla Hamid

ASSISTANT PROFESSORS Dr. Sidra Hamid

DEPARTMENT OF BIOCHEMISTRY

ASSOCIATE PROFESSOR Dr. Tehmina Qamar ASSISTANT PROFESSORS Dr. Aneela Jamil

DEPARTMENT OF PHARMACOLOGY

ASSOCIATE PROFESSOR

Dr. Asma Khan

ASSISTANT PROFESSORS

Dr. Attiya Munir Dr. Zunera Hakim Dr. Sobia Javed

SENIOR DEMONSTRATOR

Dr. Haseeba Dr. Sajida Nasreen Dr. Rubina Kousar Dr. Uzma Umer

DEMONSTRATOR

Dr. Arsheen Arshad Dr. Omaima Asif Dr. Sonia Alamgir

DEPARTMENT OF FORENSIC MEDICINE

ASSOCIATE PROFESSOR

Dr. Rizwana Qayyyum

DEPARTMENT OF COMMUNITY MEDICINE

PROFESSOR

Dr. Syed Arshad Sabir

ASSISTANT PROFESSOR

Dr. Sana Bilal

Dr. Khola Noreen

Dr. Afifa Kulsoom

Dr. Rizwana Shahid

ADDITIONAL PRINCIPAL MEDICAL OFFICER Dr. Abdul Rehman

DEPARTMENT OF PATHOLOGY

DISCIPLINE SUPERVISOR Prof. Dr. Mobina Ahsan Dodhy

COURSE CO-ORDINATOR

Dr. Syed Muhammad Ali

FACULTY MICROBIOLOGY Prof. Dr. Naeem Akhtar

CHEMICAL PATHOLOGY

Prof. Dr. Wafa Omer

HEMATOLOGY

Dr. Huma Amin

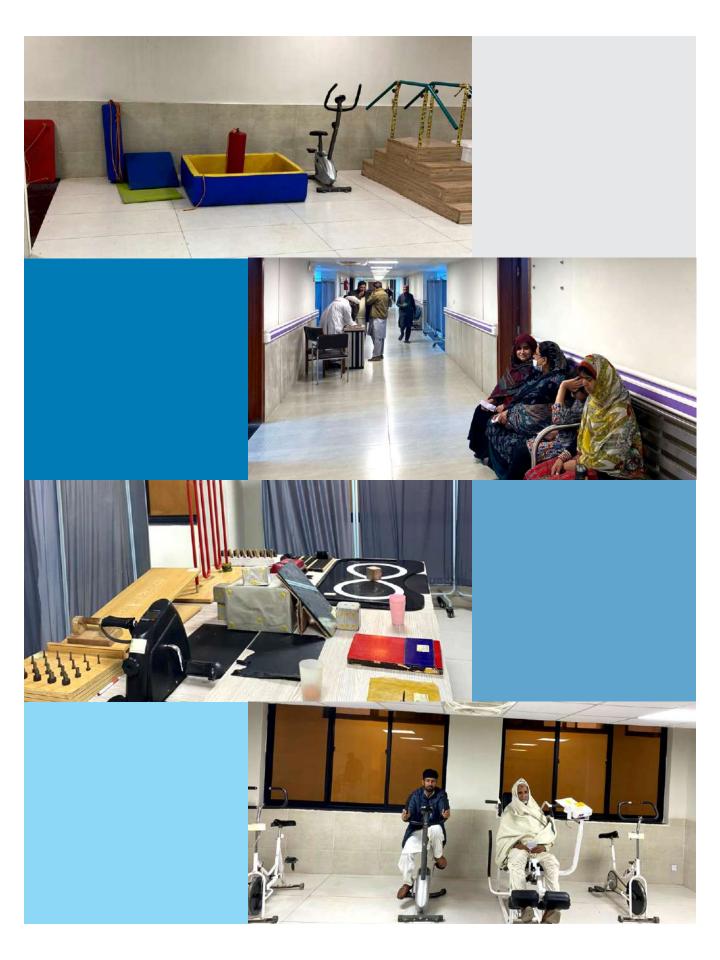
HISTOPATHOLOGY

Dr. Tayyaba Ali Dr. Aasiya Niazi

DEPARTMENT OF PHYSICAL THERAPY

Program Offered:

DOCTOR OF PHYSICAL THERAPY (DPT) 05 YEARS DEGREE PROGRAM IN PHYSICAL THERAPY





INTRODUCTION

Physiotherapy is a primary care, autonomous, client focused health profession concerned with enhancing mobility and quality of life by using clinical reasoning to deliver the most suitable treatment for and injury or condition. Physiotherapists help people to gain as much movement and physical independence as possible so they can resume their normal job or life style.

Physical therapy is an essential segment of modern health care system. It is a science of healing and art of caring. It pertains to the assessment, evaluation, diagnosis and treatment of musculoskeletal, Neurological, Cardio-Vascular and Respiratory systems functional disorders including symptoms of pain, edema, physiological, structural and psychosomatic ailments. It deals with evidence based methods of treatment in movement, manual therapy, physical agents, and therapeutic modalities to relieve the pain and other complications. Hence, physical therapy covers basic parameters of healing sciences i.e. preventive, promotional, diagnostic, rehabilitative and curative.

Physiotherapy department of Holy Family Hospital have state of the art physiotherapy department equipped with hi-tech equipment for teaching, training and treatment facilities. The gym and cubicles consist of latest electrotherapy equipments and exercise facilities, both for male and female, whereas the class rooms are equipped with multimedia and other teaching aids of international standard. The classes will be conducted in the Department of Physiotherapy Holy Family Hospital, RMU and other Allied hospitals.

CARRIER OPPORTUNITIES

After completion of 5 year doctor of physical therapy degree, one can serve as physical therapist in rehabilitation centers, nursing homes, Hospital OPDs, Community health care centers, Fitness centers, Occupational health centers, in sports field as sports therapist and as a part of NGOs. They can even serve independently in clinical settings or pursue career in the field of academics as lecturer or in the field of rehabilitation research as an active researcher. Regarding higher studies in field; master's degree programs are offered in multiple domains comprising of Neuromuscular, Orthopedic, Musculoskeletal, Cardiopulmonary, Sports, Pain management, Gynecology / women's health, Geriatrics & Pediatrics. The graduates of Physiotherapy can also pursue their career in the field of mental health, occupational health, neurology & clinical electrophysiology. As field of rehabilitation has flourished recently in the country, Physical therapists can also enhance their education by attaining Ph.D. in physiotherapy and different domains of rehabilitation.

GOALS OF THE PROGRAM:

THE PURPOSE OF THE DOCTOR OF PHYSICAL THERAPY PROGRAM (DPT) IS TO PREPARE PHYSICAL THERAPISTS WHO WILL:

- 1. Be primary providers of physical therapy care.
- 2. Serve as responsible members in the professional community and are willing and able to assume leadership roles in the communities they serve.
- 3. Identify researchable problems, advocate and participate in research, and incorporate research findings into clinical practice.
- 4. Understand and place in context the social, economic and cultural issues of practice and effectively advocate for changes in policy.
- 5. Correlate theory with practice and think creatively about, react to, adapt or shape new practice environments.
- 6. Participate in and provide education for communities, patients, peers, students and others.

OBJECTIVES OF THE PROGRAM

GRADUATES OF THE DOCTOR OF PHYSICAL THERAPY PROGRAM WILL:

- 1. Demonstrate in-depth knowledge of the basic and clinical sciences relevant to physical therapy, both in their fundamental context and in their application to the discipline of physical therapy.
- 2. Understand, correlate and apply theoretical foundations of knowledge to the practice of physical therapy, evaluate and clarify new or evolving theory relevant to physical therapy.
- 3. Demonstrate the behaviors of the scholarly clinicians by developing and utilizing the process of critical thinking and inquiry, particularly focused on the improvement of the practice of physical therapy and the delivery of health care.
- 4. Engage in reflective practice through sound clinical decision making, critical selfassessment and commitment to lifelong learning.
- 5. Demonstrate mastery of entry level professional clinical skills, Provision of these services is based on the best available evidence and includes physical therapy examination, evaluation, diagnosis, prognosis, intervention, prevention activities, wellness initiatives and appropriate health care utilization.
- 6. Prepared to influence the development of human health care regulations and policies that are consistent with the needs of the patient and of the society.
- 7. Demonstrate leadership, management, and communication skills to effectively participate in physical therapy practice and the health care team.
- 8. Incorporate and demonstrate positive attitudes and behaviors to all persons.
- 9. Demonstrate the professional and social skills to adapt to changing health care environments to effectively provide physical therapy care.

DEPARTMENT OF PHYSICAL THERAPY

Program Offered: DOCTOR OF PHYSICAL THERAPY (DPT) 05 YEARS DEGREE PROGRAM IN PHYSICAL THERAPY

| YEAR | NAME OF SUBJECT | Professional Examination | Clock Hours/year | Marks |
|----------|----------------------------------|--|---------------------|-------|
| | FIRST PROFESSIONAL YEAR | | | |
| 1st Year | ANATOMY - I | YES | 400 | 200 |
| | PHYSIOLOGY - I | YES | 300 | 200 |
| | KINESIOLOGY - I AND BIOMECHANICS | YES | 450 | 200 |
| | ISLAMIC STUDIES / ETHICS & | YES | 150 | 100 |
| | PAKISTAN STUDIES | | 150 | 100 |
| | BEHAVIORAL SCIENCES | Professional Exam 3 rd Prof. | 50 | N/A |
| | | | 50 | 11/7 |
| | INTRODUCTION TO COMPUTER | INTERNAL ASSESSMENT ONLY | 50 | N/A |
| | | | 1400 | 700 |

*SCHEME OF STUDIES FOR 5 YEARS

| YEAR | NAME OF SUBJECT | Professional Examination | Clock Hours/year | Marks |
|----------|---------------------------------|--|---------------------|-------|
| | SECOND PROFESSIONAL YEAR | | | |
| 2nd Year | ANATOMY - II | YES | 450 | 200 |
| | PHYSIOLOGY - II | YES | 300 | 200 |
| | KINESIOLOGY - II AND ERGONOMICS | YES | 300 | 200 |
| | BIOCHEMISTRY AND | YES | 200 | 200 |
| | GENETICS | TES | 200 | 200 |
| | MEDICAL PHYSICS | YES | 200 | 100 |
| | BEHAVIORAL SCIENCES | Professional Exam 3 rd Prof. | 50 | N/A |
| | HEALTH AND WELLNESS | INTERNAL ASSESSMENT ONLY | 50 | |
| | | | 1550 | 900 |

