



**FACULTY OF HEALTH & MEDICAL  
SCIENCES  
INSTITUTE OF ALLIED HEALTH SCIENCES  
CURRICULUM**

**BS RESPIRATORY THERAPY TECHNOLOGY  
JAN 2020**



**AZAD JAMMU & KASHMIR UNIVERSITY  
MUZAFFARABAD**

**Associate Dean  
Dr. Bashir ur Rehman**

## DEAN'S WELCOME

Dear Student and Prospective student

I welcome you wholeheartedly to the Faculty of Health and Medical Sciences at the University of Azad Jammu and Kashmir. The Respiratory Therapy Technologist is a highly qualified medical Professional who is responsible for evaluation, treating, and caring for patients suffering from breathing problems or cardio- pulmonary disorders. Practicing under directive of physician, therapy technologist assumes primary responsibility for all respiratory care therapeutic treatments and diagnostic procedures.

- Our four years Bachelor of Sciences program is tailored to equip you with Knowledge, skills and attitudes that will make you a competent Respiratory Technologist.
- You will be trained to interview patients, perform limited Physical examinations, and conduct diagnostic tests. For example, you will learn how to test a patient's breathing capacity and determine the concentration of oxygen and other gases in a patient's blood.
- To treat patients, you will be able to use oxygen or oxygen mixtures, chest Physiotherapy, and aerosol medications. For certain patients with breathing difficulties, you will be qualified to administer oxygen therapy by placing an oxygen mask or nasal cannula on the patient and setting the oxygen flow at the level prescribed by the physician.
- You will also be competent to connect patients who cannot breathe on their own to ventilators that deliver pressurized oxygen into the lungs. The therapists insert a tube into the patient's trachea, or windpipe: connect the tube to the ventilator: and set the rate, volume and oxygen concentration of the oxygen mixture entering the patient's lungs.
- You will also learn to perform chest physiotherapy on patients to remove mucus from their lungs and make it easier for them to breathe.
- After completing the course, you will be awarded the BS degree that qualifies you to work as respiratory/Ventilator Therapy Technologist. We have designed the course in a way that offers you the most interactive, informal and encouraging environment conducive to learning. You will be encouraged to think critically, to seek Knowledge yourself and to translate theory into practice. Our curriculum is based on the art and science of helping you learn. The principles of our educational philosophy are that you are self-directed learners, have rich experiences and knowledge on which to draw, desire to learn to better handle real- life situations, and see education as a process that increases competence and leads to achievement of your full potential. Last but not least, every facility that makes you enjoy learning shall be at your disposal. I am confident that you will excel in this program and wish you all the best.

Dr. Bashir-ur Rehman

Associate Dean Faculty of Health & Medical Sciences.

## OBJECTIVES & CURRICULUM

The Respiratory Therapy Technology program at the Faculty of Health and Medical Sciences is a four year bachelor of Sciences degree program that offers the students an opportunity to develop the technical ability, knowledge and skills required for entry level employment in any healthcare facility, as a respiratory therapy technologist.

The Program goal is to graduate competent advanced-level Respiratory Therapists as demonstrated by their professional behavior, knowledge and clinical skills. These are demonstrated by their ability to:

- Communication with patients Physicians, and health care workers.
- Continues as an independent learner.
- Demonstrate an understanding of Respiratory Therapy management.
- Demonstrate the knowledge of the fundamentals of cardiopulmonary anatomy physiology and pathology and the use of critical thinking.
- Demonstrate a knowledge and understanding of the following procedures and demonstrate clinical skills with the ability to assess patients' response to therapy, which includes, but is not limited to the following procedures:
  - Medical gas & Humidification therapy
  - Deep breathing and other hyperinflation therapy.
  - Aerosol therapy.
  - Coughing techniques and other bronchopulmonary hygiene.
  - Cardiopulmonary resuscitation and advance life support Therapy.
  - Airway management
  - Heart, lung & blood gas testing &
  - Mechanical ventilation management

The curriculum is designed to prepare students to work anywhere in Pakistan or abroad as highly qualified respiratory therapy technologist. In this regard, the curriculum meets international standards for certification and ensures that students master world-class performance competencies. Subjects are taught over six semesters, the duration of each semester is 20 weeks. A maximum of 18 credits can be obtain in a single semester. The bachelor of sciences in respiratory therapy technology is awarded when the student accumulates a total of 124 credits. In the fourth study year students are required to complete an eight weeks practicum of respiratory therapy technology in an accredited institution, attend particular honors seminars, undertake independent research and write an honors thesis in a major subject.

