

ZIAUDDIN UNIVERSITY PROSPECTUS

2022



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www.zu.edu.pk



OUR VISION

We are a prestigious institution of higher education recognised for academic excellence and research. Ziauddin University aims to nurture ethical and intellectual curiosity in the students by motivating them to positively contribute towards the development of a knowledge-based society in Pakistan. A society that can understand global challenges, and effectively mold itself in accordance to the changing political, economic and social paradigm.

OUR MISSION

Ziauddin University seeks a futuristic approach in imparting knowledge, skills and confidence in students. The curriculum inculcates in them critical abilities, wisdom and values which are necessary to form a forward looking coherent civil society where knowledge is disseminated and services are rendered with the highest sense of moral uprightness and social responsibility to the nation, region and the world at large.

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SIR.DR. ZIAUDDIN AHMAD

M.A. (Cantab.) Ph.D. (Göttingen)
D.Sc. C.I.E. M.L.A (Central)

Ex-Vice Chancellor and Rector of Aligarh Muslim University

Sir. Dr. Ziauddin Ahmad is an individual who left a lasting impact on the subcontinent. He was an eminent educationist, scholar, visionary, and an exemplary individual who serves as an inspiration to those willing to make a difference in the world.

Born in 1873 in Meerut, India, his journey of success started at the age of 12 when he attained the first division in high school. Dr. Ziauddin also received a Lang medal along with a government scholarship at Aligarh M.A.O College. In 1895 he secured the first position in Bachelor of Arts (B.A), and received the coveted Shachey Gold Medal at Aligarh M.A.O College.

However, this was just a glimpse of his intellectual prowess. After completing B.A in Mathematics, Dr. Ziauddin Ahmad was appointed as the assistant lecturer in Aligarh M.A.O College – the same educational institute that aided him in expressing his brilliance. He then attained a Master of Arts (M.A) degree from the University of Calcutta.

In 1901, he achieved a Doctor of Science (D.Sc. degree in mathematics from the University of Allahabad. He then enrolled himself in the Trinity College at Cambridge University and achieved the prestigious Sir Isaac Newton scholarship - an honour no other Indian had attained. The final jewel in his list of educational triumphs was the PhD in Mathematics that Dr. Ziauddin Ahmad earned from the internationally renowned, Göttingen University, Germany.

After his own journey of attaining the highest level of education was completed, Dr. Ziauddin Ahmad aspired to raise the standard of education within the subcontinent. He also worked as an Assistant Secretary for the Sir Syed Memorial Fund, established for the purpose of founding a Muslim University.

Since the educationalist was inspired by Sir Syed Ahmed Khan's approach towards modern tutelage, he dedicated himself to creating a liberal teaching system for the Muslims of India. Dr Ziauddin was appointed as the very first Pro-vice chancellor of Aligarh Muslim University. He took over as Vice Chancellor, in 1935.

His journey of spreading literacy, higher education, and the ability to critically analyse information ended in December 23, 1947, when Sir. Dr. Ziauddin Ahmad died in London. He was buried beside Sir Syed Ahmed Khan in the Aligarh Muslim University Mosque premise, thus fulfilling his pledge of serving Aligarh for life.

MESSAGE FROM THE CHANCELLOR

Ziauddin University was formed with the aim of spreading knowledge across the world, and most importantly, empowering the youth of Pakistan with education equivalent with international standards. The university's primary emphasis is on providing a positive learning environment that drives students to achieve heights of success.

Apart from motivating our apprentices, Ziauddin University offers an array of programmes and state of the art facilities that warranty academic excellence. Thus, we often see our students conducting researches that can change history as we know it. From practical experiments to journal studies – the students at the university are involved in all aspects of the advancement of the nation.

Our aim now is to uphold a standard of excellence and to keep creating opportunities that break barriers in terms of knowledge, research, and development.

DR. ASIM HUSSAIN

SITARA.E.IMTIAZ, NISHAN.E.IMTIAZ
CHANCELLOR, ZIAUDDIN UNIVERSITY



MESSAGE FROM THE VICE CHANCELLOR

I am pleased to present the Prospectus of Ziauddin University for 2021. I feel proud of the fact that this is the 25th year of existence of Ziauddin University; a very prominent seat of learning in the Private Sector of Pakistan. In the last few years, we have entered and diversified into various areas of higher learning by establishing a full-fledged Faculty of Engineering, Science and Technology, Faculty of Law, Faculty of Liberal Arts and Human Sciences and the Faculty of Eastern Medicine and Natural Sciences. This has opened vast opportunities for students to gain training in important areas.

I am extremely pleased to mention that we have maintained excellent academic discipline in Ziauddin University. The focus on teaching methodologies to provide the best possible environment of teaching and learning.

I am sure that the training and education of Ziauddin University is making an impact at a national and international level. I hope that our Alumni will endorse these facts about the very special environment which exists at this University.

PROF. DR.
SYED IRFAN HYDER
VICE CHANCELLOR, ZIAUDDIN UNIVERSITY



GOVERNING BODY

Dr. Asim Hussain S.I, N.I.
Chancellor, Ziauddin University

Dr. Nida Hussain
Pro Chancellor, Ziauddin University

MEMBERS

Prof. Dr. Pirzada Qasim Raza Siddiqui

Vice Chancellor

Justice Aziz-ur-Rehman

Honorable Judge, High Court of Sindh

Prof. Dr. Saroosh Lodhi

Vice Chancellor NED University & Nominee of
Chairman HEC Sindh

Prof. Dr. Manzoor Ahmed

Professor of Emeritus, University of Karachi

Sardar Yaseen Malik HI, SI

Chairman, Hilton Pharma

Lt. Gen (Retd) Syed Perwaz Shahid

Former Corp. Commander Bahawalpur

Muhammad Saleem Khan

Former Federal Secretary,
Ministry of Ports & Shipping,
Government of Pakistan

Mr. Anwar Mansoor Khan

Sr. Advocate Supreme Court of Pakistan

Chairman, Federal HEC or his nominee

Prof. Dr. Khadlid Iraqi

Vice Chancellor, University of Karachi

President KCCI

Chamber of Commerce & Industries

Prof. Abbas Zafar

Dean Faculty of Health Sciences

Engr. Capt.(Retd) Syed Waqar Hussain

Registrar, Ziauddin University

ACADEMIC COUNCIL

CHAIR

Prof. Dr. Pirzada Qasim Raza Siddiqui

Vice Chancellor, Ziauddin University

SECRETARY

Engr.Capt.(Retd) Syed Waqar Hussain

Registrar, Ziauddin University

MEMBERS

Dr. Nida Hussain

Pro Chancellor

Prof. Dr. Abbas Zafar

Dean, Faculty of Health Sciences

Prof. Dr. Anwar Ejaz Beg

Advisor to Chancellor/Prof. Pharmacy

Prof. Dr. Rafeeq Alam Khan

Dean, Faculty of Pharmacy

Prof. Talat Mirza

Executive Director Research

Ms. Shaaista Sarki

Dean, Faculty of Law

Prof. Dr. Fauzia Shamim

Dean, Faculty of Liberal Arts & Human Sciences

Prof. Dr. Tabiba Tasneem Qureshi

Dean, Faculty of Eastern Medicine & Natural
Sciences

Engr. Dr. Fahad Azim

Dean, ZUFEST

Dr. Pamela Marshall

Dean, Ziauddin College of Nursing

Prof. Dr. Mervyn Hosein

Principal, Ziauddin College of Dentistry

Prof. Dr. Nuzhat Hassan

Acting Principal, Ziauddin Medical College

Ms. Amina A. Siddiqui

Principal, Ziauddin College of Speech

Language & Hearing Sciences

Ms. Sumaira Imran Farooqui

Principal, Ziauddin College of Rehabilitation
Sciences

Ms. Humera Rashid

Acting Principal, Ziauddin College of C.L.S &
Medical Technology

Ms. Tehmina Lodhi

Principal, Ziauddin College of Media Sciences

Ms. Rana Hussain

Principal, College of Education

Prof. Dr. Ejaz Ahmed Vohra

Director, Post Graduate Studies (Clinical)

Prof. Dr. Khalid Hussain Mahida

Associate Director Academics (Clinical),

Prof. Dr. Ahmed Fawad

Associate Director Academics (Clinical)

North Nazimabad

Prof. Dr. Uzma Ghouri

Associate Director Academics, (Clinical)
Clifton Campus.

Dr. Arif Hussain

Assistant Dean, Allied Health Sciences

Prof. Dr. Saeeda Baig

Head of Department, Biochemistry

Prof. Dr. Jawaid Usman

Head of Department, Family Medicine

Mr. Suhail Ahmed Khatian

Controller of Examinations

Dr. Iram Khursheed

Director, Department of Educational Development

Mr. Faizan S. Syed

Advisor to Chancellor on Finance/Media

Mr. Shahzad Iqbal

Director Finance

Dr. Almas Farhan

Director, Continuing Professional Education &
Student Affairs

Syed Atta Ullah Shah

Chief Librarian

Engr. Muhammad Asif

Director QEC

Dr. Saad Jawaid Khan

Chairperson, Bio Medical Engineering

Prof. Dr. Munaf Rashid

Chairperson, Software Engineering

Engr. Syed Fraz Jafri

Acting Chairperson, Civil Engineering

Dr. Zulfiqar Umrani

Director ORIC

Dr. Yasmin Ansari

Advisor to Chancellor on Nursing

Ms. Farhana Tabassum

Director Undergraduate

ZIAUDDIN UNIVERSITY

Sir Dr. Ziauddin Ahmad's vision was transformed into reality in the late 1950's when his daughter Dr. Ejaz Fatima and his son-in-law Dr Tajammul Hussain started a small maternity home in Nazimabad. Over the years, this small maternity home took shape of a busy 80-bed hospital that serves the densely populated area of Nazimabad.

In 1968, the family of Dr Ziauddin Ahmad established Dr Ziauddin Hospital Trust, where in the same year this trust established a second hospital in North Nazimabad as Dr Ziauddin Hospital, which is now a 300-bed tertiary care hospital, catering to a large population. This hospital provides an opportunity for students to gain knowledge and skills in assessing and evaluating a wide range of problems in a tertiary care setting. The hospital is equipped with state of the art equipment necessary to diagnose and manage problems effectively and efficiently.

In August 1994, through an Ordinance (XVII of 1994), the Government of Sindh granted the permission to establish Dr. Ziauddin Postgraduate Institute of Medical Sciences. By virtue of this Ordinance, the Institute could grant its own postgraduate degrees and diplomas.

In October 1995, the Sindh Assembly passed an Act (VI of 1995) for the establishment of Ziauddin Medical University. At this time the university also established an association with the neighbouring community to set up a health centre, and entered into mutual partnership with the Karachi Municipal catchments population by providing healthcare services & educational support.

In December 2005, Ziauddin Medical University was given the Charter as Ziauddin University vide "The Ziauddin University" (Amendment) ACT 2003 dated December 13, 2005.



Presently, following faculties/colleges are successfully running under the umbrella of Ziauddin University:

Faculty of Health Sciences

College of Medicine
College of Dentistry
College of Speech Language & Hearing Sciences
College of Medical Technology
College of Rehabilitation Sciences
College of Nursing

Faculty of Pharmacy

Faculty of Engineering Science & Technology

Faculty of Liberal Arts & Human Sciences

College of Media Sciences
College of Languages, Literature & Culture
College of Education
The Language Center

Faculty of Eastern Medicine & Natural Sciences

College of Eastern Medicine
College of Horticulture
College of Natural Sciences

Faculty of Law

PROFESSIONAL ACCREDITATIONS

Ziauddin University is accredited from the following bodies:

Pakistan Medical and Dental Council (PMDC)
Pakistan Council of Pharmacy (PCP)
Pakistan Nursing Council (PNC)
Pakistan Engineering Council (PEC)
Pakistan Bar Council (PBC)

UNIVERSITY LIBRARIES

The Ziauddin University has 11 libraries in different faculties and colleges at different campuses. The primary goal of these libraries is to provide quality information and literature to support and strengthen the university and hospitals' academic, research and patient care programmes:

CLIFTON CAMPUS:

1. Prof. Naeem A. Jafarey Central Library provides services to:

- College of Medicine
- College of Dentistry
- Faculty of Pharmacy
- Faculty of Liberal Arts and Human Sciences
- Faculty of Law

- Hospital Clinicians
- 2. College of Speech Language & Hearing Sciences Library
- 3. College of Rehabilitation Sciences Library

NORTH NAZIMABAD CAMPUS:

4. Hospital Library
5. Faculty of Engineering Science & Technology Library
6. College of Nursing Library
7. College of Rehabilitation Sciences Library
8. College of Medical Technology
9. Faculty of Eastern Medicine and Natural Sciences

KEMARI CAMPUS:

10. KDLB Hospital Library

LINK ROAD CAMPUS:

11. Dr. Aijaz Fatima Library

LIBRARY COLLECTION:

Printed Material

Books: More than 18500

Journals: Subscribes a good number of Journals in all disciplines of the university programmes

Theses: Ph. D., M. Phil. And Master's thesis of ZU Researchers: 361 Thesis

CD/DVDs: 995

DATABASES: ONLINE FULL TEXT JOURNALS

The access of more than 5000 journals including:

- HEC databases on Bio-Medical, Engineering and Social Science subjects.
- **Research4Life:**
 - o HINARI: Health
 - o ARDI: Innovation and Technology
 - o GOALI: Law
 - o OARE: Health, Technology, Education & Social Sciences etc...
 - o AGORA: Science, Food, Law & etc...

LIBRARY FACILITIES:

• Cozy environment, information commons: well-equipped systems including Internet, intranet, WiFi, OPAC, printing, appropriate and updated literature and databases according to the University Programmes.

LIBRARY SERVICES

• Current Content Service, ZU Faculty Publication Information, Creating Anti-plagiarism environment (Turnitin), Public Services, Circulation Services, Printing, Article Searching, Reference Services and Reference Management.

TRAINING:

Literature Search, Reference Management, Turnitin Software

LIBRARY OPERATIONS:

- KOHA for the automation of library literature and Services.
- NLM and LC Scheme for Literature Classification
- AACR2 and MARC 21 cataloging.
- OPAC for Literature Search

LIBRARY TIMINGS:

The NAJ Library (Clifton Campus)
8:30 am to 10:00 pm (Monday to Friday)
8:30 am to 4:30 pm (Saturday)

The Hospital Library North Nazimabad
8:30 am to 10:00 pm (Monday to Saturday)

The KDLB Library
8:30 am to 6:00 pm (Monday to Friday)
8:30 am to 2:30 pm (Saturday)

Libraries of ZCRS, ZUFEST, ZCN, ZCSLHS
8:30 to 4:30 (Monday to Friday)

LIBRARY STAFF:

Qualified Professional Staff

Dr. Naeem A. Jafarey Library (Clifton Campus)

Syed Attaullah Shah
Sheraz Khurshid
Syeda Kishwer Zaheer
Aisha Fareed
M. Ali Siddiqui
Syed Touqeer Ullah Shah

Hospital Library North Nazimabad

Syed Iftikhar Hussain Assistant Librarian
Afsheen Urooj Assistant Librarian
Nazish Nawab Assistant Librarian

KDLB (Kemari)

Abida Younus Sheikh Assistant Librarian

ZUFEST Dr. Aijaz Fatima Library (Education City, Link Road)

Tabinda Naveed Assistant Librarian

ZUFEST Library (North Nazimabad)

Faiza Inam Assistant Librarian

ZCSLHS Library

Rukhsar Fareed Assistant Librarian

ZCRS Library- North

Tehreem Mustufa Assistant Librarian

ZCRS Library- Clifton

Mohammad Noman Assistant Librarian

Nursing Library

Noureen Kamal Assistant Librarian
Library Website: <http://library.zu.edu.pk>
Library Email: library@zu.edu.pk
Tel: 92-21-35862939. Exts:2563 - 2567

FACULTY OF HEALTH SCIENCES



ZIAUDDIN MEDICAL COLLEGE

KEY INFORMATION

DEAN, FACULTY OF HEALTH SCIENCES

Prof. Dr. Abbas Zafar

CONTACT INFORMATION

Website:

<https://zmc.zu.edu.pk/>

Telephone:

+92-21-35862937 Ext: 572, 573

Locate Us:

4/B, Shahrah-e-Ghalib, Block 6, Clifton,
Karachi.

As yet another chapter in my life comes to a close, I cannot help but contemplate what an immense role this entire journey has played in shaping me into the person I am today. Being an extremely introverted person for as long as I can remember, I am pleasantly surprised of the growth I have seen in myself over these past five years, both academically and personally. I am so thankful to be graduating from Ziauddin University. This place has given me countless memories and lifelong friends. It gave me the opportunity to meet some of the nicest professors ever-ready to address any and all of our concerns. I clearly remember writing, "Medicine is an honourable profession that demands never-ending hard work and innumerable hours of studying" in my personal statement. At that time, I was unable to understand the depth of my words. Today, I do. I believe the overall effort will always be worth it when someday I hear the words 'thank you for helping me, doc'.

ARMEENA ANIS
MBBS

VISION

Contributing to the improvement of the health status of the people of Pakistan and other developing countries by producing human resource skilled to function optimally within the available resources of the health systems.

MISSION

Develop in each student, the virtues and values of humanity, dignity and worthiness; a desire and capacity for critical reasoning; an appreciation and understanding of the social sciences; and the ability to communicate. Special emphasis is placed on promoting self-directed learning and developing lifelong learners and leaders in the health professions, with the skills to acquire new knowledge and meet the challenges of an exponential growth of information.

COMPETENCIES OF ZU GRADUATES:

- Provide safe patient care holistically
- Integrate basic science concepts to clinical situations
- Communicate effectively
- Collaborate with other team members
- Contribute as researchers
- Evidence based practice
- Role model professionalism

INTRODUCTION

Ziauddin Faculty of Medicine was established in 1996. It is strategically located within the university site at Clifton, Karachi. Medical teaching programmes are spread over three main tertiary care hospitals in different parts of the city. These hospitals are well equipped with advanced diagnostic, monitoring and treatment facilities. Ziauddin Group of hospitals includes:

- Dr. Ziauddin Hospital, North Nazimabad Site: a 350-bedded hospital
- Dr. Ziauddin Hospital, Clifton Site: a 150 bedded hospital
- Dr. Ziauddin Hospital, Kemari Site: a 150

bedded hospital

Other clinical learning sites include:

- Primary Health Care Centre, Sikanderabad.
- Dr. Ziauddin Cancer Hospital, North Nazimabad.
- Dr. Ziauddin Maternal and Child Health Centre, Gol Market Nazimabad.

Ziauddin Faculty of Medicine prepares its students to become skilled practitioners, researchers and teachers with leadership potential. They develop skills to deal with health problems holistically and solve them at individual, family and community levels, through an innovative programme that emphasis on individual attention in small teaching/learning groups. The undergraduate clinical programmes are community-oriented and address priority healthcare needs of the country. This enables students to acquire the art and skill of probing scientifically into health and related problems of individuals and communities. Students are exposed to a variety of learning strategies to provide experiential learning through a multi-disciplinary approach to patient care.

To meet the challenges posed by the exponential growth of information, students assume responsibility of their own learning, using student centred learning strategies such as Problem-Based Learning (PBL) and Case Based Discussions, which also promote self-learning skills and teamwork. Research projects, relevant to national and community needs, are also encouraged.

PROGRAMMES OFFERED

Ziauddin Faculty of Medicine offers the following undergraduate MBBS programme which is recognised by the Pakistan Medical Commission (PMC), the regulatory body responsible for issuing license to practice medicine and the Higher Education Commission (HEC).

MBBS

At the Ziauddin College of Medicine, a student is identified as an adult learner and is expected to utilise inborn capabilities to adapt and understand the rapidly changing academic atmosphere around the world.

The academic schedule for the MBBS degree programme reflects the innovative system-based course. In the first three years of training, a semester programme has been introduced and each year comprises two semesters. For the clinical training and experience the students are rotated through all three hospitals affiliated with the University.

The course content is presented with a Body System based Modular approach which is in line with regulations of the Pakistan Medical Commission (PMC) for MBBS degree. Emphasis is given to the development of conceptual understanding and the ability to construct knowledge for oneself. The students are actively involved in their learning process and the assessment involves examining the learner's entire conceptual network, not just discreet facts and principles.

Curriculum reviews take place critically on a regular basis to incorporate content updates in the form of themes for quality improvement purposes. Patient Safety is one of these integrated themes introduced in the MBBS curriculum.

Faculty from Basic Health Sciences (BHS), Community Health Sciences (CHS) and Clinical Sciences are collaboratively engaged in teaching programmes. As a result, students develop a comprehensive understanding and holistic approach to recognise and solve healthcare problems.

The primary healthcare programme run by the university (PHC) serve as an educational site for community based training. The PHC programme is a unique prototype of partnership between academia, local NGOs, govern-

ment and international NGOs for education, research and service.

ELECTIVES

For MBBS students, elective experience is mandatory. It should be acquired from institutions which may not be a part of the Ziauddin University system. Students have an option to undergo this in Pakistan or overseas. This experience allows them a wider exposure and enables them to discover their specialised field of interest. The financial responsibility of completing electives is undertaken by the students. The Dean's Office facilitates placement of students for this purpose.

LEARNING AND TEACHING STRATEGIES

SELF-DIRECTED LEARNING

The College prepares students to become independent, self-directed, life-long learners. The introduction of student-centred learning strategy is a step towards promotion of critical thinking and problem solving skills. Students are encouraged to consult from a wide selection of learning resources including books, journals, models, computer assisted learning programmes and the internet.

PROBLEM-BASED LEARNING (PBL)

PBL is the leading strategy adopted for learning at the Ziauddin College of Medicine. This approach is characterised by:

- Providing students an opportunity to learn how to deal with problems they may face in later in their professional practice.
- Emphasis on self-motivation and responsibility for learning.
- Training for learning professional skills such as leadership and team work.