***SCHEME OF STUDIES FOR 5 YEARS**

| YEAR | NAME OF SUBJECT | Professional Examination | Clock Hours/year | Marks |
|----------|--|--|---------------------|-------|
| | THIRD PROFESSIONAL YEAR | | | |
| 3rd Year | PATHOLOGY & MICROBIOLOGY | YES | 300 | 200 |
| | PHYSICAL AGENTS & ELECTROTHERAPY | YES | 300 | 200 |
| | THERAPEUTIC EXERCISES & TECHNIQUES | YES | 400 | 200 |
| | BEHAVIORAL SCIENCES | YES | 100 | 200 |
| | TEACHING METHODOLOGY & COMMUNITY MEDICINE | INTERNAL ASSESSMENT ONLY | 200 | 100 |
| | SUPERVISED CLINICAL PRACTICE I,II | LOG BOOK SUBMISSION TO P.T DEPARTMENT | 200 | |
| | | | 1600 | 900 |

| YEAR | NAME OF SUBJECT | Professional Examination | Clock Hours/year | Marks |
|----------|--|--|---------------------|-------|
| | FOURTH PROFESSIONAL YEAR | | | |
| 4TH Year | MEDICINE | YES | 200 | 200 |
| | SURGERY | YES | 200 | 200 |
| | PT-I: MUSCULOSKELETAL AND NEUROLOGICAL PHYSICAL THERAPY | YES | 400 | 200 |
| | RADIOLOGY & DIAGNOSTIC IMAGING & EMERGENCY PROCEDURES AND PRIMARY CARE | YES | 100 | 100 |
| | BIOSTATISTICS & EVIDENCE BASED PRACTICE | YES | 300 | 100 |
| | SUPERVISED CLINICAL PRACTICE III,IV | LOG BOOK SUBMISSION TO P.T DEPARTMENT | 200 | |
| | | | 1450 | 800 |

***SCHEME OF STUDIES FOR 5 YEARS**

| YEAR | NAME OF SUBJECT | Professional Examination | Clock Hours/year | Marks |
|----------|--|--|---------------------|-------|
| | FIFTH PROFESSIONAL YEAR | | | |
| 5TH Year | PT-II: CARDIOPULMONARY, OBS-GYNAE, INTEGUMENTRY & MANUAL PHYSICAL THERAPY | YES | 500 | 200 |
| | CLINICAL DECISION MAKING & DIFFERENTIAL DIAGNOSIS | YES | 100 | 100 |
| | SCIENTIFIC INQUIRY, RESEARCH METHODOLOGY & RESEARCH PROJECT | YES | 350 | 200 |
| | PROFESSIONAL PRACTICE & COMMUNITY BASED REHABILITATION | YES | 100 | 100 |
| | PT-III, IV: PAEDIATRIC, GERIATRIC, SPORTS & PROSTHETICS & ORTHOTICS PHYSICAL THERAPY | YES | 350 | 200 |
| | SUPERVISED CLINICAL PRACTICE V, VI | LOG BOOK SUBMISSION TO P.T DEPARTMENT | 200 | |
| | | | 1600 | 800 |

HOUSE JOB:

One year of house job will be incorporated at the end of five year Degree Program.

FACULTY

DISCIPLINE SUPERVISOR

Dr. Muhammad Umar PhD Rehabilitation Sciences, PP-DPT, MPH, BSPT

DISCIPLINE COORDINATOR

Dr. Hiba Rashid MPhil-NPT, BSPT

COURSE TUTORS

Dr. Noshina Sabir – PT PP-DPT, BSPT

Dr. Wardah Adil- PT PP-DPT, BSPT

Dr. Samawiya Farooq (DPT)

Dr. Huma Tabassum (PhD Rehabilitation Sciences*, DPT)

VISITING FACULTY:

Dr. Aqsa Tahir - PT (DPT)

Dr. Sania Rizwan-PT (MS-NMPT, DPT)

Dr. Laiq-ur-Rehman (CPPT, PP-DPT, BS-PT)

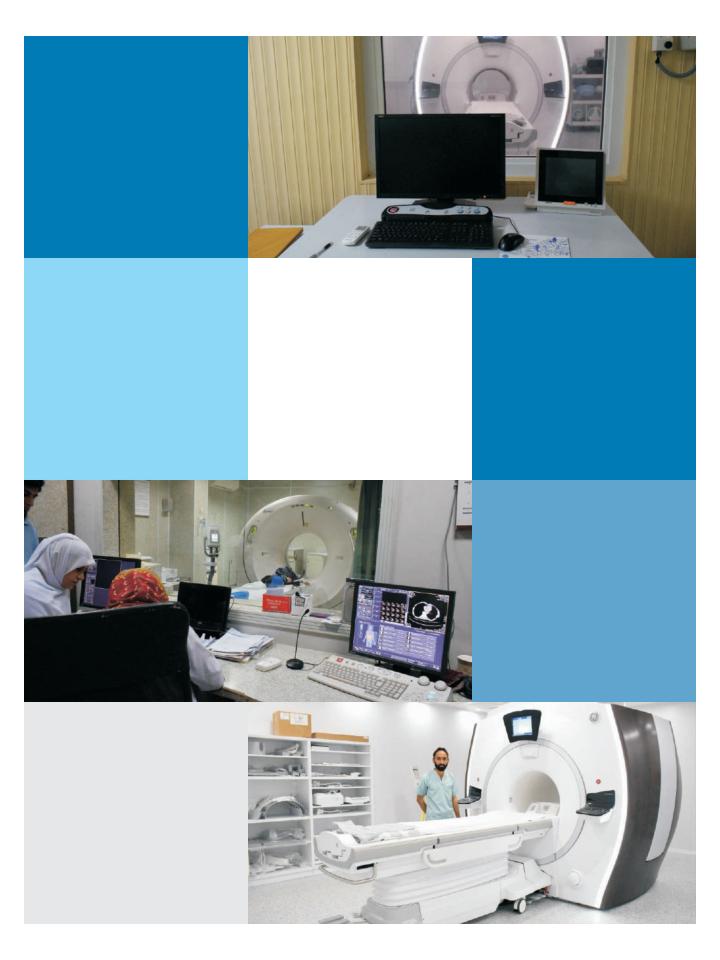
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DEPARTMENT OF MEDICAL IMAGING TECHNOLOGY

PROGRAM OFFERED:

BACHEOLARS OF SCIENCE IN MEDICAL IMAGING TECHNOLOGY (MIT) 04 YEARS DEGREE PROGRAM





MEDICAL IMAGING TECHNOLOGY PROGRAM INTRODUCTION

INTRODUCTION & BACKGROUND:

Medical imaging technology is an eval Technology which encompasses a variety of advanced imaging modalities that are used in medical diagnosis and interventional procedures. Medical imaging is undergoing a revolution from analog imaging to digital imaging. It shifted from conventional x-ray to new modalities such as Magnetic Resonance imaging (MRI). Radiology departments in hospitals are being renamed as Diagnostic Imaging Departments to indicate the new modalities.

AIMS AND OBJECTIVES:

The program would induct students for theoretical and practical training. Students will develop skills for patient care and monitoring skills, the application of the theories in the selected clinical areas, basic electronics, general radiology, fluoroscopy, computerized mammography, ultrasound, safety practices, team work, interpersonal communications, adaptation, oral and written presentation of technical information, use of technical equipment and problem solving. Students will develop specialties in one or more of the following areas:

General Radiology Computed Tomography Mammography

Fluoroscopy Contrast Materials

Nuclear Medicine

Ultrasonography

Magnetic Resonance Imaging

The program, in the end will yield technical staff trained to provide support in medical imaging to different departments of hospitals.

CAREER OPPORTUNITIES:

A medical imaging technologist is the key member of the health care team. Graduates of Medical Imaging Technology are working as CT, MRI and Nuclear medicine technologists in Government and Private Hospitals. They are also a part of health care team in reputable institutes including Combined Military Hospital, NORI hospital, Armed Forces Institute Of Radiology and Shaukat Khanum Hospital Lahore and Peshawar. They are producing high quality medical images that assist medical specialists and practitioners to describe diagnosis, monitor and treat the patients' injury or illness. Medical imaging graduates are also members of teaching faculty of different institutes which are carrying out the program of Medical Imaging. Students are taught as per international criteria which will help in development of their role as technologist capable of appreciation of image elements, image interpretation, teamwork and management. Our graduates have detailed knowledge of ultrasound which helps them in developing their role as sonographers both nationally and internationally.

TEACHING FACULTY

Supervisor B.Sc. (MIT)

• Dr. Jahangir Khan Consultant Radiologist

Coordinator B.Sc. (MIT)

• Dr. Qudsia Mushtaq Women Medical Officer

Faculty Members:

- Dr. Anum Zahoor
 Assistant Professor
- Dr. Aniqua Saleem Senior Registrar
- Dr. Riffat Raja AP
- Miss Sana B.Sc (Hons) Medical Imaging Technology MS Healthcare Management

Visiting Faculty:

- Dr. Tahir Aziz Ex-Chief Consultant Radiologist (BBH)
- Dr. Hasnain Registrar Cardiologist, AFIC
- Miss Sumiya Abid
 B.Sc (Hons)
 Medical Imaging Technology
- Miss Maheen Arooj
 B.Sc (Hons)
 Medical Imaging Technology

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TRAINING CENTRE:

The classes will be conducted in the Department of Radiology Holy Family Hospital, RMU and other Allied hospitals.

COURSE SCHEME: The training is spread over four years with a specific component for each year of training.

FIRST YEAR

Theoretical component:

Regional and Imaging Anatomy I, Basic Physiology, Basic Bio-Chemistry, General Pathology, Behavioral Sciences, Islamaiyat, Pakistan studies and Computer Education

SECOND YEAR

Theoretical component:

Regional and imaging Anatomy II, Radiation Sciences & Technology, General Radiology, special radiological techniques Pharmacology and Mammography.

Practical component:

Hands-on training in the above mentioned disciplines in the Departments of Radiology.

THIRD YEAR

Theoretical Component:

Ultrasound and Echocardiography, Medicine, Surgery and computed Tomography, Sociology.

