LIAQUAT UNIVERSITY
OF MEDICAL HEALTH SCIENCES,
JAMSHORO

2022-2023

PROSPECTUS

INSTITUTE OF BIOMEDICAL ENGINEERING & TECHNOLOGY

THIS FIELD ENCOMPASSES THE KNOWLEDGE AND TRAININGS ON ELECTRONIC CIRCUITS, DEVICES AND THEIR BIOMEDICAL APPLICATIONS.

CONTACT ADDRESS

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Message of Vice Chancellor

It is great pleasure to see our new generation seeking for higher education. Liaquat University of Medical and Health Sciences, has a long history of welcoming new students from all the corners of the country and also abroad. After its inception as a medical college in 1956 it has made tremendious contribution in the medical profession. In the recent decade the need for allied discipline has grown with emergent job market at national and international level, Liaquat University of Medical & Health Sciences, has introduced a number of allied disciplines including BS and diploma programs in genetics, Medical technology, biomedical engineering, physiotherapy, Pharmacy, BS. Nursing and the list is continue to expand.

The programs offered at Liaquat University of Medical and Health Sciences, not only have modern curriculum up to the International standards, but also have great emphasis on the personal growth as a professional. The university also provides opportunity to our students for International exposure at our collaborating universities in United Kingdom, United States of America, China, Turkey and Azerbaijan. This gives them exposure of multicultural societies, and also help them in making decision for their future career planning. Each student in our University is taken as an individual with different needs of teaching methods. Therefore, we have multiple modes of teaching methods which provide equal opportunity of all students and facilitate them in their academic progression.

Being head of the Institute I feel myself responsible to provide the best possible teaching environment to all our students with best faculty, curricula and facilities. I feel deep concern about career development of our student so we take global and national job market into consideration and prepare all our pupils accordingly.

I wish my aspiring students all the best with a promise to provide them all the possible opportunities for their career development.

Prof. Dr. Ikram Din Ujjan
Vice Chancellor
LUMHS, Jamshoro

INSTITUTE OF BIO-MEDICAL ENGINEERING & TECHNOLOGY

Director's Message

It gives me immense pleasure to announce the new admission of B.S Biomedical engineering at institute of Biomedical engineering and Technology at LUMHS for the session 2022-23. Choosing where to continue your education is a major decision and I believe that IBET, LUMHS will be a choice you will not regret, especially if you are ambitious and determined to succeed.

The evolution of the institute over the past 12 years has witnessed strong blend of state-of-the-art infrastructure and intricately intertwined human resource committed to provide professional education with thrust on creativity and innovation. The academic activities concentrate on helping the students to gain an excellent theoretical knowledge base and in the development of skills to implement them.

We wish the best for all our students, and the members of the institution who reiterate their aims at providing the best in academic and extra-curricular fields. We must believe that success is inevitable where these exist- foresightedness, firm determination, hard work and discipline. You are assured that you will be proud of yourself as a confident and successful Biomedical Engineer after Four years at IBET, LUMHS.

Engr. Muhammad Ali Bohyo
Director Institute of Biomedical Engineering
LUMHS, Jamshoro

INSTITUTE OF BIO-MEDICAL ENGINEERING & TECHNOLOGY

Message from the Head of the Department

Biomedical engineering is an emerging field of the future that utilizes engineering principles, analytical practices, and design concepts for the healthcare industry which in result improves the quality of human life.

Keeping in view the future need of the nation, HEC initiate the BME workshop in LUMHS, which grows by time and become an institute of Biomedical Engineering that become a house for more than 150 students and 15 highly skilled and qualified faculty members.

The field of Biomedical Engineering is becoming more popular due to the high demand for health care experts, scientists, technical staff, and engineers during pandemic COVID-19. Biomedical Engineers are the experts that develop devices like Ventilators, respirators, Vital Sign monitors, and SpO2 monitors to help Doctors in their diagnoses.