The aim of problem-based learning is to overcome various drawbacks in the traditional methods of instruction, for instance passive role of students during lectures, irrelevant subject matter in the curriculum, lack of integration between disciplines, insufficient preparation of

students for higher education after completing MBBS and in particular, the difficulties experienced by many medical graduates in applying what they have learned.

CLINICAL TRAINING

A balance between hospital, ambulatory care, and community settings is essential for a meaningful exposure to curative, preventive, and rehabilitative aspects of healthcare. Learning at the Ziauddin group of hospitals provides a unique experience of exposure to patients from different geographical and economic backgrounds.

A squatter settlement adjacent to the university, in Sikanderabad, provides community-based setting and the outpatient care for patients belonging to a lower socio-economic class. Family Medicine Health Centre (FMHC) is a low-cost outpatient clinic for the under-privileged population living close to the Clifton site. These sites provide better opportunities for learning for students as they come in contact with a varying range of people and patients with health problems.

Students begin their clinical experience from the third year. After an introductory course they gain an experience in emergency, PHC clinics as well as outpatient and inpatient clinics.

The fourth year is mainly spent at Kemari site with fully developed ENT, Ophthalmology departments and clinical disciplines of Medicine and Allied, Surgery and Allied, Paediatrics and Gynaecology and Obstetrics.

In the Final fifth year, students are based in North Nazimabad site where a comprehensive attachment in Medicine, Surgery, Paediatrics and Gynaecology and Obstetrics aims at a professional problem oriented approach to make them ready for taking care of patients when they graduate. They are encouraged to make their own presentations and participate in discussions as well as gain knowledge from dedicated lectures and group tutorials on selected topics. The hospital's state of the art diagnostics and intensive care facility helps polish their clinical learning.



STUDENT ASSESSMENT

MODES OF ASSESSMENT

Assessment of knowledge, skills and attitudes is accomplished through various modes of assessment. MCQ-one best type, modified essay questions & Viva (oral examination) are mainly used to assess multiple levels of knowledge including recall of basic facts, clinical interpretation and application. However, Objective Structured Practical/Clinical Examinations (OSPE/ OSCE) are used to assess skills (practical/clinical) & attitudes with under-pinned knowledge background.

CONTINUOUS ASSESSMENT POLICY

Securing minimum scores in an academic year requires consistency in Continuous Assessments. The minimum level is determined by a student's achievement in module examinations, which include written tests, practical assignments and other academic activities. Student eligibility for Summative Examinations is determined by an individual's attendance and performance in a test and examination in a semester or academic year. Each student requires at least 80% attendance. Student performance in each year is judged by formative (continuous) and summative (end of year) assessments.

PROFESSIONAL EXAMINATIONS

The first three academic years are semester based which are in line with the PMDC/HEC. The following two years are currently based on annual examination system. A consistent record of satisfactory performance is necessary for eligibility to MBBS Final Assessment. Each student's performance is reviewed by the concerned department, which also determines eligibility for the certifying examination. Progression to second, third, fourth and fifth year is regularly determined by achieving satisfactory performance in the respective academic year.

ADMISSION POLICY

Admission to Ziauddin College of Medicine for a five-year MBBS degree is open to all individuals who meet the selection criteria as per PMC policy.

NOTIFICATION OF ADMISSION

The Registrar of the university will notify students who are successful in the admission process. Successful applicants are given a deadline to accept the offer of admission. Offers not accepted by the given deadline are cancelled.

REQUIREMENTS FOR SELECTED STUDENTS

Successful students selected for the MBBS programme are expected to fulfill the following:

- Verification of Educational Testimonials: Original transcripts, mark sheets, certificates to be brought for attestation by the university.
- Medical Examination: The undergraduate medical programme is both physically and mentally demanding. Students offered admission are required to undergo a comprehensive medical examination including laboratory investigations and chest X-ray, before they are allowed to join classes.
- Immunisation: Clinical experience carries a small personal risk of infection. In their own interest, and also in the interest of patients and others, students must provide evidence of immunisation against the following:

Tuberculosis (BCG), Diphtheria, Poliomyelitis, Pertussis Hepatitis B, Tetanus, Measles/Mumps and Rubella (for females).

FINANCIAL POLICY

Students seeking admission to MBBS first year of Ziauddin University are expected to pay the fee approved by the Governing Body of the University and as per guidance provided by PMC. Admission fee is submitted only once, at the time of admission.

For local students, fee will be paid in Pakistani currency and for overseas students in US dollars.

Parents/guardians are advised to ensure that the fee for each academic year is paid by the due date.

The university reserves the right to cancel admission if the fee is not paid by the due date.

DIPLOMA IN HEALTHCARE MANAGEMENT

VISION

Revolutionize healthcare through a structured program focusing on management, research, education, systems improvement, training and development

MISSION

To inculcate managerial competencies in healthcare professionals and bringing them at par with the changing global scenario.

OBJECTIVES

Develop, monitor, evaluate, review and maintain a Postgraduate curriculum that provides:

- An essential core of knowledge and skills, concepts, tools and techniques of management and administration
- Basic concepts and techniques of problem-solving, data evaluation and assessment
- Computer application to health information
- Relevant correlations between management, finance and IT application to health care, through interdisciplinary courses and through early and continuous exposure to health care delivery facilities
- A thorough grounding in professional ethics in Health System Management needed to interact appropriately with other care-providers, administrators, patients and their families.

WHO SHOULD APPLY?

Hospital Administrators, Medical Directors, Unit Head of Hospitals, Doctors, Dentists, Nurses, Health technicians, Pharmacists, Doctors in Public sector health system, NGO Personnel

TIMING & MODUS OPERANDII

- A student should undertake 4 courses per Semester
- Saturdays (2 pm to 9 pm) and Sundays (10 am to 5 pm)

ELIGIBILITY CRITERIA

The applicant must have a Bachelor's degree from HEC recognized educational institution in Medicine and Allied (nursing, pharmacy, biomedical engineering etc.)

- Sixteen years of schooling or 4 year education (124 credit hours) after HSSC /F.Sc/Grade 12 equivalent will be required for admission in the MPhil/MS.

Entry Test:

To be conducted by the Ziauddin University and Preliminary interview

COURSE OUTLINE OF DIPLOMA IN HEALTHCARE MANAGEMENT

SEMESTER 1

- Managing Healthcare Organization
- Epidemiology and Demography
- Biostatistics
- Communication Skills for Healthcare Workers

SEMESTER 2

- Research Methodology
- Financial Management
- Human Resource Management
- Health Management Information System (HMIS)

SEMESTER 3

- Introduction to Healthcare Systems
- Ethics, law and Jurisprudence
- Organizational Development, Organizational Behavior and Leadership
- Continuous Quality Improvement (CQI)

PEDAGOGY

The learning process will be through a mix of lectures, case based sessions, small group sessions, exercises, assignments and internet based teaching.

Mandatory electives in the field of choice will allow students to sharpen their skills through application of theoretical learning.

PROGRAMME OUTCOME

After successful completion of program the participants will be able to:

- Analyze contemporary healthcare systems
- Incorporate research as a mandatory tool for learning and sharing new information.

3. Use scientific and evidence based approach for provision of quality healthcare, which is efficient and cost-effective.
4. Apply epidemiological and statistical concepts for better planning and management of health related issues.
5. Apply principles of financial management, allocation of resources, priority setting and decision making.
6. Demonstrate use of health information

- systems and technology for effective management of healthcare organization.
7. Market healthcare services focusing on consumer behavior and needs.
8. Apply concepts of human resource management in order to optimize performance.
9. Effectively manage healthcare systems at different levels of care to achieve organizational.



DIPLOMA IN MEDICAL JURISPRUDENCE

INTRODUCTION

Diploma in Medical Jurisprudence is a two-year postgraduate diploma program to train and equip medical graduates with the relevant professional and ethical knowledge to perform in the medicolegal section of a primary or tertiary care hospital, or to serve in the academic arena as faculty of Forensic Medicine & Toxicology.

MISSION

To produce physicians having the legal and ethical insight to serve as better Medico-Legal experts and to improve the medicolegal system of the country by academic contribution.

OBJECTIVES

- The training will develop the academic insight and competency within the enrolled candidates to,
- Conduct medicolegal examinations and autopsies fulfilling all the requirements of the legal system of Pakistan.
 - To understand DNA fingerprinting, its application and limitations in resolving the cases of legal importance.
 - To understand the pathological basis of injury and signs that may provide clue to the cause of death.
 - To identify common lapses and limitations with in the prevailing Medicolegal system of the country and being able to provide suggestions to improve the system in the light of advancements in the field of Forensic Medicine.
 - To understand the laws governing the practice of healthcare provision along with the ethical concerns.
 - To serve as a medicolegal expert.

ELIGIBILITY CRITERIA

MBBS + One year House Job + Valid PM&DC Registration with, one year of teaching experience as demonstrator in the Department of Forensic Medicine & Toxicology, of a PM&DC recognized institute/One year experience as

Medicolegal Officer.

- Eligible Candidates will have to pass the entry test held by Ziauddin University.
- Short-listed candidates will be interviewed.
- Final Selection will be made on cumulative basis (Experience + Entry test + Interview).

REQUIRED DOCUMENTS

Documents required for the admission

- Completed DMJ application form
- Copy of MBBS degree with mark sheets of professional examinations and certificate of number of attempts in the professional examinations.
- Copy of PMDC registration certificate
- Three latest passport size photographs
- Reference letters from two consultants, with whom the applicant has worked
- Certificates of completion of required experience
- NOC to attend the course, from the institute (If currently employed).

ASSESSMENT

D.M.J Course consists of 2 parts of one year each that is PART I and PART II. After completion of each session (1 year), Ziauddin University, Karachi will conduct examination, as per schedule announced by the Controller of Examination. Examinations will consist of two components.

Components:

1. Theory Examination
2. OSCE & Viva Examination.

80% attendance is mandatory to be eligible in the exams.

SCOPE

After going through this course, successfully, the candidate will be able to serve on the government positions within the Medicolegal system of the country. The successful candidates serving as faculty members will have a better opportunity to be promoted as per rules and regulations of PM&DC.

POSTGRADUATE PROGRAMME IN BASIC HEALTH SCIENCES MPhil/PhD

The Postgraduate Programme in Basic Health Sciences started at ZU in 1997. This integrated programme is divided into semesters and provides extensive experience and training to the candidates who acquire knowledge, skills and an attitude required for teaching and research. The curriculum is covered through problem-based learning, lectures, seminars and journal club. Systems are placed for evaluation and performance concerning the candidate's performance and proper guidance for appropriate growth in all areas of training and professional experience.

MASTER OF PHILOSOPHY (MPHIL)

MPhil candidates in Basic Health Sciences will have to be full time research students for a minimum period of two academic years. The degree shall be awarded based on both, course work and thesis. The course work is covered in three semesters followed by 1 year of research and advanced technique. The programme is recognised by Pakistan Medical Commission (PMC) and Higher Education Commission (HEC) and follows regulations for registration to research studies leading to a degree of MPhil in the following subjects: Anatomy, Biochemistry, Physiology, Pathology, Pharmacology.

DOCTOR OF PHILOSOPHY (PH.D)

PhD students in various faculties of Health and Medical Sciences will have to be full time research students for a minimum period of three academic years. The coursework of degree shall be awarded both by course work and thesis. The programme is recognised by PMC and HEC and follows regulations for registration to research studies leading to the degree of doctorate in the following subjects of Medical and Health Sciences: Biochemistry, Pathology, Pharmacology.

ADMISSION POLICY

ELIGIBILITY CRITERIA

- Candidates possessing MBBS/BDS/equivalent degree from a HEC recognised university.
- MPhil GAT exam by university
- NTS/GAT
- Interviews of candidates shortlisted on the basis of performance in the MPhil GAT exam by university.

Final selection of candidates will be based on the previous academic record and experience, entry test and an interview.

POSTGRADUATE PROGRAMMES IN CLINICAL SUBJECTS

Ziauddin University offers MD/MS programme of a 4 to 5-year duration in various disciplines. The course is designed to produce skilled practitioners, researchers and teachers with exceptional proficiency in the chosen clinical field. The course comprises core subjects and also focuses on clinical research practices.

The programme is supervised by qualified faculty and has support of allied disciplines. The University hospitals are modern and fully equipped with diagnostic services, inpatient facilities including Intensive and Coronary Care Units and also fully equipped Radiology department with an interventional procedures facility. The library is well provided with latest journals and also has multimedia facilities including Internet.

For medical graduates interested in pursuing a research degree, the University offers the following programmes:

DOCTOR OF MEDICINE (MD)

- Cardiology
- Critical Care
- Dermatology
- Emergency Medicine

- Gastroenterology
- Nephrology
- Neurology
- Nuclear Medicine
- Medicine
- Paediatrics
- Psychiatry
- Radiology
- Radiotherapy (Radiation Oncology)

MASTER OF SURGERY (MS)

- ENT
- General Surgery
- Orthopaedic Surgery
- Gynaecology and Obstetrics
- Ophthalmology
- Urology

ADMISSION POLICY

ELIGIBILITY CRITERIA

- Candidates possessing MBBS or equivalent qualification recognised by PMC and have done one year of House Job in an institute recognised by PMC.
- Eligible candidates will be required to pass a GAT exam and will be interviewed for suitability by the Postgraduate Committee.



MASTERS IN HEALTHCARE MANAGEMENT

VISION

Revolutionize healthcare through a structured program focusing on management, research, education, systems improvement, training and development.

MISSION

To inculcate managerial competencies in healthcare professionals and bringing them at par with the changing global scenario.

OBJECTIVES

Develop, monitor, evaluate, review and maintain a Postgraduate curriculum that provides:

1. An essential core of knowledge and skills, concepts, tools and techniques of management and administration
2. Basic concepts and techniques of problem-solving, data evaluation and assessment
3. Computer application to health information
4. Relevant correlations between management, finance and IT application to health care, through interdisciplinary courses and through early and continuous exposure to health care delivery facilities
5. A thorough grounding in professional ethics in Health System Management needed to interact appropriately with other care-providers, administrators, patients and their families.

WHO SHOULD APPLY?

Hospital Administrators, Medical Directors, Unit Head of Hospitals, Doctors, Dentists, Nurses, Health technicians, Pharmacists, Doctors in Public sector health system, NGO Personnel

TIMING & MODUS OPERANDII

- A student should undertake 4 courses per Semester
- Saturdays (2 pm to 9 pm) and Sundays (10 am to 5 pm)

ELIGIBILITY CRITERIA

The applicant must have a Bachelor's degree from HEC recognized educational institution in Medicine and Allied (nursing, pharmacy, biomedical engineering etc.)

- Sixteen years of schooling or 4 year education (124 credit hours) after HSSC /F.Sc/Grade 12 equivalent will be required for admission in

the M.Phil/MS.

Entry Test:

To be conducted by the Ziauddin University and Preliminary interview

COURSE STRUCTURE OF MASTERS IN HEALTHCARE MANAGEMENT

Institute	Masters in Healthcare Management Credit	Credit Hours
Total Courses	22 (3 credit hour each course)	66
Thesis	-	6
Total Credit Hours		72

PEDAGOGY

The learning process will be through a mix of lectures, case based sessions, small group sessions, exercises, assignments and internet based teaching.

Mandatory electives in the field of choice will allow students to sharpen their skills through application of theoretical learning

PROGRAM OUTCOME

After successful completion of program the participants will be able to:

1. Analyze contemporary healthcare systems
2. Incorporate research as a mandatory tool for learning and sharing new information
3. Use scientific and evidence based approach for provision of quality healthcare, which is efficient and cost-effective.
4. Apply epidemiological and statistical concepts for better planning and management of health related issues.
5. Apply principles of financial management, allocation of resources, priority setting and decision making.
6. Demonstrate use of health information systems and technology for effective management of healthcare organization.
7. Market healthcare services focusing on consumer behavior and needs.
8. Apply concepts of human resource management in order to optimize performance.
9. Effectively manage healthcare systems at different levels of care to achieve organizational.

DIPLOMA PROGRAMMES

The University offers Postgraduate Diplomas in the following disciplines:

- Anaesthesia
- Cardiology
- Dermatology
- Family Medicine
- Medical Oncology
- Paediatric Medicine
- Psychiatry
- Gynaecology and Obstetrics
- Clinical Pathology

POSTGRADUATE TRAINING

Ziauddin University is recognised for postgraduate training by the College of Physicians and Surgeons Pakistan for the following programmes:

MCPS

- Chemical Pathology
- Ophthalmology
- Paediatrics

FCPS

- Anaesthesia
- Chemical Pathology
- ENT
- Gastroenterology

- Haematology
- Histopathology
- Medicine
- Microbiology
- Neurology
- Gynaecology and Obstetrics
- Radiology
- Paediatrics
- Surgery
- Nephrology



FACULTY MEMBERS

PRO CHANCELLOR

DR. NIDA HUSSAIN

DEANS

DEAN, FACULTY OF HEALTH SCIENCES

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PRINCIPAL, ZIAUDDIN COLLEGE OF MEDICINE

PROF. DR. NUZHAT HASSAN

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HUDA

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COLLEGE OF DENTISTRY

KEY INFORMATION

PRINCIPAL, COLLEGE OF DENTISTRY

Prof. Dr. Mervyn M. Hosein

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PROGRAMME OFFERED

UNDERGRADUATE DEGREE PROGRAMME

BACHELOR OF DENTAL SURGERY (BDS)



From carving teeth on wax blocks to extracting teeth of patients, we finally added the word "Doctor" to our names. The past four years have been, and the coming years will be, devoted to honouring this title.

Here, at Ziauddin University College of Dentistry, we acquired the clinical knowledge and the necessary skill set deemed worthy of a good dental practitioner. Apart from the clinical training, we were encouraged to participate in poster competitions, researches and case presentations. Furthermore we took part in dental screening campaigns in a few underprivileged areas which helped us realise how much of a difference we can make in people's lives. All of this helped us in shaping the people we are today; your future dentists.

Thankfully, all the late nights, the sleep deprivations, the doubts and the struggles finally paid off. Getting a chance to write something on behalf of my fellow students has been such a huge honour for me. Achieving this position in something that has been my dream all along. In addition to my hard work, there were our faculty members always pushing us to do better and my parents who remain a constant support. None of this would have been possible if it were not for these individuals.

At last, a new chapter of our life begins; our professional life.

Cheers to a new beginning!

SHIZA AHMED
BDS

MISSION

To develop each student, the virtues and values of humanity, dignity and worthiness; a desire and capacity for critical reasoning; an appreciation and understanding of the social sciences; and the ability to communicate. Special emphasis is placed on promoting self-directed learning and developing lifelong learners and leaders in the health professions with the skills to acquire new knowledge and meet the challenges of an exponential growth of information.

COMPETENCIES OF ZU GRADUATES:

- Provide safe patient care holistically
- Integrate basic science concepts to clinical situations
- Communicate effectively
- Collaborate with other team members
- Contribute as researchers
- Evidence based practice
- Role model professionalism

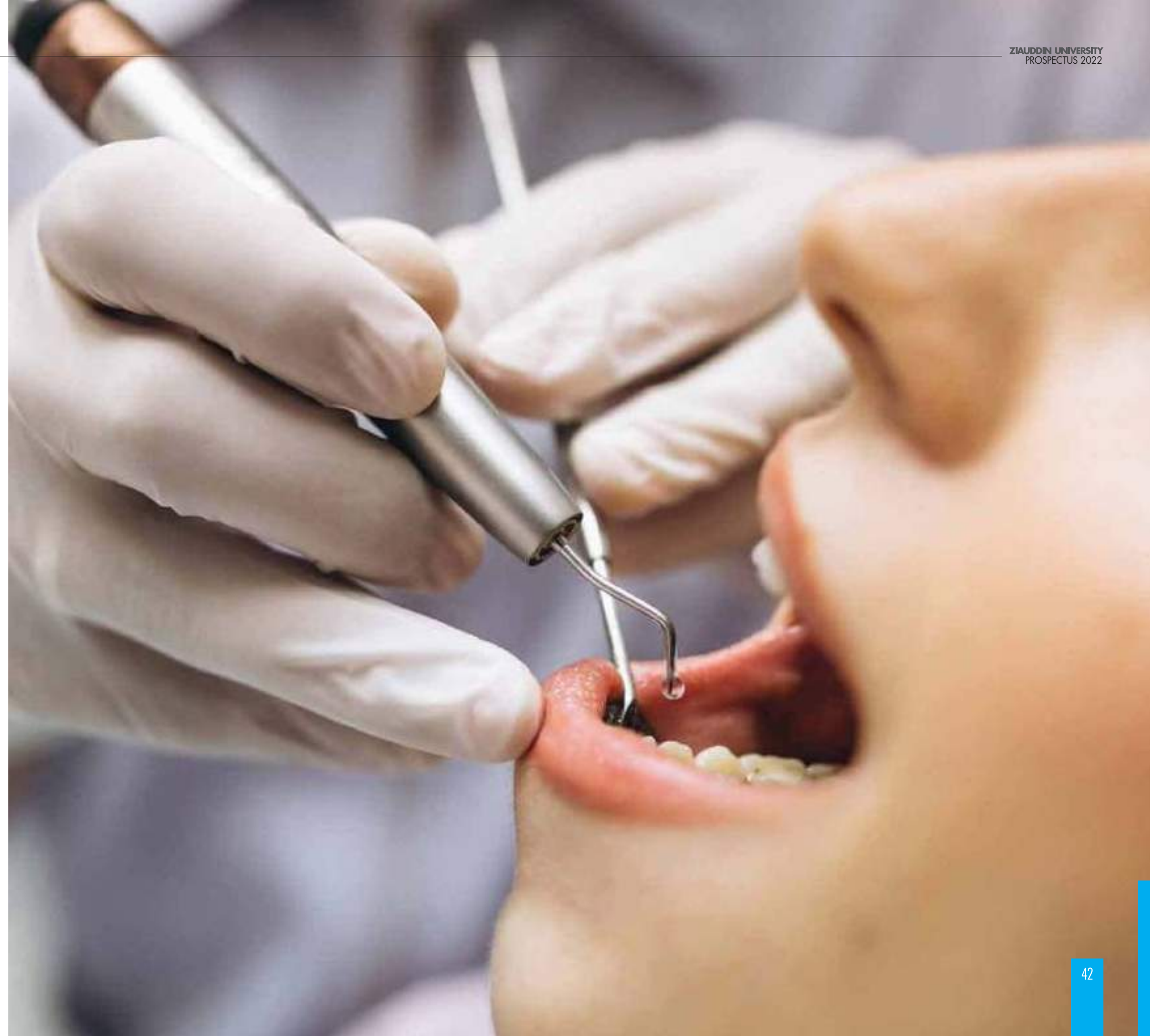
INTRODUCTION

Ziauddin College of Dentistry started its BDS programme in January 2010 with the mission to prepare confident dental professionals who are committed to excellence in the field of patient care and research that widens the horizon of knowledge regarding to community health problems.