Practical Component:

Hands on rotational training in above mentioned disciplines in the Departments of Radiology and Medicine.

FINAL YEAR

Theoretical component:

Magnetic Resonance Imaging (MRI), Nuclear Medicine Research and Biostatistics, Angiography and Cardiac Imaging.

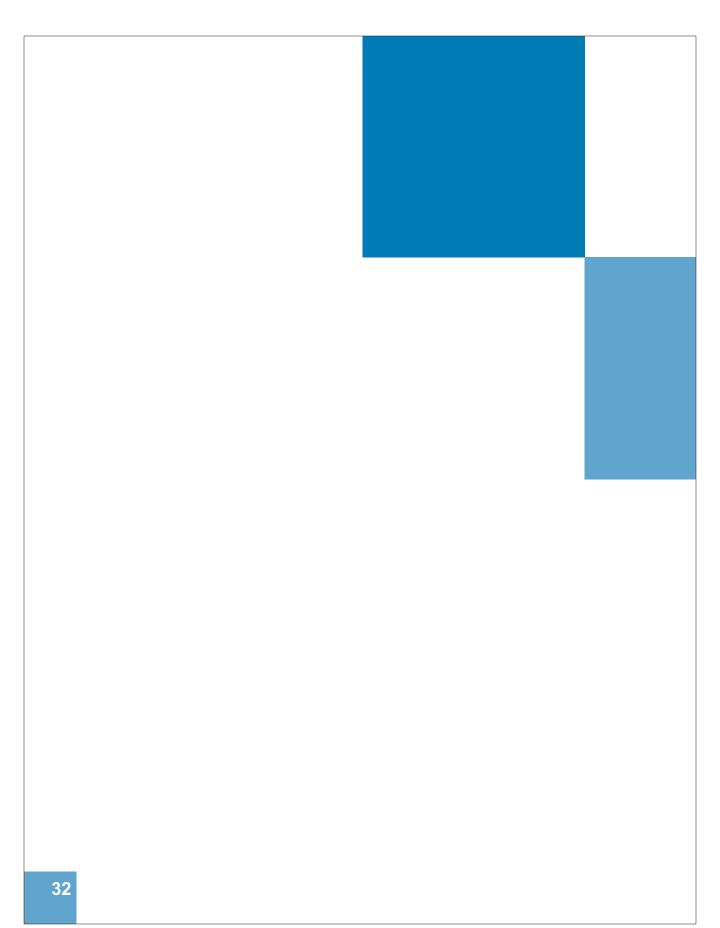
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PRACTICAL COMPONENT:

Training in Departments of Radiology related to above mentioned Disciplines. Research Report will be related to the interest of the students.

TRAINING AS TRAINERS

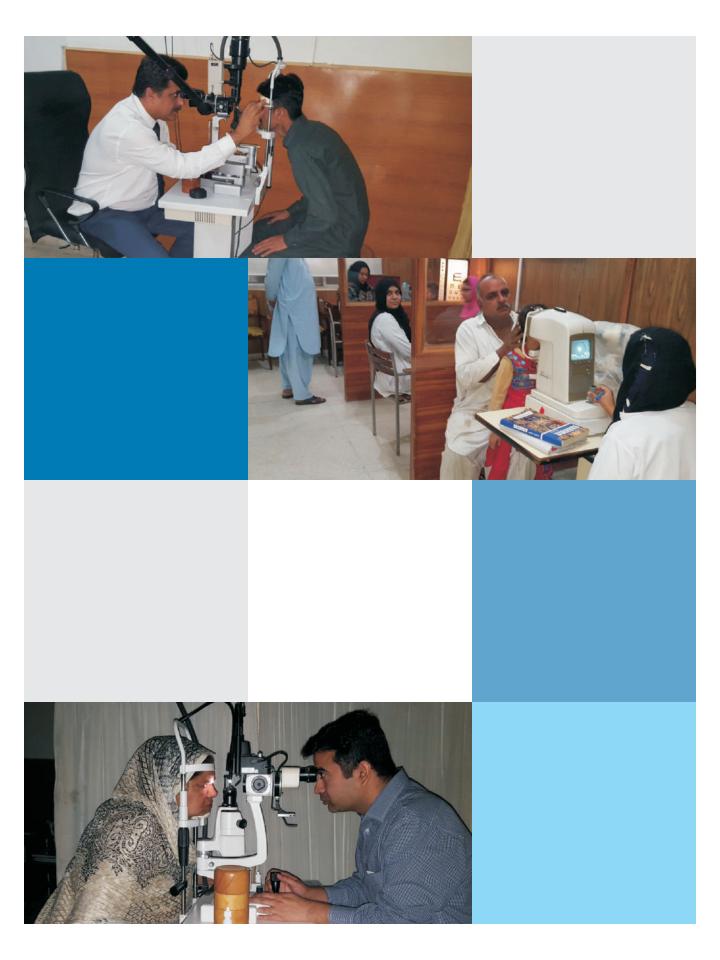
The students during final year of the program will be involved actively in the teaching and training of the junior classes so that the seniors become mentors for the juniors. This educational activity will be carried out under the direction and supervision of the faculty members.



DEPARTMENT OF OPTOMETERY AND ORTHOPTICS

PROGRAM OFFERED:

BACHEOLARS OF SCIENCE IN OPTOMETERY AND ORTHOPTICS 04 YEARS DEGREE PROGRAM





INTRODUCTION & BACKGROUND

Optometry is an established field in well developed countries with optometrists playing an important role in eye care by providing their services in the field of refraction contact lens practice low vision management orthoptics and ophthalmic dispensing.

In Pakistan, the field of optometry has evolved over the last decade. There is a significant increase in demand of optometrists, especially with the creation of posts by Government of Punjab at teaching hospital, DHQ hospitals and THQ hospitals. There is also substantial scope for jobs in non governmental organizations to meet the requirement of the country.

At Pakistan, post gradation couses after B.Sc Optometry has been started including M. Phil leading to PhD. 5 year programme, Diagnostic Ophthalmology, master in Public Health and community ophthalmology started at college of ophthalmology& Allied Vision Sciences Lahore.

The higher education in optometry at worldwide level is 4 year programme M. Phil/ PhD after 4 year graduation in the optometry &Orthoptics in following research areas.

- 1. Pediatric Optometry
- 2. Community Health Optometry
- 3. Low Vision Residency
- 4. Primary Eye Care
- 5. Vision Therapy (Amblyopia) & Rehabilitation
- 6. Cornea & Contact Lens
- 7. Ocular Diseases
- 8. Geriatric Optometry
- 9. Refractive & Ocular Surgery
- 10. Retinal Pathology

This paucity of trained manpower and lack of specially trained and qualified personnel was a major initiative for Rawalpindi Medical College for starting this elaborate and well structured training program, in this university.

AIMS & OBJECTIVES

- To introduce a four years bachelor Program in Optometry and Orthopticsand provide students the opportunity to have a well structured training in Optometry.
- To obtain up to date knowledge for functions and recent advances in Optometry and Orthoptics.
- To alienate the shortage of trained Ophthtalmic Midlevel Personnel and to focus on Human Resource Development.
- To provide clinical attachment for trained Opththalmic Midlevel Professionals in both Private and public hospitals in the country.
- To establish the institutionalized training in the field of Optometry and Orthoptics at par with international level.
- To have international collaboration with well recognized institutions in respective disciplines for developing the program, and postgraduate fellowship training in Optometry and Orthoptics To establish a school of Optometry and Orthoptics.

PROGRAM OF STUDY

These duration of the degree program will be four years. This degree program will follow the curriculum / syllabus approved by UHS with annual examination system. The B.Sc Optometry and Orthoptics course will include classroom lectures, laboratory exercises, and clinical rotations in allied hospitals of RMC. All students must complete course work within the prescribed period of the course. The students failing in any course will be given only one chance to repeat the course before starting next level class. There will be monthly term assessments. One period of one hour four to five days a week for 36 months shall be spent on interactive tutorial sessions. During these sessions, the students will participate actively in group discussions on topics designated. The rest of the time shall be spent in the out patients clinics. Students will be given good clinical exposure in the Refractions, contact lenses, low vision and Orthoptics. The Final year will be meant for on job training. This includes eight courses of Practical working with Six week blocks.

MONITORING AND EVALUATION OF PROGRAM

By involvement/ input from external faulty / examiners. Regular feedback from the students though special forms.

FACULTY OPTOMETRY & ORTHOPTICS

Discipline Supervisor

Prof. Dr. Fuad Ahmad Khan Niazi

MBBS, FCPS, FRCS (Glasgow) Dean Faculty of Eye & ENT Rawalpindi Medical University & Allied Hospitals, Rawalpindi.

Discipline Co-ordinator

Dr. M. Arshad K Malik MBBS, C-HCQM (RMU) Liaison Officer Ophthalmology Department Holy Family Hospital Rawalpindi

Visiting Lecturers

Sehrish Akram

BSc Hons Optometry & Orthoptics, RMU MS (HCM)*

Saba Ghalib

BSc Hons Optometry & Orthoptics, RMU MS (HCM)*

Visiting Faculty

Dr. Sidra Jabeen

MBBS, FCPS Assistant Professor Holy Family Hospital Rawalpindi **Dr. Sikandar Hayat** MBBS, MPH Registrar Eye Department Holy Family Hospital Rawalpindi **Dr. Saria Bano** MBBS, FCPS Senior Registrar Holy Family Hospital Rawalpindi

COURSE SCHEME

FIRST PROFESSION SUBJECTS (1ST YEAR)

| Paper-I | Basic Anatomy & Physiology | |
|-----------|--|--------------------------|
| | Theory Marks: | 90 |
| | Internal Assessment | 05 Marks in each subject |
| | Total Marks: | 100 |
| | Pass Marks: | 50% |
| | Total study hours: | 200 |
| Paper-II | Basic Biochemistry & Ge | neral Pathology |
| | Theory Marks: | 90 |
| | Internal Assessment | 05 Marks in each subject |
| | Total Marks: | 100 |
| | Pass Marks: | 50% |
| | Total study hours: | 200 |
| Paper-III | Islamic Studies/ Ethics & Pakistan Studies | |
| | Theory Marks: | 54 |
| | Internal Assessment | 06 Marks in each subject |
| | Total Marks: | 60 |
| | Pass Marks: | 33% |
| Paper-IV | Behavioural Sciences & 0 | Computer Education |
| | Theory Marks: | 90 |
| | Internal Assessment | 05 Marks in each subject |
| | Total Marks: | 100 |
| | Pass Marks: | 50% |
| | | |