Currently, the Institute of Biomedical Engineering offers a BS in Biomedical Engineering. I invite you to visit the institute and get in touch with the most diverse and energetic students and faculty members and learn more about the Biomedical Engineering program and future research activities. If you have any questions or wish to explore more, please do not hesitate to search out to the department. We look forward to hearing from you.

Engr. Dr. Sarmad Shams (Ph.D.)
Head of the Department
Department of Biomedical Engineering
IBET, LUMHS, Jamshoro

VISION OF THE IBET

To contribute as a worldwide leading institution, committed to develop and implement the advanced technology using engineering knowledge to transform the healthcare system of Pakistan.

MISSION STATEMENTS OF THE IBET

- To provide the fundamental knowledge, skills and professional experience education that prepares students to lead, innovate, and self-educate throughout their careers in bio-engineering and biomedical professions and industries.
- To contribute towards society through the pursuit of education, and to bridge the gap of skill, learning and research between advance countries and Pakistan.

PROGRAM EDUCATIONAL OBJECTIVES FOR BIO-MEDICAL ENGINEERING

The three program educational objectives (PEOS), as given below, form the basis of the B.S Biomedical Engineering Program atInstitute of Biomedical Engineering and Technology LUMHS. The PEOS were formulated in the consultation with the members of faculty and were adapted by the institute of biomedical engineering for the implementation of outcome-based education (OBE).

Within the period of the graduation, the students with Bachelor's in Biomedical engineering are expected to attain the following objectives:

PEO-1: Apply Biomedical Engineering knowledge to identify and address the technical and social problems

PEO-2: Enhance students intellectual and analytical abilities in taking initiative and/or developing innovative ideas for technological and professional growth in the field of Biomedical Engineering.

PEO-3: Work effectively as a team member or lead multidisciplinary teams while demonstrating the interpersonal and management skills and ethical responsibilities.

PROGRAM LEARNING OUTCOMES (PLO)

1. ENGINEERING KNOWLEDGE

An ability to apply knowledge of mathematics, science, engineering fundamentals and an engineering specialization to the solution of complex engineering problems.

2. PROBLEM ANALYSIS

An ability to identify, formulate, research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences and engineering sciences.

3. DESIGN / DEVELOPMENT OF SOLUTIONS

An ability to design solutions for complex engineering problems and design systems, components or processes that meet specified needs with appropriate consideration for public health and safety, cultural, societal, and environmental considerations.

4. INVESTIGATION

An ability to investigate complex engineering problems in a methodical way including literature survey, design and conduct of experiments, analysis and interpretation of experimental data, and synthesis of information to derive valid conclusions.

5. MODERN TOOL USAGE

An ability to create, select and apply appropriate techniques, resources, and modern engineering and IT tools, including prediction and modelling, to complex engineering activities, with an understanding of the limitations.

6. THE ENGINEER AND SOCIETY

An ability to apply reasoning informed by contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to professional engineering practice and solution to complex engineering problems.

7. ENVIRONMENT AND SUSTAINABILITY

An ability to understand the impact of professional engineering solutions in societal and environmental contexts and demonstrate knowledge of and need for sustainable development.

8. ETHICS

Apply ethical principles and commit to professional ethics and responsibilities and norms of engineering practice.

9. INDIVIDUAL AND TEAMWORK

An ability to work effectively, as an individual or in a team, on multifaceted and /or multidisciplinary settings.

10. COMMUNICATION

An ability to communicate effectively, orally as well as in writing, on complex engineering activities with the engineering community and with society at large, such as being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

11. PROJECT MANAGEMENT

An ability to demonstrate management skills and apply engineering principles to one's own work, as a member and/or leader in a team, to manage projects in a multidisciplinary environment.

