

**INNOVATE,  
HEAL, LEAD.**

EXPERIENCE EXCELLENCE IN  
**HEALTHCARE EDUCATION**

RMI EDUCATION  
**RCAHS**

REHMAN COLLEGE OF  
ALLIED HEALTH SCIENCES



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Rehman College of Allied Health Sciences (RCAHS) was established in 2011 and is affiliated with Khyber Medical University (KMU). RCAHS is a vibrant, recognized, student-centered, research-oriented institute equipped with highly qualified faculty and modern skill labs.

The college is focused on delivering high-quality instruction in Basic Medical Sciences, revitalizing the neglected fields of Allied Health Sciences, pioneering graduation-level courses in Allied Health Sciences, and fostering indigenous research activities.

RCAHS is committed to academic excellence, healthy co-curricular practices, socially relevant activities, and courses leading to employment and entrepreneurship. It aims to contribute to the continuous progress of the institution and train youth who can be employed for the overall development of civil society at large. The institute strives to provide modern education with a learning methodology that reflects best practices.



RMI EDUCATION

## VISION

The education at Rehman College of Allied Health Sciences (RCAHS) is to produce highly competent professionals who are an integral part of healthcare provision team, facilitating clients, whether sick or otherwise.

## MISSION

The mission of RCAHS is to educate and train students to be innovative, intellectual, researchers, and competent professionals, caring, demonstrate integrity, socially accountable and are prepared for interdisciplinary roles as team members in leadership and supportive roles.

## PHILOSOPHY

Value excellence, empathy, and cultural competency in developing competent Allied health professionals. Our vibrant learning environment fosters critical thinking and lifelong learning, prepare graduates to meet the changing needs of health care.

## GOVERNANCE

Principal, being head of the college, is responsible for overseeing day-to-day administration, academics, financial matters, and implementing policies in accordance with the regulations and guidelines set forth by HERA (KP), Khyber Medical University, and other relevant regulatory authorities.



- Accountability
- Caring
- Excellence
- Honesty
- Innovation
- Integrity
- Professionalism
- Respect for others
- Social Justice

## AFFILIATIONS, ACCREDITATIONS & COLLABORATIONS





## PROGRAMMES

RCAHS offers BS as four years (eight semesters) degree programmes affiliated with Khyber Medical University, Peshawar in the following disciplines:

- Medical Laboratory Technology (40 seats)
- Emergency Technology (20 seats)
- Surgical Technology (20 seats)
- Radiology Technology (30 seats)
- Cardiology Technology (40 seats)
- Anaesthesia Technology (30 seats)
- Public Health (25 seats)
- Vision Sciences (Optometry) (20 seats)
- Dental Surgery Assistant (DSA) Diploma (20 seats)

## PROPOSED / UPCOMING PROGRAMMES

The Affiliation process is in the pipeline with regulatory authorities. The admission will be offered after the completion of affiliation process.

- BS Dental Technology
- BS Health Technology
- BS Respiratory Therapy & Intensive Care Technology



## Why RCAHS?

**Expert Faculty:** Learn from highly qualified faculty holding MS and PhD degrees.

**Clinical Practice:** Gain hands-on experience in RMI hospital with more than 500-bed capacity.

**Community Health Exposure:** learning opportunities at Rural Health Centers across the province

**Advanced Facilities:** Benefit from state-of-the-art skills and IT laboratories.

**Optimal Learning Environment:** Study in a conducive and supportive atmosphere.

**Global Connections:** Enjoy collaborations with national and international organizations.

**Internship Opportunities:** All graduates receive paid internships.

**Job Opportunities:** Secure job placements after the completion of internships.

**Secure Accommodations:** Stay in our safe and secure hostel.

**Convenient Transport:** Dedicated transport facilities for female students.

# Bs - Medical Laboratory Technology

## Overview

Medical Laboratory Technology is a branch of medicine that provides essential laboratory diagnostic services. Medical Laboratory Technologists are responsible for performing a wide range of complex laboratory analysis and utilizing critical thinking skills to ensure accuracy and validity of test results.

These professionals understand the interconnectedness of testing information and possess in-depth knowledge of physiological and pathological conditions that can impact test outcomes. This knowledge enables them to provide crucial support for medical decision-making processes.





## PROGRAMME OBJECTIVES

### Graduate Learning Outcomes

- Master the protocols for proper collection, transportation, handling, and processing of laboratory samples to ensure accuracy and reliability of test results.
- Develop the skills to confidently and accurately perform benchwork required for diagnostic tests, employing both manual and automated techniques in pathology laboratories.
- Demonstrate proficiency in the operation, maintenance, and troubleshooting of laboratory instruments and equipment to ensure optimal performance and longevity.
- Convey laboratory results accurately and promptly to clinicians, ensuring that the information provided is clear and useful for patient diagnosis and treatment.
- Implement and monitor stringent quality control measures to maintain high standards of laboratory testing, ensuring the reliability and validity of test results.
- Assist consultants and researchers in designing and conducting research projects, contributing to advancements in medical science and laboratory technology.
- Exhibit ethical behavior and decision-making in all professional activities, adhering to established guidelines and standards of practice in medical laboratory technology.
- Develop strong critical thinking and problem-solving skills to address challenges encountered in the laboratory setting, ensuring effective resolution and continuous improvement.

## COURSE CONTENTS

### BS MLT Programme (4 Years)

Course Title	Credit
<b>YEAR - 1ST</b>	
Human Anatomy	(8 Cr)
Biochemistry	(8 Cr)
Human Physiology	(8 Cr)
English	(4 Cr)
Pak Studies	(2 Cr)
Computer Skills	(2 Cr)
Islamic Studies	(2 Cr)

Course Title	Credit
<b>YEAR - 2ND</b>	
General Pathology	(6 Cr)
Molecular Biology	(3 Cr)
Pharmacology	(6 Cr)
Communication Skills	(2 Cr)
Clinical Bacteriology	(3 Cr)
Behavioral Sciences	(2 Cr)
Haematology - I	(3 Cr)
RBCS Disorder	(3 Cr)
Diagnostic Bacteriology	(3 Cr)
Human Genetics	(3 Cr)

Course Title	Credit
<b>YEAR - 3RD</b>	
WBC & Platelets Disorders	(3 Cr)
Clinical Parasitology	(3 Cr)
Chemical Pathology	(3 Cr)
Clinical Pathology	(3 Cr)
Laboratory Mathematics	(3 Cr)
Biotechnology	(3 Cr)
Blood Banking	(3 Cr)
Immunology And Serology	(3 Cr)
Cytology And Cytogenetics	(3 Cr)
Laboratory Instrumentation and Techniques	(3 Cr)
Histo-Techniques	(3 Cr)
Clinical Virology And Mycology	(3 Cr)

Course Title	Credit
<b>YEAR - 4TH</b>	
Med. Lab Management Skills	(3 Cr)
Bioinformatics	(3 Cr)
Research Methodology	(3 Cr)
Bio-statistics	(3 Cr)
Epidimology	(2 Cr)
Biosafety And Biosecurity	(2 Cr)
Toxicology & Forensic Serology	(3 Cr)
Bio Ethics	(2 Cr)
Research Project/Final Project	(6 Cr)
Seminar	(1 Cr)



## SCOPE AND CAREER OPPORTUNITIES OF BS MLT

At the national and international levels, there is a significant demand for highly trained Medical Laboratory Technologists. Pakistan, being an underdeveloped country, is facing a severe shortage of trained workforce/allied health sciences professionals. RCAHS offers a high-standard training setup for its students, which can be compared to any international or national-level facility.

Each department in the centralized laboratory is equipped with advanced and latest equipment, including Real-Time PCR, Sequencing Platforms, Immunoassay analyzers, Hematology auto-analyzers, and Coagulation analyzers, among others. All RCAHS students undergo mandatory training under close supervision to develop their skills as highly trained professionals.

Presently, laboratory technologists are employed in various government and private institutes, hospitals, national and international organizations. They play a substantial role in providing state-of-the-art laboratory services that are at par with good laboratory practices offered by highly developed countries around the globe.

Medical Laboratory Technologists are consistently involved in the management of pathology laboratories and contribute to clinical research, epidemiology, as well as national and international infectious diseases control programs, such as TB, HIV, Hepatitis, Polio Eradication, and COVID-19 surveillance programs.



# Bs - Emergency Technology

## Overview

The concept of emergency technology is relatively new in Pakistan, while it has become the backbone of the healthcare system in most developed countries.

Emergency technology is a field of practice that focuses on the knowledge and skills required for the prevention, diagnosis, and management of acute and urgent aspects of illness and injury affecting patients of all age groups, encompassing a wide range of undifferentiated physical and behavioral disorders.

Emergency medical teams are responsible for providing care to patients presenting with acute emergencies. The initial resuscitation is conducted by the emergency medical team, which consists of emergency physicians, technologists, and other paramedical staff.