SECOND PROFESSION SUBJECTS (2ND YEAR)

| | Or hthe lucie Anotomy and Physic | - I |
|-----------|----------------------------------|--------------------------|
| Paper-I | Ophthalmic Anatomy and Physic | |
| | Theory Marks: | 90 |
| | Internal Assessment | 10 Marks |
| | Practical Marks | 90 |
| | Internal Assessment | 10 Marks in each subject |
| | Total Marks: | 200 |
| | Pass Marks: | 50% |
| | Theory hours: | 200 |
| | Practical hours: | 200 |
| | Total study hours: | 200 |
| Paper-II | Physiology and Visual O | ptics |
| | Theory Marks: | 90 |
| | Internal Assessment | 10 Marks |
| | Practical Marks | 90 |
| | Internal Assessment | 10 Marks in each subject |
| | Total Marks: | 200 |
| | Pass Marks: | 50% |
| | Theory hours: | 200 |
| | Practical hours: | 200 |
| | Total study hours: | 400 |
| Paper-III | Physical, Geometrical ar | nd Instrument Optics |
| | Theory Marks: | 90 |
| | Internal Assessment | 10 Marks |
| | Practical Marks | 90 |
| | Internal Assessment | 10 Marks in each subject |
| | Total Marks: | 200 |
| | Pass Marks: | 50% |
| | Theory hours: | 200 |
| | Practical hours: | 400 |
| | Total study hours: | 600 |
| | 2 | |

Paper-IV

Orthoptics, Squint and Low Vision

| Theory Marks: | 90 |
|---------------------|--------------------------|
| Internal Assessment | 10 Marks |
| Practical Marks | 90 |
| Internal Assessment | 10 Marks in each subject |
| Total Marks: | 200 |
| Pass Marks: | 50% |
| Theory hours: | 200 |
| Practical hours: | 400 |
| Total study hours: | 600 |

THIRD PROFESSION SUBJECTS (3RD YEAR) Paper-I Ophthalmic Dispensing and Compared Statements

| | · · · · · · · · · · · · · · · · · · · | |
|---------|---------------------------------------|----------------|
| Paper-I | Ophthalmic Dispensing and C | Contact Lenses |
| | Theory Markey | 00 |

| Theory Marks: | 90 |
|---------------------|--------------------------|
| Internal Assessment | 10 Marks |
| Practical Marks | 90 |
| Internal Assessment | 10 Marks in each subject |
| Total Marks: | 200 |
| Pass Marks: | 50% |
| Theory hours: | 100 |
| Practical hours: | 200 |
| Total study hours: | 300 |

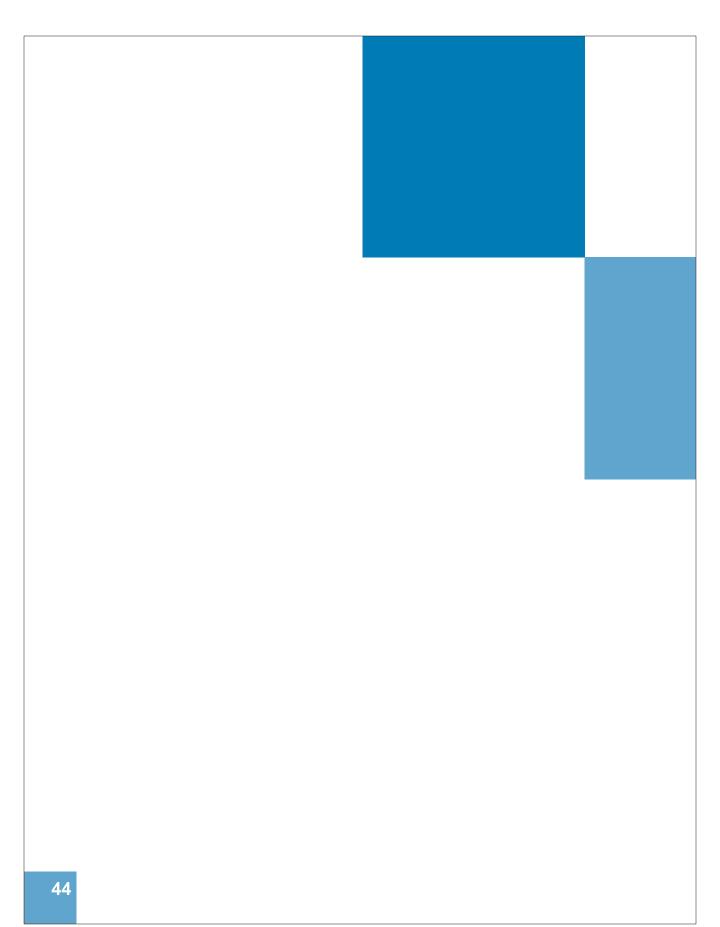
Paper-II

Ophthalmic Disease and Pharmacology

| Theory Marks: | 90 |
|---------------------|--------------------------|
| Internal Assessment | 10 Marks |
| Practical Marks | 90 |
| Internal Assessment | 10 Marks in each subject |
| Total Marks: | 200 |
| Pass Marks: | 50% |
| Theory hours: | 100 |
| Practical hours: | 200 |
| Total study hours: | 300 |

| Paper-III | Clinical Optometry and E | Examination |
|--------------|--------------------------------------|------------------------------|
| | Theory Marks: | 90 |
| | Internal Assessment | 10 Marks |
| | Practical Marks | 180 |
| | Internal Assessment | 20 Marks in each subject |
| | Total Marks: | 300 |
| | Pass Marks: | 50% |
| | Theory hours: | 100 |
| | Practical hours: | 200 |
| | Total study hours: | 300 |
| Paper-IV | Occupational Optometry | and Preventive Ophthalmology |
| | Theory Marks: | 90 |
| | Internal Assessment | 10 Marks |
| | Practical Marks | 90 |
| | Internal Assessment | 10 Marks in each subject |
| | Total Marks: | 200 |
| | Pass Marks: | 50% |
| | Theory hours: | 100 |
| | Practical hours: | 200 |
| | Total study hours: | 300 |
| FINAL PROFES | SION SUBJECTS (4 TH YEAR) | |
| Paper-I | Pediatric Optometry | |
| | Theory Marks: | 90 |
| | Internal Assessment | 10 Marks |
| | Practical Marks | 90 |
| | Internal Assessment | 10 Marks |
| | Total Marks: | 200 |
| | Pass Marks: | 50% |
| | Theory hours: | 100 |
| | Theory hours. | |
| | Practical hours: | 200 |

| Paper-II | Ophthalmic Instrumentat | ion |
|-----------|--|---|
| | Theory Marks: | 90 |
| | Internal Assessment | 10 Marks |
| | Practical Marks | 90 |
| | Internal Assessment | 10 Marks |
| | Total Marks: | 200 |
| | Pass Marks: | 50% |
| | Theory hours: | 100 |
| | Practical hours: | 200 |
| | Total study hours: | 300 |
| | | |
| | | |
| Paper-III | Bio-statistics and Resear | ch Methods |
| Paper-III | Bio-statistics and Resear Theory Marks: | r ch Methods 90 |
| Paper-III | | |
| Paper-III | Theory Marks: | 90 |
| Paper-III | Theory Marks: Internal Assessment | 90 10 Marks |
| Paper-III | Theory Marks: Internal Assessment Practical Marks | 90 10 Marks 90 |
| Paper-III | Theory Marks: Internal Assessment Practical Marks Internal Assessment | 90 10 Marks 90 10 Marks |
| Paper-III | Theory Marks: Internal Assessment Practical Marks Internal Assessment Total Marks: | 90 10 Marks 90 10 Marks 200 |
| Paper-III | Theory Marks: Internal Assessment Practical Marks Internal Assessment Total Marks: Pass Marks: | 90 10 Marks 90 10 Marks 200 50% |
| Paper-III | Theory Marks: Internal Assessment Practical Marks Internal Assessment Total Marks: Pass Marks: Theory hours: | 90 10 Marks 90 10 Marks 200 50% 100 |



DEPARTMENT OF ORTHOTICS AND PROSTHETICS

PROGRAM OFFERED:

BACHEOLARS OF SCIENCE IN ORTHOTICS AND PROSTHETICS (O & P) 04 YEARS DEGREE PROGRAM





INTRODUCTION

One of the most important components of rehabilitation and support services is assistive devices which often provide the first step to ensure that people with disabilities are equal members of society. Among assistive devices, prostheses and orthoses are required by the majority of people with physical disabilities. Persons with physical disabilities, who have a need for prosthetics/orthotics and related rehabilitation services in developing countries, represent 0.5% of the population. By the year 2010 the combined population of Africa, Asia and Latin America will be approximately 6 billion. The estimated number of people in need of prosthetic and orthotic devices will be 30 million. The personnel estimated to provide services in prosthetics and orthotics would therefore be 180,000. Approximately, 40,000 trained orthotist and prosthetist are estimated to be needed.

Mobility is the first step to access basic rights including access to food, shelter, education, job/income, equal opportunities and equal citizenship. The most important components in the restoration of mobility are assistive devices such as orthoses, prostheses and mobility aids. Prosthetics and orthotics services play a major role in enabling a person with a disability to change from being immobile to becoming mobile, a passive receiver to an active contributor, and isolation to inclusion. They also help to provide further means towards equality by helping a child with disability to go to school or an adult with disability to go for skills training or income generation activities.

Department of Orthotics and Prosthetics Benazir Bhutto Hospital was established in 2005 after the Earthquake and it is one of the few rehabilitation centres which are providing quality treatment services as well as quality education to the students.