12. LIFELONG LEARNING

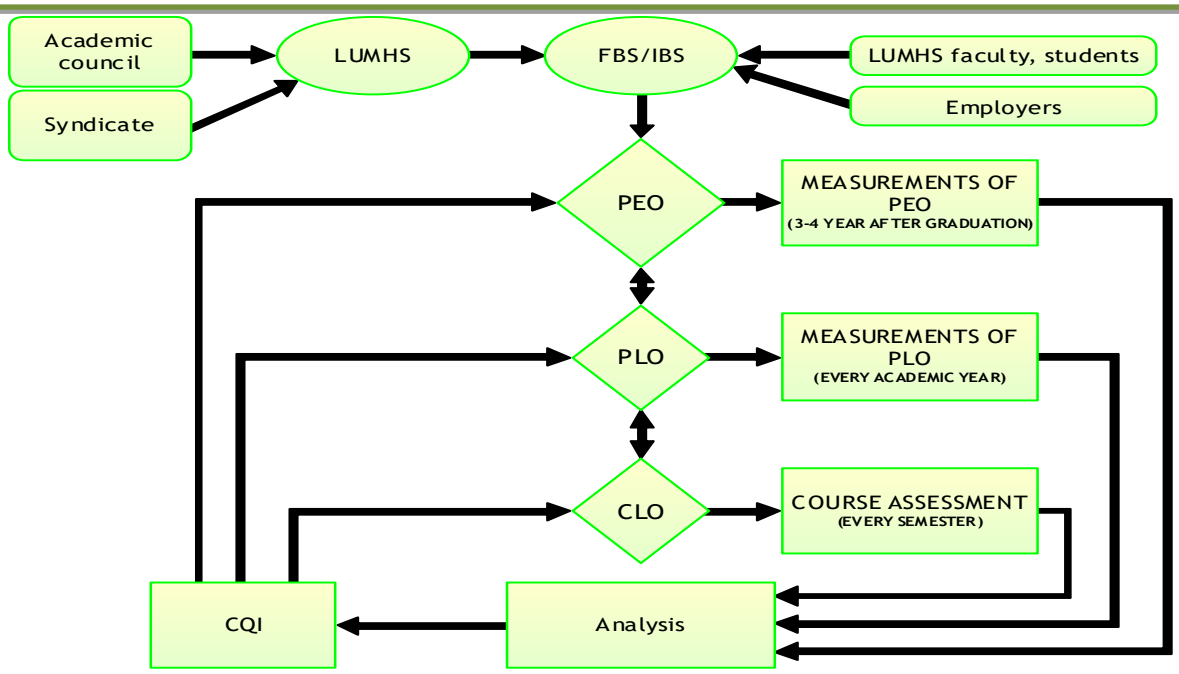
An ability to recognize importance of, and pursue lifelong learning in the broader context of innovation and technological developments.

OBE IMPLEMENTATION MODEL

The overall process of assessment and evaluations of PEOS and continuous quality improvement (CQI) is shown in figure: the complete CQI process is based on the three concentric loops for assessment and evaluation. The PLOS (program learning outcomes) and CLOS (course learning outcomes) that are described previously.

Various stakeholders are shown in the flow chart that are participate in the decision-making process. The decision-making process is explained in the following paragraphs.

LUMHS has a syndicate and an Academic council. Institute has faculty board of studies (FBS) and institute board of studies (IBS) to handle various aspects of academic matters. The feedback is also provided by the institute faculty and students as well as by the alumni.



Institute of Biomedical Engineering & Technology

The Institute of Biomedical Engineering & Technology came into existence in March 2009. It was originally sanctioned by Higher Education Commission, Islamabad as Biomedical Equipment Repair Workshop in March, 2006 to provide technical assistance for troubleshooting of Biomedical Equipment's at public sector medical institutions. The need for biomedical experts in Sindh has been felt from a long time. In order to settle this problem, the university decided to take full benefit of the repair workshop by converting the same into Biomedical Institute to utilize its full potential. The idea behind the proposal was to integrate the practical skills with proper academic support, then combine and develop a tool to generate fruitful technical human resource not only to provide benefits of repair but also produce genuine technologist.

The Institute started the B.S programme in Biomedical Engineering from 2012, under the recognition of Higher Education Commission (HEC) and Pakistan Engineering Council (PEC). This programme consists of four (04) Years comprising of two (02) semesters per year.