Given the increasing number of trauma cases and natural disasters, emergency medicine has become a crucial requirement in the healthcare system.



## PROGRAMME OBJECTIVES

### Graduate Learning Outcomes

- Express knowledge, technical and non-technical skills in a standardized and reproducible environment.
- Generate decision power and exercise appropriate judgment skills with matching application.
- Develop administrative skills in developing crisis management plans.
- Design effective communication skills to perform in his working environment effectively.
- Construct interdisciplinary team building strategies for effective co-ordination among different allied health disciplines.
- Schedule and maintain continuing education as a function of his personal development plan.
- Show the expertise in legal implication of emergency cases and application of professional attitude.

## COURSE CONTENTS

### BS Emergency Technology Programme (4 Years)

Course Title	Credit
<b>YEAR - 1ST</b>	
Medical Biochemistry	(8 Cr)
Humanphysiology	(8 Cr)
Humananatomy	(8 Cr)
English	(4 Cr)
Pakstudies	(2 Cr)
Computerskills	(2 Cr)
Islamicstudies	(2 Cr)

Course Title	Credit
<b>YEAR - 2ND</b>	
Pathology	(6 Cr)
Medicalmicrobiology	(6 Cr)
Pharmacology	(6 Cr)
Medicalemergency	(6 Cr)
Heamatology	(6 Cr)
Communication Skills	(2 Cr)
Cardiopulmonary Physiology	(2 Cr)
Radiological Presentation of Pathologies	(6 Cr)

Course Title	Credit
<b>YEAR - 3RD</b>	
Trauma Emergency	(6 Cr)
Surgical Emergency	(6 Cr)
Burns & Toxicology	(3 Cr)
Basic And Advance Life Support	(3 Cr)
Clinical Laboratory Investigations	(3 Cr)
Anesthesia Equipments	(3 Cr)
Cardiovascular Emergency	(3 Cr)
Neurological Emergency	(3 Cr)
Neonatal And Pediatric Critical Care	(3 Cr)
Fundamentals Of Emergency Care	(3 Cr)

Course Title	Credit
<b>YEAR - 4TH</b>	
Obstetrical Emergency	(6 Cr)
Disaster Management	(2 Cr)
Research Methodology	(3 Cr)
Biostatistics	(3 Cr)
Epidemiology	(3 Cr)
Fundamentals Of Infection Control	(2 Cr)
Ambulance Operations and Management	(3 Cr)
Bioethic	(2 Cr)
Reasearch Project	(6 Cr)
Seminar	(1 Cr)

## SCOPE AND CAREER OPPORTUNITIES OF BS EMERGENCY TECHNOLOGY

At national and international levels, there is a high demand for trained Emergency Technologists. In the field of emergency medicine, Pakistan, being an underdeveloped country, is facing a significant shortage of trained professionals.

At RCAHS, students receive training in basic skills labs during their first four semesters under close supervision. From fifth semester onwards, Emergency Technology students are required to work in RMI's state-of-the-art emergency department under the supervision of senior consultants and Technologists.

This program is suitable for individuals who wish to develop expertise in providing immediate medical attention to patients with acute illnesses or injuries. Upon completion of the program, students will have gained experience in managing various serious medical and surgical emergencies, including cardiac, neurological, poly-traumatic, pediatric, and obstetrical emergencies. They will be equipped to provide safe and efficient treatment to patients of all age groups by making necessary decisions and recognizing the equipment and medications used in emergency situations. Ultimately, the graduates will become professional Accident and Emergency Technologists.

Currently, Emergency Technologists are employed in various government and private institutes, hospitals, and national and international organizations.



# Bs - Surgical Technology

## Overview

Surgical Technology is a specialized technical profession in surgical management of patients. Surgical Technologists (STs) play a crucial role in ensuring safety and success of every procedure in the operating theatre.

Their primary responsibility is to oversee and manage all aspects of operation theatre. This includes proper care and handling of surgical instruments, sterilization processes, and arrangement of operation theatre table, dressing table, and instrument table. STs work diligently to ensure that all necessary equipment and supplies are prepared and readily available for surgical procedures.







## PROGRAMME OBJECTIVES

### Graduate Learning Outcomes

- Develop accuracy and meticulousness to attain high levels of ethics and technical proficiency.
- Assess the technical and non-technical skills in a standardized and reproducible environment.
- Strengthen the decision power and exercise appropriate judgment skills, to be applied especially during crises.
- Develop good leadership, problem solving and administrative skills.
- Develop and analyze innovative strategies for effective communication with the patients and the health care personnel.
- Demonstrate interdisciplinary team building strategies for effective coordination between various Allied Health Disciplines.
- Demonstrate understanding of the basic concepts of professional behavior and legal implications of the work environment.
- Demonstrate the knowledge of his / her role in health care delivery system.
- Establish and maintain continuing education as a function of growth and maintenance of professional competence.
- Preparation and operation of different equipment i.e. suction machines, drills, ESU.
- Operating and/or handling laparoscopic or endoscopic devices.
- Assisting in Chest tube intubation, drains handling.
- Assisting in tracheostomy in emergency airway management
- Perform urinary catheterization, stroma bags, Opsite dressing.
- Maintaining of sterile field during procedures
- Suturing techniques, dressings and applying of drainage tubing and jars or bag to the patient.
- Patient shifting and ambulation.
- Biomedical waste management and infection control strategies.
- Providing post-operative care to the patient.

## COURSE CONTENTS

### BS Surgical Technology Programme (4 Years)

Course Title	Credit
<b>YEAR - 1ST</b>	
Human Anatomy	(6+2 Cr)
Human Physiology	(6+2 Cr)
Biochemistry	(6+2 Cr)
English	(4+0 Cr)
Pak Studies	(2+0 Cr)
Computer Skills	(1+1 Cr)
Islamic Studies	(2+0 Cr)

Course Title	Credit
<b>YEAR - 2ND</b>	
Surgical Instruments/ Equipment's and Biosafety	(2+1 Cr)
Pathology	(4+2 Cr)
Medical Microbiology	(4+2 Cr)
Communication Skills	(1+1 Cr)
Pharmacology	(4+2 Cr)
Hematology	(2+1 Cr)
Surgical Setup And Positioning	(2+1 Cr)
Diagnostic Imaging	(1+1 Cr)
Behavioral Sciences	(1+0 Cr)
Sterilization And Disinfection	(1+1 Cr)

Course Title	Credit
<b>YEAR - 3RD</b>	
Advance Trauma Management	(2+1 Cr)
Aesthetic And Plastic Surgery	(2+1 Cr)
Ent Surgery	(2+1 Cr)
Anesthesia Equipment	(2+1 Cr)
Clinical Operative Thoracic Surgery	(2+1 Cr)
General Surgery	(2+1 Cr)
Clinical Operative Ophthalmic Surgery	(2+1 Cr)
Peri Operative Care	(2+1 Cr)
Clinical Operative Pediatric Surgery	(2+1 Cr)
Clinical Operative General Surgery	(2+1 Cr)
Clinical Operative Gynecology Obstetrics	(2+1 Cr)
Diagnostic And Endoscopic Surgery	(2+1 Cr)

Course Title	Credit
<b>YEAR - 4TH</b>	
Fundamental Of Infection Control	(1+1 Cr)
Research Methodology	(2+1 Cr)
Biostatistics	(2+1 Cr)
Clinical Operative Neurosurgery	(2+1 Cr)
Epidemiology	(2+1 Cr)
Clinical Operative Urology Surgery	(2+1 Cr)
Research Project/Seminar	(0+6 Cr)
Clinical Operative Orthopedic Surgery	(2+1 Cr)
Bioethics	(2+0 Cr)
Operating Room Management	(1+1 Cr)
Seminar	(0+1 Cr)



## SCOPE AND CAREER OPPORTUNITIES OF BS SURGICAL TECHNOLOGY

The demand for Surgical Technologists has increased significantly in recent times. They play a crucial role in operating theatres, assisting during surgical procedures.

RMI, known as one of the top tertiary care hospitals in Khyber Pakhtunkhwa, offers excellent training and learning opportunities for its BS Surgical Technology students. These students receive guidance and supervision at each step, ensuring they receive top-notch facilities and education.

Currently, surgical technologists are employed in various government and private institutes, hospitals, national and international organizations. They hold positions such as Manager of OT Services, Surgical Assistants to Surgeons, Quality Control and Quality Assurance Programme Managers in operation theatres and are involved in various other surgical-related procedures.

Surgical Technologists are integral members of surgical teams, actively participating in basic and complex surgical procedures.



# Bs - Radiology Technology

## Overview

Radiology Technology is a medical professional course that involves the use of medical imaging tests to diagnose and treat diseases in the human body.