At Ziauddin College of Dentistry, a student is identified as an adult learner and is expected to develop as a responsible individual by taking care of the community's dental problems.

PROGRAMMES OFFERED

Ziauddin College of Dentistry offers BDS undergraduate programme, recognised by the Pakistan Medical Commission (PMC). PMC is the regulatory body responsible for issuing a license to practice dentistry.



BACHELOR OF DENTAL SURGERY (BDS)

Ziauddin College of Dentistry offers a four-year undergraduate degree programme leading to Bachelor of Dental Surgery (BDS).

COURSE DETAILS

The BDS programme is divided into four academic years; each year comprises a number of modules related to subject specific scientific information, in accordance with PMC recognised curriculum. Ziauddin College of Dentistry has taken the initiative of developing and implementing a horizontally integrated curriculum. The curriculum makes use of the latest teaching strategies, which are aimed at providing better quality of education to the students.

LEARNING AND TEACHING STRATEGIES

The college recognises the challenges met by students once they enter into professional lives. Therefore, students are empowered to adapt to the different ways of absorbing information and take responsibility of their own learning using student centered learning strategies such as Problem Based Learning (PBL) and Case Based Sessions (CBS). Community Oriented Education is also given its due importance in the College of Dentistry.

Students are actively involved in the learning process by interacting in small groups and by collecting, analysing and synthesising information relevant to the problems they are going to face in their professional lives.

PROBLEM-BASED LEARNING

PBL is one of the strategies adopted for learning at the Ziauddin College of Dentistry. This approach is characterised by:

- Opportunities to deal with problems students face in later professional practice.
- Emphasis on self-motivation and responsibility for learning on their own.
- Training for learning professional skills, leadership qualities and team work.

The aim of problem based learning is to over-

come various drawbacks in the traditional methods of instruction; for instance the passive role of students during lectures, irrelevant subject matter in the curriculum and a lack of integration between disciplines.

LABORATORIES

Basic Dental and Medical Science laboratories and Dental OPDs are fully equipped with state of the art equipment, models and other teaching aids ensuring an excellent academic environment for students.

STUDY GUIDE BOOK

On the commencement day, students are given course/study guides which contain the course objectives and teaching strategies for the 1st year of BDS with the planner for the entire academic year. The study guide also identifies all rules and regulations that the student is required to abide by. Likewise, for the subsequent academic years, study guides are supplied to all promoted students on the respective orientation days.

CLINICAL TRAINING

In addition to the theoretical knowledge, it is important that the students have a significant exposure to the curative, preventive and rehabilitative facets of oral and general healthcare. The first exposure of the dental students to a clinical environment starts in their 2nd professional year, where students are first trained on phantom heads about the clinical aspects of treatment and soon after it, they are taken for field visits to the community settings as part of their community dentistry training; they are primarily trained for detailed history taking or dental records.

Third year BDS students receive clinical training for General Medicine, General Surgery and other Clinical subjects of BDS curriculum at the following hospitals:

- Dr. Ziauddin Hospital, Clifton Site – 150-bedded Hospital

- KDLB Kemari Site -125-bedded Hospital.
- Clinical Departments (OPD) for Ziauddin College of Dentistry, Clifton Site 75 dental Units.

The students attend OPDs and wards where they obtain first-hand knowledge by dealing with patients under faculty supervision. Apart from clinical learning under the supervision of Faculty of Health Sciences, the students also work in the clinical departments of Periodontology, Oral Medicine, Oral Surgery, Operative Dentistry and Prosthodontics where they gain experience with patients and are trained in different clinical procedures.

In the final year, students spend most of their time in Dental OPDs in the department of Oral Surgery, Prosthodontics, Operative dentistry and Orthodontics. Their training not only includes performing procedures on patients, but also learning crucial skills that help to groom their interpersonal and professional behaviour and attitudes.

STUDENT ASSESSMENT

GENERAL PRINCIPLES

It is recognised that the methods of assessment have a strong influence on shaping students' learning approach. At Ziauddin College of Dentistry, the structure, content and process of all assessments are designed to reflect and reinforce the specified learning objectives at each stage of the programme. Assessments serve the purpose of providing feedback to the students and the faculty as well as certification.

EXAMINATIONS

Examinations are conducted by the examination department of Ziauddin University. Continuous Assessment Tests (CAT) are held at the end of each module. At least 80% attendance in each course is mandatory for eligibility to appear in the final examination. Promotion to the next classes is based on clearance in all the courses scheduled in a year.

TOOLS OF ASSESSMENT

- BCQ and Multiple Choice Questions (BCQs/MCQs).

- Short essay questions (SEQs).
- Objective Structured Practical/Clinical Examinations (OSPE/OSCE).
- Viva voce is used to assess knowledge mainly of a higher level.

BDS GRADUATES REGISTRATION

As per Pakistan Medical Commission (PMC) rules, registration of BDS graduates is mandatory for dental practice and postgraduate education in Pakistan and abroad.

HOUSE-JOB TRAINING

Ziauddin University Hospitals offer a house job to its graduates. A structured training programme has been designed that allows appropriate training for house officers in all domains of dentistry. In addition, house officers have the opportunity to participate in multidisciplinary seminars and academic or clinical conferences. House job training is conducted strictly according to PMC guidelines.

ADMISSION POLICY

BDS

Admission to Ziauddin College of Dentistry for a four year BDS degree course is open to all individuals who meet the selection criteria.

NOTIFICATION OF ADMISSION

The Registrar of the university will notify students who are successful in the admission process. Successful applicants are given a deadline by which to accept the offer of admission. Offers not accepted by the given deadline are cancelled.

REQUIREMENTS FOR SELECTED STUDENTS

Successful students selected for BDS programme are expected to fulfill the following:

a) Verification of Educational Testimonials

Original transcripts, mark sheets and certificates to be brought for verification by the university.

b) Medical Examination

The undergraduate medical programme is both physically and mentally demanding.

Students offered admission are required to undergo a comprehensive medical examination including laboratory investigations and chest X-ray, before they are allowed to join classes.

c) Immunisation

Clinical experience carries a small personal risk of infection. In their own interest, and also in the interest of the patients and others, students must provide evidence of immunisation against the following:

Tuberculosis (BCG), Diphtheria, Poliomyelitis, Pertussis, Hepatitis B, Tetanus, Measles/Mumps (and Rubella for females).

FINANCIAL POLICY

Students seeking admission to BDS first year of Ziauddin University are expected to pay the fee approved by the Governing Body of the University and as per guidance provided by PMC. Admission fee is submitted only once, at the time of admission.

For local students, fee will be paid in Pakistani currency and for overseas students in US dollars.

Parents/guardians are advised to ensure that the fee for each academic year is paid by the due date.

The university reserves the right to cancel admission if the fee is not paid by the due date.

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MPHIL

The postgraduate programme for basic dental science subjects started at Ziauddin College of Dentistry in 2011. The programme is recognised by Pakistan Medical Commission (PMC) and follows regulations for registration to research studies leading to the degree of MPhil in the subjects of Oral Biology and Oral Pathology.

MPhil programme of Ziauddin University has been devised with a view to produce self-motivated individuals who wish to further their careers by gaining a higher qualification.

LEARNING AND TEACHING STRATEGIES

At Ziauddin University, candidates are given an opportunity to learn the fundamentals of Educational Methodology while participating in conducting an undergraduate programme. This is achieved by means of regular meetings and workshops held by the Department of Education. In addition to this, candidates are encouraged to gain on job experience by giving lectures, taking part in problem-based learning (PBL) sessions, practical and tutorials. Following are the teaching strategies used to improve student learning:

- Seminars, demonstrations and presentations
- Case discussions
- Rotations in Clinical laboratories for relevant training
- Update of knowledge through study of recent journals and internet browsing. Journal clubs and group discussion.

SEMESTER SUMMARY

CURRICULUM

The curriculum of M.Phil in Basic Dental Sciences is covered in three years. First two years comprise of two semesters in each year.

YEAR ONE

The curriculum content of two semester of year one are arranged in different modules. The student evaluation is carried out at the end of modules and at the end of each semester.

YEAR TWO

As recommended by HEC second year of M.Phil is spread over 48 weeks of course/laboratory work and research. In the second year students are required to submit their synopsis in the field of their interest.

YEAR THREE

In year three candidates are required to carry out their research work and are exposed to advance techniques and finally present their thesis for defense.

EVALUATION

Semester examinations include written as well as Viva Voce/Oral components.

ADMISSION POLICY

ELIGIBILITY CRITERIA

- Candidates possessing BDS degree from a HEC recognised university
- M.Phil entry test/NTS GAT
- Interviews of candidates short-listed on the basis of performance in the M.Phil entry test. Final selection of the candidates is based on the previous academic records, experience, entry test and interview.

CONTACT INFORMATION

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FDS RCSE, FDS RCS, FFD RCSI

DEPARTMENT OF ORAL BIOLOGY PROFESSOR & HOD

PROF. DR. MERVYN HOSEIN
FDS RCSE, FDS RCS, FFD RCSI

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DR. MUSTAFA SHEHZAD
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COLLEGE OF SPEECH LANGUAGE & HEARING SCIENCES

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PROGRAMMES OFFERED

UNDERGRADUATE DEGREE PROGRAMME

- BS IN AUDIOLOGY & SPEECH LANGUAGE THERAPY (BS ASLT)
- ACCELERATED BS IN AUDIOLOGY & SPEECH LANGUAGE THERAPY (A BS ASLT)
- MS SPEECH LANGUAGE PATHOLOGY (MS SLP)
- DIPLOMA IN CHILDHOOD DEVELOPMENT & PSYCHOPATHOLOGY (DCDP)

“Doctors save lives, but Speech Language Therapists make life worth living”. Speech and Language Pathology is one of the most enduring and expanding professions that makes my heart fill with joy. It is rewarding when your patients make progress, become functional and improve their quality of life. The satisfaction of truly making a positive impact on someone’s life is empowering and immeasurable.

After spending 4 years at CSLHS, I am incredibly gratified with my decision to opt for this profession. The experienced clinicians at CSLHS gave me inspiration to strive for perfection. Yes, there are challenges yet every day is an adventure that I look forward to. It is pertinent to mention that the organisation provides hands on experience to improve clinical practice. It is a major honour to be a student within these walls and I have learnt new things, undergone multiple experiences that taught me resilience, patience and strength and at the end of it all, I can proudly say I'm a good professional and a better individual.

I keenly look forward to many decades of devoting myself wholeheartedly to serve people with my chosen profession and make their lives better and provide meaning to mine simultaneously.

MEHAK ALTAF HUSSAIN
BS SLT

INTRODUCTION

Pakistan with a population of over 195 million individuals has an estimated over 23 million suffering from communication, swallowing and/or hearing disorders. To cater to this huge demand there are less than twenty Speech Language Therapists/ Pathologists (SLTs/SLPs) in our metropolis, Karachi, qualified internationally and locally at the CSLHS. This was made possible because the Speech and Hearing Association of Pakistan (SHAP) and Ziauddin University (ZU) toiled collaboratively to establish the 'College of Speech Language & Hearing Sciences (CSLHS)' in order to launch our nation's first 4-year Bachelor's programme in Speech Language Therapy in 2007; within.

The college successfully launched a dual degree programme of Bachelors' in Audiology and Speech Language Therapy (BS ASLT) with a postgraduate

MS Speech Language Pathology (MS SLP) proposed for commencement; as it joyously celebrates its first decade in Ziauddin University, Karachi. The programmes ambitiously aims to equip graduates to independently evaluate and treat speech, language, hearing and swallowing disorders, conduct research and contribute to the development of the profession, nationally and in the world at large. It cultivates critical thinking to analyse and act in response to contexts that shape policy and practice in the fields of Audiology and Speech Language Pathology.

College of Speech Language & Hearing Sciences (CSLHS) is our country's foremost and only institute of its kind, established to equip Pakistani youth with an aspiring new careers in the fields of Audiology and Speech-Language Pathology, which have unlimited scope in Pakistan, and across the globe.

In addition to this, CSLHS is also offering a diploma course in Childhood Development and psychopathology.

Thus, CSLHS also aims to surmount the tremen-

dous dearth of qualified Speech Language Therapists and the subsequent neglect of individuals suffering from communication, hearing and swallowing disorders. The Clinical Services offered at CSLHS are for the following:

BABIES WITH

- Feeding and swallowing difficulties
- Cognitive and language delays
- Mild, moderate or severe learning difficulties
- Specific language impairment
- Specific difficulties in producing sounds (Articulation & Phonological Disorders)
- Hearing Impairment
- Cleft Plate
- Stammering
- Autism/ Social interaction difficulties (PDD)
- Dyslexia
- Voice disorders
- Selective mutism
- Motor Speech Disorders (dysarthria, dyspraxia)

ADULTS WITH

- Swallowing disorders (dysphagia)
- Language disorders (e.g. aphasia after stroke)
- Voice disorders (e.g. vocal fold nodules, VFparalysis, hoarseness)
- Cognitive language deficit due to Traumatic Brain Injury
- Cognitive Issues (attention, memory, awareness, Alzheimer's, degenerative diseases)
- Communication issues after Laryngectomy
- Physical disabilities
- Stammering (dysfluency)
- Motor Speech Disorders (dysarthria, apraxia)
- Right Hemisphere Syndrome
- Mental health issues
- Learning difficulties
- Acquired Hearing loss

WHAT'S NEW FOR 2020

The College of Speech, Language and Hearing Sciences, at Ziauddin University will provide Academic Collaboration to ICD (an Institute engaged in diagnostics, teaching, therapies and Vocational training of children and adolescents with special needs - ACELP), Karachi, wherever required for the Diploma. This diploma will be conducted in cooperation, for

teachers, therapists relevantly eligible persons engaged in teaching/caring children with special needs. ICD is a non-profit organisation managed by ACELP, a registered NGO and CSLHS, ZU is a non-profit institution indulging in academic and clinical training of students, at undergraduate level.

The College has collaborated with institutes for 3rd and 4th year students for their supervised clinical practicum with:

- The Indus Hospital
- ACELP
- Kinder Academy
- IPMR - Institute of Physical Medicine & Rehabilitation, DUHS
- Dar-ul-sukoon
- Ujala School for Special Children

This programme will provide students with an opportunity to work towards a career as an audiologist and/or speech language therapist.

The field of Audiology deals with the non-medical management of the auditory and balance systems, and focuses on the study of normal and impaired hearing, prevention of hearing loss, identification and assessment of hearing and balance problems and rehabilitation of persons with hearing and balance disorders.

PROGRAMMES OFFERED

- A four-year BS in Audiology & Speech Language Therapy (BS ASLT)
- A one year Diploma in Childhood Development & Psychopathology (DCDP)
- 6 to 12 Months Accelerated BS in Audiology & Speech Language Therapy (A BS ASLT)
- 2-year MS in Speech Language Pathology (MS SLP)

BS AUDIOLOGY & SPEECH LANGUAGE THERAPY

The fields of Speech Language Pathology and Audiology remained neglected here, so far. Our students graduating from the college are the torch bearers of these professions in Pakistan and are able to provide their valuable services in a multitude of settings, working collaboratively with ENT specialists, neurologists, pediatricians, psychologists, occupational and physical therapists in hospitals, and rehabilitation units. They can also work at schools or have their private practices.

The CSLHS encourages students to acquire broad concepts, knowledge and skills beyond those gained through their specialist professional study. This is achieved through the requirement that all students complete at least one elective as part of their undergraduate programme of study.

The MAKATON Language and Pakistan Sign Language (PSL) have been recommended as suitable electives by the college. Coursework is designed to provide students with essential, foundational Pakistani sign language skills, familiarity with deaf culture and an introduction to the discipline of education. It also equips the students to understand Alternative and Augmentative Communication strategies that are implemented with people who have a marked impediment in expressing themselves verbally. In addition to this Sensory Integration Therapy has also been introduced as an elective.

LEARNING AND TEACHING STRATEGIES

Currently BS - ASLT is structured around a modular curriculum; which is knowledge and skill oriented. The curricula emphasise in-depth training both theoretical and clinical; with clinical training (i.e. observation and performance of clinical work) within CSLHS, in the hospital, in special schools, and in mainstream schools.

Our College has many links within, as well as outside the University, to ensure specialized teaching of all courses that are comparable to those offered worldwide.

SEMESTER SUMMARY

BS ASLT is a 4 year long degree, consequently, having 8 semesters in the degree program. All courses have been grouped into modules, which constitute 42 courses of various duration. The core and associated courses are thoroughly integrated to ensure complete understanding of the field and its various disciplines.

The Modules are:

- Speech Pathology
- Language Pathology
- Audiology
- Biological and Medical Sciences
- Linguistics
- Psychology
- Information Technology
- Clinical Procedures
- Research Methodology
- Social Sciences

STUDENT ASSESSMENT

ASSOCIATE & FOUNDATION/CORE COURSES

CONTINUOUS ASSESSMENT

(40% of the final grade)

- Tests
- Assignments
- Presentations
- Project

SEMESTER EXAM

(60% of the final grade)

- Written Examination
- Practicum
- VIVA

CLINICAL PROCEDURE COURSES

CONTINUOUS ASSESSMENT

(60% of the final grade)

- Tests
- Assignments
- Presentations
- Project

SEMESTER EXAM

(40% of the final grade)

- Written Examination
- Practicum
- VIVA

ADMISSION POLICY

BS ASLT

Eligibility Criteria:

- Minimum requirement 'A' Levels/Intermediate students of all disciplines
- Minimum aggregate marks of 55%
- Fluency in written and spoken English.
- **Pre-requisite for students from a non pre-medical background:**
 - Biology in GCE O-Levels or sciences with Biology in Matriculation is mandatory for all candidates (A '0' semester shall be held as a foundation course in Biological Sciences for applicants from a non pre-med background)
 - Commitment towards a helping profession

FEE STRUCTURE

Application Fees:	Rs. 5,000/-
Admission Fees:	Rs. 50,000/-
Student Fund:	Rs. 6,500/-
Library Fee:	Rs. 9,000/-
Tuition Fee:	Rs. 350,000/-
Examination Fees:	Rs. 22,000/-

Note: Any additional taxes imposed by the government will be the liability of the students/parents/guardian.

The University reserves the right to increase the fees if required according to the recommendation of the Governing Body.

Advance fees to be paid semester-wise. All dues need to be cleared within two weeks of commencement of the academic year. 2% surcharge per month will be levied on outstanding fees after the due date.



ACCELERATED BS IN AUDIOLOGY & SPEECH LANGUAGE THERAPY (A BS ASLT)

INTRODUCTION

The College of Speech Language & Hearing Sciences is introducing A BS ASLT to facilitate speech language therapists/pathologists to enhance their knowledge in the realm of audiology.

DURATION

6 months

ELIGIBILITY

4 years bachelors degree in speech language therapy / pathology

LEARNING AND TEACHING STRATEGIES

Deficiency core courses in audiology including sound and hearing shall be fulfilled through lectures. Programmes includes a compulsory supervised clinical practicum of 100 hours of audiological evaluations.

FEE STRUCTURE

Application Fee:	PKR 5,000/-
Course Fee:	PKR 35,000/-
Clinical Practicum Fee:	PKR 60,000/-
Examination Fee:	PKR 6,000/-

MS SPEECH LANGUAGE PATHOLOGY

INTRODUCTION

The College of Speech Language & Hearing Sciences is proud to introduce Postgraduation in Speech Language Pathology (MS-SLP) in the year 2015-16, following the success of the BS-SLT programme which was upgraded to the BS-ASLT in 2015.

OBJECTIVES

The graduates of the MS SLP programme will teach and train undergraduates in the field of speech-language pathology and conduct awareness and advocacy for the profession in Pakistan, upholding its professional ethics and dignity. They shall actively engage in research and development for construction of assessment and therapeutic tools that are culturally and linguistically appropriate for the Pakistani population.

- The students will show a complete understanding of biological and medical sciences, social and behavioural sciences as well as statistics and research methods.
- The students are well versed with the human communication, the feeding and swallow processes in children and adults; as well as the biological, neurological, psychological, social, linguistic and cultural bases to them.
- The student should demonstrate the ability to integrate and differentiate between the normal and abnormal human development across the lifespan; and the disorders and differences thereof.
- The students must be well versed with the etiologies of the communication and swallow disorders and their relevant anatomy/physiological disorders of voice and resonance, as well as respiration and phonation;
- Such as disorders in receptive and expressive language (phonology, morphology, syntax, semantics, pragmatics, prelinguistic communication and paralinguistic communication) in speaking, listening, reading, writing in children and adults;
- Hearing impairment and its impact on speech and language development;

- Disorders in the functions of feeding and swallowing (oral, pharyngeal, esophageal, and related functions, including oral function for feeding, orofacial myology);
 - Disorders of cognition in all aspects of communication (attention, memory, sequencing, problem-solving, executive functioning);
 - Socio-communicative disorders (including challenging behaviour, ineffective social skills, and lack of communication opportunities);
 - The selection and utilisation of augmentative and alternative communication modalities.
- j) For all items from (a) - (l) above, the students must exhibit knowledge current procedures of intervention including assessment, evaluation, and treatment; as well as demonstrate knowledge of ethical procedures within. [Details for knowledge and skills in professional practice here have been adapted from the ASHA policies of evaluation and examination see below (0) to (q)].