The aim behind the establishment of this institute was to create diligent and proficient engineers as well as to create job opportunities in public sector organizations including hospitals, universities etc.

FACILITIES AT THE INSTITUTE

- DSP/Microprocessor Lab
- Biomechanics/Fluid Mechanics Lab
- Telemedicine/Computing Lab
- Biomedical Instrumentation Lab
- Electrical & Electronics Lab
- Biomedical Workshop
- Air-conditioned classes with Smart Board
- Seminar Hall
- Library
- Online e-books and journals
- Transport facility
- Tuck Shop

PAID TECHNICAL JOB TRAINING PROGRAMME (6 MONTHS)

The programme is initiated under recognition from Pakistan Engineering Council. The objective of this programme is to produce Biomedical Engineers of International Standards. Institute of biomedical Engineering & Technology is aimed at providing Technical Job Training Programme to all the successful graduates of the institute with a monthly stipend, to give them a hands on experience of their field. The graduates are placed at Liaquat University Hospital Hyderabad and Jamshoro and their effective use is ensured by continuous under supervision of Liaquat University Hospital as well as Liaquat University Administration.

A MoU has been signed with Liaquat University Hospital promoting professional learning and technical skills development for students produced by IBET LUMHS. The objective of this programme is also provide technical support and progressive step towards e-health at LUMHS. MoU is signed for following purpose:

- To introduce advanced and skilled manpower to cover the lack of expertise at LUMHS.
- To provide better health facilities and for the betterment of health sector of Province of Sindh.
- To provide platform for professional learning and working environment for students produced by LUMHS.

THE B.S PROGRAMME

The field of Biomedical Engineering encompasses the knowledge and trainings on electronic circuits, devices and their biomedical applications. The students learn variety of subjects of diverse fields, including, Applied Calculus, Human Anatomy, Computer Applications in Medicine, Biochemistry, Biophysics, Digital Electronics, Computer programming, Database System, Introduction to Physiology, Telemedicine, Signal processing, Biomedical Instrumentation-I & II, Medical Informatics, Biomaterials, Medical Imaging, Prosthetics & Artificial Organs, Medical Automation & Robotics, and Neural Networks.

The courses taught are regularly updated to keep abreast with new knowledge and development. The students also undertake a project during their final year, which helps them to enhance their capabilities as young design engineers.

BIOMEDICAL ENGINEERING

Biomedical engineering is an interdisciplinary area in which engineering expertise and design concepts are applied to problem solving in the life sciences and medicine. This Program focuses on understanding complex living systems and use of technology and advance systems to improve diagnosis and treatment.

Biomedical Engineering Program prepares students for productive careers and diverse profession including medical devices, pharmaceuticals biotechnology as professional education, and research. Biomedical Engineers have developed a number of life-enhancing and life-saving technologies including diagnostics, Therapeutic equipment, life supporting devices, surgical devices and systems, vital sign monitoring devices and prosthetics.

Biomedical Engineers works with a broad range of profession, ranging from other engineering specialties to basic laboratory scientist, to physician and nurses, and have strong communication skills that makes biomedical engineer the general interpreter for such a widely educated individual; the one who knows the language of both engineering and medicine.

THE SCOPE & JOB PROSPECTS IN BIOMEDICAL ENGINEERING

Biomedical Engineering is one of the emerging fields which combines Engineering expertise with the needs in the medical industry for the growth and development of the healthcare sector. It is the unique branch of Engineering in which the concepts, knowledge, expertise and skills are designated and applied to the field of biology and medicine in order to meet the daily challenges. The field of biomedical engineering, as the term implies, includes the mathematical modelling of the biological systems, design and computation of the algorithms which help to analyze biological signals, bioinformatics, biomechanics, applications of micro-electromechanical systems, molecular engineering, nanotechnology and development of signal processing and control algorithms of artificial parts of the body.