Radiology can be divided into two main branches: Diagnostic Radiology and Interventional Radiology. Diagnostic Radiology focuses on the use of imaging techniques such as X-ray radiography, Ultrasound, Computed Tomography (CT), Nuclear Medicine (including Positron Emission Tomography or PET), Fluoroscopy, and Magnetic Resonance Imaging (MRI) to diagnose and treat diseases. Interventional Radiology involves performing minimally invasive medical procedures using advanced medical technologies.

The profession requires a high level of technological expertise. Radiology Technologists work as part of healthcare teams in Diagnostic Imaging departments, Accident and Emergency departments, Intensive Care Units, and Operating Theatres. They are also sometimes involved in providing treatment to cancer patients.



## PROGRAMME OBJECTIVES

### Graduate Learning Outcomes

BS Radiology education should enable the student to:

- Develop accuracy and meticulousness to attain high levels of ethics and technical proficiency.
- Access the technical and non-technical skills in a standardized and reproducible environment
- Strengthen the decision power and exercise appropriate judgment skills, to be applied especially during crisis.
- Develop good leadership, problem solving and administrative skills.
- Develop and analyze innovative strategies for effective communication with the patient and the health care personnel.
- Demonstrate interdisciplinary team building strategies or effective co-ordination between various allied health disciplines.
- Demonstrate understanding of the basic concepts of professional behaviors and legal implementations of work environment.
- Demonstrate a knowledge of his/her role in health care delivery systems.
- Establish and maintain continuing education as a faction of growth and maintenance of professional competence.

## COURSE CONTENTS

### BS Radiology Technology Programme (4 Years)

Course Title	Credit
<b>YEAR - 1ST</b>	
Biochemistry	(6+2 Cr)
Human Physiology	(6+2 Cr)
Human Anatomy	(6+2 Cr)
English	(4+0 Cr)
Pak Studies	(2+0 Cr)
Computer Skills	(1+1 Cr)
Islamic Studies	(2+0 Cr)
Radiological Positioning & Clinical Practice	(2+2 Cr)
Communication Skills	(1+1 Cr)
Clinical Medicine	(1+1 Cr)
Radiobiology and Radiation Protection	(1+1 Cr)
Clinical Pathology and Radiological Presentation	(1+1 Cr)

Course Title	Credit
<b>YEAR - 2ND</b>	
General Pharmacology	(2+1 Cr)
General Pathology	(2+1 Cr)
Regional and Radiological Anatomy	(4+2 Cr)
Radiation Science & Technology	(2+1 Cr)
General Radiology	(2+1 Cr)
Conventional Radiological Procedures and Clinical Practice	(2+2 Cr)
Conventional & Digital Radiography	(1+1 Cr)
Computed Tomography (CT) Procedures & Clinical Practice	(2+1 Cr)
Magnetic Resonance Imaging (MRI) Procedures & Clinical Practice	(2+1 Cr)
Therapeutic Radiology	(2+1 Cr)
Nuclear Medicine	(2+1 Cr)

Course Title	Credit
<b>YEAR - 3RD</b>	
Computed Tomography (CT) Mammography & Special Radiological Techniques	(2+2 Cr)
Magnetic Resonance Imaging (MRI)	(2+2 Cr)
Interventional Radiology	(1+1 Cr)
General Surgery	(2+2 Cr)
Clinical Medicine-II	(1+1 Cr)
Radiological & Cross-sectional Anatomy	(2+1 Cr)
Bioethics	(2+0 Cr)
Research Project	(0+6 Cr)
Seminar	(0+1 Cr)

Course Title	Credit
<b>YEAR - 4TH</b>	
Clinical Sonography	(2+2 Cr)
Angiography and Cardiac Imaging	(2+2 Cr)
Clinical Practice and Radiological Procedures	(1+1 Cr)
Echocardiography	(1+1 Cr)
Research Methodology	(2+1 Cr)
Biostatistics	(2+1 Cr)
Patient Care & Management	(2+0 Cr)

## SCOPE AND CAREER OPPORTUNITIES OF BS RADIOLOGY TECHNOLOGY

The demand for radiology technologists has increased in recent times due to significant technological advancements in the field of medical sciences, which has created new job opportunities.

The demand for radiology technologists has increased in recent times, with significant technological development in medical sciences creating new job opportunities. RMI's Radiology Department is not only equipped with highly advanced technological instruments i.e., X-rays, Ultrasound, MRI, and CT scans but also has the best radiologists in the region.

RMI feels proud to start the Interventional Radiology department. RCAHS' students of BS Radiology Technology undergo extensive mandatory training in radiology department to become a highly trained and a true professional.

Currently, Radiology Technologists are employed in various government and private institutes, hospitals, and national and international organizations. Moreover, apart from these promising career opportunities, Radiology Technologists also have the potential to establish and operate their own independent basic radiological setups.



# Bs - Cardiology Technology

## Overview

Cardiology Technology is a specialized field that assists in diagnosis and treatment of disorders related to the Cardiovascular System (CVS). This includes conditions such as congenital heart defects, coronary artery disease, heart failure, valvular heart disease, and the electrophysiology of the heart.

Students in this field gain knowledge and skills that allow them to study and understand the intricacies of the cardiovascular system. They also learn to utilize computer-assisted technologies relevant to cardiology. Cardiology Technologists play a vital role in supporting healthcare professionals in diagnosis, treatment, and management of cardiovascular disorders.

Cardiovascular Technologists may specialize in any of the three areas:

- Invasive Cardiology
- Echocardiography
- Vascular Technology





## PROGRAMME OBJECTIVES

### Graduate Learning Outcomes

- Evolve into a fully trained, qualified cardiac technologist capable of working independently.
- Integrate knowledge and skills of cardiac technology to provide healthcare solutions for the benefit of society.
- Utilize the latest trends and technology in providing cardiac care.
- Assess the clients for heart-related problem
- monitor and care for those suffering from cardiovascular ailments.
- Have good knowledge of medical equipment and tools used.
- Observe and understand the correct way of performing cardiac procedures before practicing them.
- Assist cardiologist in techniques such as cardiac catheterization, electrocardiography, echocardiography.
- Learn and apply basic and advanced life support skills
- Work in a team with cardiologists and cardiac surgeons in a high-pressure hospital environment.
- Conduct needs-based research studies in various settings and utilize the research findings to improve the quality of care.
- Practice within code of ethics and professional conduct and acceptable standards of cardiac practices with the legal boundaries.
- Function effectively and efficiently and exhibit ethical behavior in an cardiovascular technologist role.
- Complete all work in accordance with legal and ethical requirements of field, using accepted safety practices, and appropriate terminology specific to the occupation and industry.
- Operate sophisticated medical equipment to assist physicians in the diagnosis and treatment of cardiovascular disorders.
- Prepare accurate test reports such as electrocardiogram, holter scan and exercise test for the interpreting cardiologist.
- Critically evaluate the patient's cardiac status using the relevant test procedure and result.

## COURSE CONTENTS

### BS Cardiology Technology Programme (4 Years)

Course Title	Credit
<b>YEAR - 1ST</b>	
Biochemistry	(6+2 Cr)
Human Physiology	(6+2 Cr)
Human Anatomy	(6+2 Cr)
English	(4+0 Cr)
Pak Studies	(2+0 Cr)
Computer Skills	(1+1 Cr)
Islamic Studies	(2+0 Cr)
Cardiopulmonary Physiology	(2+0 Cr)
Diagnostic Equipments	
In Cardiology	(2+1 Cr)
Pulmonary Diseases	(2+1 Cr)

Course Title	Credit
<b>YEAR - 2ND</b>	
Hematology	(4+2 Cr)
Medical Microbiology	(4+2 Cr)
Cardiopulmonary Anatomy	(2+1 Cr)
Pharmacology	(4+2 Cr)
Communication Skills	(2+0 Cr)
General Pathology	(4+2 Cr)
Electrocardiography	(2+1 Cr)
Cardiac Surgery	(2+1 Cr)
Subject Of Own Interest	(2+2 Cr)
Bioethics	(2+0 Cr)

Course Title	Credit
<b>YEAR - 3RD</b>	
Clinical Medicine	(4+2 Cr)
Electrophysiology	(2+1 Cr)
Echocardiography	(4+2 Cr)
Electrocardiography-ii	(2+1 Cr)
Interventional Cardiology	(2+1 Cr)
Medical Physics	(2+1 Cr)
Critical Care	(2+1 Cr)
Seminar	(1+0 Cr)

Course Title	Credit
<b>YEAR - 4TH</b>	
Nuclear Cardiology	(2+1 Cr)
Heart Diseases	(2+1 Cr)
Research Methodology	(2+1 Cr)
Preventive Cardiology	(2+1 Cr)
Epidemiology	(2+1 Cr)
Biostatistics	(2+1 Cr)
Research Project	(2+1 Cr)



## SCOPE AND CAREER OPPORTUNITIES OF BS CARDIOLOGY TECHNOLOGY

The demand for cardiology technologists is increasing globally due to the rising prevalence of cardiovascular diseases and advancements in medical technology. Cardiology technologists primarily work in the cardiology department and its associated sub-departments. RMI offers state-of-the-art cardiac facilities, making it one of the best cardiac units available to the people of Khyber Pakhtunkhwa. The cardiac department at RMI is equipped with advanced instruments, and its highly qualified staff, including cardiologists, is a remarkable achievement.