EVALUATION

- Conduct screenings and prevention procedures (including prevention activities).
- Collect case history information and integrate information from clients/patients, family, caregivers, teachers, and relevant others, including other professionals.
- Select and administer appropriate evaluation procedures, such as behavioural observations, non-standardised and standardised tests, and instrumental procedures.
- Adapt evaluation procedures to meet client/patient needs.
- Interpret, integrate, and synthesise all information to develop diagnosis and make appropriate recommendations for intervention.
- Complete administrative and reporting functions necessary to support evaluation.
- Refer clients/patients for appropriate services.

INTERVENTION

- a. Develop setting-appropriate intervention plans with measurable and achievable goals that meet clients'/patients' needs. Collaborate with clients/patients and relevant others in the planning process.
- b. Implement intervention plans (involve clients/patients and relevant others in the intervention process).
- c. Select or develop and use appropriate materials and instrumentation for prevention and intervention.
- d. Measure and evaluate clients'/patients' performance and progress.
- e. Modify intervention plans, strategies, materials, or instrumentation as appropriate to meet the needs of clients/patients.
- f. Complete administrative and reporting functions necessary to support intervention.
- g. Identify and refer clients/patients for services as appropriate.

INTERACTION AND PERSONAL QUALITIES

- a. Communicate effectively, recognising the needs, values, preferred mode of communication, and cultural/linguistic background of the client/patient, family, caregivers, and relevant others.
- b. Collaborate with other professionals in case management.
- c. Provide counseling regarding communication and swallowing disorders to clients/patients, family, caregivers, and relevant others.
- r) The student must demonstrate knowledge of research principles and evidence based clinical practice.
- s) The students must demonstrate appropriate skills in oral and written or other forms of communication required by a professional in the field of speech language pathology.

THE STUDENT MUST DEMONSTRATE KNOWLEDGE OF THE FOLLOWING

Intervention, assessment and evaluation procedures with patients/clients. (adopted from ASHA).

Entry Requirement of Programme or Eligibility for admission into MS SLP.

- o Candidates with a 4 year BS (Speech Language Therapy/Pathology) degree from any recognized University are eligible for admission to the course.
- o CGPA of 2.5 in the Undergraduate BS SLT or BS ASLT degree
- o GAT (General). In case GAT (General) is not done at the time of entry into this programme, then candidates MUST PASS GAT (General) BEFORE completion of second semester as recommended by HEC.
- o There is no upper age limit for admission to the course.

SCOPE

- (Market and Social employment perspective) Candidates graduating with the MS SLP degree shall be eligible for clinical practice in a hospital, and rehab setting as well as at mainstream and special schools, where in they shall independently screen, assess, evaluate, diagnose, and treat all disorders of speech, language, hearing, feeding and swallowing in children and adults as well as provide feedback and counseling to the caregivers, and other support personnel.
- The graduates shall successfully utilise AAC tools (Alternative – Augmentative Communication) as and when required after a complete assessment of the needs of the patient.
- The graduates shall indulge in research and development nationally and internationally towards strengthening their own knowledge and skills as well as for establishing their profession in Pakistan.
- The graduates shall develop indigenous tools of assessment and therapy that are culturally and linguistically appropriate to the Pakistani fabric and to the Indian sub-continent.
- They shall be eligible to teach and train students in a college/university settings.
- Graduates shall also teach and train educationists and special educationists for identification and classroom management of children

with speech, language, hearing and feeding disorders.

- They shall teach and train parents for management of the child at home.
- The graduates shall work in a team of professionals whenever and wherever required, wherein other members of the team shall include, neurologists, pediatricians, otolaryngologists, maxillofacial surgeons, dentists, orthodontists, prosthodontists, psychologists, audiologists, occupational therapists, physical therapists, special educationists, educationists, teachers' aides and parents.

DURATION OF THE PROGRAMME

- 4 Semesters/2-years (with additional 1 year for students unsuccessful in either semester)
- Note: Each semester shall extend over a period of 16-18 weeks
- The MS SLP programme shall be of not more than 48 months in duration.



DIPLOMA IN CHILDHOOD DEVELOPMENT AND PSYCHOPATHOLOGY

The CSLHS commenced a Diploma in Childhood Development and Psychopathology (DCDP) in August 2013. The programme caters towards teachers, remedial and early childhood educationists, and parents who want to enhance their knowledge in this area of early childhood development.

DCDP follows a modular curriculum, which emphasises on indepth training and 7 modules covering human development from conception through Adolescence and Childhood Disorders are taught. In addition 16 hours of observations (practical component) is mandatory at CSLHS recommended schools. Assistance is provided for the observation placement at the schools.

This programme examines the physical, cognitive and social development with diagnostic and intervention techniques for early childhood disorders.

LEARNING AND TEACHING STRATEGIES

The following teaching/learning methods/strategies are used to promote better understanding:

- Lectures
- Case studies
- Small Group discussions
- Observation of children in mainstream and special schools shall be a mandatory component of the course.

SEMESTER SUMMARY

The programme comprises two semesters.
1st semester: August – December
2nd semester: January - May

STUDENT ASSESSMENT

Examinations:

- Quizzes- 20% of final grade
- Assignments- 10% of final grade
- Mid Term Examination- 20% of final grade
- Viva- 10% of final grade

Final Exam- 40% of final grade

ADMISSION POLICY

Intermediate/A level from all disciplines

FEE STRUCTURE

Application Fees:	Rs. 5,000/-
Tuition Fees:	Rs. 132,000/-
Examination Fee:	Rs. 18,000/-

Note: Any additional taxes imposed by the government will be the liability of the students/parents/guardian.

The University reserves the right to increase the fees if required according to the recommendation of the Governing Body.

Advance fees to be paid semester-wise. All dues need to be cleared within two weeks of commencement of the academic year. 2% surcharge per month will be levied on outstanding fees after the due date.

CAREER OPPORTUNITIES

The diploma programme is framed to endow students with the foundation knowledge needed to work with children and adolescent that are identified with development delays and disorders. The course is structured to provide students with a wide range of knowledge (both theoretical and practical) to improve screening and referral practices; thereby promoting early intervention.

After completion of the diploma, trainees can utilise their expertise in counselling and assessment of children behaviour and help them to cope with their problems and grow into successful, well-adjusted adults.

FACULTY MEMBERS

PRINCIPAL – ASSOCIATE PROFESSOR

MS. AMINA SIDDIQUI

FULL TIME ASSISTANT PROFESSOR

MR. SHAHID ALI

PART TIME ASSISTANT PROFESSOR

MS. AASIYA SACHWANI
MS. SAMINA MASOOD
MS. FAIZA WAHAB

FULL TIME SENIOR LECTURERS

MS. FATIMA YOUSUF
MS. SONIA SHAH
MR. ALI PUNJANI
MS. MISHA IRSHAD
MS. ANUSHAY HUSSAIN
MS. SABEEN IQBAL RAJPUT
MS. RABBIYAH BINTE SOHAIL
MS. SUNDUS RAHIM
MS. TALEAH TARIQ

PART TIME SENIOR LECTURERS

MS. MISBAH QADEER
MS. FATIMA NAZIR
MS. MAHNOOR HASAN
MS. SABREEN NOOR ALI
MS. MARYAM REHMAN

PART TIME LECTURERS

MS. SAMREEN ZUBAIR

FULL TIME LECTURERS

MS. INSIYA SAIFUDDIN
MS. ZAINAB SADIQ
MS. MEHAK JIWANI

VISITING FACULTY

DR. ABBAS HUSSAIN
MS. TEHMINA WAQAS
MS. ABDUR REHMAN
DR. AMIR ASHRAF
MR. MUNEEB-UR-REHMAN
DR. NAJAM-UL-HAQ
MS. ZAINAB SHARIF
MS. SHEHLA SIDDIQUI
MS. NAJMA ADAM
MR. ZAFAR WAFAI
MS. SHAHEENA ALVI
DR. HABIBA HASAN
DR. KHALID MAHIDA
MR. LENNY MASSEY

INTERNATIONAL VISITING FACULTY

MS. MAHVASH AKBAR ALI SAIT
MS. MEGHNA KHANNA
MS. TASNEEM ALI
MS. BISMAL SALMAN DADABHOY
MR. ABDUL SAMAD MUKATI
MS. MAHNAZ MAQBOOL
MS. SABAH HABIB FAZIL

COLLEGE OF MEDICAL TECHNOLOGY

KEY INFORMATION

ACTING PRINCIPAL

Ms. Humera Rashid

CONTACT INFORMATION

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Locate Us:

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Ziauddin Hospital, Block B,
North Nazimabad.

College of Medical Technology
E40/1, 3rd Floor, Wahid Colony near
CNG Station, North Nazimabad.

PROGRAMMES OFFERED

BS MEDICAL TECHNOLOGY (04 YEARS)



My journey here at Ziauddin University from the time I enrolled here has been nothing short of fascinating. This university has secured a salient place in my heart for which a lot of credit goes to our strong and competent faculty. The college of Medical Technology is a coalescence of aptitudes and effectual training that has always given me a prime learning locus. Teaching laboratories are the facets of this department that dispense the learner opportunity of hands-on practices and students are prepared to face the real time challenges in the field of Medical Technology therefore, I chose ZCMT as my first and foremost choice without any hesitation.

“Behind every doctor, there is a great Medical Technologist”

The wonderful part of this college is the autonomy allowed for personal growth and responsibility. The freedom of environment and less restricted areas in ZCMT upskill you how to impart a control and maintenance as this is a worthier learning of your life.

Being a part of ZCMT not only renders you a tremendous number of opportunities in order to inflate your skills and talent in front of others but also fosters strong qualities that groom your personality in positive manners. In this college you are highly appreciated and motivated under the indoctrination of professional and experienced trainers, professors and instructors. In all fairness your passion, dedication and courage are imperative if you are taking a plunge in this course. I would highly recommend ZCMT because this is not only about gaining knowledge and skills but much more than that. You will experience a real change in your academic achievements.

“Only Med Technologist can see things beyond the capacity of the naked eye”

HISTORY OF COLLEGE OF MEDICAL TECHNOLOGY

Ziauddin University laid the foundation of College of Medical Technology in 1998, it was then named College of Allied Health Sciences which initially offered Bachelor's degree in Medical Technology (B.Sc. in MT). Since then, it has successfully enrolled sixteen batches. Recognising the growing challenges, the college was renamed as Ziauddin College of Medical Technology in 2016, Ziauddin University initiated the BS programme in Medical Technology in March 2011, to pace with modern techniques and knowledge. Ziauddin will be commencing a MS programme in Medical Technology in this academic year.

ABOUT MEDICAL TECHNOLOGY

Technology plays an eminent role in today's world. It is the need of almost every field. Similarly, the Medical Technology Industry has a significant role in the Healthcare sector. It functions on modern electronic medical devices that simplify the diagnosis, analysis and the treatment of diseases. Physicians, surgeons and pathologists rely on the skills and expertise of the medical technologists and therefore they have a responsibility of diagnosing, analysing and reporting findings to the treating doctors.

MISSION

The College Of Medical Technology, commits to bring forth an excellent learning environment to the students in order to attain global competencies in the specialised fields of Medical Technology. The Bachelor of Studies in Medical Technology Programme provides students with scientific and conceptual understanding. In addition, it aims to train, up skill and edify medical technologists by empowering their clinical skills and by providing in-depth training on laboratory/diagnostic/clinical procedures as well as practices and management concerning the patient's needs and healthcare team.

SCOPE/AIM

The Medical Technology Programme in Ziauddin University strives to produce international standard medical technology professionals by imparting specific knowledge, skill-based training, and an active clinical practicum in a disciplined environment to instill professional ethics for better global employment opportunities.

PROGRAMMES OFFERED

- BS Medical Technology (4 years)
- MS Medical Technology (1.5 years)

BS MEDICAL TECHNOLOGY 4 YEAR PROGRAMME

OVERVIEW OF SPECIALISED FIELDS IN MEDICAL TECHNOLOGY:

CARDIOVASCULAR SCIENCES

A cardiovascular science is a study of the heart and its function, blood vessels in human beings, cardiac disorders and diseases associated with cardiovascular systems. The students are taught and trained in diagnostics, treatment and preventive techniques used in Cardiovascular Sciences and its application in clinical and healthcare settings.

Cardiovascular Professionals or Technologists work with cardiac physicians to assist in providing treatment, monitoring and diagnosing patients with Cardiac problems. They can also enrich students with knowledge through their teaching and producing researches. Furthermore, cardiovascular technologists pursue their career as in diagnostic and interventional cardiac catheterisation labs in acute care hospitals, electrophysiology and echocardiography.

Cardiovascular Technology is a challenging and growing profession. The BS MT in Cardiovascular sciences programme trains students with advance didactic basic and specialised courses and clinical trainings mandatory to marvel at their major studies.

Courses Taught

1st Year

1. Basic Health Sciences I
2. Basic Infection Control
3. Physics
4. Basic Health Sciences II
5. Medical Terminology
6. Islamiat
7. Professional Ethics & Behavior
8. English Language
9. Biochemistry
10. Mathematics
11. Pakistan Studies
12. General Microbiology
13. Biostatistics
14. Computer Literacy
15. Communication Skills,

2nd Year

1. Cardiovascular Anatomy
2. Cardiovascular Pathophysiology
3. Radiation Protection
4. Cardiovascular Physiology
5. Principles of Patient Care
6. Cardiovascular Pharmacology
7. Basic Hematology
8. Body Fluids Management
9. Electrocardiography (ECG)
10. Mathematics in Cardiovascular Technology
11. Exercise Tolerance Test (ETT)
12. Cardiac Pathophysiology in Pediatrics
13. Hemodynamic Evaluation

3rd Year

1. English (Communication Skills)
2. Vascular System and Diseases
3. Stress Cardiology
4. Procedures for Inpatients
5. Cardiovascular Emergencies
6. Technical and Business Writing
7. Principles of Ultrasound
8. Basic Immunology
9. Basic Principles of Doppler Ultrasound
10. Invasive Cardiac Methodologies
11. Principles of Critical Care

4th Year

1. Quality and Risk Management
2. Cardiac Interventional Procedures – I
3. Invasive Imaging, Cardiac Catheterisation Laboratory – I
4. Echocardiography – I
5. Vascular Ultrasound – I
6. Echocardiography in Cardiac Myopathies
7. Biostatistics – II
8. Pediatric Echocardiography
9. Cardiac Care Unit Management
10. Echocardiography – II
11. Cardiac Interventional Procedures-II
12. Vascular Ultrasound – II
13. Cardiac Catheterisation laboratory- II

NOTE: Scheme of studies can be changed as per requirement and advancement in the clinical field.

Clinical Training

The study of cardiovascular Sciences centers on the working of heart, its diagnosis and treatment therefore the CVS technologists are placed at Ziauddin hospital for their clinical practicum, where they utilise their knowledge of cardiovascular principles and functions in the operation of CVS equipments, such as ECG, exercise stress tests and Cardiac Device Follow up, Ambulatory B.P. monitoring and ECG Event/Loop Monitoring. The in-house training enables the trainee to apprehend the operation of machineries used while performing any test. These trainings start after every semester examination and the cycle continues till the final year of the undergraduate programme.

CLINICAL LABORATORY SCIENCES

Clinical Laboratory Science Professionals provides laboratory services required for the diagnosis and treatment of the disease. These Technologists or Scientists, by performing a number of tests, discover the diseases and lend a hand to the physicians to give quick treatment to the patients. Such Critical procedures require strong analytical skills and the ability to work under pressure. The Programme and courses offered at Clinical Laboratory Sciences put great emphasis on students acquiring these skills by a combination of didactic sessions, group discussion, supervised training, competency assessments and clinical practicum in order to make student adroit at performing tests, analyses and interpretations.

Clinical Laboratory Scientists can set off their careers in medical and healthcare professions. Placements are also offered at scientific equipment companies, chemical and pharmaceutical companies. They can also contribute in the educational sector as a faculty member or as a

researcher.

Courses Taught**1st Year**

1. Basic Health Sciences I
2. Basic Infection Control
3. Physics
4. Basic Health Sciences II
5. Medical Terminology
6. Islamiyat
7. Professional Ethics & Behaviour
8. English Language
9. Biochemistry
10. Mathematics
11. Pakistan Studies
12. General Microbiology
13. Biostatistics
14. Computer Literacy
15. Communication Skills

2nd Year

1. Hematology-I
2. Phlebotomy
3. Chemical Pathology-I
4. Blood Banking-I
5. Parasitology
6. Bacteriology
7. Chemical Pathology-II
8. Blood Banking-II
9. Histotechnology

field.

Clinical Training

The in-house training of CLS technologists encompasses observation and analysis of both manual and automated testing which involves immunoassays, Electrophoresis, Blood and urine culture, Blood Grouping and Cross matching, manual and automated cell counting. The in-house training enables the trainee to master the operation of tools and equipment used while performing any test. These trainings start after every semester examination and the cycles continues till the final

10. Hematology-II

3rd Year

1. Body Fluid Analysis
2. Blood Banking-III
3. Basic Immunology
4. Hematology-III
5. Chemical Pathology-III
6. Mycology
7. English Communication
8. Blood Banking-IV
9. Basic Coagulation
10. Advance Mathematics for Clinical Laboratory
11. Molecular Biology
12. Clinical Immunology & Serology
13. Virology
14. Technical and Business Writing
15. Histotechnology

4th Year

1. Clinical Laboratory Management
2. Clinical Laboratory Accreditation
3. Biostatistics-II
4. Quality Control in Clinical Laboratory (Advanced)
5. Hematology/Blood Banking/Chemical Pathology/Microbiology

NOTE: Scheme of studies can be changed as per requirement and advancement in clinical



DENTAL HYGIENE AND TECHNOLOGY

Dental Hygiene and technology is a multimodal course in the field of dental laboratory where dental hygiene is complemented with dental technology. It is the study of dental diseases, preventive therapy and patient's counseling. The course is coupled with technical sides of dentistry where technologist makes prosthesis, orthodontic and maxillofacial appliances. Dental technologists work in dental laboratories and create fabricated dental materials, using their artistic skills in fabricating the form and colour of an individual's teeth. Besides dental laboratory, technologists are also welcome in academics to hold a faculty position.

The College of Medical Technology started this programme in the year 2017 with a comprehensive course plan and in-house training of the technologists preparing them to meet the challenges of the developments in the field.

Courses Taught

1st Year

1. Basic Health Sciences I
2. Basic Infection Control
3. Physics, Basic Health Sciences II
4. Medical Terminology,
5. Islamiat
6. Professional Ethics & Behaviour
7. English Language
8. Biochemistry
9. Mathematics
10. Pakistan Studies
11. General Microbiology
12. Biostatistics
13. Computer Literacy and
14. Communication Skills.

2nd Year

1. Fundamentals of Dental Hygiene
2. Dental Anatomy
3. Sterilization and Disinfection
4. Periodontology – I
5. Dental Terminology
6. Tooth Morphology
7. Operative Dentistry – I
8. Dental Radiography – I
9. Periodontology – II
10. Public Health Care Management – I
11. Prosthodontics – I

Clinical Training

The teaching and learning scheme at Ziauddin University provides its learner in-house training where they can acquire the skills necessary for Dental technologists. Among these skills are community disease prevention, tooth morphology, dental materials, and oral pathology. During clinical sessions, students will have hands-on technical experience on how to perform root planting, apply fluoride therapy, and develop x-rays at Ziauddin hospital under the supervision of dental physician and senior technologists. These trainings start after every semester examination at Dental Department of Ziauddin University Clifton and the cycles continues till the final year of the undergraduate programme.

3rd Year

1. Prosthodontics – II
2. Operative Dentistry – II
3. Orthodontics – I
4. English (Communication Skills)
5. Dental Radiology – II
6. Oral and Maxillofacial Surgery – I
7. Periodontics,
8. Oral and Maxillofacial Surgery – II
9. Technical and Business writing
10. Operative Dentistry – III
11. Orthodontics – II
12. Prosthodontics – III

4th Year

1. Orthodontics – III
2. Quality Assurance in Dentistry
3. Prosthodontics – IV
4. Biostatistics – II
5. Oral Pathology
6. Prosthodontics – V
7. Geriatric Dentistry
8. Dental Implantology
9. Dental Health Management
10. Public Health Care Management - II

NOTE: Scheme of studies can be changed as per requirement and advancement in clinical field.



RADIOLOGICAL IMAGING

Radiological imaging is the study of techniques and procedure of medical images used for diagnosis of various diseases. Radiologic technologists are specialised in the use of medical imaging such as X-Rays, Magnetic Resonance Imaging (MRI), Computed tomography (CT) scans, ultrasound, sonography and fluoroscopy. They have an acute understanding of anatomy, positioning, radiation protection and radiographic exposure.

Radiologic technologists are responsible for producing quality diagnostic images. They act as an expert to the physician by providing them proper examination of the disease, interpreting the resulting medical images. The doors of radiological technologists are opened at various technical departments in hospitals followed by physicians, medical laboratories outpatient imaging centres.

Radiological imaging is a demanding profession therefore; the college of Medical Technology has designed a programme with intensive coursework along with the technical handling throughout the 04 year of studies.