- A biomedical engineer carries out various functions within the biomedical engineering industry and other institutions such as hospitals, healthcare organizations and teaching institutions.
- They design the sleek computer systems which help to monitor patients during the different stages of the hospital care. Moreover, they also build the systems to monitor the health aspects of the healthy persons.
- They design and build the complex sensors to measure blood chemistry, such as sodium and pH.
- They design the instruments and devices for the therapeutic uses for example the device for the eye surgery.
- They design clinical laboratories and automate different units within the hospitals and other health care delivery systems using the advanced engineering technologies.
- They design, build and investigate the medical imaging systems based on X-rays (Computer Assisted Tomography), Magnetic Fields (Magnetic Resonance Imaging), Ultrasound or newer modalities.
- They develop and implement the mathematical models of physiological systems for example they design and construct biomaterials and find out the mechanical, transport and biocompatibility properties of implantable materials
- They investigate the Bio - Mechanics of injury and wound healing.
- They develop new horizons in sports engineering in order to restore complicate sports technique and to reduce workload of coaches in efficient way.
- Design systems and products, such as artificial internal organs, artificial devices that replace body parts, and machines for diagnosing medical problems
- Install, adjust, maintain, repair, or provide technical support for biomedical equipment.
- Evaluate the safety, efficiency, and effectiveness of biomedical equipment
- Train clinicians and other personnel on the proper use of equipment.
- Work with life scientists, chemists, and medical scientists to research the engineering aspects of biological systems of humans and animals.

Faculty Members

- Engr. Muhammad Ali Bohyo
  Director
  I.B.E.T, LUMHS, Jamshoro.

- Dr. Sarmad Shams
  Associate Professor
  Head of Department
  Department of Biomedical Engineering
  I.B.E.T, LUMHS, Jamshoro.

- Dr. Muhammad Fahad Shamim
  Assistant Professor
  I.B.E.T, LUMHS, Jamshoro.

- Engr. Sarfaraz Khan
  Lecturer, I.B.E.T,
  LUMHS, Jamshoro.

- Engr. Saeed Ahmed Maitlo
  Lecturer, I.B.E.T,
  LUMHS, Jamshoro.

- Engr. Sehreen Moorat Gopang
  Lecturer, I.B.E.T,
  LUMHS, Jamshoro.

- Engr. HibaParvaiz
  Lecturer, I.B.E.T,
  LUMHS, Jamshoro.

- Mr. Muhammad Siddique Raza
  Lecturer, I.B.E.T,
  LUMHS, Jamshoro.

- Engr. Murk Rehman
  Lecturer, I.B.E.T,
  LUMHS, Jamshoro.

- Engr. Natasha Mukhtiar
  Lecturer, I.B.E.T,
  LUMHS, Jamshoro.

- Engr. Murk Saleem
  Lecturer, I.B.E.T,
  LUMHS, Jamshoro.

- Engr. Muhammad Mohsin
  Lecturer, I.B.E.T,
  LUMHS, Jamshoro.

- Ms. Bakh Panhwar
  Lecturer, I.B.E.T,
  LUMHS, Jamshoro.

- Engr. Sasuee Khatoon
  Lecturer, I.B.E.T,
  LUMHS, Jamshoro.

- Engr. Laraib Kehar
  Lecturer, I.B.E.T,
  LUMHS, Jamshoro.

Visiting Faculty

- Dr. Sadia Effindi
  Lecturer, Anatomy,
  LUMHS, Jamshoro.

- Dr. Javeria
  Lecturer, Physiology,
  LUMHS, Jamshoro.

- Dr. Sofia
  Lecturer, Biochemistry
  LUMHS, Jamshoro.

- Engr. Azar Akbar Memon
  Director, I.T, Training
  LUMHS, Jamshoro.

- Dr. Sikandar Memon
  Assistant Professor, Dentistry
  LUMHS, Jamshoro.

- Ms. Sana Zulfiqar
  Islamic Studies/Ethics

- Mr. Aamir Memon
  CAED

Integrated Teaching, Semester System, Curriculum, Examinations and Medium of Instructions

Bachelor's in biomedical engineering Programme consist of four years academic duration comprising eight semesters including teaching, practical on biomedical equipment and trainers.