RCAHS provides comprehensive training to its BS Cardiology Technologist students in all areas of cardiology. They gain hands-on experience and assist cardiologists in surgeries, allowing them to develop into highly skilled professionals.

Currently, cardiac technologists are employed in various government and private institutes, hospitals, NGOs, national and international organizations. They play a significant role in providing state-of-the-art cardiac services that are comparable to the practices followed by highly developed countries for their patients.

Cardiac technologists are integral members of the cardiology department. They are extensively involved in assisting cardiac surgeons and cardiologists, performing various cardiac procedures such as angiography, angioplasty, Percutaneous Coronary Interventions (PCI), and Coronary Artery Bypass Graft (CABG) surgeries.



# Bs - Anaesthesia Technology

## Overview

Anesthesia Technologists are vital members of the anesthesia team who assist anesthesiologists in managing a patient's pain during surgery. They are responsible for administering anesthesia and monitoring the patient's condition throughout the procedure.

Anesthesia Technologists possess comprehensive knowledge of pharmacology of anesthetic and non-anesthetic drugs. They are trained in preparing anesthesia trolleys, ensuring proper functioning of machines such as suction devices and gas systems, operating OT tables, and understanding the use of various gases and inhalational agents used in the operating theatre.





## PROGRAMME OBJECTIVES

### Graduate Learning Outcomes

- **Clinical Competence:** Prepare students to perform anesthesia-related procedures safely and effectively, including administering anesthesia, monitoring patients, and managing anesthesia-related complications.
- **Knowledge Acquisition:** Ensure students have a thorough understanding of pharmacology, physiology, pathophysiology, and anesthesia technology, including the principles of anesthesia care and pain management.
- **Critical Thinking and Decision-Making:** Develop students' ability to assess patients' needs, make informed decisions about anesthesia care, and adapt to dynamic clinical situations.
- **Communication Skills:** Enhance students' ability to communicate effectively with patients, families, and healthcare teams to ensure comprehensive and coordinated care.
- **Professionalism and Ethics:** Instill a strong sense of professionalism, ethical practice, and adherence to legal and regulatory standards in anesthesia care.
- **Research and Evidence-Based Practice:** Encourage students to engage in research and utilize evidence-based practices to improve anesthesia care and patient outcomes.
- **Leadership and Collaboration:** Prepare students to work collaboratively within multidisciplinary teams and to take on leadership roles in various healthcare settings.
- **Lifelong Learning:** Promote a commitment to continuous professional development and staying current with advancements in the field of anesthesia.
- **Technical Education:** Impart standard technical education with new modern techniques by replacing conventional methods.
- **Teamwork & Traineeship:** Anesthesia technologists are part of anesthesia team. They assist anesthesiologists in managing a patient's pain during surgery by administering anesthesia and monitoring patient status. Anesthesia technologists are well versed with the pharmacology of anesthetic & non anesthetic drugs. They are trained in preparing anesthesia trolleys, checking the machines for suction, gas system operation, working of OT tables, various gases used in OT, and use of inhalational agents.
- **Drugs studies and Uses:** To define common terms related to pharmacology and drug therapy. To discuss relevant historical, legal, and ethical issues related to pharmacology and drug therapy.

## COURSE CONTENTS

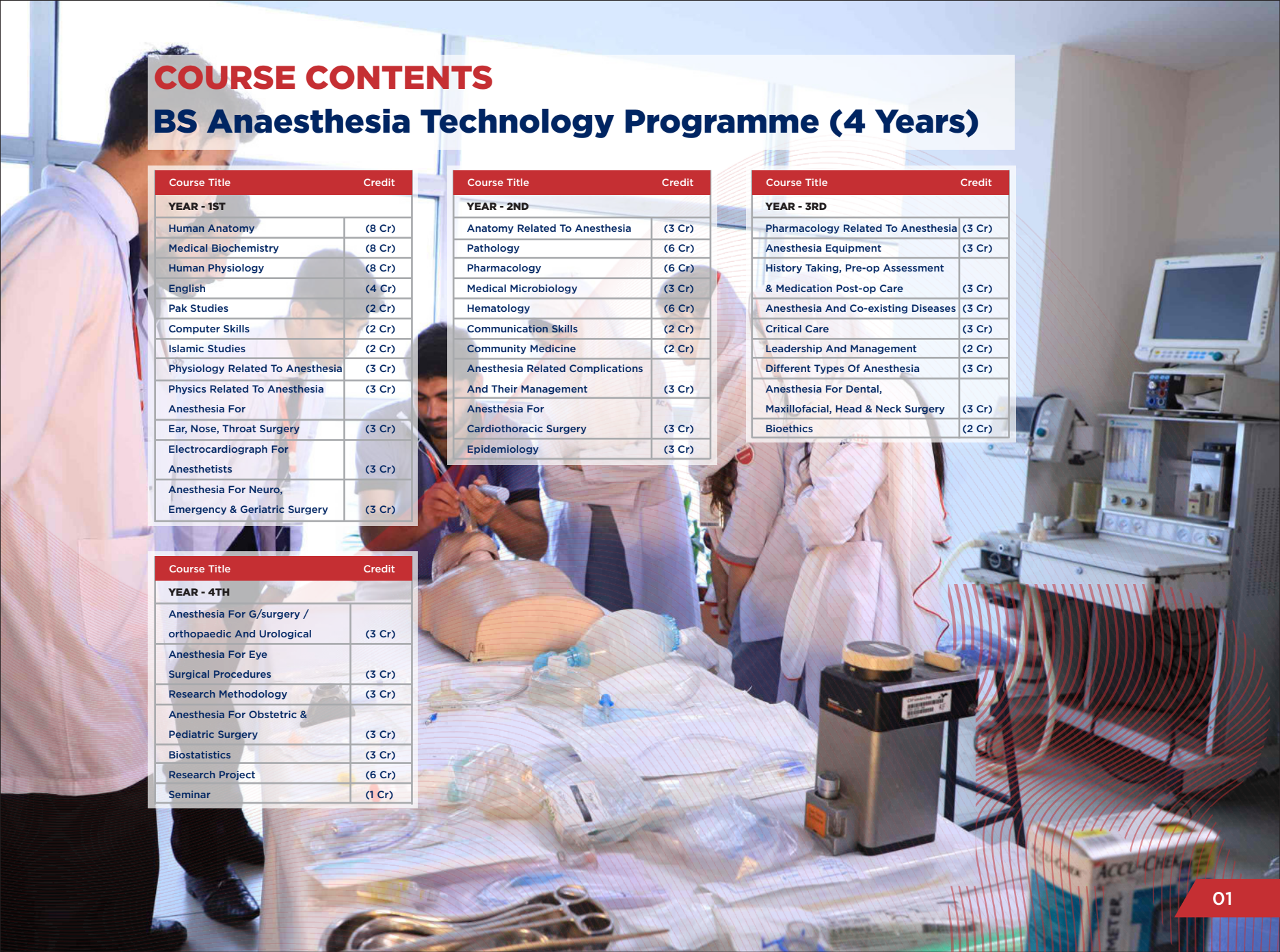
### BS Anaesthesia Technology Programme (4 Years)

Course Title	Credit
<b>YEAR - 1ST</b>	
Human Anatomy	(8 Cr)
Medical Biochemistry	(8 Cr)
Human Physiology	(8 Cr)
English	(4 Cr)
Pak Studies	(2 Cr)
Computer Skills	(2 Cr)
Islamic Studies	(2 Cr)
Physiology Related To Anesthesia	(3 Cr)
Physics Related To Anesthesia	(3 Cr)
Anesthesia For	
Ear, Nose, Throat Surgery	(3 Cr)
Electrocardiograph For Anesthetists	(3 Cr)
Anesthesia For Neuro, Emergency & Geriatric Surgery	(3 Cr)

Course Title	Credit
<b>YEAR - 2ND</b>	
Anatomy Related To Anesthesia	(3 Cr)
Pathology	(6 Cr)
Pharmacology	(6 Cr)
Medical Microbiology	(3 Cr)
Hematology	(6 Cr)
Communication Skills	(2 Cr)
Community Medicine	(2 Cr)
Anesthesia Related Complications	
And Their Management	(3 Cr)
Anesthesia For	
Cardiothoracic Surgery	(3 Cr)
Epidemiology	(3 Cr)

Course Title	Credit
<b>YEAR - 3RD</b>	
Pharmacology Related To Anesthesia	(3 Cr)
Anesthesia Equipment	(3 Cr)
History Taking, Pre-op Assessment & Medication Post-op Care	(3 Cr)
Anesthesia And Co-existing Diseases	(3 Cr)
Critical Care	(3 Cr)
Leadership And Management	(2 Cr)
Different Types Of Anesthesia	(3 Cr)
Anesthesia For Dental, Maxillofacial, Head & Neck Surgery	(3 Cr)
Bioethics	(2 Cr)

Course Title	Credit
<b>YEAR - 4TH</b>	
Anesthesia For G/surgery / orthopaedic And Urological	(3 Cr)
Anesthesia For Eye Surgical Procedures	(3 Cr)
Research Methodology	(3 Cr)
Anesthesia For Obstetric & Pediatric Surgery	(3 Cr)
Biostatistics	(3 Cr)
Research Project	(6 Cr)
Seminar	(1 Cr)



## SCOPE AND CAREER OPPORTUNITIES OF BS ANAESTHESIA TECHNOLOGY

There is a shortage of trained anesthetists, anesthesiologists, and anesthesia technologists worldwide, particularly in Pakistan. With the alarming growth of Pakistani population, it is crucial to produce well-skilled, highly trained, and dedicated anesthesia technologists who can effectively address future challenges in the field of anesthesia medicine.