Courses Taught

1st Year

1. Basic Health Sciences I
2. Basic Infection Control
3. Physics, Basic Health Sciences II
4. Medical Terminology,
5. Islamiat
6. Professional Ethics & Behavior
7. English Language
8. Biochemistry
9. Mathematics
10. Pakistan Studies
11. General Microbiology
12. Biostatistics
13. Computer Literacy
14. Communication Skills

2nd Year

1. Introduction to Sectional Anatomy
2. Imaging Positions
3. Radiation Protection
4. Introduction to Radiographic Instrumentation
5. Radiation Physics and Radiobiology
6. Positioning and Projection Terminology
7. Patient Care in Radiography
8. Advance sectional Anatomy
9. Radiographic Procedures
10. Bio-safety

Clinical Training

The programme offers training to the students at Ziauddin hospital under the guidance of supervisors and experienced technologists who coach students to perform X-rays, MRI, CT scans, mammography, fluoroscopy, ultrasound, sonography and fluoroscopy. These trainings help students to become experts their relevant fields before entering into professional life. These trainings start after every semester examination and the cycle continues till the final year of the undergraduate programme.

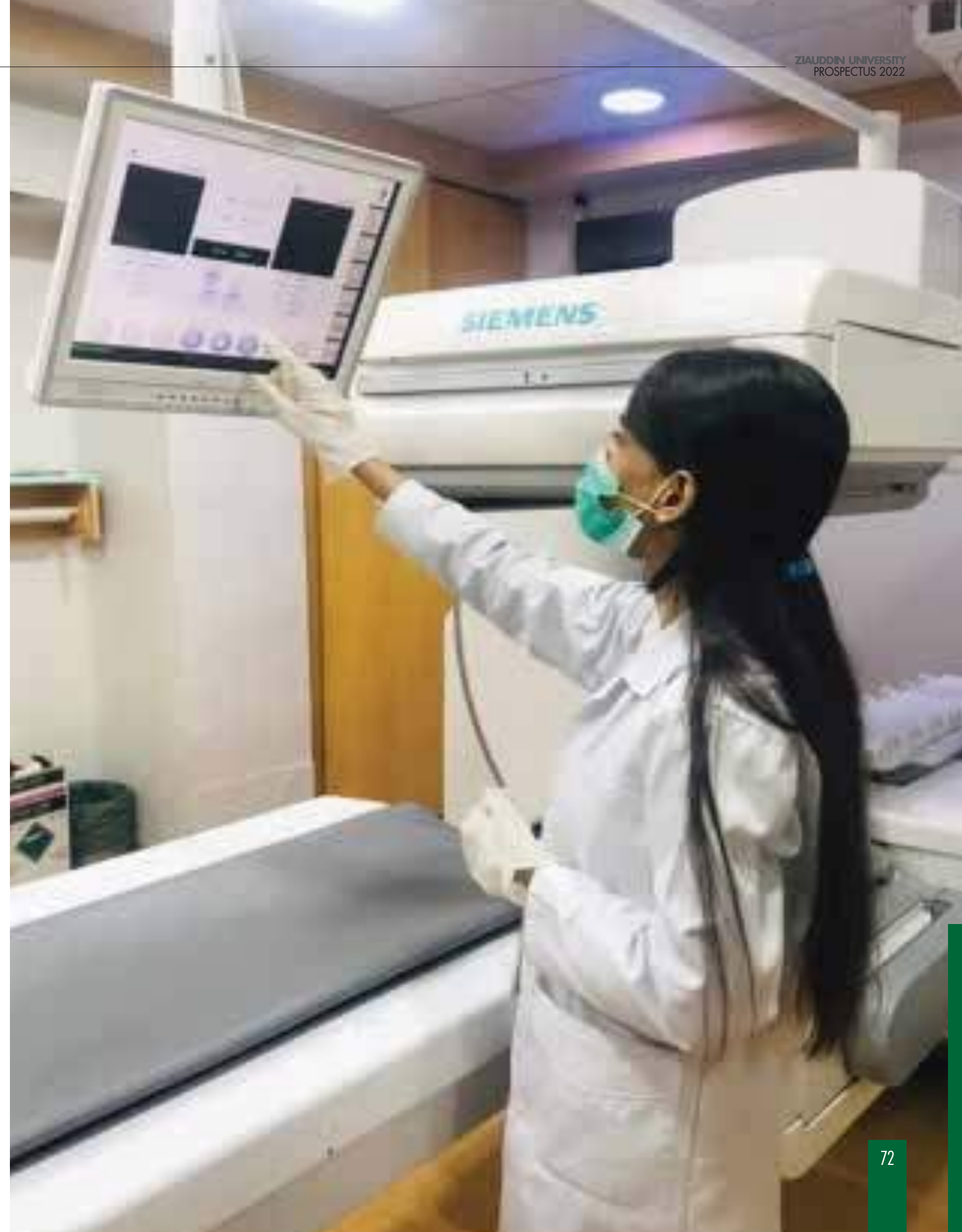
3rd Year

1. English (Communication Skills)
2. Orthopentanogram
3. Radiopharmacy
4. Mammography Techniques
5. Technical and Business Writing
6. Doppler Ultrasound Techniques
7. Quality Control of Image Equipment
8. Ultrasound Techniques

4th Year

1. Picture Archiving and Communication System
2. Patient Care in Magnetic Resonance Imaging (MRI)
3. Contrast Media and Medications
4. CT Instrumentation
5. Patient Care in Computed Tomography (CT)
6. Quality Management System (ISO & JCI)
7. MRI Instrumentation
8. Emergency Conditions in Radiation
9. Advance Techniques in Radiology (PET)
10. Computer Tomography Techniques
11. Magnetic Resonance Imaging Techniques

NOTE: Scheme of studies can be changed as per requirement and advancement in the clinical field.



RADIATION THERAPY

Radiation Therapy a field of radiation oncology that administer the regular radiation treatment prescribed by a physician.

The scope of practices of radiation therapists include delivering radiation therapy to the patients of cancer and operating and examining linear accelerators that treat patients with radiation.

In BS MT Radiation therapy, students are taught the fundamentals of human anatomy, physiology, pathology, radiobiology, radiation safety and techniques, radiation oncology in addition to management electives to enable students to become competent and skilled radiation therapists.

Courses Taught

1st Year

1. Basic Health Sciences I
2. Basic Infection Control
3. Physics, Basic Health Sciences II
4. Medical Terminology,
5. Islamiyat
6. Professional Ethics & Behaviour
7. English Language
8. Biochemistry
9. Mathematics
10. Pakistan Studies
11. General Microbiology
12. Biostatistics
13. Computer Literacy
14. Communication Skills

2nd Year

1. Imaging Positions
2. Radiation physics and equipment
3. Introduction to Sectional Anatomy
4. Radiation Protection
5. Principles of Patient Care
6. Radiation Physics and Radiobiology
7. Positioning and Projection Terminology
8. Patient Care in Radiography
9. Advance sectional Anatomy
10. Radiotherapy Procedures
11. Radiation Dosimetry

Clinical Training

The BS RT programme offered at Ziauddin University gives students practical skills by providing in-house training after every semester to build a strong foundation of the course. During their clinical practicum, students are taught to assist oncology patients by delivering chemotherapy to them. Moreover, the training also involves working on radiation equipments and producing a diagnosis. These trainings start after every semester examination and the cycle continues till the final year of the undergraduate programme.

3rd Year

1. English (Communication Skills)
2. Radiation Oncology Techniques
3. Radiopharmacy
4. Basics of Clinical Oncology
5. Technical and Business Writing

4th Year

1. CT Instrumentation
2. Radiation Therapy Methodology
3. Contrast Media and Medications
4. Patient Care in Computed Tomography (CT)
5. Quality Management System (ISO & JCI)
6. Clinical Simulation
7. Emergency Conditions in Radiation Therapy
8. Interprofessional Collaboration.

NOTE: Scheme of studies can be changed as per requirement and advancement in the clinical field.



CARDIAC PERFUSION

Cardiac perfusion is the study of extracorporeal medical procedures during open-heart surgeries and transplantation in order to support, regulate and temporarily replace the patient's respiratory and circulatory system. The cardiac perfusionists are core members of the open-heart surgery team. Their role is to prepare and operate heart-lung machine and other complex machinery during cardiovascular surgeries in highly stressed situations. To perform these tasks, perfusionists are taught comprehensive courses to develop an in-depth knowledge of respiratory and circulatory systems. Cardiac perfusionists use their expertise during cardiovascular surgeries in assisting surgeons and physicians and can also work as a teacher and researcher in research institutes. Placements of perfusionists are at hospitals, and at times they are hired by individual surgeons. Moreover, perfusionists are appointed by industries that manufacture supplies and equipment related to perfusion.

Keeping in view the local and global needs, the College of Medical Technology initiated the B.S. Medical Technology in Cardiac Perfusion – a well-balanced comprehensive programme in which students are exposed to extensive learning and practice, clinical skills, academic activities and research studies. After the completion of the programme, students can utilise their skills in health-care as Cardiac Perfusionists.

Courses Taught

1st Year

1. Basic Health Sciences I
2. Basic Infection Control
3. Physics, Basic Health Sciences II
4. Medical Terminology,
5. Islamiyat
6. Professional Ethics & Behaviour
7. English Language
8. Biochemistry
9. Mathematics
10. Pakistan Studies
11. General Microbiology
12. Biostatistics
13. Computer Literacy
14. Communication Skills

2nd Year

1. Cardiovascular Anatomy
2. Introduction to Cardiopulmonary Bypass Circuit – I
3. Cardiovascular Physiology
4. Basic Hematology
5. Cardiovascular Pharmacology
6. Mathematics in Perfusion Technology
7. Body Fluid Management
8. Introduction to Cardiopulmonary Bypass Circuit – II
9. Clinical Applications of Perfusion Technology
10. Perfusion Hematology
11. Basics of Blood Management

3rd Year

1. Monitoring in Cardiopulmonary Bypass – I
2. English (Communication Skills)
4. Advances in Cardiopulmonary Bypass
5. Diagnostic Techniques in Perfusion Technology
6. Invasive and Non Invasive Procedures
7. Devices in Perfusion Technology
8. Technical and Business Writing
9. Cardiac Pathophysiology in Pediatrics
10. Basic Immunology
11. Monitoring in Cardiopulmonary Bypass - II

4th Year

1. Extracorporeal Membrane Oxygenation
2. Non-cardiac Surgical Applications of Cardiopulmonary Bypass
3. Preoperative Pediatrics Perfusion
4. Operation Theatre Organisation and Management
5. Quality and Risk Management
6. Anesthesia Management for Cardiac Surgery
7. Standards and Guidelines for Mechanical Circulatory Support
8. Cardiac Care Unit Management
9. Biostatistics – II
10. Intra operative Pediatrics Perfusion
11. Introduction to Cardiovascular Emergencies

NOTE: Scheme of studies can be changed as per requirement and advancement in the clinical field.

Clinical Training

Ziauddin University offers cardiac perfusionists to practice their skills at Ziauddin Hospital under the supervision of Laboratory heads, physicians and instructors during their undergraduate studies. The degree requires completion of hands-on clinical training, during which candidates must perform a certain number and variety of clinical perfusion procedures. This experiential learning is critical to the preparation of perfusionists who must be able to respond to a wide variety of situations that may occur in the operating room. The in-house training enables the trainee to apprehend the operation of machinery used during the surgeries. This training starts after every semesters examination and the cycle continue till the final year of the undergraduate programme.



NUCLEAR MEDICINE

Nuclear Medicine is the study of nuclear properties of stable nuclides that enables the technologist to diagnose, determine the complexity of a disease and to suggest treatments to a variety of diseases. The technologists primarily work on the isotopes present in human body.

Graduates of Nuclear Medicine are called Nuclear Medicine Technologists who study basic science subjects required for patient education and electives including radioisotopes and radiological imaging, and to work directly with patients during imaging procedures.

Nuclear Medicine Technologists work in hospital and laboratories in the diagnosis of various diseases such as cancers, heart diseases, gastrointestinal, endocrine, neurological disorders and other abnormalities within the body. Furthermore, they perform bone scanning, PET and Nuclear cardiac stress tests. They can also contribute in the field of teaching and research.

Courses Taught

1st Year

1. Basic Health Sciences I
2. Basic Infection Control
3. Physics, Basic Health Sciences II
4. Medical Terminology,
5. Islamiat
6. Professional Ethics & Behavior
7. English Language
8. Biochemistry
9. Mathematics
10. Pakistan Studies
11. General Microbiology
12. Biostatistics
13. Computer Literacy
14. Communication Skills.

2nd Year

1. Introduction to Sectional Anatomy
2. Introduction to Instrumentation
3. Radiation Protection
4. Basics of Nuclear Medicine
5. Radiopharmacy
6. Patient Care
7. Image Processing

Clinical Training

The curriculum of B.S.NS includes supervised education which offers a sufficient and well-balanced variety of nuclear medicine procedures, examinations, and equipment. Various rotations include supervised clinical education such as general nuclear medicine imaging, cardiology imaging, SPECT/CT, PET/CT, radiation-sensitive cameras, and dosage meters, radio pharmacy and radiation safety. These trainings are provided at the Dr. Ziauddin hospital and aim to strengthen students' theoretical and practical understanding of neuro medicine sciences. These trainings start after every semester examination and the cycles continue till the final year of the undergraduate programme.

3rd Year

1. English (Communication Skills)
2. Patient
3. Radiobiology
4. Introduction to Nuclear Cardiology
5. Radionuclides Therapy
6. PET/CT Scanner
7. Technical and Business Writing
8. Nuclear Cardiology
9. Advanced Nuclear Cardiology
10. Standard Drug Intervention
11. Advanced Instrumentation

4th Year

1. Nuclear Endocrinology Techniques
2. Patient Release Method
3. Quality Control in Nuclear Medicine Equipment
4. Nuclear Oncology Techniques
5. Bone Mineral Dosimetry
6. Quality Assurance in Nuclear Medicine
7. Nuclear Endocrinology Therapies

NOTE: Scheme of studies can be changed as per requirement and advancement in the clinical field.

NEUROSCIENCES

Neuroscience is a multidisciplinary study of the brain system including the brain, spinal cord and nerve cells throughout the body. It examines the complex interaction of multiple neuronal systems that underlie the emergence and rich diversity of cognitive functions, the regulations, and expressions of all forms of human behaviour.

Neuroscientists also work on operating EEG and EMG in clinics or hospitals to evaluate and monitor patients. Furthermore, they can work as a faculty member in the field of education.

In the BS MT Neurosciences programme, students are educated and trained in neurosciences techniques like EEG, EMG, evoked potentials, etc. During their bachelor's studies, students are exposed to analysing and the diagnosis of nervous system diseases in human beings in addition to extensive courses and practices in neurosciences.

Courses Taught

1st Year

1. Basic Health Sciences I
2. Basic Infection Control
3. Physics
4. Basic Health Sciences II
5. Medical Terminology
6. Islamiat
7. Professional Ethics & Behaviour
8. English Language
9. Biochemistry
10. Mathematics
11. Pakistan Studies
12. General Microbiology
13. Biostatistics
14. Computer Literacy
15. Communication Skills
16. Basic Pharmacology

2nd Year

1. Neuro-anatomy
2. Neuro-Physiology
3. Neuro-Pharmacology
4. Principles of Patient Care
5. Bio-Safety
6. Fundamentals of Neurosciences
7. Techniques Fundamentals of Neurosciences
8. Techniques Anatomical & Physiological Basis of Electroencephalography (EEG)
9. Introduction to Electroencephalography (EEG)

Clinical Training

Ziauddin University facilitates its neurosciences technologists by providing in-house training in the areas of neuroscience intensive care, neuromedicine and neurosurgery, EEG and EMG, where students exercise their trainings. These trainings start after every semester examination and the cycle continues till the final year of the undergraduate programme.

3rd Year

1. Clinical Applications of Electroencephalography (EEG)
2. Communication Skills
3. Introduction to Evoked Potentials
4. Basic Neuropathies
5. Technical and Business Writing
6. Fundamentals of Electromyography
7. Fundamentals of Nerve Conduction Studies
8. Advanced Evoked Potentials
9. Advanced Neuropathies

4th Year

1. Clinical Applications of Electroencephalography (EEG)
2. Communication Skills
3. Introduction to Evoked Potentials
4. Basic Neuropathies
5. Technical and Business Writing
6. Fundamentals of Electromyography
7. Fundamentals of Nerve Conduction Studies
8. Advanced Evoked Potentials
9. Advanced Neuropathies

NOTE: Scheme of studies can be changed as per requirement and advancement in the clinical field.

TEACHING AND LEARNING STRATEGIES

Ziauddin University, College of Medical Technology promotes a culturally inclusive, and constructive learning environment giving specific consideration to student's own psychological and sensory status and recognizing, nurturing and developing one's strength to foster the learning process and positive interaction among the peers, groups and stimulates independence to meet the challenges of the real world. Subsequently, explicit and structured teaching is practiced and supported by audio and visual materials installed in each classroom. Contemporary practices such as blended learning, flipped classroom, and facilitation are provided meeting the course requirement of the programme. The brightest feature of the college of medical technology is that the Academic block and Clinical training sites are under the same roof, which reinforces learning by implementing teaching examples in real time cases. Finally, at the end of each semester, students are posted in Dr. Ziauddin Hospital to implement their knowledge and upgrade their skills.

FACILITIES

Ziauddin University, College of Medical Technology offers ample facilities to its students. The central location of the College of Medical Technology in North Nazimabad makes it convenient, easy to approach and accessible for the students primarily. The College of Medical Technology is located in a state of the art building that is modernly designed, with huge lobbies, lecture halls and laboratories. The classrooms of the College are spacious, well-furnished, and equipped with multimedia facilities which enhance teaching-learning process in effective way. It is complemented with an air-conditioned environment that helps students to endure the harsh climatic conditions of the city. There is a seminar room available primarily to organise workshops and seminars that can accommodate more than 150 learners.

Training labs are termed as skill labs which are replica of hospital/clinical labs. Skills laborato-

ries are well-equipped consisting of hi-tech instruments to provide hands-on training to students prior to dealing with patients. Ziauddin is following the trails of modernisation and since the concept of a library has changed; it has evolved into a LEARNING RESOURCE CENTER which is a comprehensive learning area awarded for the concept of libraries and plastic museums. Therefore, Ziauddin has developed the latest Learning Resource Center which is a combination of a library with a wide range of books and plastic a museum. It comprises of 4D models along with computing facility that provides access to e-books, e-journals and academic articles. In addition to this students can also benefit from the main library located at Ziauddin Hospital, North Nazimabad for utilising extensive learning opportunities after university hours.

The College of Medical Technology is a skill oriented programme and therefore, has made it mandatory for all the students to do practicum as a part of their course work. To achieve this the College of Medical Technology as a privilege, posts students on rotations within concerned departments of Dr. Ziauddin Hospitals during the semester and after successful completion of a semester. The practical labs are located within the hospital premises which train the students to have multiple clinical case scenarios amalgamated with theoretical teaching. The facility aims at developing the students' knowledge and skills along with a direct implementation of knowledge on actual patients

To evoke a sense of health and fitness, a recreational area consisting of a gymnasium and indoor games is being built where these facilities can be availed by the students. Within the university premises two tuck shops are located, which caters to the nutritious side of the students, and provide the students healthy food and snacks during university hours.

This makes the college environment secured and under surveillance.

First aid treatment and general medication are

also available for students in any unforeseen circumstances. Moreover, students have an access to make an appointment at the hospital for a doctors' consultation.

ASSESSMENT POLICIES AND PROCEDURE

Enrolled candidates are assessed and examined for theory and skills with periodic examinations. Continuous assessment is practiced incorporating multiple summative and formative assessments to measure the extent to which students have achieved the desired outcome. It includes mid-terms, projects, portfolios, clinical practicum and competencies.

WEIGHTAGE FOR THE FINAL EXAMINATION

- Attendance* 10%
- Continuous assessments 40%
- Final Examination 50%

ATTENDANCE

Attendance in classes is mandatory

ATTENDANCE GRID

0.75% marks per 10% attendance until 80%, i.e. for every 10% attendance, 0.75% marks will be awarded in that course up till 80% attendance. for example ;

- 6 marks will be awarded for 80% attendance, 2% marks per 10% attendance will be awarded in that course. For example;
- For 90% attendance: 8 marks
- For 100% attendance: 10 marks
- Minimum passing level for all subjects (Theory & Practical) is 61% (2.0 GP)

ADMISSION POLICY

BS medical technology is a four year semester based programme. Admissions are announced once a year and students with minimum 50% marks in pre medical and medical technology group or higher secondary certificates may apply. Candidates with O/A level must take equivalence. All candidates are selected on merit basis according to the following criteria:

- S.S.C marks
- H.S.C marks

- Aptitude test
- Interview marks

Clinical rotations are done at Dr. Ziauddin Hospital North Nazimabad site, KDLB site & Clifton site.

FEE STRUCTURE

Application Fee:	Rs. 5,000/-
Admission Fee:	Rs. 15,000/-
Lab Coat Expense:	Rs. 5,000/-
Student Fund:	Rs. 3,000/-
Academic Transport:	Rs. 40,000/-
Tuition Fee:	Rs. 171,600/-
Examination Fee:	Rs. 18,000/-

Note: Any additional taxes imposed by the government will be the liability of the students/parents/guardian. The University reserves the right to increase the fees if required according to the recommendation of the Governing Body. Advance fees is to be paid semester-wise. All dues need to be cleared within two weeks of commencement of the academic year. 2% surcharge per month will be levied on outstanding fees after the due date.

CAREER OPPORTUNITIES

Medical Laboratory scientists have a huge demand both nationally and internationally. A survey conducted recently suggests that the demand of medical technologists is projected to grow 21% from 2014-2024 much faster than the average of all the occupations due to the greater need of diagnosis and of medical conditions through medical procedures.