The semester system is a unique system in which education is delivered into a process where students can learn according to their interest. After evaluation of their performance/progress assessed through different types of tests/assessments, they can acquire degree on their cumulative performance throughout the Programme of their study.

SEMESTRIAL DURATION PER WEEK

Teaching & Training	16 weeks
Examinations	02 weeks
Duration of Semester	18 weeks

ATTENDANCES OF THE STUDENTS

Students after admission are required to attend classes &practical and maintain at least 75% attendance in each Semester before they become eligible to appear in the examination. Any student who fails to maintain the attendance as prescribed by University for appearance of examination, his examination form shall not be forwarded to the Controller of Examinations.

ELIGIBILITY

- Only candidates who have qualified the attendance criteria will be eligible to appear in Semester examinations.
- Attendance should be 75% both for Theory as well as practical sessions.
- If a candidate passes in theory and fail in practical, he will have to reappear in practical only.
- If a candidate passes in practical and fail in theory, he will have to reappear in theory only.

PATTERN OF EXAMINATION

Theory 100 Marks

- Out of 100 Marks: 20 marks mid-semester 10 marks sessional and 70 Marks of theory paper.
- Sessional Marks comprises on Class Tests and Assignment.

In Paper out of 70 Marks

No. of Questions	Marks	Time
• 20 SBQs	20	30 minutes
• 10 Short Essay	50	1 hours & 30 minutes

Practical / Viva voce 50 Marks

Out of 50 Marks:

- 30 Marks on Lab performance and open ended lab
- 10 Marks on Lab project
- 10 Marks on Viva Voce

CRITERIA OF PASSING

- Passing marks in theory will be 50%
- Passing marks in Viva voce/practical will be 50 %

Examiners for Theory: One Internal

Examiners for Practical: One Internal & One External

EXAMINATION AND GRADING

The grading in the examination will be evaluated as under:

Grade	Score	Value
A+	85% - 100%	4.00
A	70% - 84%	3.50
B	60% - 69%	3.00
C	50% - 59%	2.00
D	Below 50%	1.00

MEDIUM OF INSTRUCTIONS

Instruction in all course/Laboratories are carried out in English Language.

ALLOCATION OF SEATS

S. No.	Category	Seats
01	**Open Merit**	**30**
02	**Self-Finance**	**10**
	TOTAL	**40**

Eligibility Criteria for Admission

ENTRY TEST

i. Candidates who have passed Secondary School Certificate examination (SSC) or equivalent examination from any other board or institution recognized by IBCC or above only.

ii. Candidates who have passed Intermediate Sciences (Pre-Medical or Pre-Engineering) with at least 60% marks or any equivalent examination of any other Board / Body recognized by IBCC with at least 60% marks passed only. Candidates obtaining less than 60% Marks in HSSC or equivalent examination are not eligible. A-Level examination either in with minimum 60% marks shall be eligible to appear in the Entry Test. The candidates who have passed A-level Examination should submit transcript and equivalence certificate from IBCC Islamabad.

iii. The entrance test shall be conducted from the prescribed intermediate syllabus of Board of Intermediate and Secondary Education, Karachi, Hyderabad, Mirpurkhas, Larkana and Sukkur.

There will be 100 multiple choice questions in the test, distributed in the following manner:

S. No.	Subjects	Questions
01.	Physics	40
02.	Chemistry	40
03.	English	20

The time allotted to solve the paper will be 100 minutes, and the exam shall be of 100 marks.

There will be negative marking for incorrect answer.
Each answer shall be awarded 01 (One) mark and there will be 0.25 negative mark for each incorrect answer.