RMI has an established anesthesia department that includes a state-of-the-art ICU and respiratory therapy unit, managed by highly trained and qualified consultants. The students of RCAHS pursuing a BS in Anesthesia Technology receive mandatory training in the anesthesia department of RMI, under close supervision of trained staff. This training prepares them to become skilled professionals who can serve humanity in the best possible way.

Currently, anesthesia technologists are working in various government and private institutes, hospitals, national and international organizations, and playing a crucial role in providing state-of-the-art anesthesia services. Their services can be compared to those provided by highly developed countries worldwide, ensuring the best care for their patients.

Anesthesia technologists are actively involved in procedures related to pain management, regional anesthesia, and the treatment of critically ill patients.



# Bs - Public Health

## Overview

The BS Public Health programme foresees to prepare a public health workforce, generate new knowledge, address social contributing factors for ill-health and leading to the implementation of new methodologies and strategies to improve the health of citizens of Pakistan and beyond.

The BS Public Health programme aims to preserve, promote, and improve the health and well-being of the individuals and communities, which is to be achieved by providing professionals with a high quality of undergraduate training programme in public health sciences.







## PROGRAMME OBJECTIVES

### Graduate Learning Outcomes

- Research relevant to the description, risk factors and interventions for the resolution of
- Health problems of the population.
- To produce competent and skilled public health graduates who have effective
- Communication and health research skills for conducting basic and applied research relevant
- To the description, risk factors and interventions for the resolution of health problems in the human populations.
- To prepare skilled workforce for working in public health auxiliary and support services who
- Can understand the development, administration and evaluation of health policies and programs.
- To provide professionals with tools to function at all levels of the health and social sectors.
- Local (public/private), provincial, federal; and in all settings: academic/research institutes, and service organizations like hospitals, family health clinics and/or primary health care centers.
- To participate directly in efforts to improve the health of the community using community based and health systems' assessment of preventive services.



## COURSE CONTENTS

### BS Public Health Programme (4 Years)

Course Title	Credit
<b>YEAR - 1ST</b>	
English I and II	(6 Cr)
Pakistan Studies	(2 Cr)
Anatomy	(3 Cr)
Physiology	(3 Cr)
Biochemistry	(3 Cr)
Basic Computer Skills	(3 Cr)
Islamic Studies	(3 Cr)
Pathology	(3 Cr)
Pharmacology	(3 Cr)
Principles of Psychology & Medical Anthropology	(3 Cr)
Personal Hygiene	(3 Cr)

Course Title	Credit
<b>YEAR - 2ND</b>	
English III And IV	(6 Cr)
Mathematics	(3 Cr)
Microbiology & Parasitology	(3 Cr)
Entomology	(3 Cr)
Concept Of Health And Disease	(3 Cr)
Fundamentals Of Epidemiology	(3 Cr)
Fundamentals Of Biostatistics	(3 Cr)
Fundamentals Of Communicable & Non-communicable Diseases	(3 Cr)
Professional Ethics	(3 Cr)
Health Promotion	(3 Cr)

Course Title	Credit
<b>YEAR - 3RD</b>	
Community Nutrition	(3 Cr)
Community Pediatrics	(3 Cr)
Population Dynamics	(3 Cr)
Primary Health Care	(3 Cr)
Basics of Research 1	(3 Cr)
Reproductive Health	(3 Cr)
Environment & Occupational Health	(3 Cr)
Health Policy and Leadership	(3 Cr)
Mental Health	(3 Cr)
Basics of Health Professional Education	(3 Cr)
Basics of research 2	(3 Cr)

Course Title	Credit
<b>YEAR - 4TH</b>	
District Health Management	(3 Cr)
Health Marketing	(3 Cr)
Basics Of Research Methods 3	(3 Cr)
Introduction To Family Medicine	(3 Cr)
Elective 1	(3 Cr)
Elective 2	(3 Cr)
Research Project	(3 Cr)
Elective 3	(3 Cr)
Elective 4	(3 Cr)

## SCOPE AND CAREER OPPORTUNITIES OF BS PUBLIC HEALTH

- Detect, prevent, and manage common public health problems in Pakistan.
- Supervise, monitor, and manage public health issues.
- Be an effective communicator.
- Practice and promote professional ethics.
- Conduct basic research and prepare reports.
- Analyze health system problems.
- Develop critical thinking and creativity.
- Create cultural context in which public health professional's work.
- Involve community dynamics and networking.
- Prepare for health advocacy, teamwork, leadership, and professionalism.
- Acquire basic computer skills.



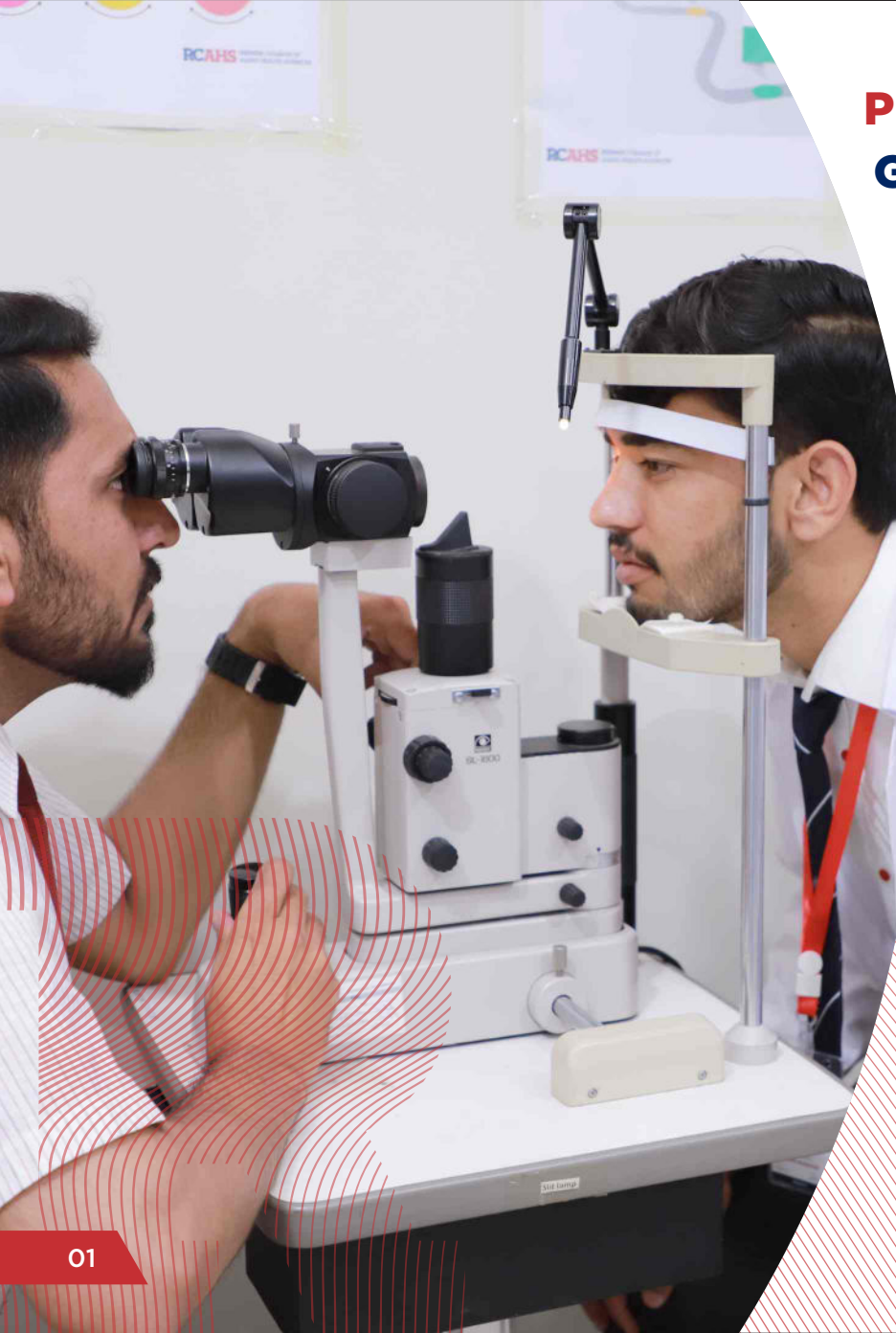
# BS - Vision Sciences (Optometry)

## Overview

Optometrists are primary healthcare professionals responsible for examining, diagnosing, treating, and managing diseases, injuries, and disorders of the visual system, the eye, and its associated structures.