Medical Technologist have the opportunity to join:

- Hospitals and clinical Laboratory positions
- National and multinational diagnostic companies
- Pharmaceutical firms
- Management positions
- Academic Positions
- Public Health Agencies
- NGOs

FACULTY MEMBERS

ADVISOR TO THE PRINCIPAL

DR. AYESHA IQBAL

ACTING PRINCIPAL AND ASSISTANT PROFESSOR

MS. HUMERA RASHID

ASSISTANT PROFESSOR

MS. MEHWISH ZEESHAN

LECTURER

MS. QAMAR UN NISA NAZ

MS. YUSRA ANEES

DR. NAZISH KASHIF

INSTRUCTOR

MS. WAJIHA SHUJAAT

MS. SYEDA TABEENA ALI

MS. MALIHA ALI

MS. KIRAN NOORUDDIN

MS. HAWA BI

MS. SARA ZAKI

CLINICAL FACULTY

CLINICAL LABORATORY

DR. ADNAN MUSTAFA ZUBAIRI

MBBS, DCP, FCPS, HOD CLINICAL LABORATORY

DR. FOUZIA LATEEF

MBBS, MCPS, FCPS, HISTOPATHOLOGY

DR. FAISAL IQBAL AFRIDI

MBBS, FCPS, MICROBIOLOGY

DR. AZIZ UN NISA

MBBS, FCPS, HISTOPATHOLOGY

DR. ZULQURNAIN IMRAN

MBBS, FCPS, HEMATOLOGY

DR. NOREEN

MBBS, FCPS HEMATOLOGY

DR. USMAN ALI

MBBS, FCPS CHEMICAL PATHOLOGY

DR. AMNA QAMAR

MBBS, FCPS HEMATOLOGY

DR. NAYAB AFZAL

MBBS, FCPS RESIDENT

DR. SABA RAZA

MBBS, FCPS RESIDENT

DR. AYESHA HABIB

MBBS, FCPS RESIDENT

MR. AHTEHAM UL HAQ

M.SC. M.PHIL BIOCHEMISTRY.PRINCIPAL LAB OFFICER

MS. MADIHA KHAN

MSC BLOOD BANKING.SUPERVISOR BLOOD BANK

CARDIOVASCULAR SCIENCES

DR. JAWAD ANSARI

CONSULTANT CARDIOLOGIST

DR. SYED SHUJAAT HUSSAIN

MBBS, DIPLOMAT AMERICAN BOARD OF

CARDIOLOGY. CONSULTANT CARDIOLOGIST

DR. MIRZA YOUSUF BAIG

MBBS, MD CARDIOLOGY

DR. SHAHZAD

RESIDENT CARDIOLOGY DEPARTMENT

NEUROSCIENCES

DR. BASHIR A. SOOMRO

MBBS, FCPS NEUROLOGY. CONSULTANT

NEUROLOGIST

DR. SULEIMAN MUHAMMAD

MBBS, FCPS. CONSULTANT NEUROLOGIST

DR. SYEDA SABA ZAIDI

MBBS, FCPS. CONSULTANT NEUROLOGIST

DR. NADEEM A. MEMON

MBBS, FCPS (NEUROLOGY),

POST FELLOWSHIP IN CLINICAL NEUROLOGY (AKU-

H)MEMBER (AANEM) USA

CONSULTANT NEUROLOGIST

DR. SHAZMA KHAN

MBBS, FCPS. CONSULTANT NEUROLOGIST

DR. IQRA ALI

MBBS, FCPS RESIDENT

MR. MUHAMMAD SARWAR

NEUROPHYSIOLOGIST

RADIATION THERAPY

DR. SAAD JAMAL

MBBS, RESIDENT RADIATION THERAPY

MR. AZIZ AHMED SIDDIQI

M.SC. PHYSICS, DIPLOMA IN RADIATION SAFETY

FROM SACLAY, FRANCE.

CHIEF RADIATION PHYSICIST.

MR. ARSHAD MEHMOOD

M.SC. PHYSICS.RADIATION PHYSICIST

NUCLEAR MEDICINE

DR. JAVAID AFTAB

H.O.D AND CONSULTANT NUCLEAR MEDICINE

DR. SAJID SATTAR

MBBS, MD NUCLEAR MEDICINE.CONSULTANT

NUCLEAR MEDICINE

DR. ASAD JALIL

MBBS, RESIDENT NUCLEAR MEDICINE

DR. HIRA BIBI

MBBS, RESIDENT NUCLEAR MEDICINE

RADIOLOGICAL IMAGING

DR. KAMRAN HAMID

MBBS, MCPS, FCPS. ASSISTANT PROFESSOR, HOD

RADIOLOGY DEPARTMENT

DR. HINA PATHAN

MBBS, FCPS II TRAINEE, RESIDENT RADIOLOGY

DEPARTMENT

DR. ANAM NAZ

MBBS, FCPS II TRAINEE, RESIDENT RADIOLOGY

DEPARTMENT

DR. ZUNAIRA TARIQ

MBBS, FCPS II TRAINEE, RESIDENT RADIOLOGY

DEPARTMENT

DR. MUBBASHIR JAWED

MBBS, FCPS II TRAINEE, RESIDENT RADIOLOGY

DEPARTMENT

DR. SYED SAAD AHMED

MBBS, FCPS II TRAINEE, RESIDENT RADIOLOGY

DEPARTMENT

DR. ABDUR REHMAN

MBBS, FCPS II TRAINEE, RESIDENT RADIOLOGY

DEPARTMENT

DR. SUBHAN IQBAL

MBBS, FCPS II TRAINEE, RESIDENT RADIOLOGY

DEPARTMENT



COLLEGE OF REHABILITATION SCIENCES

KEY INFORMATION

PRINCIPAL

Ms. Sumaira Imran Farooqi

CONTACT INFORMATION

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<https://zcpt.zu.edu.pk/>

Telephone:

North: +92-21-36629250-51
Clifton: +92-21-35148594,
+92-21-35148642

LOCATE US

NORTH NAZIMABAD SITE:

Ziauddin College of Rehabilitation Sciences, Plot # E/40/1/1 – Wahid Colony, Block – B, Karachi.

CLIFTON SITE:

Ziauddin College of Rehabilitation Sciences, D-20, Block – 1, Scheme 5, Clifton, Karachi.

PROGRAMMES OFFERED

- Doctor of Physical Therapy
- Accelerated Doctor of Physical Therapy
- MS/MPHIL in Physical Therapy
- Doctor of Occupational Therapy
- Accelerated Doctor of Occupational Therapy
- Bachelor in Physical Education, Health and Sports Sciences
- Associate Degree in Physical Education, Health and Sports Sciences
- Diploma in Fitness and Training

As I choose to enter my professional world, Ziauddin College of Rehabilitation Sciences seemed to be the best choice for sure. My 5 years in Ziauddin have been excellent and a memory to cherish for a lifetime. The years spent have been full of learning opportunities that were fun and frolic and sometimes with the academic grind that one has to go through. It was a wonderful time in my life, and the best educational experience I have had. ZCRS helped me discover my inner potential in the field of Physical Therapy which I did not realise I had. My mentors and peers challenged me to stretch and grow. I would like to express my gratitude towards my teachers, without them this all could not be possible. The teachers are well experienced and always willing to help the students to go that extra mile in their educational journey. I have grown as an individual and now a better version of myself. I see myself as a skilled and well groomed Physiotherapist, all thanks to this prestigious institution. For those students who are keen to achieve more, I would highly recommend ZCRS because the place is not only about gaining knowledge and skills but much more than that. They will experience a real change in their academic achievements.

The world in one place is not only a slogan, but a lived reality. I am fortunate and proud to be a ZCRSian.

MUNEEZA NASIR
DPT

DOCTOR OF PHYSICAL THERAPY

Doctor of physical Therapy is a five-year semester based degree programme.

LEARNING AND TEACHING STRATEGIES

Both national and international qualified teaching faculty is involved to promote better understanding through:

- Presentation/Assignment/Seminar
- Tutorials
- Skill based labs
- Projects
- Clinical Practice (Supervised/Independent)

CLINICAL TRAINING

Students of Ziauddin College of Rehabilitation Sciences have an exclusive advantage to be a part of an organisation with a large setup of tertiary care hospitals. The clinical training provides a better chance of learning and practicing the skills in the field hence, prepares future therapists to play an important role in the improvement of healthcare quality in society. Students of 3rd, 4th & 5th Professionals complete their clinical training in physical therapy at all three sites of Dr. Ziauddin Hospital and the Primary Health Care Centre (PHC), Sikandara-bad for community services. In addition, Ziauddin College of Rehabilitation Sciences (ZCRS) started their clinical collaboration with other major healthcare institutions like Dow University of Health Sciences - OJHA campus (DUHS), Abbasi Shaheed Hospital, National Institute of Child Health (NICH), National Institute of Cardio-Vascular Diseases (NICVD), Sindh Govt. Hospital, Tabba Heart Institute, Al-Umeed Rehabilitation Association (AURA), Rabia Moon Trust, and Association for Children with Emotional and Learning Problems (ACELP).

SEMESTER SUMMARY

a. Basic Health Sciences

- Anatomy
- Physiology
- Exercise Physiology
- Biochemistry
- Pharmacology

- Microbiology & Pathology
- Movement Sciences
- Biomechanics & Ergonomics
- Medical Physics
- Molecular Biology & Genetics

b. Clinical Sciences

- Medicine
- Surgery
- Radiology & Diagnostic Imaging
- Emergency Procedures & Primary Care in Physical Therapy

c. Physical Rehabilitation Sciences

- Manual Therapy
- Physical Agents and Electrotherapy
- Musculo-skeletal Physical Therapy
- Health & Wellness
- Neurological Physical Therapy
- Integumentary Physical Therapy
- Therapeutic Exercises
- Cardiopulmonary Physical Therapy
- Gerontology and Geriatric Physical Therapy
- Paediatric Physical Therapy
- Evidence Based Practice
- Clinical Decision Making and Differential Diagnosis
- Sports Physical Therapy
- Prosthetics & Orthotics
- Obstetrics & Gynaecological Physical Therapy

d. Social Sciences and Research

- Sociology
- Human Growth & Development
- Community Medicine & Rehabilitation
- Scientific Inquiry & Research Methodology
- Ethics & Administration
- Bio-Statistics
- Research Synopsis & Project

e. Compulsory Subjects:

- English
- Pakistan Studies
- Introduction to Computers
- Islamic Studies/Ethics

STUDENT ASSESSMENT EXAMINATION POLICY

- MCQs
 - Short answer written examination
 - Viva, OSPE/OSCE
 - Group or individual presentation/ assignments
 - Student log books or written reports
- Students are continuously assessed during the semester by the aforementioned methods. This carries 30% weightage for each course.

ADMISSION POLICY

Doctor of Physical Therapy is a five-year semester based degree programme which is open to all science stream (Pre-Medical) students with minimum 50% marks from an accredited institution in Pakistan or equivalent to international standards.

Therefore, candidates with O/A Levels must acquire equivalency before taking admission. All candidates are selected on merit, according to the following criteria:

- SSC Marks
- HSC Marks
- Entrance Test Marks
- Interview

Applications are invited to both Clifton and North Site. (The final allocation of the site will be at the discretion of Ziauddin University depending upon the number of applications.)

FEE STRUCTURE

Doctor of Physical Therapy (North & Clifton)

Admission Fee:	Rs. 35,000/-
Semester Tuition Fee:	Rs. 95,000/-
Security Deposit:	Rs. 25,000/-
Student Fund:	Rs. 2,000/-
Examination Fee/Semester:	Rs. 8,800/-
Advance Income Tax @ 5% under section(2361):	Rs. 7,040/-
Total:	Rs. 172,840/-

Doctor of Physical Therapy (Link Road)

Admission Fee:	Rs. 35,000/-
Semester Tuition Fee:	Rs. 95,000/-
Security Deposit:	Rs. 25,000/-

Student Fund:	Rs. 2,000/-
Examination Fee/Semester:	Rs. 8,800/-
Examination Fee/Semester:	Rs. 30,000/-
Advance Income Tax @ 5% under section(2361):	Rs. 8,540/-
Total:	Rs. 172,840/-

Note: Any additional taxes imposed by the government will be the liability of the students/parents/guardian. The University reserves the right to increase the fees if required according to the recommendation of the Governing Body.

Advance fees to be paid semester-wise. All dues need to be cleared within two weeks of commencement of the academic year. 2% surcharge

CAREER OPPORTUNITIES

The Doctor of Physical Therapy Programme is popular both nationally and internationally. The incorporation of research and evidence based practice in the curriculum has opened doors for autonomous practice.



ACCELERATED DOCTOR OF PHYSICAL THERAPY

Accelerated Doctor of Physical Therapy is one-year semester based degree programme for professional physical therapists, keen to upgrade their degree for their professional growth.

LEARNING AND TEACHING STRATEGIES

Both national and international qualified teaching faculty promote better understanding through:

- Presentation/Assignment/Seminar
- Tutorials
- Projects

SEMESTER SUMMARY

• Semester - I

- Anatomy
- Physiology
- Microbiology
- Introduction to Computers
- Evidence Based Clinical Decision Making
- Human Growth and Development/Behavioural Sciences
- Synopsis Submission

• Semester - II

- Emergency Procedures And Radiology
- Health and wellness/Ergonomics
- Peads/Women Health/Geriatric Rehabilitation
- Manual Therapy/Integumentary Rehabilitation
- Genetics
- Teaching Methodologies and Professional Practices
- Research Project

STUDENT ASSESSMENT EXAMINATION POLICY

- MCQs
- Short answer written examination
- Viva
- Group or individual presentation/ assignments

Students are continuously assessed during the semester by the above methods. This carries

30% weightage for each course.

ADMISSION POLICY

Physical therapy graduates who have completed their 4-year BPT/BSPT or equivalent from an accredited institution in Pakistan or equivalent to international standards. All candidates are selected on merit, fulfilling the following criteria:

- BPT/BSPT/or equivalent
- Interviews of short listed candidates

The course is offered at the North Location.

FEE STRUCTURE

Application Fee:	Rs. 5,000/-
Admission Fee:	Rs. 25,000/-
Security Deposit:	Rs. 10,000/-
Student Fund:	Rs. 1,000/-
Academic Transport:	N/A
Tuition Fee (per semester)	Rs. 50,000/-
Examination Fee(per semester):	Rs. 8,500/-
At the time of Admission:	Rs. 94,500/-
Programme Fee:	Rs.153,000/-

Note: Any additional taxes imposed by the government will be the liability of the students/parents/guardian.

The University reserves the right to increase the fees if required according to the recommendation of the Governing Body.

Advance fees to be paid semester-wise. All dues need to be cleared within two weeks of commencement of the academic year. 2% surcharge per month will be levied on outstanding fees after the due date.

CAREER OPPORTUNITIES

Professional physical therapists will be able to deliver evidence based physical therapy treatment and evolve with changes in the health-care system.

MS/MPHIL IN PHYSICAL THERAPY

ZCRS is aiming to create a dynamic research community, enabling physical therapists to fully equip themselves with the skills they require to excel in this field through Higher Degree programmes such as MPhil. ZCRS is offering MPhil in Rehabilitation Sciences in the following Specialities:

- Musculoskeletal Rehabilitation
- Cardiopulmonary Rehabilitation
- Neuromuscular Rehabilitation
- Exercise Physiology and Sports Sciences
- Women Health and Pediatric Rehabilitation
- Applied Biomechanics and Anatomy

LEARNING AND TEACHING STRATEGIES

Both national and international qualified teaching faculty promote better understanding through:

- Presentation/Assignment/Seminar
- Tutorials
- Skill based labs
- Projects
- Clinical Practice (Supervised/Independent)

SEMESTER SUMMARY

Semester I

- Applied Biomechanics
- Research, Biostatistics and Critical Appraisal in Physical Therapy
- Neuromuscular Rehabilitation/Histology & Micro Techniques
- Exercise Physiology/General & Systemic Embryology

Semester II

- Cardiopulmonary Rehabilitation/Gross Anatomy I with Basic Medical Imaging – I
- Women Health and Paediatric Rehabilitation/- Gross Anatomy II with Basic Medical Imaging –II

- Musculoskeletal Rehabilitation/Advance Biomechanics
- Teaching Professional and Scientific Practice

Semester III

Sub specialty Courses (6 Options)

Semester IV

Research Thesis

STUDENT ASSESSMENT EXAMINATION POLICY

- MCQs
 - Viva
 - Short answer written examination
 - Directly Observed Clinical Skills
 - Group or individual presentation/assignments
 - Semester Examination
- Students are continuously assessed during the semester by the above methods. This carries 40% weightage for each course.

ADMISSION POLICY

Physical therapy graduates who have completed their 4-year BPT or 5-year of DPT or equivalent from an accredited institution in Pakistan or equivalent to international standards. All candidates are selected on merit, fulfilling the following criteria:

- DPT/BPT/or equivalent
- Interviews of short listed candidates
- GAT General (50% cumulative score)

Applications are invited to both Clifton and North locations. (The final allocation of the site will be at the discretion of Ziauddin University depending upon the number of applications.)

FEE STRUCTURE

Security Deposit:	Rs. 25,000/-
Admission Fees:	Rs. 25,000/-
Student Fund:	Rs. 3,000/-
Tuition Fee (per semester):	Rs. 50,000/-
Examination Fee (per semester):	Rs. 9,500/-

Note: Any additional taxes imposed by the government will be the liability of the students/parents/guardian.

The University reserves the right to increase the fees if required according to the recommendation of the Governing Body.

Advance fees to be paid semester-wise. All dues need to be cleared within two weeks of commencement of the academic year. 2% surcharge per month will be levied on outstanding fees after the due date.

CAREER OPPORTUNITIES

A degree in Physical Therapy offers a challenging, satisfying, and a rewarding career to the individual whose interest lies in health services to the public, business, scientific research, university teaching, and hospital practice. Physical therapists can practice independently at private clinics as well as opt for job opportunities that are available in the tertiary and primary healthcare centers, NGOs, teaching and research institutions both nationally and internationally.



DOCTOR OF OCCUPATIONAL THERAPY

Doctor of Occupational Therapy is a five-year semester based degree programme.

LEARNING AND TEACHING STRATEGIES

Both National and International qualified teaching faculty is involved to promote better understanding through:

- Presentation/Assignment/Seminar
- Tutorials
- Skills based labs
- Projects
- Clinical Practice (Supervised/Independent)

CLINICAL TRAINING

Students of Doctor of Occupational Therapy have an exclusive advantage to be a part of an organisation with a large setup of tertiary care hospitals. The clinical training provides a better chance of learning and practicing the skills in the field hence, prepares future therapists to play an important role in the improvement of healthcare quality in the society. Students of 3rd, 4th & 5th professionals complete their clinical training in Occupation Therapy at all three sites of Dr. Ziauddin Hospital. In addition, Ziauddin College of Rehabilitation Sciences (ZCRS) started their clinical collaboration with other major healthcare institutions like Dow University of Health Sciences - OJHA campus (DUHS), National Institute of Child Health (NICH), Abbasi Shaheed Hospital, National Institute of Child Health (NICH), National Institute of Cardio Vascular Diseases (NICVD), Sindh Govt. Hospital, Tabba Heart Institute, Al-Umeed Rehabilitation Association (AURA), Rabia Moon Trust, Indus Hospital and Association for Children with Emotional and Learning Problems (ACELP).

SEMESTER SUMMARY

A. BASIC HEALTH SCIENCES:

- Anatomy
- Physiology
- Biochemistry and Genetics
- Pharmacology
- Rehabilitation Medicine
- Pathology

- Psychology
- Biomechanics & Ergonomics

B. CLINICAL SCIENCES :

- Medical Conditions
- Surgical Conditions
- Development & Abnormal Psychology
- Emergency Procedure

C. OCCUPATIONAL REHAB SCIENCES:

- Introduction to Occupational Therapy
- Occupational Therapy Assessment and Evaluation
- Occupational Therapy Intervention
- Applied Pediatrics for Occupational Therapy
- Applied Geriatric for Occupational Therapy
- Therapeutic Activities and their Techniques
- Occupational Therapy in Acute Care
- Sensory Integration
- Contemporary Issues in Occupational Therapy
- Community Based Rehabilitation and Teaching Methodology
- Assistive Technology
- Prosthetics and Orthotics

D. SOCIAL SCIENCES AND RESEARCH:

- Sociology
- Professional Practice & Teaching Methodology
- Human Growth & Development
- Research Methodology
- Biostatistics

E. COMPULSORY SUBJECTS:

- Islamiat/Moral Ethics
- Pakistan Studies
- Introduction to Computer
- English

ADMISSION POLICY

The Doctor of Occupational Therapy is a five-year semester based degree programme which is open to all science stream (Pre-Medical) students with minimum 50% marks from an accredited Institution in Pakistan or equivalent to international standards.

Therefore, candidates with O/A levels must

acquire equivalency before taking admission. All candidates are selected on merit, according to the following criteria:

- SSC Marks
- Entrance Test Marks
- HSC Marks
- Interview

The course is offered at the Clifton location.

FEE STRUCTURE

Application Fee:	Rs. 5,000/-
Admission Fee:	Rs. 25,000/-
Security Deposit:	Rs. 10,000/-
Student Fund:	Rs. 1,000/-
Academic Transport:	N/A
Tuition Fee (per semester):	Rs. 50,000/-
Examination Fee (per semester):	Rs. 7,600/-
At the time of Admission:	Rs. 93,600/-
Programme Fee:	Rs. 93,600/-

Note: Any additional taxes imposed by the government will be the liability of the students/parents/guardian.

The University reserves the right to increase the fees if required according to the recommendation of the Governing Body.

Advance fees to be paid semester-wise. All dues need to be cleared within two weeks of commencement of the academic year. 2% surcharge per month will be levied on outstanding fees after the due date.

CAREER OPPORTUNITIES

The Doctor of Occupational Therapy Programme is popular both nationally and internationally. The incorporation of research and evidence based practice in the curriculum has opened doors for autonomous practice.



ACCELERATED DOCTOR OF OCCUPATIONAL THERAPY

Accelerated Doctor of Occupational Therapy is a one-year semester based degree programme for professional occupational therapists, keen to upgrade their degrees for their professional growth.