CAREER OPPORTUNITIES

The prosthetics/orthotics professionals are usually part of a multi-disciplinary rehabilitation team. After completion of this degree program, they can be involve in patient care or providing direct service to persons with disabilities in public or private sector, management and supervision of orthopedic workshop or orthotic rehabilitation centre, training and education, community services, research and development. They are carried out within an ethical code and complying with medical and legal requirements. After completing BSc (Hons) Degree graduates can pursue higher education in different fields like;

- M.phil Orthotics & Prosthetics
- MS public health
- MS biomedical sciences
- MS health informatics
- MS health care Management)
- MBA (Hospital Management)

GOALS OF THE PROGRAM

THE PURPOSE OF ORTHOTICS AND PROSTHETICS DEGREE PROGRAM IS TO PREPARE PROFESSIONALS WHO WILL:

- 1. Take primary responsibility for provision of prosthetic and orthotic treatment and provide this treatment according to nationally and internationally approved standards.
- 2. Provide care that is patient centered and evidence based, but arrive at clinical decisions through a process of analysis and critical thinking.
- 3. Serve as responsible members in the professional community and are willing and able to assume leadership roles in the communities they serve.
- 4. Be qualified to go on to higher levels of education such as post-graduate programmes.
- 5. Identify researchable problems, advocate and participate in research, and incorporate research findings into clinical practice.
- 6. Understand and place in context the social, economic and cultural issues of practice and effectively advocate for changes in policy.
- 7. Correlate theory with practice and think creatively about, react to, adapt or shape new practice environments.
- 8. Participate in and provide education for communities, patients, peers, students and others.

OBJECTIVES OF THE PROGRAM

GRADUATES OF ORTHOTICS AND PROSTHETICS PROGRAM WILL:

- 1. Apply knowledge of physical sciences, social sciences, health sciences, culture and natural sciences to professional practice.
- 2. Demonstrate effective and appropriate use of available technology in various communications.
- 3. Participate in the development of practice management skills in various settings.
- 4. Work effectively in an inter/intra-professional collaborative setting.
- 5. Demonstrate social and professional responsibility and ethical behaviors in multicultural settings and scenarios.
- 6. Demonstrate competence in conducting appropriate examination, evaluation, and assessment of users across the individuals' lifespan and within a broad continuum of care.
- 7. Optimize the use of appropriate equipment, materials, components and techniques in prosthetic/orthotic services.
- 8. Demonstrate competence in developing and implementing appropriate prosthetic/orthotic service plans for users across the individuals' lifespan within a broad continuum of care.
- 9. Demonstrate, in a systematic and effective manner, the ability to impart knowledge when providing education for users, their caregivers, other health professionals, and the public at large.
- 10. Demonstrate appropriate competencies in research and evidence based practice.

COURSE SCHEME

First year

- 1. Basic Anatomy
- 2. Basic Physiology
- 3. Basic Biochemistry
- 4. Basic Pathology
- 5. Basic Behavioral Sciences
- 6. Islamiyat
- 7. Pakistan Studies

Second Year

Theoretical Component

- 1. Musculoskeletal Physiology &Pathology
- 2. Biomechanics
- 3. Math
- 4. Mechanics
- 5. Material & Workshop Technology

Practical Component

 Hand on Training in Orthotics (Lower Limb + Upper Limb + Spine)

Third Year

Theoretical Component

- 1. Clinical Orthopedics
- 2. Basic Radiology
- 3. Medicine
- 4. Psychology of Disabled
- 5. Workshop Management

Practical Component

 Hand on Training in Orthotics (Lower Limb + Upper Limb)

Final Year

Theoretical Component

- 1. Community Based Rehabilitation
- 2. Bio-Statics & Research Methods

Practical Component

- 1. Patient Bases Advanced Training at AORI, BBH in Prostheses
- 2. Research Report to the Subject of interest of the student.

FACULTY

DISCIPLINE SUPERVISOR

Dr. Aamir Nawaz Khan MPH, M.S (Orthopedics) Senior Registrar Department of Orthopedics BBH – RMU

DISCIPLINE COORDINATOR

Dr. Ajla Javaid BSPO (RMU), MS Biomedical, PhD (Scholar) NUST NUST-SMME Senior Lecturer / Incharge Department of Orthotics & Prosthetics BBH – RMU

Faculty Members

Ajla Javaid BSc (Hons) Orthotics & Prosthetics, RMU PhD Biomedical Science (Scholar) NUST MS Biomedical Sciences

Azka Fayyaz

BSc (Hons) O & P, RMU MS (Health Care Management), Ripah

Seemab Asif Bsc (Hons) O & P, RMU

MS (Biomedical Science), NUST

Visiting Faculty

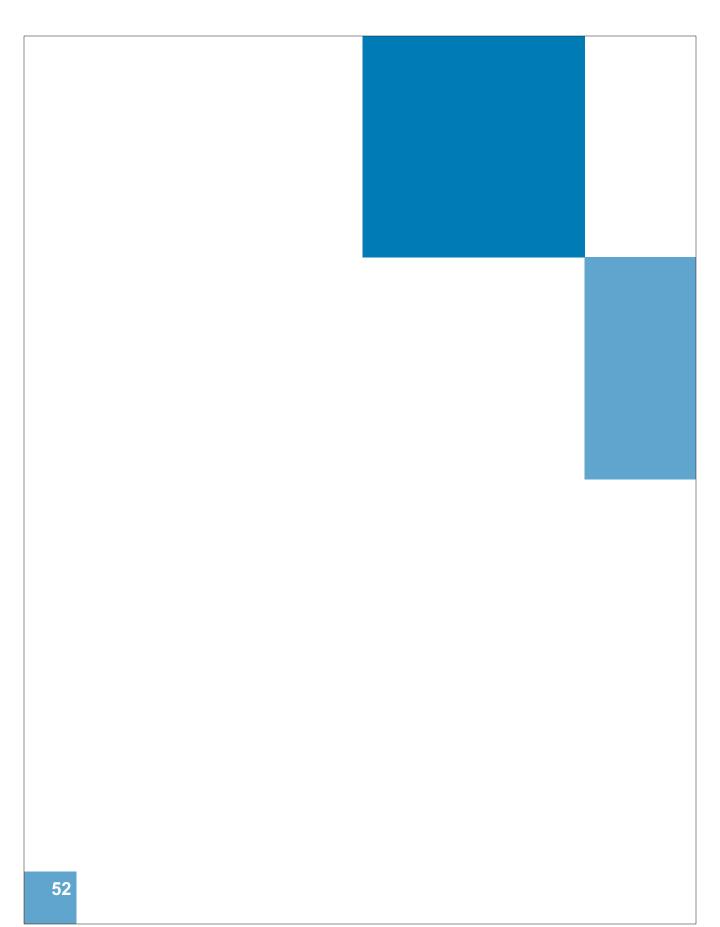
Dr. Aamir Nawaz Khan Sr. Orthopedics

Dr. M. Kashif (Psychology of Disabled) MBBS, FCPS, Psyciatry Assistant Professor Psychiatry Rawalpindi Medical University.

Dr. Sualeha Sheikh (Medicine) MBBS, FCPS Medicine Senior Registrar MU-I BBH RMU.

Dr. Syeda Fatima (Pathology) MBBS - RMU

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DEPARTMENT OF MEDICAL LABORATORY TECHNOLOGY

PROGRAM OFFERED:

BACHEOLARS OF SCIENCE IN MEDICAL LABORATORY TECHNOLOGY (MLT) 04 YEARS DEGREE PROGRAM





WHAT IS MEDICAL LABORATORY SCIENCE?

Medical Laboratory Science combines the use of sophisticated instruments and techniques with the application of theoretical knowledge to perform complex procedures on tissue specimens, blood samples and other body fluids. The tests and procedures that Medical Laboratory Technologists perform provide critical information enabling physicians to diagnose, treat and monitor a patient's condition.

WHO IS MEDICAL LABORATORY TECHNOLOGIST & WHAT DOES HE DO?

Medical Laboratory Technologists (MLTs) or Medical Laboratory Scientists (MLSs) are health professionals who perform laboratory analysis and provide information to physicians. They help physicians to diagnose, screen and treat patients, as well as monitor and prevent disease. However, after attaining special / specific training or practical experience or certification as medical laboratory technology is further classified and named Hematology Technologist, Histotechnologist, Cytotechnologist, Chemical Technologist, Blood Bank Technologist, Molecular Technologist, Forensic Technologist etc.

MEDICAL LABORATORY TECHNOLOGISTS OPERATE A VARIETY OF SOPHISTICATED INSTRUMENTS.

They must have good motor skills, hand-eye coordination and manual dexterity. Ln addition to technical skills, they must have a strong attention to detail in order to detect subtle change to the microscopic appearance of blood, tissue and bacterial cells. MLTs must also determine the validity of the results they obtain, which requires analytical and critical thinking. MLTs work in an ever-evolving environment, and on occasion need to design new procedures to reflect the rapid pace of change in their workplace. Whether working alone or as a member of a team, the MLT must be able to manage time efficiently and communicate clearly.

WHY BECOME A MEDICAL LABORATORY TECHNOLOGIST?

Medical laboratory technology is a constantly evolving and rewarding career. The lab of today is a far more Equipped one than the lab of just ten years ago. As new discoveries advance scientific knowledge, the role of Technologist's will continue to change and expand. We can foresee the impact of future tests that may be developed for diagnosing health problems such as cancer or genetic disorders.

There is a wide range of Career option for Medical Laboratory. Technologist working in more than ten different disciplines i.e. Haematology, Transfusion Medicine, Histopathology, Cytopathology, Clinical Chemistry, Microbiology, Virology, Molecular Medicine, Forensic Sciences, Biotechnology etc.

Each day brings a different challenge and new problems to solve.

Test results have an immediate impact on the cure of critically ill patients. Making a real difference in patients' lives contributes to high levels of job satisfaction among Medical Laboratory Technologists. In Pakistan Medical Laboratory Technologists can earn government job be employed in Govt/Public Sector as "Gazetted Officers" with pay scale from BPS-17 to BPS-20 as per their qualification experience and government policy.

Medical Laboratory Technologists often work independently with minimal supervision. While still a key member of the health care team, MLTs have greater control over their daily routine than many other health care professionals.

Demand for faster testing and constant monitoring of patients has taken some tests out of the laboratory to the patients bedside. This is called "point-of-care" testing. This is an exciting new role for MLTs.

A Medical Laboratory Technologist with International certification is welcome in many other countries. If you have a desire to see the world, a career as a MLT will carry you through life's adventures.

A Technologist can easily work abroad by getting certification of following agencies accreditation bodies

- i. American Society of Clinical Pathology (ASCP) for USA.
- ii. Institute of Bio Medical Sciences (IBMS) for United Kingdom and European Countries.
- iii. Australian Institute of Medical Scientists (AIMS) in Australia and New Zealand.
- iv. Dubai Medical Regulatory Authority (DMRA) for UAE and Middle East Countries
- v. Canadian society for Medical Laboratory Science (CSMLS) for Canada.