In addition, they play a crucial role in identifying systemic conditions that can affect the eye.





## PROGRAMME OBJECTIVES

### Graduate Learning Outcomes

- Equip students with a thorough understanding of vision science, optometry principles, and clinical practices, enabling them to diagnose and manage a variety of visual disorders and eye diseases.
- Provide hands-on training in state-of-the-art clinical settings to ensure students gain practical experience in patient examination, prescription of corrective lenses, and management of ocular health.
- Foster a culture of research and critical thinking, encouraging students to engage in innovative research projects that contribute to the advancement of vision science and optometric practices.
- Train students to effectively communicate with patients and collaborate with other healthcare professionals, emphasizing the importance of patient education and interprofessional teamwork.
- Promote ethical practice and professional behavior in all aspects of optometric care, ensuring students understand and adhere to the highest standards of patient confidentiality and care.
- Encourage continuous professional development and lifelong learning to keep abreast of the latest advancements in vision sciences and optometry, ensuring graduates remain competent and competitive in their field.
- Equip students with the cultural competence and sensitivity needed to provide high-quality optometric care to diverse populations, addressing the unique needs of various communities.
- Encourage active participation in community health programs and initiatives that aim to improve visual health and prevent vision loss in the broader population.

## COURSE CONTENTS

### BS Vision Sciences Programme (4 Years)

Course Title	Credit
<b>YEAR - 1ST</b>	
Human Anatomy	(8 Cr)
Human Physiology	(8 Cr)
Medical Biochemistry	(8 Cr)
English	(4 Cr)
Computer Skills	(2 Cr)
Islamic Studies	(2 Cr)
Pakstudies	(2 Cr)

Course Title	Credit
<b>YEAR - 2ND</b>	
General Pathology	(3 Cr)
General Pharmacology	(3 Cr)
Ocular Microbiology	(3 Cr)
Anatomy Of Eye	(3 Cr)
Physiology Of Eye	(3 Cr)
Communication Skills	(2 Cr)
Diseases Of Eye And Ocular Therapeutics I	(3 Cr)
Basic Clinical Skills In Ocular Examination	(3 Cr)
Public Health	(3 Cr)
Skills For Advanced Visual Function Assessment	(3 Cr)
First Aid And Ocular Emergencies	(3 Cr)
Behavioural Sciences	(2 Cr)

Course Title	Credit
<b>YEAR - 3RD</b>	
Diseases Of Eye And Ocular Therapeutics II	(3 Cr)
Geometrical Optics	(3 Cr)
Physical Optics And Applied Mathematics	(3 Cr)
Visual Optics	(3 Cr)
Leadership And Management	(2 Cr)
Clinical Refraction	(3 Cr)
Instrument Optics	(3 Cr)
Dispensing Optics	(3 Cr)
Contact Lens-I	(3 Cr)
Low Vision-I	(3 Cr)
Basics Of Orthoptics	(3 Cr)
Community Optometry	(2 Cr)

Course Title	Credit
<b>YEAR - 4TH</b>	
Clinical Optics And Neuro Optometry	(3 Cr)
Contact Lens II	(3 Cr)
Low Vision II	(3 Cr)
Research Methodology	(3 Cr)
Biostatistics	(3 Cr)
Inclusive Eye Health	(3 Cr)
Clinical Orthoptics And Binocular Vision	(3 Cr)
Clinical Optometry	(3 Cr)
Bioethics	(2 Cr)
Seminar	(1 Cr)
Research Project	(4 Cr)

## SCOPE AND CAREER OPPORTUNITIES OF BS VISION SCIENCES

- **Career Opportunities**
- Many optometrists start or join private practices, providing comprehensive eye care services to the community.
- Working in hospitals, clinics, or multidisciplinary healthcare settings, optometrists collaborate with other healthcare providers to offer patient care.
- Optometrists can work with major retail chains that provide eye care services and sell eyewear products.
- Teaching and training future optometrists in colleges and universities, as well as conducting research.
- Working with companies that produce optical products, lenses, and eye care technology in roles such as consulting, product development, and clinical trials.
- Engaging in roles that influence public health policies, provide vision care to underserved populations, and participate in global health initiatives.
- Providing remote consultations and eye care services through telehealth platforms, especially useful in rural or underserved areas.

### Future Trends

- **Technological Advancements:** Innovations in diagnostic tools, treatment options, and vision correction techniques continue to expand the scope of optometry.
- **Aging Population:** An increasing elderly population leads to a higher demand for eye care services, particularly for age-related eye conditions.
- **Preventive Care:** Growing awareness about the importance of preventive eye care and regular eye exams will drive the demand for optometrists.
- **Vision Sciences offers a fulfilling career with diverse opportunities, allowing professionals to make a significant impact on individuals' quality of life through improved vision and eye health.**



# Dental Surgery Assistant (DSA)

## Overview

relevant professional knowledge, skills, techniques, and ethical values to enable them to apply their acquired expertise at the level between the doctor and the patient for excellent health services delivery.

The program is affiliated with Faculty of Paramedical and Allied Health Sciences (FPMA), Khyber Pakhtunkhwa, Pakistan. Our curriculum is designed to equip students with the knowledge and skills required to work as Certified Dental Surgery Assistants. Throughout the program, students will gain hands-on experience assisting patients at primary, secondary, and tertiary healthcare levels, all under proper supervision.

By the end of the program, students will have acquired the necessary competencies to bridge the gap between doctors and patients, ensuring the delivery of high-quality healthcare services. They will be well-prepared to support dental surgeons in various procedures, provide assistance in patient care, and contribute to the overall well-being of patients.





## PROGRAMME OBJECTIVES

### Graduate Learning Outcomes

- Equip students with a thorough understanding of vision science, optometry principles, and clinical practices, enabling them to diagnose and manage a variety of visual disorders and eye diseases.
- Provide hands-on training in state-of-the-art clinical settings to ensure students gain practical experience in patient examination, prescription of corrective lenses, and management of ocular health.
- Foster a culture of research and critical thinking, encouraging students to engage in innovative research projects that contribute to the advancement of vision science and optometric practices.
- Train students to effectively communicate with patients and collaborate with other healthcare professionals, emphasizing the importance of patient education and interprofessional teamwork.
- Promote ethical practice and professional behavior in all aspects of optometric care, ensuring students understand and adhere to the highest standards of patient confidentiality and care.
- Encourage continuous professional development and lifelong learning to keep abreast of the latest advancements in vision sciences and optometry, ensuring graduates remain competent and competitive in their field.
- Equip students with the cultural competence and sensitivity needed to provide high-quality optometric care to diverse populations, addressing the unique needs of various communities.
- Encourage active participation in community health programs and initiatives that aim to improve visual health and prevent vision loss in the broader population.

## COURSE CONTENTS

### Dental Surgery Assistant (DSA) (2 Years)

Course Title	Credit
<b>YEAR - 1ST</b>	
Medical Biochemistry	( 2.30 Cr)
Human Physiology	(2.30 Cr)
Human Anatomy	(2.30 Cr)
Applied Computer Sciences	(1.30 Cr)
Pathology	(2.30 Cr)
Pharmacology	(2.30 Cr)
Public Health	(2.30 Cr)
First Aids & Patient Safety	(1.30 Cr)
English	(2.30 Cr)
Islamiat	(1.30 Cr)

Course Title	Credit
<b>YEAR - 2ND</b>	
Dental Techniques-I & Clinical Practice	(3 Cr)
Dental Caries, Preventive Aspect, Anesthesia & Radiography And Clinical Practice	(3 Cr)



# PROPOSED / UPCOMING PROGRAMMES

The Affiliation process is in the pipeline with regulatory authorities. The admission will be offered after the completion of affiliation process.