LEARNING AND TEACHING STRATEGIES

Both national and international qualified teaching faculty promote better understanding through:

- Presentation/Assignment/Seminar
- Tutorials
- Projects

SEMESTER SUMMARY

• Semester - I

- Introduction to Computers
- Biomechanics and Ergonomics
- Professional Practices and teaching methodology
- Islamic studies/Pakistan studies
- Biostatistics
- English

• Semester - II

- Health and Wellness in Occupational Therapy
- Applied Pediatrics and Sensory Integration
- Community Based Rehabilitation and Contemporary Issues
- Pathology and Microbiology
- Occupational Therapy in Acute Care
- Assistive Technology and Rehabilitative Environment
- Research

STUDENT ASSESSMENT EXAMINATION POLICY

- MCQs
- Short answer written examination
- Viva
- Group or individual presentation/assignments

Students are continuously assessed during the semester by the above methods. This carries 30% weightage for each course.

ADMISSION POLICY

Occupational therapy graduates who have completed their 4-year BOT/BSOT or equivalent from an accredited institution in Pakistan or equivalent to international standards. All candidates are selected on merit, fulfilling the following criteria:

- BOT/BSOT/or equivalent
- Interviews of short listed candidates

FEE STRUCTURE

Application Fee:	Rs. 5,000/-
Admission Fee:	Rs. 25,000/-
Security Deposit:	Rs. 10,000/-
Student Fund:	Rs. 1,000/-
Academic Transport:	N/A
Tuition Fee (per semester):	Rs. 50,000/-
Examination Fee (per semester):	Rs. 7,600/-
At the time of Admission:	Rs. 93,600/-
Programme Fee:	Rs. 151,200/-

Note: Any additional taxes imposed by the government will be the liability of the students/parents/guardian.

The University reserves the right to increase the fees if required according to the recommendation of the Governing Body.

Advance fees to be paid semester-wise. All dues need to be cleared within two weeks of commencement of the academic year. 2% surcharge per month will be levied on outstanding fees after the due date.

CAREER OPPORTUNITIES

Professional occupational therapists will be able to deliver evidence based occupational therapy treatment and evolve with changes in healthcare system.

BACHELOR IN PHYSICAL EDUCATION, HEALTH AND SPORTS SCIENCES

Bachelors in Physical Education, Health and Sports Sciences is a four – year semester based degree programme. In the era of educational revolution main objective of the BS 4-Years programme in Physical Education, Health & Sports Sciences is to prepare graduates for a deep knowledge of the subjects as well as the ability to analyse a given situation and draw out a conclusion. This knowledge is then brought together during the study of training theory, that is, the science of how we can train most efficiently in specific sports and achieve an ideal balance between exercise, rest and diet. The primary aim of the programme is to produce broad base graduates able to face challenges of the modern world with a focus on physical activity, health and performance.

LEARNING AND TEACHING STRATEGIES

Both national and international qualified teaching faculty promotes better understanding through:

- Presentation/Assignment/Seminar
- Tutorials
- Skill based labs
- Sports Training
- Projects
- Supervised Coaching and Training

SUPERVISED COACHING AND TRAINING

Students of Ziauddin College of Rehabilitation Sciences have an exclusive advantage to be a part of an organisation with a large setup of a Sports Complex. The Sports training provides a better chance of learning and practicing the skills in the field, hence prepares students to play an important role in training and prepares athletes for upcoming competitions and seasons by polishing their physical skills and maximising their performance. The professional use proven training methods and innovative workouts to fit the needs of individual athletes. Students in the 3rd and 4th professional years will be going to different sports training academies and clubs to enhance their capabilities.

mies and clubs to enhance their capabilities.

SEMESTER SUMMARY

A. Basic Sciences

- Physiology
- Kinesiology
- Human Anatomy
- Anatomy
- Fundamental Applications of Physics
- Biochemistry
- Biomechanics & Ergonomics

B. Compulsory Subjects

- English
- Pakistan Studies
- Islamic Studies/Ethics
- Introduction to Computer

C. Sports Sciences

- Philosophical Basis of Health, Physical Education & Sports Sciences
- Exercise Physiology
- Test Measurement & Evaluation in Physical Education & Sports Sciences
- Psychology
- Wellness & Fitness
- Games
- Athletics
- Gymnastics
- Science of Sports Training
- Introduction to Modern Technologies
- Sports Nutrition
- Role of Media in Sports
- Planning Sports Facilities
- Talent Identification in Sports
- Adapted Physical Education
- Specialization in one Group of Track and Fields
- Scientific Sports Coaching
- Specialisation in One Game
- Sports Medicine
- Common Sports Injuries, Treatment & Rehabilitation
- Physical Education for Special Population
- Administration and Management in Sports

D. Social Sciences & Research

- Statistics
- Biostatistics
- Sociology
- Environmental Sciences
- Research Methodology in Physical Education
- Research Proposal
- Curriculum Development in Physical Education (Professional Practices & Teaching Methodologies)
- Research Thesis/Research Project

STUDENT ASSESSMENT EXAMINATION POLICY

- MCQs
- Short answer written examination
- Viva, OSPE/OSCE
- Group or individual presentation/ assignments
- Student log books or written reports

Students are continuously assessed during the semester by the above methods. This carries 30% weightage for each course.

ADMISSION POLICY

Physical Education, Health and Sports Sciences is a Four-Year semester based degree programme which is open to all science stream F.S.C (Pre-Medical/Pre Engineering), F.A, I.Com students with minimum 50% marks from an accredited institution in Pakistan or equivalent to international standards. Therefore, candidates with O/A Levels must acquire equivalency before taking admission. All candidates are selected on merit, according to the following criteria:

- SSC Marks
- HSC Marks
- Entrance Test Marks
- Interview

The course is offered at the Clifton Location.

FEE STRUCTURE

Application Fee:	Rs. 5,000/-
Admission Fee:	Rs. 25,000/-
Security Deposit:	Rs. 25,000/-
Student Fund:	Rs. 3,000/-
Academic Transport:	N/A
Tuition Fee:	Rs. 150,000/-

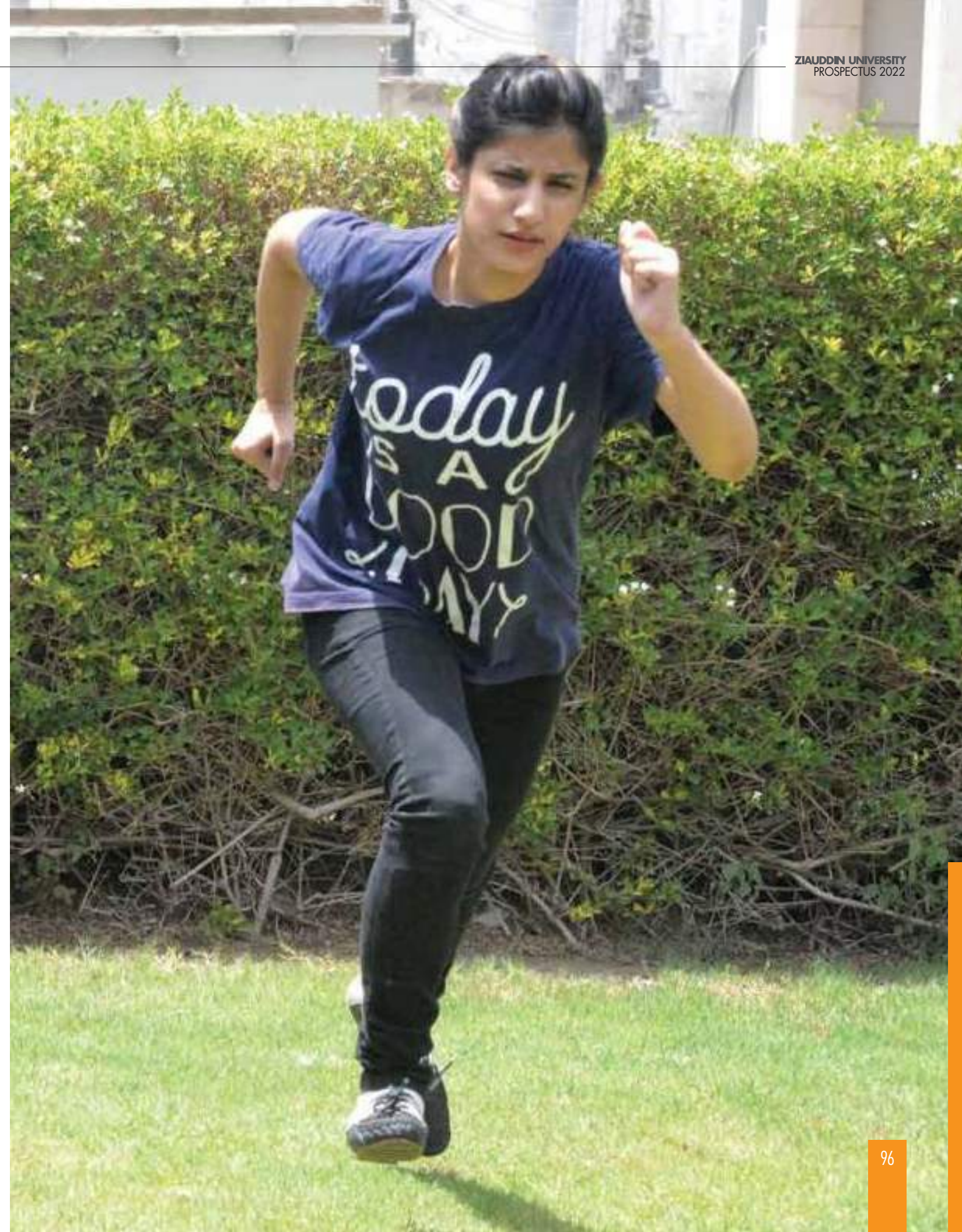
Note: Any additional taxes imposed by the government will be the liability of the students/parents/guardian.

The University reserves the right to increase the fees if required according to the recommendation of the Governing Body.

Advance fees to be paid semester-wise. All dues need to be cleared within two weeks of commencement of the academic year. 2% surcharge per month will be levied on outstanding fees after the due date.

CAREER OPPORTUNITIES

Students graduating from the Physical Education, Health & Sports Sciences will be able to seek employment as an exercise specialist, fitness and wellness coordinator, sport performance researcher, and strength and conditioning specialist, as well as enter professional graduate programmes in exercise sciences and other fields, such as biomechanics, exercise physiology, and motor behaviour.



ASSOCIATE DEGREE IN PHYSICAL EDUCATION, HEALTH AND SPORTS SCIENCES

Associate Degree in Physical Education, Health and Sports Sciences is a two – year semester based degree programme. In the era of educational revolution the main objective of the BS 2-Years programme in Physical Education, Health & Sports Sciences is to prepare graduates to have knowledge of these subjects.

LEARNING AND TEACHING STRATEGIES

Both national and international qualified teaching faculty promotes better understanding through:

- Presentation/Assignment/Seminar
- Tutorials
- Skill based labs
- Sports Training
- Projects
- Supervised Coaching and Training

SUPERVISED COACHING AND TRAINING

Students of Ziauddin College of Rehabilitation Sciences have an exclusive advantage to be a part of an organisation with a large setup of Sports Complex. The Sports training provides a better chance of learning and practicing the skills in the field, hence prepares students to play an important role in training and prepares athletes for upcoming competitions and seasons by polishing their physical skills.

SEMESTER SUMMARY

A. Basic Sciences

- Physiology
- Kinesiology
- Human Anatomy
- Anatomy
- Fundamental Applications of Physics
- Biochemistry
- Biomechanics & Ergonomics

B. Compulsory Subjects

- English
- Pakistan Studies
- Islamic Studies/Ethics
- Introduction to Computer

C. Sports Sciences

- Philosophical Basis of Health, Physical Education & Sports Sciences
- Exercise Physiology
- Test Measurement & Evaluation in Physical Education & Sports Sciences
- Psychology
- Wellness & Fitness
- Games
- Athletics
- Gymnastics
- Administration and Management in Sports

D. Social Sciences & Research

- Statistics
- Biostatistics
- Sociology
- Environmental Sciences

STUDENT ASSESSMENT EXAMINATION POLICY

- MCQs
- Short answer written examination
- Viva, OSPE/OSCE
- Group or individual presentation/ assignments
- Student log books or written reports

Students are continuously assessed during semester by above methods. This carries 30% weightage for each course.

ADMISSION POLICY

Physical Education, Health and Sports Sciences is a Four-Year semester based degree programme which is open to all science stream F.S.C (Pre-Medical/Pre Engendering), F.A, I.Com students with minimum 50% marks from an accredited institution in Pakistan or equivalent to international standards. Therefore, candidates with O/A Levels must acquire equivalency before taking admission. All candidates are selected on merit, according to the following criteria:

- | | |
|--------------|------------------------|
| a. SSC Marks | c. Entrance Test Marks |
| b. HSC Marks | d. Interview |

The course is offered at the Clifton Site.

FEE STRUCTURE

Application Fee:	Rs. 25,000/-
Semester Tuition Fee:	Rs. 50,000/-
Security Deposit:	Rs. 25,000/-
Student Fund/Semester:	Rs. 2,000/-
Examination Fee/Semester:	Rs. 5500/-
Total:	Rs. 107,500/-

Payment of Fees: On receiving offer of admission from University, students are expected to deposit the required (non-refundable) admission and tuition fees within the due date mentioned in the offer letter. If the required fee is not submitted within the specified date the admission will stand cancelled.

Note: Any additional taxes imposed by the government will be the liability of the students/parents/guardian.

The University reserves the right to increase the fees if required according to the recommendation of the Governing Body.

Advance fees to be paid semester-wise. All dues need to be cleared within two weeks of commencement of the academic year. 2% surcharge per month will be levied on outstanding fees after the due date.

CAREER OPPORTUNITIES

Students graduating from the Physical Education, Health & Sports Sciences will be able to seek employment as an exercise specialist, fitness and wellness coordinator.

DIPLOMA IN FITNESS & TRAINING

Diploma in fitness and training is a 6 months fitness and training programme for trainers to provide competent services as physical training instructor that encourages professionalism in the field of exercise and training. It helps enable physical trainers to understand general principles of exercise, training and protocols of strengthening and endurance exercise.

ADMISSION POLICY

Candidates with minimum of 12 years education is eligible for admission in diploma in fitness and training programme.

LEARNING AND TEACHING STRATEGIES

Both national and international qualified teaching faculty promotes better understanding through:

- Presentation/Assignment/Seminar
- Tutorials
- Practical sessions

DIPLOMA SUMMARY

- Anatomy of Sports and Exercise
- Biomechanics and Kinesiology
- Ethical and Legal aspects of Training
- Fitness and Exercise
- Training and Training Method
- Sports Nutrition

STUDENT ASSESSMENT EXAMINATION POLICY

- Group or individual presentation/ assignments.
- True/False
- VIVA/Practical
- The examination shall comprise of true and false and the practical evaluation of the students have a minimum passing criteria of 60%
- Minimum of 80% attendance is mandatory for the students. The student must complete all the practical and other work as prescribed in the syllabus.

AWARD OF DIPLOMA

- After the completion of the prescribed

course by the College, candidates will be given a diploma certificate in the fitness training programme by Ziauddin College of Rehabilitation Sciences, Ziauddin University.

FEE STRUCTURE

Application Fee:	Rs. 2,000/-
Admission Fee:	Rs. 6,000/-

Payment of Fees: On receiving offer of admission from University, students are expected to deposit the required (non-refundable) admission and tuition fees within the due date mentioned in the offer letter. If the required fee is not submitted within the specified date the admission will stand cancelled.

Note: Any additional taxes imposed by the government will be the liability of the students/parents/guardian.

The University reserves the right to increase the fees if required according to the recommendation of the Governing Body.

Advance fees to be paid semester-wise. All dues need to be cleared within two weeks of commencement of the academic year. 2% surcharge per month will be levied on outstanding fees after the due date.

CAREER OPPORTUNITIES

The Diploma in fitness and training programme provides guidance of the fundamental basis of training prescribed to clients rendering their needs. It helps fitness trainers to design and prescribe the exercise based fitness management protocol in accordance with the guideline of the American college of sport medicine.



FACULTY MEMBERS

PRINCIPAL , ASSOCIATE PROFESSOR

MS. SUMAIRA IMRAN FAROOQUI
BSPT, MPA, DPT (D), PhD (SCHOLAR)

ASSOCIATE PROFESSOR

SYED ABID MEHDI KAZMI
BSPT, MPT, DPT (D), PhD (SCHOLAR)

ASSISTANT PROFESSOR, HOD, PHYSICAL EDUCATION HEALTH & SPORTS SCIENCES

MR. M. USMAN KHAN
BPT, PPDPT, MSPT

HOD, OCCUPATIONAL THERAPY

MS. NEELUM ZEHRA BUKHARI
BSOT, PGD HEALTH CARE MANAGEMENT, ADOT

ASSISTANT PROFESSOR, MPHIL COORDINATOR

MS. AMNA AAMIR KHAN
BSPT, MSPT/MPHIL, ADPT, PhD (SCHOLAR)

ASSISTANT PROFESSOR, DPT COORDINATOR (CLIFTON)

MR. NABEEL BAIG
BPT, MSCPT, ADPT

ASSISTANT PROFESSOR, DPT COORDINATOR (NORTH)

MS. QURAT-UL-AIN ADNAN
BSPT, MSPT, ADPT

ASSISTANT PROFESSORS

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BSPT, MPHIL, ADPT
MR. ALI FARHAD
BSPT, ADPT, LLB, LLM, MPHIL in PT
MS. ASMA HAMEED
BSPT, MSCPT, DPT (D)
MS. BEENISH ZAFAR
BSPT, MBA, ADPT
MS. SAIMA ALI
BSPT, MSCPT, DPT(D)
MS. ZARA ZULFIQAR
BSPT, MSPT, DPT(D)

SR. LECTURER, ADOT COORDINATOR

MR. SHAHRUKH ABBASI
BPT, ADPT, MPHIL (ENROLLED)

SR. LECTURER, DFT COORDINATOR

MR. HAKIM ULLAH
BSPT, ADPT

SR. LECTURERS

MR. AHAD HASAN
BSPT, DPT (D), MSPT
MS. ASIA RIZWAN
M.A IN ENG LITERATURE, LINGUISTICS, TEFL
MS. FATIMA KHAN
BS OT, MS PSYCHOLOGY
MS. HINA ASIF
B.SC (Hons), M.SC
MS. RUQUAIYA NASIR SHAIKH
BSPT, ADPT, MSPT
MS. SARAH MASOOD
BSPT, DPT(D), MPHIL(ENROLLED)
MS. SUMAIRA AFZAL
B.SC (Hons), M.SC PHYSIOLOGY
MS. YUSRA ARSHAD
B.SC (Hons), M.SC PHYSIOLOGY
MS. ZULEKHA SALEEM
DPT, MPHIL (ENROLLED)

LECTURERS

MS. AL WARDAH
DPT, MSCPT (ENROLLED)
MS. AREEBA KHAN
DPT
MS. AMAS NADIR
B.SC (HONS), M.SC PHYSIOLOGY
MS. BATOOL HASSAN
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MS. KIRAN YAMEEN
DPT
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DPT, MPHIL (ENROLLED)

MR. MUHAMMAD AHMED
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MR. MUHAMMAD ATHER HASHMI
DPT, MPHIL (ENROLLED)
MS. MUNIRA ALI MUKADAM
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MS. SANA MEHMOOD
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MR. SHEIKH MUHAMMAD MUNIR
DPT
MR. TAIMOOR KHAN
DPT, MSCT (ENROLLED)



FACULTY OF NURSING & MIDWIFERY

KEY INFORMATION

Dean, Faculty of Nursing & Midwifery
Dr. Pamela Marshall

CONTACT INFORMATION

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PROGRAMMES OFFERED

DEGREE PROGRAMMES

MASTER OF SCIENCE IN NURSING (2 YRS)
POST RN BSN (2 YRS)
BACHELOR OF SCIENCE IN NURSING (4 YRS)

DIPLOMA PROGRAMMES

DIPLOMA IN NURSE MIDWIFERY (01 YEAR)
PARAMEDICAL TECHNICIAN COURSE (01 YEAR)
CERTIFIED NURSING ASSISTANT (02 YEARS)



My journey in Bachelors of Science in Nursing from the Ziauddin University College of Nursing was very eventful. At first when I joined College of Nursing on the 5th of Oct, 2015, I was not familiar to the nursing profession. But as time went by, I was very pleased to learn about the tasks that we do as nurses for humanity. To be a Nurse is not less than a blessing. Furthermore, learning depends on certain key factors such as teachers, colleagues, the environment etc. and by God's blessing I was blessed by great teachers throughout my 4 year journey in ZUCON. In addition to this, my colleagues proved to be highly cooperative in every situation and stayed by my side in this long journey. I was truly blessed with a great bunch of people. Another key factor I would like to mention is the educational facilities (Library, Skills Lab, and Computer Lab) provided in ZUCON, which helped me fulfill my tasks on time and hence it contributed to my success. Lastly, the most important part of my journey was the everlasting support and prayers of my parents.

ROJER MASIH
BScN

INTRODUCTION

Ziauddin University College of Nursing was the first academic unit of Ziauddin University. It was established and recognised by the Pakistan Nursing Council in 1986. In 2009, the School of Nursing was upgraded to the level of College. The college offers various programmes at undergraduate and graduate level to students coming from varied ethnic and socio-economic backgrounds of Pakistan. The reputation of Ziauddin College of Nursing has grown nationally and internationally owing to the competency, critical thinking and knowledge of its alumni.

VISION

To be a prestigious institution of higher education recognised for its academic excellence and research, nurturing ethical and intellectual curiosity in the recipients of higher education and positively contributing towards the development of a knowledge-based society in Pakistan which can fully understand the global challenges in the rapidly changing political, economic and social paradigm.