DOMICILE

Candidate for admission in First Year Biomedical Engineering must be domicile holders and Permanent Resident of Sindh Province.

a) HSSC/F.Sc or Equivalent. (50%);
b) Admission test (50%)

Example:

If a Candidate has obtained the following marks:

a	HSC/A-Level Equivalent marks	660/1100 or 60.00%
b	Entry Test Marks	80/200 or 40.00%

His/her Merit will be calculated as follows:

A	HSC/A-Level Equivalent marks	60.00% x 0.5= 30.000
b	Entry Test Marks	40.00% x 0.5= 20.000
OVER ALL MERIT OF THE CANDIDATE		**A+B=30.000+20.0000 = 50.000**

All calculation in percentages will be rounded up to three decimal points.

Marks shall be added from the total marks of the candidate in his/her HSC (Pre- Medical) qualifying examination in order to adjust the marks.

No deduction in gap of year.

In case the overall scores of two or more candidates are equal, the candidate older in age shall be ranked higher in merit for the purpose of admission.

FEE SCHEDULE

OPEN MERIT

S. No.	Description	Fee
1.	Admission	25,000/-(once)
2.	Tuition Fee	30,250/- (Per Semester)
3.	Transport	10,000/ (Per Year)
4.	Documents Verification Fee	1,800/ (once)
	Total Rs.	67,050/-

TUITITON FEE YEAR WISE	
1st Year Tuition	60,500/-
2nd Year Tuition	66,550/-
3rd Year Tuition	73,205/-
4th Year Tuition	80,525/-

SELF FINANCE

S. No.	Description	Fee
1.	Admission	25,000/-(once)
2.	Tuition Fee	126,000/- (Per Semester)
3.	Transport	10,000/ (Per Year)
4.	Documents Verification Fee	1,800/ (once)
	Total Rs.	162,800/-

TUITITON FEE YEAR WISE	
1st Year Tuition	252,000/-
2nd Year Tuition	277,200/-
3rd Year Tuition	304,920/-
4th Year Tuition	335,410/-

REFUND POLICY

% of tuition fee	Timeline for Semester
Full 100% fee refund	Up to 7th day of convene of classes
Half 50% fee refund	Up to 15th day of convene of classes
No refund 0%	From 16th day of convene of classes

% of Self-Finance fee	Timeline for Refund
20% Penalty	Up to 7th day of convene of classes
40% Penalty	From 8th to 15th day of convene of classes
100% Penalty – No refund	From 16th day of convene of classes

Academic Instructions

a) Students after the admission are compulsory required to attend classes and practical and maintain at least 75% attendance in each semester in order to be eligible to appear in the respective Semester examination.

b) Classes schedule will be pasted on the Notice Board.

c) Generally, classes are scheduled between 08:00 am to 03:00 pm.

d) The students who miss classes, assignments and class test are bound to appear in extra classes arranged for this purpose. (On Special request by students).

e) A student will not be allowed to enter the class after 10 minutes of the start of the Class.

f) Theory and Practical are integrated in the courses where needed. Students must acquire both theoretical and practical competencies.

ELIGIBILITY OF THE CANDIDATES

ELIGIBILITY FOR ADMISSION IN BIO-MEDICAL ENGINEERING

ENTRY TEST

i. Candidates who have passed Secondary School Certificate examination (SSC) or equivalent examination from any other board or institution recognized by IBCC.

ii. Candidates who have passed Intermediate Sciences (Pre-Medical or Pre-Engineering) with at least 60% marks or any equivalent examination of any other Board / Body recognized by IBCC with at least 60%. Candidates obtaining less than 60% Marks in HSSC or equivalent examination are not eligible. A-Level examination either in with minimum 60% marks shall be eligible to appear in the Entry Test. The candidates who have passed A-level Examination should submit transcript and equivalence certificate from IBCC Islamabad.

iii. The entrance test shall be conducted from the prescribed intermediate syllabus of Board of Intermediate and Secondary Education, Karachi, Hyderabad, Mirpurkhas, Larkana and Sukkur.

There will be 100 multiple choice questions in the test, distributed in the following manner:

S. No.	Subjects	Questions
01	Physics	40
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03	English	20

The time allotted to solve the paper will be 100 minutes, and the exam shall be of 100 marks.
There will be negative marking for incorrect answer.
Each answer shall be awarded 01 (One) mark and there will be 0.25 negative mark for each incorrect answer.