- **BS Dental Technology**
- **BS Health Technology**
- **BS Respiratory Therapy & Intensive Care Technology**

PROPOSED / UPCOMING PROGRAMME

## BS Dental Technology

### Program Objectives

- To perform an effective role in the field of dentistry to improve the community dental health.
- To provide dental therapist/technologists a status and recognition in the dental care delivery system through Improving their capability and Increasing awareness of their responsibilities.
- To assist Maxillofacial surgeons during surgeries
- To perform effective role in delivering the conservative treatment for the primary teeth
- To enable the dental Technologists to fabricate prosthodontic appliances, crown and bridges, orthodontic appliances and surgical splints etc.
- To provide primary dental care services to the community.
- To enable the dental technologist, perform the exodontia of primary teeth and simple permanent teeth.
- To enable the dental Technologist to perform the routine conservative treatment of permanent teeth.
- To provide platform to conduct research in their respective field in pursuance of excellence.



## COURSE CONTENTS

### BS Dental Technology Programme (4 Years)

Course Title	Credit
<b>YEAR - 1ST</b>	
Human Anatomy	8 Cr-Hrs
Medical Biochemistry	8 Cr-Hrs
Human Physiology	8 Cr-Hrs
English	4 Cr-Hrs
Pak Studies	2 Cr-Hrs
Computer Skills	2 Cr-Hrs
Islamic Studies	2 Cr-Hrs
Tooth Morphology	3 Cr-Hrs
Periodontology	3 Cr-Hrs
Oral Pathology and Oral Medicine	3 Cr-Hrs
Pediatric Dentistry	3 Cr-Hrs

Course Title	Credit
<b>YEAR - 2ND</b>	
General Pathology-I	3 Cr-Hrs
Pharmacology-I	6 Cr-Hrs
Communication Skills	2 Cr-Hrs
Medical Microbiology-I	3 Cr-Hrs
Dental Materials	6 Cr-Hrs
Oral Histology	3 Cr-Hrs
Behavioral Sciences	2 Cr-Hrs
Endodontics	3 Cr-Hrs
Complete Denture Prosthodontics	3 Cr-Hrs
Orthodontics	3 Cr-Hrs
Medical Emergencies in	
Dental Practice	3 Cr-Hrs

Course Title	Credit
<b>YEAR - 3RD</b>	
Partial Denture Prosthodontics	3 Cr-Hrs
Oral Pathology and Oral Medicine	3 Cr-Hrs
Minor Oral Surgery	6 Cr-Hrs
Community & Preventive Dentistry	3 Cr-Hrs
Fundamentals of Oral &	
Maxillofacial Radiology	3 Cr-Hrs
Operative Dentistry	3 Cr-Hrs
Fundamentals of Implantology	3 Cr-Hrs
Seminar	1 Cr-Hr
Bioethics	2 Cr-Hrs
Maxillofacial Prosthodontics	3 Cr-Hrs

Course Title	Credit
<b>YEAR - 4TH</b>	
Orthodontics	3 Cr-Hrs
Fixed Prosthodontics	3 Cr-Hrs
Biostatistics	3 Cr-Hrs
Fundamentals of Infection Control	2 Cr-Hrs
Epidemiology	3 Cr-Hrs
Research Methodology	3 Cr-Hrs
Research Project	6 Cr-Hrs

PROPOSED / UPCOMING PROGRAMME

# BS Respiratory Therapy

## Program Objectives

- Develop accuracy and meticulousness to attain high levels of ethics and technical
- Assess the technical and non-technical skills in a standardized and reproducible environment.
- Strengthen the decision power and exercise appropriate judgment skills, to be applied especially during crisis.
- Develop good leadership, problem solving and administrative skills.
- Develop and analyze innovative strategies for effective communication with the patients and the healthcare personnel.
- Demonstrate interdisciplinary team building strategies for effective coordination between various Allied Health Disciplines
- Demonstrate understanding of the basic concepts of professional behavior and legal implications of the work environment.
- Demonstrate the knowledge of his / her role in health care delivery system.
- Establishing and maintaining continuing education as a function of growth and maintenance of professional competence.



## COURSE CONTENTS

### BS Respiratory Technology Programme (4 Years)

Course Title	Credit
<b>YEAR - 1ST</b>	
Human Anatomy	6+2 Cr-Hrs
Human Physiology	6+2 Cr-Hrs
Biochemistry	6+2 Cr-Hrs
English	4+0 Cr-Hrs
Pak Studies	2+0 Cr-Hrs
Computer Skills	1+1 Cr-Hrs
Islamic Studies	2+0 Cr-Hrs
Diagnostic Imaging	1+1 Cr-Hrs
Behavioral Sciences	1+0 Cr-Hrs
Clinical Medicine	2+1 Cr-Hrs
Neonatal and Pediatric Critical Care	2+1 Cr-Hrs
Cardiovascular Emergency	2+1 Cr-Hrs

Course Title	Credit
<b>YEAR - 2ND</b>	
Intensive Care Monitoring	2+1 Cr-Hrs
Pathology	4+2 Cr-Hrs
Medical Microbiology	4+2 Cr-Hrs
Communication Skills	1+1 Cr-Hrs
Pharmacology	4+2 Cr-Hrs
Hematology	2+1 Cr-Hrs
Respiratory Therapy	1+1 Cr-Hrs
Surgical Intensive Care	2+1 Cr-Hrs
Drugs Related Intensive Care and Respiratory Therapy	2+1 Cr-Hrs
Intensive Care Monitoring	2+1 Cr-Hrs

Course Title	Credit
<b>YEAR - 3RD</b>	
Advances in Respiratory Therapy Care and Intensive Care	2+1 Cr-Hrs
Trauma Intensive Care	2+1 Cr-Hrs
Burns and Toxicology	2+1 Cr-Hrs
Anesthesia Equipment	2+1 Cr-Hrs
Critical Care Laboratory Diagnostic	2+1 Cr-Hrs
Applied Physics	1+1 Cr-Hrs
Respiratory Therapy	1+1 Cr-Hrs
Intensive Care Management	2+1 Cr-Hrs
Bioethics	2+0 Cr-Hrs
Seminar	0+1 Cr-Hr

Course Title	Credit
<b>YEAR - 4TH</b>	
Fundamentals of Infection Control	1+1 Cr-Hrs
Research Methodology	2+1 Cr-Hrs
Biostatistics	2+1 Cr-Hrs
Obstetrical Care	4+2 Cr-Hrs
Epidemiology	2+1 Cr-Hrs
Recognition and Management of Organ Failure	2+1 Cr-Hrs
Research Project/Seminar	0+6 Cr-Hrs

PROPOSED / UPCOMING PROGRAMME

# BS Health Technology

## Program Objectives

- Acquire in-depth knowledge of health technology and its applications.
- Develop technical skills for operating and maintaining health technology equipment.
- Gain hands-on experience in clinical settings with medical devices.
- Implement quality control and assurance protocols.
- Demonstrate ethical behavior and professionalism in health technology practices.
- Communicate effectively with healthcare professionals and patients.
- Contribute to research and development in health technology.
- Apply critical thinking and problem-solving skills to challenges.
- Collaborate with multidisciplinary healthcare teams.
- Uphold patient safety and confidentiality.
- Engage in continuous professional development and learning.





# COURSE CONTENTS

## BS Health Technology Programme (4 Years)

Course Title	Credit
<b>YEAR - 1ST</b>	
Biochemistry	8 Cr-hrs
Physiology	8 Cr-hrs
Anatomy	8 Cr-hrs
English	4 Cr-hrs
Pak Study	2 Cr-hrs
Computer Skill	2 Cr-hrs
Islamic Studies	2 Cr-Hrs

Course Title	Credit
<b>YEAR - 2ND</b>	
Pathology	6 Cr-hrs
Microbiology	6 Cr-hrs
Pharmacology	6 Cr-hrs
Communication Skill	3 Cr-hrs
Heamatalogy	6 Cr-hrs
Public Health	3 Cr-hrs
Diagnostic Imaging	3 Cr-hrs

Course Title	Credit
<b>YEAR - 3RD</b>	
Medicine 1	3 Cr-hrs
Medicine 2	3 Cr-hrs
Critical Care	3 Cr-hrs
Leadership And Management	2 Cr-hrs
Basic Surgical Skills	3 Cr-hrs
Surgical Equipment And Biosefty	3 Cr-hrs
Medicine 3	3 Cr-hrs
Behavioral Sciences	2 Cr-hrs

Course Title	Credit
<b>YEAR - 4TH</b>	
Medicine 6	3 Cr-hrs
MCH And EPI	3 Cr-hrs
Epidemology	2 Cr-hrs
Surgical Emergency	3 Cr-hrs
Medicine 7	3 Cr-hrs
Medicine 8	3 Cr-hrs
Medicine 9	3 Cr-hrs
Medicine 4	3 Cr-hrs
Medicine 5	3 Cr-hrs
Peri Operative Care	3 Cr-hrs
Research Methodology	3 Cr-hrs
Biostatistics	3 Cr-hrs