Large number of MLT Graduates are doing Post Graduate, Diplomas, M.Phil, PhD & Post Doc. From many universities in Pakistan & Abroad; e.g. QAU, PU, UHS, KEMU, DOW, UVAS, LUMS, NUST, COMSATS.

Technologist can get admission for post-graduation (M. Phil & PhD) in any of following areas

- Medical Laboratory Technology
- Microbiology
- Biochemistry

- Bio Technology -Genetics
- Bio Informatics
- Histotechnology
- Cytotechnologylt
- Hematology
- Public Health

RESEARCH AT DEPARTMENT OF MEDICAL LABORATORY TECHNOLOGY, RAWALPINDI MEDICAL UNIVERSITY

A research report research project thesis is mandatory for the successful completion of degree programme in medical laboratory by UHS. Department of MLT, RMU encourages MLT students in this regard & provides basic facilities, tools and proper supervision. Dr. Sofia Khan is a clinical 8- research supervisor of all students. However co-supervisor can be from another institute.

Final year B.Sc. (Hons) MLT students can do research in any of following areas.

- 1. Immunohaematogy
- 2. Clinical Microbiology
- 3. Advanced Clinical Chemistry
- 4. Advanced Clinical Immunology

Students can carry out their research project in any institute like NUST, Armed Forces Institute of Pathology, Army Medical College, Quaid-e-Azam University and PMAS University of Arid Agriculture etc. Rawalpindi Institute of cardiology, QAU and NUST. Recently our students are doing their research projects in Army Medical College & Arid Agriculture, Rawalpindi Institute of Cardiology as well.

Many research papers were presented & published in different national & international conferences & Journals by students & the graduate of department of Medical Laboratory Technology Institute of Allied Health Sciences, Rawalpindi Medical University, Rawalpindi. The research by one of our students has been selected & published by US National of Medicine, NIH, USA.

SPECIFIC LEARNING OUTCOMES

Following competencies will be expected from a student completing 4 years degree course in Medical laboratory Technology. The students should be able to:

(i) Learn and apply the practical theory (new techniques and procedures) of the laboratory directly to work place settings

- (ii) Demonstrate knowledge of medical terminology with special emphasis on writing and understanding the laboratory directly to workplace settings.
- (m) Demonstrate knowledge of medical terminology with special emphasis on writing and understanding the laboratory reports.
- Select and use appropriate, safe and effective tools to solve a variety of problems pertaining to collecting, transporting, handling and conducting tests on laboratory samples
- (v) Demonstrate knowledge of utilizing and performing corrective and preventative maintenance on a variety of instruments and sensitive (automated) equipment.
- (vi) Relate laboratory results to common disease process and draw and defend reasonable conclusions with proper satisfaction of the patients and their concerns.
- (vii) Perform and monitor quality control within predetermined limits in the laboratory.
- (vii) Help in the upgrading and expansion of the instrumentation and equipment and other supplies used in the laboratory.

METHODS OF INSTRUCTIONS

As a policy, active participation of the students is encouraged. Following teaching modalities are employed:

- Large group teachings (lectures)
- Small group teachings
- Assignments and Presentations
- Skills teachings
- Self-study and use of internet.

ACADEMIC SCHEDULE

The training is spread over four years a specific component for each year of training.

FIRST YEAR

- 1. Basic Anatomy
- 2. Basic physiology
- 3. Basic biochemistry.
- 4. General pathology
- 5. Behaviourial§ciences
- 6. Islamiyat
- 7. Pakistan studies
- 8. Computer Education

SECOND YEAR:

- 1. Haematology and Blood Banking
- 2. Histopathology and Cytopathology

THIRD YEAR

- 1. Microbiology including Parasitology
- 2. Chemical Pathology
- 3. Immunology and Serology

FOURTH YEAR (ELECTIVE SUBJECTS)

- 1. Immunohematology
- 2. Advanced clinical chemistry
- 3. Clinical Microbiology
- 4. Advanced clinical immunology
- 5. Medical Genetics
- 6. Molecular Biology
- 7. Biostatistics And Research Methodology (Compulsory Subject)

FACULTY OF MEDICAL LAB TECHNOLOGY PROGRAM

DISCIPLINE SUPERVISOR

Professor Dr. Mobina Ahsan Dodhy MBBS, FCPS (Hematology) Chairperson Department of Pathology, Rawalpindi Medical University & Allied Hospitals, Rawalpindi.

COURSE CO-ORDINATOR

Dr. Syed Muhammad Ali MBBS, CMT (UHS/UoL, UK), MHPE Department of Pathology, Rawalpindi Medical University, Rawalpindi.

FACULTY

MICROBIOLOGY

Prof. Dr. Naeem Akhtar

MBBS, Ph.D (Scheffield, UK) Dean Basic Sciences & Diagnostics, Department of Pathology, Rawalpindi Medical University & Allied Hospitals, Rawalpindi.

CHEMICAL PATHOLOGY

Prof. Dr. Wafa Omer

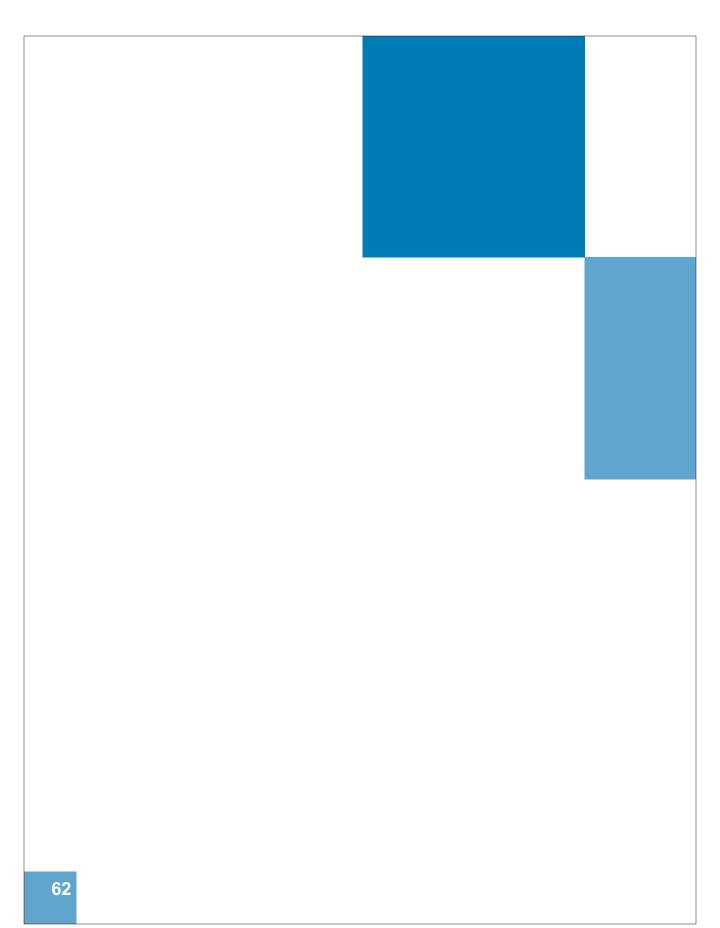
MBBS, M.Phil, Ph.D (Chemical Pathology), Department of Pathology, Rawalpindi Medical University, Rawalpindi.

HEMATOLOGY

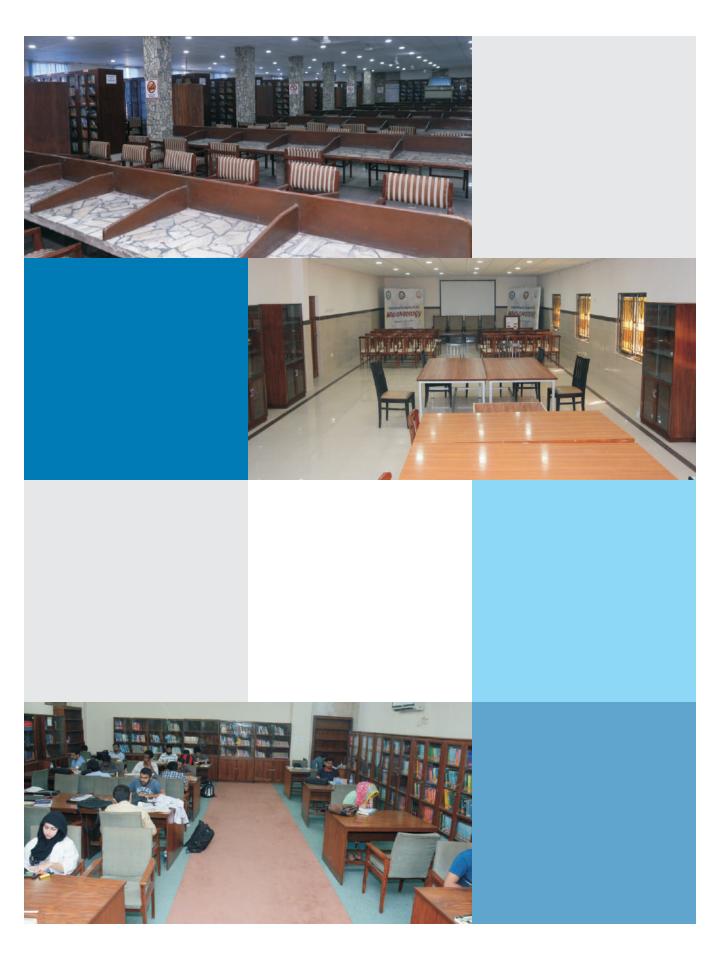
Dr. Rabiya Khalid MBBS, M.Phil (Hematology) Assistant Professor of Pathology, Consultant Hematologist, Rawalpindi Medical University, Rawalpindi.