FORMULA FOR WORKING OUT OVER ALL MERIT

a) HSSC/F.Sc or Equivalent. (50%);
b) Admission test (50%)

Example:

If a Candidate has obtained the following marks:

a	HSC/A-Level Equivalent marks	660/1100 or 60.00%
b	Entry Test Marks	80/200 or 40.00%

His/her Merit will be calculated as follows:

A	HSC/A-Level Equivalent marks	60.00% x 0.5= 30.000
b	Entry Test Marks	40.00% x 0.5= 20.000
OVER ALL MERIT OF THE CANDIDATE		**A+B=30.000+20.0000 = 50.000**

- All calculation in percentages will be rounded up to three decimal points.
- Marks shall be added from the total marks of the candidate in his/her HSC (Pre- Medical or Pre-Engineering) qualifying examination in order to adjust the marks.
- No deduction in gap of year
- In case the overall scores of two or more candidates are equal, the candidate older in age shall be ranked higher in merit for the purpose of admission.

AFFIDAVIT

(To be typed on Rs. 100 Stamp Paper)

I, _____ S/o, D/o _____ Muslim, Adult

R/o _____ a Candidate for admission in B.S. Biomedical Engineering at Institute of Biomedical Engineering & Technology, LUMHS, Jamshoro for the academic session 2022, do hereby state on solemn affirmation on oath as under:

1. That I am holder of P.R.C of district _____, which was issued on the basis of domicile of district in Sindh.
2. That if I am allowed admission in B.S Biomedical Engineering of the merit seat of Sindh, I shall not seek admission in any other public sector / private sector Medical & Dental College/ Medical University or any other Degree College / University of the country.
3. That all documents submitted by me along with application form are genuine and correct and no false documents has been submitted. If any document/information is found to be false, incorrect or otherwise defective thereby I know that admission is liable to be cancelled.
4. That after my final selection/provisional admission on open merit / Self Finance B.S Biomedical Engineering course I shall complete the course of 4 years. However, in case I leave the Institute before completion of the Course, I shall be liable to penalty of Rs. 100000/- (One Hundred Thousand) only payable through Pay Order/ Demand Draft to the Institute for wasting the precious seat of general merit.
5. That I also undertake not to involve myself in any kind of political activity throughout my tenure in this institution as a Student and in case I am found involved in such activities, the authority of the institute shall be at liberty to expel/rusticate me and to cancel my admission.
6. That I have gone through all the rules, terms & conditions of the admission, studies and declare that my priority of choice for course in indicated in the application form.
7. That whatever is stated above is true and correct to the best of my knowledge & belief.

Signature of the Deponent

NIC_____

The deponent named above is identified by me to the commissioner for taking affidavit.

Advocate

Solemnly affirmed on oath this _____ day of _____2022 at _____ by deponent named above who is identified to me by Mr./Ms_____ Advocate whom I know, the contents were first truly & audibly read over & explained to the deponent in _____ language who appears to have understood the same & put his/her signature in my presence.

Attestation _____

1st Class Magistrate

UNDERTAKING BY PARENT / GUARDIAN

(To be typed on Rs 100 Stamp Paper)

I, _____ Parent/ Guardian of _____ do hereby undertake and assure that my son / daughter / ward will not join any political activity directly or indirectly throughout his/her career as B.S student at Institute Of Biomedical Engineering & Technology, LUMHS, Jamshoro.

I also understand that if my son / daughter / ward is found involved in any political and ethnic activity, I shall have no objection to his/her prior examination/ rustication from the University.

Signature of Parent/ Guardian _____

Full Address _____

C.N.I.C No._____ Phone No._____

_____
Attested by 1st: class MAGISTRATE

DIRECTORATE OF ADMISSIONS (UG)
LIAQUAT UNIVERSITY OF MEDICAL &
HEALTH SCIENCES, JAMSHORO
TELEPHONE NO.022-9213320
EMAIL (www.lumhs.edu.pk)