# ACADEMIC DEPARTMENTS & FACULTY

Name	Designation	Qualification	Name	Designation	Qualification
Mr. Mohammad Danish	Vice Principle	MPhil Microbiology, M.Sc., B.Sc. MLT	Mr. Kamil khan	Lecturer emergency	BS Emergency
Ms. Asthma Yazdan	Lecturer Radiology/ Coordinator Academics	MS Ultrasound BS Radiology	Mr. Kamran Zamin	Lecturer Emergency	BS Emergency
Dr. Hadia Abid	Assistant Prof. Radiology	FCPS, MBBS	Mr. Muhammad Ullah	Lecturer Emergency	BS Emergency
Mr. Muhammad Hamza	Lecturer Radiology	BS Radiology	Dr. Nazim Mohayuddin	Professor Surgical	FRCS, MBBS
Ms. Alina Afzal	Lecturer Radiology	BS Radiology	Mr. Tariq Jamil	Lecturer/ Program Coordinator	BS Surgical
Ms. Seema Riaz	Lecturer Radiology	BS Radiology	Ms. Nayab Hamza	Lecturer Surgical	BS Surgical
Ms. Fatima Tu Zohra	Lecturer Radiology	BS Radiology	Mr. M. Atif Alam	Lecturer Surgical	BS Surgical
Ms. Mahnoor Khattak	Lecturer Radiology	BS Radiology	Dr. M. Imshad Khan	Asst. Prof. VS / Program Coordinator	M.Phil Vision Sciences, TOD, BS VS
Mr. Farooq Ur Rehman	Lecturer / Program Coordinator	Mphil Virology & Molecular Pathology, BS MLT	Ms. Noreen Fayyaz	Lecturer Vision Sciences	BS Vision Sciences
Ms. Hina Naz	Lecturer MLT	Mphil Molecular Biology, BS MLT	Mr. Aamir Asif	Lecturer vision sciences	BS vision sciences
Mr. Muhammad Atif Khan	Lecturer MLT	BS MLT	Mr. Arif Ullah	Lecturer vision sciences	BS vision sciences
Mr. Nasir khan	Lecturer MLT	M.Phil. Hematology, BS MLT	Ms. Ayesha Farooq	Lecturer vision sciences	M. Phil vision Sciences, BS vision sciences
Mr. Syed Sohail Ahmad	Lecturer MLT	Mphil Microbiology, BS MLT	Mr. Abid Ullah	Lecturer Public Health/ Program Coordinator	MPH, BS Dental
Dr. Sajjad Ahmed Orakzai	Assistant Prof. Anesthesia	MBBS, Diploma in Anesthesia	Ms. Sara Saleem	Lecturer public Health	MPH, BS Vision Sciences
Mr. M. Kashif	Lecturer Anesthesia	BS Anesthesia	Ms. Aimen Javid	Lecturer Public Health	MPH, BS Vision sciences
Mr. Farhad Qadir	Lecturer Anesthesia	BS Anesthesia	Mr. Muhammad Nauman	Assistant Professor Dental Technology	MPH, CHR, BS Dental Technology
Mr. M. Ishaq	Lecturer Anesthesia	BS Anesthesia	Mr. Farhad Qadir	Sr. Lecturer Dental	BS Dental Technology
Mr. Muhammad Shahab	Lecturer Anesthesia	BS Anesthesia	MS.Hossai Bayat	Lecturer Dental	BS Technology
Dr. Mohsin Shabir	Assistant Prof. Cardiology	MRCP, FCPS, MBBS	Mr. Bilal Ahmad	Asst. Prof. Health Technology	MPH, BS Health & ICU
Mr. Seraj Uddin	Lecturer cardiology/ Program coordinator	BS Cardiology	Mr. Imad Ullah	Lecturer Health Technology	BS Health Technology
Mr. Dawood khan	Lecturer cardiology	BS Cardiology	Mr. Azmat Ullah	Lecturer health Technology	BS Health Technology
Mr. Ajmal khan	Lecturer cardiology	BS Cardiology	Mr. Shuaib	Asst. Professor Respiratory Technology	MS Healthcare Managements-RT&ICU
Mr. Saddam	Lecturer Cardiology	BS Cardiology	Ms. Nafeesa Bibi	Lecturer Respiratory &ICU	BS-RT&ICU Technology
Ms. Sumayya Gul	Lecturer cardiology	BS Cardiology	Ms. Saba Wajid	Lecturer Respiratory &ICU	BS-RT&ICU Technology
Dr. Javid Khan	Assistant Prof. Emergency	FRCS , MBBS	Ms. Sadaf Saeed	English Lecturer	M.A English, M.Sc. Psychology
Mr. Imran khan	Lecturer emergency/ Program Coordinator	BS Emergency	Mr. Ijaz Ahmad	Lecturer Pakistan Study	M.A. Pakistan Study
			Prof. Dr. Abdul Ghafoor	Professor Islamic Study	PhD in Islamic Studies
			Mr. Shoaib Ahmad	Lecturer Psychology	M.Sc Psychology
			Mr. Falak Naz	IT instructor	M.Sc Computer Sc., M.A Pak Study & Islamic studies

## ACTIVITIES AND ACHIEVEMENTS ACADEMIC

RCAHS is dedicated to fostering academic excellence through a variety of activities that enhance student learning and professional development. Our students consistently achieve top positions across multiple semesters, demonstrating their commitment to academic rigor. The curriculum is enriched with practical experiences, research projects, and interdisciplinary collaborations, ensuring that students gain comprehensive knowledge and skills in their respective fields. Regular seminars, workshops, and guest lectures by experts further contribute to an engaging and dynamic learning environment at RCAHS.

- MLT secured 1st position in 5th 2nd position in 6th and Three 3rd positions in the 6th,7th and 8th semester in the KMU semester examination fall and spring 2023.
- Emergency student secured 2nd position in the 3rd semester in the KMU semester examination fall and spring 2023.
- Surgical student attained 2nd position in the 6th semester in the KMU semester examination fall and spring 2023
- Anesthesia student secured 1st position in 8th and 2nd position in 7th semester in the KMU semester examination fall and spring 2023.



## RESEARCH

In collaboration with other RMI Colleges (RCRS, RCN, RMC, and RCD), RCAHS is proud to publish their first peer-reviewed, biannual Rehman Journal of Health Sciences (RJHS [www.rjhs.pk](http://www.rjhs.pk)) from July 2019. Two editions of RJHS have been published so far.

- RCAHS have successfully conducted 42 projects.
- RCAHS has 4 publications in national and international journals in the year 2023-2024.

## CO-CURRICULAR

Students participate in organizing divergent global events like: Anesthesia Day, International Day of Radiology, and others. Students' societies such as Adventure Club, Literary Society, Research Society and Social Welfare Society are functional. RCAHS students also participate in Inter and Intra College sports, literary and arts competitions.

- RCAHS got 2nd position in RMI inter colleges sport gala
- RCAHS got 1st position in debate CECOS university
- In 2024 RCAHS visited Kashmir in the recreational trip
- RCAHS has conducted an Islamic session on Noor-E-Ramzan

## ADMISSION POLICY

- Admission to RCAHS is offered in fall each year. The admission is based on open merit through the RCAHS Admission Committee in accordance with the policies laid down by the Khyber Medical University. All decisions of the Admission Committee are deemed as final.
- Appearance in Interview is mandatory for all categories of applicants.
- Successful candidates will be provided with further instructions to complete the admission process. All such candidates must submit an undertaking on Rs. 100/ Judicial paper (Annexure-C).

## Eligibility Criteria for BS

- HSSC (Pre-Medical) with 50% marks
- Age: Maximum 25 Years
  
- Eligibility criteria for Diploma Surgery Assistant (DSA)
- SSC with science minimum 50% marks
- Age limit 30

## Merit Weightage

- Higher Secondary School Certificate or Equivalent: 50%
- Matric: 10%
- KMU-CAT: 40%



# FEE STRUCTURE

## ALLIED PROGRAMMES | BATCH 13

	1st year (2023-24)		2nd year (2024-25)		3rd year (2025-26)		4th year (2026-27)	
	1st Semester	2nd Semester	3rd Semester	4th Semester	5th Semester	6th Semester	7th Semester	8th Semester
Admission Fee (Once)	10,000	-	-	-	-	-	-	-
Tuition Fee	111,000	116,000	122,000	128,500	135,000	142,000	149,000	156,400
Basic Health Coverage	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500
Security (Refundable)	12,500	12,500	-	-	-	-	-	-
Convocation Charges	12,500	12,500	-	-	-	-	5,000	5,000
<b>Total</b>	<b>137,000</b>	<b>132,000</b>	<b>125,900</b>	<b>138,500</b>	<b>138,500</b>	<b>145,500</b>	<b>157,000</b>	<b>164,900</b>
Income Tax	As per actual to be charged to the students in accordance with FBR/University/Regulatory Bodies notifications issued from time to time							
University Registration Fee (Once)								
University Retention/Affiliation Fee								
University Examination Fee								