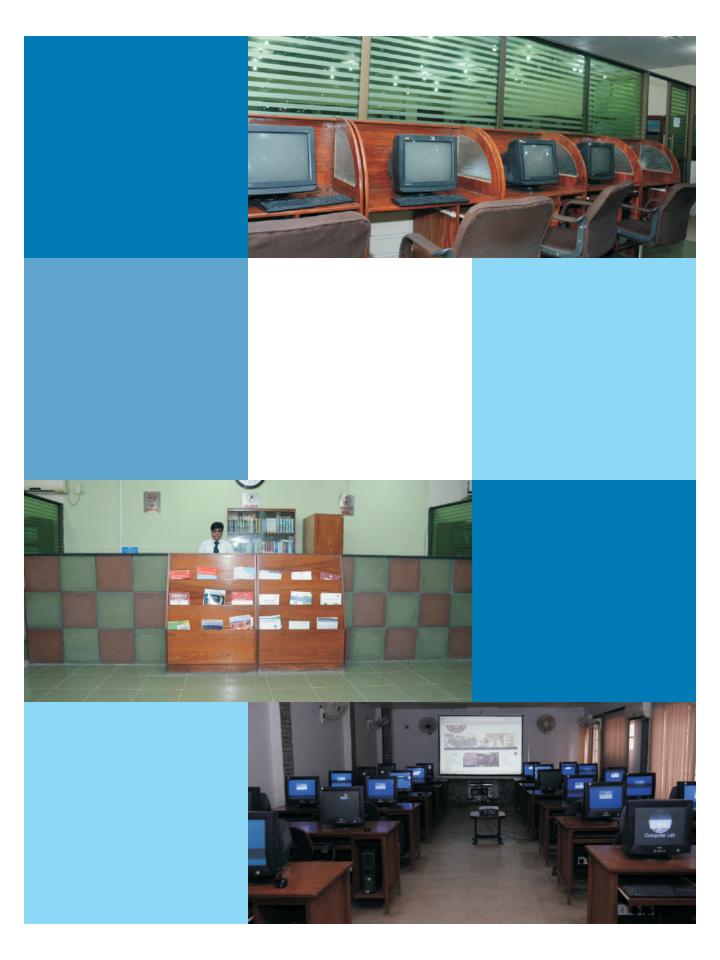
HISTOPATHOLOGY

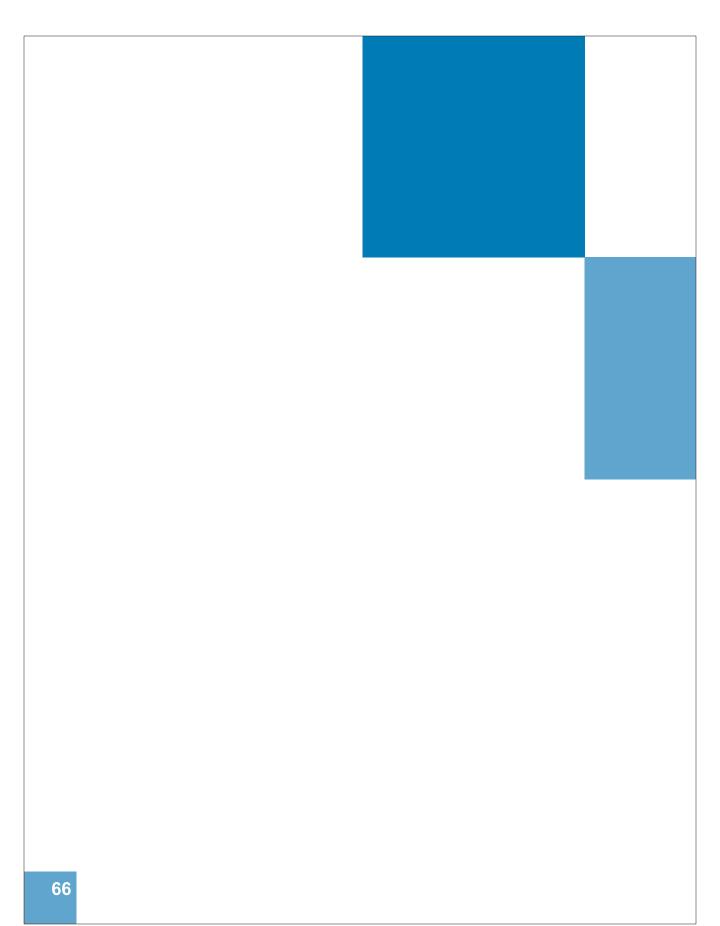
Dr. Mudassira Zahid MBBS, FCPS (Histopathology) Associate Professor of Histpathology Rawalpindi Medical University, Rawalpindi.



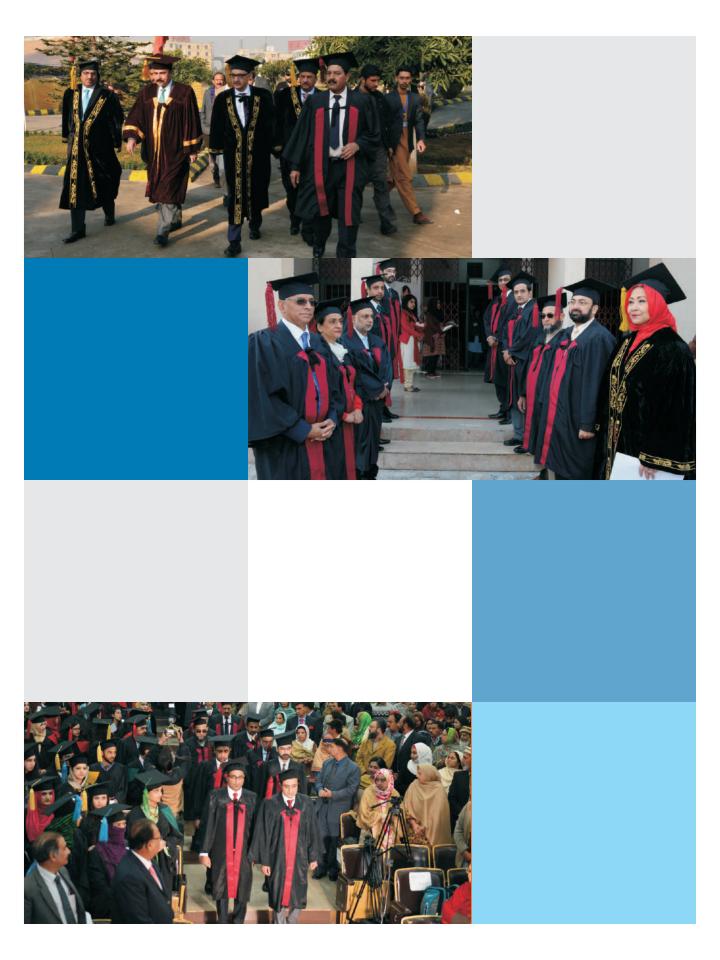
LIBRARY & COMPUTER LAB

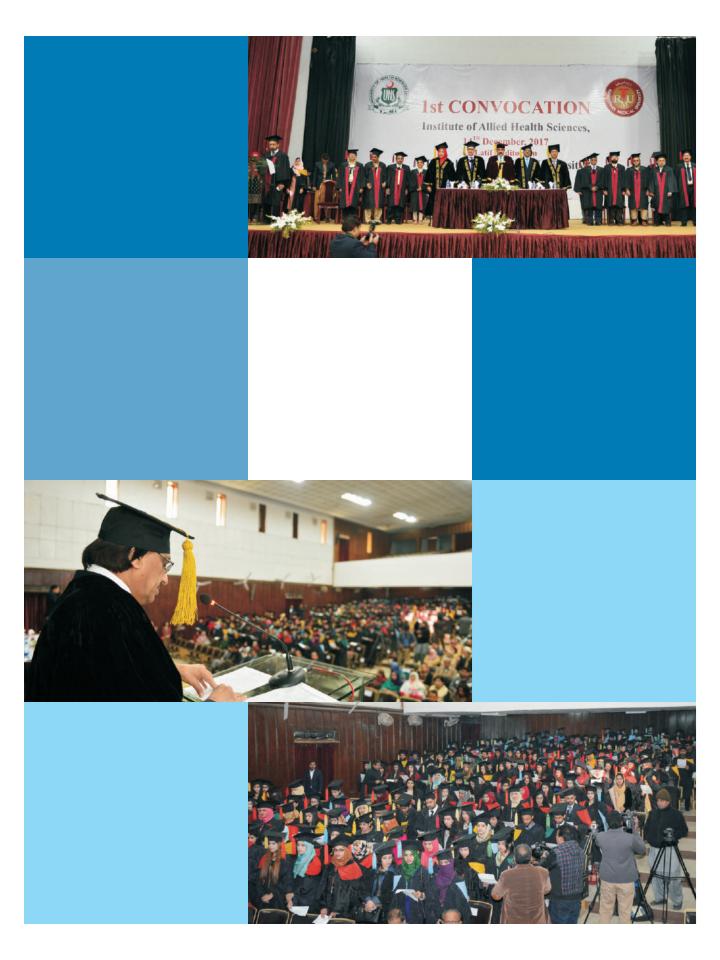






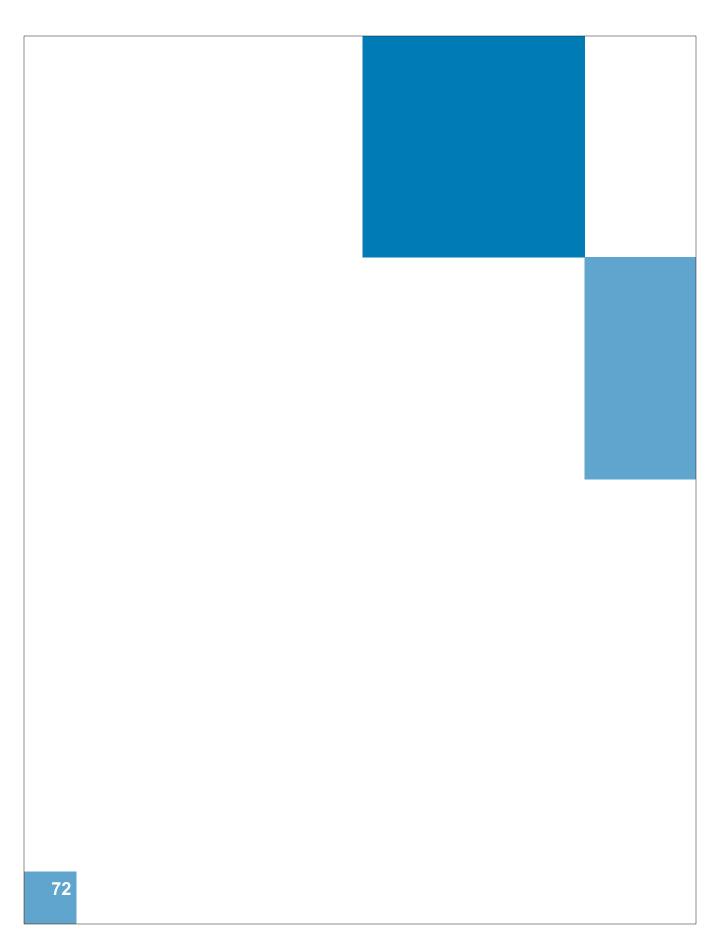
CONVOCATION











EXTRA CURRICULAR ACTIVITIES











RULES AND REGULATIONS

RULES & REGULATIONS

- The candidates and students are required to read, know and abide by the rules and regulations. Ignorance of rules and regulations shall not be considered as an excuse under any circumstances at any stage.
- The candidate has passed HSSC (Pre-Medical)/ equivalent examination with minimum of 60 per cent marks either from abroad or Pakistan. The subjects in HSSC/equivalent examination must include Biology and Chemistry.
- Admission process starts with the publication of advertisement in the month of December / January.
- There are total 125 seats (25 seats for each discipline).
- Selection is made strictly on merit (F.Sc. marks) by the selection committee.
- There are no quota seats.
- No hostel, accommodation and transport facilities are provided.
- After selection, the classes start in March every year.
- No change of discipline will be allowed after one month of start of classes.
- No refund of paid dues will be allowed in any case.