**Title of Degree:** BS RESPIRATORY THERAPY TECHNOLOGY

**Minimum Duration:** 08 semesters  
First four semesters on Campus  
Last four semesters in Teaching Hospitals

**Total Duration:** 08-12 semesters

**Total Credit Hours:** 124 credit hours

**List of Affiliated Teaching/Training hospitals:**

- **HH SKBZ CMH Muzaffarabad**
- **Abbas Institute of Medical sciences (AIMS) HOSPITAL Muzaffarabad**
- **Divisional Head Quarter Hospital Mirpur**
- **Rawalpindi Institute of Cardiology Rawalpindi**

**SCHEME OF STUDIES**  
**BS DIAGNOSTIC RADIOLOGY & IMAGING TECHNOLOGY**

**1<sup>st</sup> Semester**

<b>Code</b>	<b>Course Title</b>	<b>Credit Hour</b>
BMT-3101	Anatomy– I	3 (2 + 1)
BMT-3102	Physiology – I	3 (2 + 1)
BMT-3103	Biochemistry – I	3 (2 + 1)
BMT-3104	Microbiology – I	3 (2 + 1)
BMT-3105	Pakistan Studies	3 (3 + 0)
BMT-3106	Introduction to Computer & IT	3 (3 + 0)
<b>Total Credit Hours</b>		<b>18</b>

**2<sup>nd</sup> Semester**

<b>Code</b>	<b>Course Title</b>	<b>Credit Hour</b>
BMT-3201	Pathology	3 (3 + 0)
BMT-3202	Anatomy– II	3 (2 + 1)
BMT-3203	Physiology – II	3 (2 + 1)
BMT-3204	Biochemistry – II	3 (2 + 1)
BMT-3205	Microbiology – II	3 (2 + 1)
BMT-3206	Islamic Studies	3 (3 + 0)
<b>Total Credit Hours</b>		<b>18</b>

**3<sup>rd</sup> Semester**

<b>Code</b>	<b>Course Title</b>	<b>Credit Hour</b>
BMT-4301	Pathology – II	3 (2 + 1)
BMT-4302	Pharmacology – I	3 (2 + 1)
BMT-4303	Emergency Medicine	3 (3 + 0)
BMT-4304	Critical Care – I	3 (2 + 1)
BMT-4305	Arabic	3 (3 + 0)
<b>Total Credit Hours</b>		<b>15</b>

**4<sup>th</sup> Semester**

<b>Code</b>	<b>Course Title</b>	<b>Credit Hour</b>
BMT-4401	Pharmacology – II	3 (2 + 1)
BMT-4402	Critical Care – II	3 (2 + 1)
BMT-4403	Emergency Medicine-II	3 (3 + 0)
BMT-4404	Applied Physics and Engineering Sciences	3 (2 + 1)
BMT-4405	Epidemiology and Biostatistics	2 (2 + 0)
BMT-4406	English Communication Skill	2 (2 + 0)
<b>Total Credit Hours</b>		<b>16</b>

### 5<sup>th</sup> Semester

Code	Course Title	Credit Hour
BMT-5521	Applied Anatomy & Physiology of Cardio Respiratory System	3 (2 + 1)
BMT-5522	Applied Anatomy & Physiology of Cardiovascular System in Pregnancy Neonates & Pediatrics	3 (2 + 1)
BMT-5523	Respiratory Diseases	3 (2 + 1)
BMT-5524	Cardiovascular Diseases	3 (2 + 1)
BMT-5525	Patient Assessment/ Pulmonary function tests/ABGs	3 (2 + 1)
<b>Total Credit Hours</b>		<b>15</b>

### 6<sup>th</sup> Semester

Code	Course Title	Credit Hour
BMT-5621	Diagnostic Techniques in Cardio Respiratory disease	3 (2 + 1)
BMT-5622	Ventilation and GAS Exchange	3 (2 + 1)
BMT-5623	Ventilators	3 (2 + 1)
BMT-5624	Equipment in Respiratory Care	3 (2 + 1)
BMT-5625	Respiratory Therapy Techniques-I Adults and Pregnant women	3 (2 + 1)
<b>Total Credit Hours</b>		<b>15</b>

### 7<sup>th</sup> Semester

Code	Course Title	Credit Hour
BMT-6721	Respiratory Therapy Techniques-II Adults, Peads, Neonates, Pregnancy women	3 (2 + 1)
BMT-6722	Life Saving / Support System	3 (2 + 1)
BMT-6723	Bio Medical Ethics	3 (3 + 0)
BMT-6724	Chest Physical Therapy & Rehabilitation	3 (2 + 1)
BMT-6725	Organizations and general principals of ICU	3 (2 + 1)
<b>Total Credit Hours</b>		<b>15</b>

### 8<sup>th</sup> Semester

Code	Course Title	Credit Hour
BMT-6821	Clinical Nutrition and Diet Therapy	3 (3 + 0)
BMT-6822	Pediatric and Neonatal Respiratory Care	3 (2 + 1)
BMT-6823	Quality Assurance and Biosafety	3 (3 + 0)
BMT-6824	Health Economics	3 (3 + 0)
BMT-6825	Research Methodology	3 (3 + 0)
BMT-6826	Research / Thesis	3 (0 + 3)
<b>Total Credit Hours</b>		<b>18</b>