REQUIRED QUALIFICATIONS

• The candidates applying for admission against any category of seats must have passed the HSSC/FSc (Pre-Medical) examination from a Board of Intermediate and Secondary Education in Pakistan with not less than 60% unadjusted marks (660/1100).

OR

Passed an examination of a Foreign University/Board subject to the following:

- a) The examination is recognized as equivalent to Higher Secondary School Certificate (HSSC) (Intermediate levels) by the Inter-Board Committee of Chairmen (IBCC). It shall be the responsibility of the candidates to settle their cases with IBCC and should get equivalence certificate from IBCC only for recognition of their qualification.
- b) The score of the candidate in HSSC equivalent examination should not be less than 660/1100 (60%) marks according to the formula laid downby the Inter Board Committee of Chairmen (IBCC).
- c) A candidate shall not be eligible for admission if he/she has not studied and passed the subjects of Chemistry, Biology and Physics/Mathematics in his/her 9th, 10th, 11th and 12th Grade/ O & A level or other equivalent examination recognized by the IBCC. He/she must have passed English as a subject at O or A level.
- Age limit : 17-30
- No admission would be accepted after due date.
- Candidates must attach the following documents with the Admission Form. Except otherwise mentioned, the documents attached with the Admission Form must be attested by a Government Officer in BS 17 or above. The stamp of the officer must

bear his / her full designation and current place of duty:

- a) Two (02) attested copies of Matriculation (SSC) Certificate or result card issued by a Board of Intermediate and Secondary Education in Pakistan. Computer generated result cards will not be acceptable. Candidate having foreign qualifications (O-Level, 10th Grade and equivalent) must provide the attested copies of Equivalence Certificate issued by IBCC. A valid Interim or 47 Provisional equivalence certificate issued by IBCC will also be acceptable.
- b) Two (02) attested copies of HSSC Pre-Medical result card issued by a Board of Intermediate and Secondary Education in Pakistan. Candidates having foreign qualifications (e.g. A-Level, 12th Grade and equivalent) must provide the attested copies of Equivalence Certificate issued by IBCC. Valid Interim or Provisional certificate by IBCC will also be acceptable.
- c) Two (02) attested copies of Domicile Certificate of the candidate (In case of Children of Overseas Pakistanis/Dual Nationality Holders category only, domicile of Father/Mother shall also be acceptable). No other certificate or document (e.g. Birth Certificate, B-Form, CNIC etc.) is acceptable in lieu of Domicile Certificate of the candidate. Any candidate found to have domicile of more than one place shall be disqualified.
- d) Two (02) attested copies of CNIC of candidate.
- e) Two (02) attested copies of CNIC of Father / Mother. Overseas Pakistanis/Dual Nationality Holders may provide attested copies of their Pakistani Passport/ NIC/ NICOP/ POC or any other official document providing their Pakistani nationality.
- f) Three (03) recent photographs. One to be pasted on the Admission Form and to be attested on the front, and other two, attested on the back, to be attached with the form. Your photograph must be: Color; Passport size (4.5 cm high x 3.5 cm wide); Taken against a light blue background.

- Admission Form along with all required documents once submitted shall not be returned. Similarly, documents once submitted cannot be changed and shall be considered as final. Revision of result or improvement of marks by any Board after the submission of Admission Form shall not affect the merit list of admissions for the current year in any way. In other words, revised marks certificate shall not be acceptable once the candidate has submitted his/her Admission Form. Similarly, results declared after the submission of forms shall not be accepted for admissions in the current session.
- A candidate can submit only one admission form for a discipline. In case, he/she submits more than one form, the form(s) submitted subsequently will be rejected.
- Incomplete or unsigned Admission Forms will be rejected.

SELECTION AND ADMISSION OF CANDIDATES

- The candidate will be selected by the Admission Board. The decisions of Admission Board in respect of selection and admission shall be final.
- The selection of the candidates against open merit seats shall be made on the basis of Merit, Choice, Availability of seat, and in that order.
- Whenever two or more than two candidates are bracketed, i.e., they have exactly the same percentage after calculation, the one senior in age will be given preference to the other for the purpose of admission. In case the tie continues, higher score in Matriculation (SSC or equivalent) shall be preferred for admission.
- The Admission Board may refuse admission to any candidate who seems, for reasons to be recorded in each case at the time of interview, to be unsuitable or unlikely to become a good doctor. In case such a candidate is admitted, he/she can be struck off the rolls of the college, after issuing a notice to him/her to that effect.
- Selected candidates shall have to submit all original documents and certificates at the time of interview. The original documents of the selected candidates will be retained by the college concerned and will be returned on leaving the institution.
- No candidate will be admitted unless he/she has paid the fee and other dues. All dues must be paid by the due date, otherwise the admission of defaulting students will be cancelled and next candidate on merit will be considered for admission.

FEES AND SUBSCRIPTIONS

The fee structure for Session is as follows.

| S. No | Course Offered | Fee 1 st Year | Annual fee For Subsequent Years |
|-------|-------------------------------|--------------------------|------------------------------------|
| 1 | Doctor Of Physical therapy | 130,000/- | 125,000/- |
| 2 | Medical Imaging Technology | 80,000/- | 75,000/- |
| 3 | Orthotics & Prosthetics | 80,000/- | 75,000/- |
| 4 | Optometry & Orthoptics | 80,000/- | 75,000/- |
| 5 | Medical Laboratory Technology | 80,000/- | 75,000/- |

REGULATIONS FOR INTERNAL ASSESSMENT

- The weightage of internal assessment shall be 10% in all subjects. 5% internal assessment marks shall be added to the aggregate score of Theory and 5% internal assessment marks to aggregate score of Oral and Practical Examination and not to an individual component like MCQs,SEQs Paper or Oral / Practical / Clinical Examination.
- Continuous internal assessment shall consist of evaluation at the end of each assignment, e.g. stages/sub-stages, class tests etc., attitudinal assessment from educational and or clinical supervisors, clinical skill assessment from clinical supervisors, and Year's work books.
- Assessment of Knowledge, Skills and Attitude shall contribute toward internal assessment. Methods used to assess these domains shall include Multiple Choice Questions of one-best type, Short essay questions, Oral/Viva, and Practical Clinical examinations.
- The score of internal assessment shall contribute 10% to final examination and final university examination of each subject shall contribute 90% to total score, and the candidate shall pass in aggregate.
- Awards of internal assessment in all the subjects of all the candidates shall be submitted to the Controller of Examinations along with Admission Forms for the annual examination. Internal assessment received after commencement of the final examination shall not be accepted.
- The marks of internal assessment shall be submitted only once a year prior to annual examination and the same shall be counted both for annual and

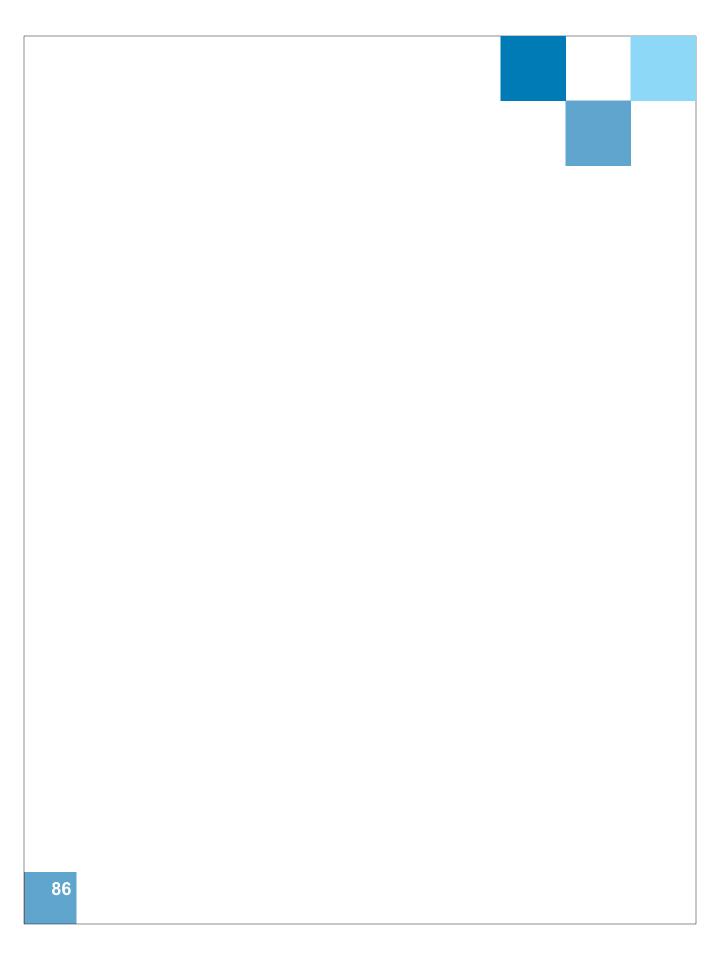
supplementary examinations. It is further emphasized that fresh assessment or a revision of assessment for supplementary examination shall not be permissible.

- Proper record of continuous internal assessment shall be maintained by respective departments of the medical/dental colleges.
- Internal assessment awarded in particular year may not be decrease subsequently detrimental to the candidate.

CAFETERIA











Rawalpindi Medical University

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