MISSION

Ziauddin College of Nursing is committed to the development of human capacities through the discovery and dissemination of knowledge, and application through service. It aims to prepare its graduates for providing competent quality care to the populations at all levels of healthcare.

To advance this mission, Ziauddin University College of Nursing aims to:

- Provide high quality client care based on strong knowledge in practice through education and research.
- Respond to the identified needs for nursing and midwifery in Pakistan
- Benefit the university, profession and public through active individual and group involvement in service activities.
- Develop collaboration and networking with other local, national and international institutions
- Prioritise teaching and research, which will inform and underpin intellectual innovation and change.
- Foster and develop leadership capacity through its education and research programme.
- Engage in knowledge networking and emerging technologies related to nursing sciences.

AIMS

Ziauddin College of Nursing aims to prepare nurses with advance knowledge, skills and attitude that are needed to practice efficient and skillful nursing at a national and international level. Hence, upon graduation, students are able to demonstrate

responsibility and accountability to the nursing profession by:

- Adhering to established patterns of professional practices, which support legal, religious and ethical tenant
- Utilising effective critical thinking and problem solving skills in caring for the individuals, families and communities
- Integrate scholarly skills and the use of scientific methods in critiquing, and applying existing nursing theories and research findings in selected practice settings
- Applying effective verbal and written communications in interpersonal and professional interactions with peers, patients, families and other professionals
- Demonstrating a high degree of competence in the use of available resources to support the identified needs of individuals, families and communities
- Developing leadership skills to promote development of the nursing profession

EDUCATIONAL OBJECTIVES

- Maintain high quality programmes of learning that prepare nursing students to meet the healthcare needs of individuals, families and the communities we serve
- Provide effective and efficient support for learning and teaching
- Maintain effective systems of ongoing assessment and evaluation to assure high-quality programmes
- Engage in the discovery of knowledge through scholarly work, teaching and service to add to the body of nursing science
- Provide an effective infrastructure for research to enhance faculty and student development
- Demonstrate effective critical thinking skills in providing care to individuals, families and communities by using evidence based literature and problem solving skills

PROGRAMMES OFFERED

Ziauddin College of Nursing currently offers the following programmes:

DEGREE PROGRAMMES

- Master of Science in Nursing (2 Years)
- Post RN BSN (2 Years)
- Bachelor of Science in Nursing (4 Years)

DIPLOMA PROGRAMMES

- Diploma in Nurse Midwifery (1 Year)

MASTER OF SCIENCE IN NURSING (MSN)

Master of Science in Nursing is a two year postgraduate degree programme that aims to prepare nurses with specialty knowledge and skills to navigate in an area of nursing expertise and to pursue advanced roles in areas such as specialised clinical practice, administration, and education. While the benefits of an MSN degree includes increased career opportunities and income, it's an accomplishment that requires significant time, effort, and expense.

PROGRAMME OBJECTIVES

- Apply knowledge of nursing concepts, theories and frameworks to the advanced nursing roles.
- Utilise and disseminate research in nursing practice.
- Provide leadership to bring change in healthcare.
- Utilise knowledge and skills to provide advanced standard quality care to the clients and their families.
- Demonstrate commitment to the professional growth and lifelong learning.
- Demonstrate effective nurses' role in healthcare team.
- Critically evaluate various educational programmes in nursing
- Demonstrate leadership qualities and function effectively as a nurse educator and manager.

LEARNING AND TEACHING STRATEGIES

Various learning and teaching strategies are used at College of Nursing which includes: interactive lectures, small group discussions, review of articles, presentation (individual/pair), role-play, field visit, problem solving exercises, self-study, brain storming, problem-based tutorials, computer-based language learning and clinical integration.

SEMESTER SUMMARY

Semester I

The first semester of MSN includes courses such as Ethical and theoretical concepts in Nursing, Principles and Methods of Epidemiology, Fundamentals of Biostatistics and Research Methodology.

The course of Nursing Theory provides an opportunity to be able to link theory and practice in nursing. The students also integrate the ethical-concepts, theories, and values applied in ethical decision-making that are related to a variety of ethical dilemmas in Nursing Practice and Healthcare.

Introduction to Biostatistics provides an introduction to selected important topics in biostatistical

concepts and reasoning through lectures, home assignments and quizzes. This course represents an introduction to basic statistical principles & their application to research in health sciences. In addition rules governing use of descriptive & inferential statistics will also be explored.

Epidemiology is the study of patterns and determinants of diseases in populations. It constitutes a basic science for public health and biomedical sciences and its influence can be felt daily through the presentation of data by the government, academic, and industry sources. The goal of this course is to present an introduction to basic principles and methods of epidemiology. It also focuses on application of epidemiology in the areas of public health. Issues in epidemiological inference and the assessment of causal relationships from epidemiological studies will be discussed, introducing the issues of bias and confounding.

The course of Research Methodology is designed to stimulate scholarly inquiry. This course focuses on both qualitative and quantitative research approaches. Various research methodologies within both forms data analysis which will be discussed along with application. Students will critically analyse the research literature, develop analytical skills in the process and identify gaps in knowledge needed for evidence based practice in their area of focus.

Semester II

The first semester of MSN includes courses such as: Advance Concepts in Pharmacology, Advance Concepts in Health Assessment, Advance Concepts in Pathophysiology and Advance Concepts in Clinical Practices.

Advance Concepts in Health Assessment focuses on the adult assessment, reasoning, and decision making skills required by the advanced practice nurse in order to formulate a comprehensive health data base for adult clients and develop accurate diagnoses on which to base plans of care.

Advance Concepts in Pathophysiology provides an understanding of advanced knowledge base of pathophysiologic processes underlying human illness. A brief review of normal physiology and anatomy will be included. Emphasis will be on the pathophysiology of selected disorders and diseases associated with altered health states in adults. Laboratory and diagnostic data, as well as client assessment will be integrated.

Advance Concepts in Pharmacology will provide a

basis for understanding the use of pharmacotherapeutic agents. Content will be at a level appropriate to facilitate critical thinking for MSN students. Content will be organised around body systems and the main categories of drugs that impact the specific system. Topic will include information on therapeutics adverse effects and indication for use and drug interactions. Student will be expected to integrate knowledge of categories of drugs as it related by system to the development of case studies for pathophysiology.

Advance Concepts in Clinical Practices will focus on development of knowledge for clinical decision-making in the assessment, diagnosis and management of health problems across the life span. Topics will include health promotion and maintenance, disease prevention, diagnosis and treatment of common acute and chronic illnesses in adults.

Semester III

The third semester includes the courses such as; Nursing Leadership & Management, Public Health, Educational Design.

The aim of Public Health Nursing is prevention of illness, disability and disease, early identification of risk factors, and promotion of optimal health. Public health and nursing models will be used to plan for the health of aggregates and communities. Formal and informal community systems and healthcare delivery systems will be described and analysed.

The course of Educational Design will help to explore the philosophical foundations of the educational programme. The students will discuss concepts of curriculum development, implementation and evaluation. In addition, student will explore forces and issues that influence the implementation of curriculum. The students will critique existing course(s) and develop skills in analysing steps of course development. Various roles of faculty will be explored in relation to the changing trends in nursing education. Students will reflect on different teaching/learning strategies used for student-centered learning. Emphasis will also be on understanding strategic and operational planning for management of nursing educational institutions. Utilisation of educational research will be emphasised during the course.

Leadership and Management in Nursing Practice is designed to examine organisational leadership and management theories and related research as applied to the health care system. Conceptualize organizations from the perspectives of structures, human resources, ethics and politics, and symbolic culture. Students utilise major organisational theories and concepts to analyse a system of nursing administration within the larger health care

system. The role and impact of nurses in healthcare organisations and the emerging issues will be addressed throughout the course.

Semester IV

In the fourth semester of the MSN programme students will work to finalise their thesis and will undergo senior electives.

Advance Speciality Practicum will allow students to focus on individualised needs within the areas of educational setting. The course will also allow students to explore issues and concepts within educational settings that are appropriate for them. This course is designed to enable students to integrate the educational planning process for developing nursing programmes including implementation and evaluation of the programmes.

ASSESSMENT OF DEGREE PROGRAMMES

a. Continuous Assessment

- Continuous assessment is conducted by the College of Nursing for regular and repeating students
- Continuous assessment weighs 50% towards the overall marking whereas the other 50% is evaluated by the University Examination Department
- Some courses will be evaluated 100% internally by the College of Nursing (those mentioned in the concerned programme curriculum)
- All clinical exam must be passed at a satisfactory level according to the components stated in the clinical evaluation form
- Students have to pass both the components (theory and clinical) before appearing for the final university exam

b. University Examination

- It is conducted by Ziauddin University Examination Department for all degree programmes
- The degree programmes University Examination will be held at the end of each semester of the academic year
- Examination dates for all degree programmes will be announced by the Examination Department with the consultation of the Dean/Principal of College of Nursing

ADMISSION POLICIES AND PROCEDURE

a) ADMISSION TEST

A Graduate Assessment Test (GAT) via University Examination Department or NTS is mandatory for all eligible applicants.

b) INTERVIEW

Applicants will be interviewed to assess their suitability to complete the programme and pursue a career in nursing services, education and management. Interview will be held at the Ziauddin University College of Nursing.

c) APPLICANT SELECTION

- Candidates must possess Post RN BSN/BSN (Generic) degree from an HEC & PNC recognised universities.
- GAT/NTS entry test with minimum cumulative score of 50%
- Interviews of candidates short listed on the basis of performance in the entry test.
- Final selection of candidates will be based on the previous academic record, experience and entry test and interview.
- Note: Applicant selection in Ziauddin College of Nursing is strictly based on merit

ELIGIBILITY CRITERIA

The applicant must possess the following qualification and experience:

Category – I

- Matric (Science)
- Diploma in Nursing registered with PNC
- Diploma in Midwifery or any Post Basic Specialty diploma registered with PNC
- Post RN BSN with minimum cumulative GPA 3
- 2 years' clinical experience (one-year experience before Post-RN BSN and one-year experience after Post-RN BSN)
- 16-years equivalence from Higher Education Commission, Pakistan
- Valid Registration with Pakistan Nursing Council or equivalent

Category – II

- FSc (Pre-Medical)
- Generic BSN Degree registered with PNC with minimum cumulative GPA 3
- 01 year internship (bedside care)
- 01 year experience as RN (excluding 01 year Internship)
- Valid Registration with Pakistan Nursing Council or equivalent

REQUIRED DOCUMENTS

The following documents will be required to be presented at the time of interview.

- Copy of Diploma in General Nursing
- Copy of Diploma in Midwifery (if male candidate then any post basic specialty in lieu of midwifery)
- Copy of Post RN BSN degree/Generic BSN degree
- Copy of 2 years clinical experience letter if candidate has completed Post RN BSN or copy of 2 years clinical experience letter including 1 year internship letter if candidate has completed GBSN degree
- Copy of valid PNC registered card
- Copy of Matriculation certificate (Science group)
- Copy of Domicile
- Copy of candidate and parent/guardian CNIC
- Copy of 16-years equivalence from Higher

Education Commission, Pakistan

- NOC from concerned department (if sponsored)
- 15 recent passport photographs
- 3 reference letters

FEE STRUCTURE

Admission Fee (once at the time of admission – non-refundable):	Rs. 120,000/-
Security Deposit (once at the time of admission – refundable):	Rs. 10,000/-
Student Fund (once at the time of admission):	Rs. 10,000/-
Laboratory Charges (once at the time of admission):	Rs. 2,000/-
Enrollment Fee (once at the time of admission):	Rs. 5,000/-
Academic Visit (once at the time of admission):	Rs. 10,000/-
Documentation Fee (once at the time of admission):	Rs. 10,000/-
Thesis Process Fee:	Rs. 50,000/-
Thesis Defense Fee:	Rs. 10,000/-
Tuition Fee (per semester):	Rs. 174,500/-
Examination Fee *:	Rs. 6,000/-

Note: Any additional taxes imposed by the government will be the liability of the students/parents/guardian.

The University reserves the right to increase the fees if required according to the recommendation of the Governing Body.

Advance fees to be paid semester-wise. All dues need to be cleared within two weeks of commencement of the academic year. 2% surcharge per month will be levied on outstanding fees after the due date.

CAREER OPPORTUNITIES

The opportunities in nurse careers are endless. After several years of experience, the nurse is eligible to pursue a specialisation of choice. This can often mean more opportunities in the nursing profession, including leadership, education or management.

POST RN BSN

This programme is designed to provide the Registered Nurse at diploma level with the opportunity to acquire a broad liberal degree level education with particular emphasis on theoretical and clinical knowledge related to nursing practice, nursing research, and population health at primary, secondary and tertiary levels. All nursing courses are aimed to prepare nurses to practice competencies, as determined by the Pakistan Nursing Council.

PROGRAMME OBJECTIVES

- Demonstrate the cognitive abilities necessary to integrate nursing concepts and the multi-disciplinary body of knowledge to provide therapeutic nursing care.
- Exhibit the psychomotor and psychotherapeutic abilities necessary to provide safe nursing care.
- Use critical thinking and the nursing process as basis for clinical decision making.
- Demonstrate caring behaviours towards patients/clients and families from diverse and multi-cultural populations across the life span.
- Communicate effectively with clients, families and members of the interdisciplinary healthcare team.
- Utilise appropriate teaching learning strategies for prevention of illness and the promotion and restoration of health to individuals, families and groups.
- Demonstrate leadership skills to promote development of the profession.
- Recognise responsibility for maintaining competence as a registered nurse through self-evaluation and continuing nursing education to become a lifelong learner.
- Practice as an ethical and accountable member within the profession of nursing.

ELECTIVES

Evidence Based Clinical Practicum. This course will provide in-depth knowledge; understanding and clinical application of evidence based clinical practice to enhance the advance practice of professional nursing in a variety of healthcare settings. It will enable the learners to respond the needs of society by helping persons, families, and communities through therapeutic nursing care. The learners use clinical judgement to assist the client in the achieving optimal health and adapting to alter state of health. Students are required to select a practicum experience related to their specified area of interest i.e. Clinical Education, Clinical Management, Healthcare System and Occupational Health Nursing. This course will promote leadership qualities such as critical thinking, problem

solving and decision making capabilities among students. Analyse the trends and issues that influence the development of philosophy in their clinical practice setting apply knowledge of relevant theories and skills in specified areas of nursing practice, relate knowledge of the roles and responsibilities of the preceptor in her/his clinical practice setting and participate collaboratively as peers with other health professionals during Evidence Based Clinical Practicum. The goal is also Demonstrate an in-depth approach to solving problems during the practicum experience and Demonstrate self-directed learning abilities to complete the practicum

LEARNING AND TEACHING STRATEGIES

Various learning and teaching strategies are used which includes: interactive lectures, small group discussion, review of articles, presentation (individual/pair), role-play, field visit, problem solving exercises, self-study, brain storming, problem based tutorials ,computer based language learning and clinical integration.

SEMESTER SUMMARY

Semester- I

The course of Biochemistry is intended to provide the healthcare professionals with an understanding of the major organic substances of living organisms, proteins, carbohydrates and lipids, their structure analyses and biochemical functions. It also provides an introduction to the chemistry of bioenergetics, metabolism, biosynthesis, and molecular biology.

The aim of the course for Advance concepts in Nursing I is to enhance student's nursing knowledge and skills essential in caring for patients and their families in tertiary healthcare settings. The course focuses on enhancing the advance clinical skills of nursing assessment; analysis of clients nursing care needs, and implementing preventive and therapeutic nursing interventions based on physiological, psychosocial, cultural and spiritual concepts. In addition, the course also incorporates concepts and knowledge of anatomy and physiology, pathophysiology and pharmacology.

Health Assessment aims at developing the skills and knowledge needed to assess the basic health status of individuals of varying ages and conditions. These skills can be applied to identify health problems and designing nursing care in a wide variety of clinical settings. The course emphasises history and physical examination skills applied to the nursing practice.

The course of Pharmacology provides students with the opportunities to build on, the concepts and knowledge about the altered Physiological mechanisms with integration of pharmacology including their impact on the functional status of the body. It also deals with the responses of the body that participate in manifestation of disease. The usefulness of this course will increase nursing knowledge, skills and attitudes towards pharmacodynamics and pharmaco-kinetics in relation to disease process which impact on cellular function of the body.

Through the course of English, students will develop critical reading and thinking skills. They will be introduced to write academic essays as well as Summarising and referencing as per APA. They will develop some familiarity with self-directed learning skills.

Semester – II

This course of Advance concepts in Nursing II (Mental Health) facilitate the learners to apply principles of human behaviour in providing insight into once personal attitude, responses, in cultural perception, value beliefs about mental health and illness. It will enable the learners to identify the needs and provide holistic care by utilising evidence based practices to people with mental health challenges. Moreover, the learner will be able to provide special attention to family and their care taker from various mental health conditions, dysfunctional or mental disorders. The course will improve the skills to work in multidisciplinary teams, liaising with psychiatrists, psychologists, occupational therapists, social workers and other mental health professionals in promoting the mental health among people and community at large.

Advanced Concept of Nursing-I focuses on enhancing the advance clinical skills of nursing assessment; analysis of client's nursing care needs, and implementing preventive and therapeutic nursing interventions based on physiological, psychosocial, cultural and spiritual concepts. In addition, the course also incorporates concepts and knowledge of anatomy and physiology, pathophysiology and pharmacology. Introduction to Biostatistics will provide an introduction to sound basic statistical principles and their applications in varied aspects the scientific studies. In addition, rules governing use of descriptive and inferential statistics will also be explored.

On the other hand, Biostatistics will provide an introduction to sound basic statistical principles and their applications in varied aspects of scientific studies. In addition, rules governing use of descriptive and inferential statistics will also be explored. The course of Epidemiology is designed to provide

knowledge and skill to the learners of using epidemiological concepts in assessing the contributing factors, diagnosing the problems, planning intervention and evaluating the results in the health care system. In addition the learners will be able to make inferences on the impact of the population demographics on social and health status in Pakistan. Learners will also be able to correlate epidemiological research findings to nursing practice.

Culture, Health and Society facilitates the students to explore the field of socio-cultural anthropology. It enhances students' understanding of values, beliefs and practices of different societies and its relationship to health and illness behaviors in general and among specific groups living in societies. This course will further provide analysis of the relationship of culture, society and health care delivery system.

The course of Introduction to Nursing Models and Theories is an introduction to theory and reasoning in nursing which will be the foundational understanding of nursing as a discipline and profession. Students will be introduced to several different theoretical frameworks in nursing and to the contributions of selected nurse theorists.

In English II, students will develop critical reading skills, they will be able to write academic essays at the upper intermediate level for nursing purposes and they will develop self-directed learning skills.

The course of principle of Teaching and clinical preceptorship will give the students an insight of the basic concepts of teaching learning principles, clinical preceptorship and the relationship between these two. It will provide an opportunity for analysing ones individual learning process and promote strategies to facilitate the learning of self and others. Moreover, it will prepare the learners for challenges in teaching learning and its responses in various healthcare settings. In addition, this course aims to provide the students with the knowledge, skills and attitudes necessary to become effective preceptors in clinical area. This course will enable learners for being a reflective practitioner in the health education setting.

Semester – III

The course of Advance concepts in CHN enhances the knowledge and skills required for advance nursing practice in a community setting. It will help the learner to develop his/her ability to practice with communities by applying a planning cycle with the integration of major concepts of community as a partner, health promotion across the life span, and epidemiology and research. The course will also address global health, demography, and

developmental issues in relation to the diverse roles of nurses in community health.

Nursing Research is designed to stimulate scholarly inquiry about the research. It focuses on developing an understanding of scientific approach and methods of the research process and critical appraisal of existing nursing and related health literature. The contents will enable nurses to critique qualitative/quantitative research and utilise research findings to promote relationship of research to practice, education and administration.

The course of Professional Development and Ethics is designed to provide the learner with an overview of basic concepts of ethics, its theory, principles, and norms. This course will raise awareness of factors that need to be considered when dealing with ethical decisions and affirm nursing as an ethically responsible profession. It will also provide a forum for learners to reflect upon issues or ethical dilemma which they identify during their clinical practice. Moreover, the course will help students to understand the dimensions of professional knowledge and development and the importance of ethics in their professional advancement.

English III is designed to enable the students to acquire specific language skills for leadership roles in a hospital setting. The main focus is on using the language of persuasion and argumentation in oral and written communication.

Leadership and Management provides the learners concepts and principles of leadership and management and professional development in a healthcare system that fosters positive, creative and caring environment. It prepares nurses for assuming the role of leaders along with their effective application in a context that is considered important for professional nursing practices in the contemporary world.

Semester – IV

Evidence Based Clinical Practicum Evidence Based Clinical Practicum. This course will provide in depth knowledge; understanding and clinical application of evidence based clinical practice to enhance the advance practice of professional nursing in a variety of healthcare settings. It will enable the learners to respond the needs of society by helping persons, families, and communities through therapeutic nursing care. The learners use clinical judgment to assist the client in achieving optimal health and adapting to alter state of health.

Students are required to select a practicum experience related to their specified area of interest i.e Clinical Education, Clinical Management, Health Care System and Occupational Health Nursing. This course will promote leadership qualities such as

critical thinking, problem solving and decision making capabilities among students.

The course of English IV (Scholarly Writing) has been designed to enhance the scholarly writing skills of nurse leaders. In addition, it aims to develop their academic and professional language skills. The course of Islamic studies is aimed at providing basic information about Islamic Studies and to enhance understanding of the students regarding Islamic civilisation and their significance

ASSESSMENT OF DEGREE PROGRAMMES

a) Continuous Assessment

- Continuous assessment is conducted by the College of Nursing for regular and repeating student
- Continuous assessment weighs 50% towards the overall marking whereas the other 50% is evaluated by the University Examination Department
- Some courses will be evaluated 100% internally by the College of Nursing (those mentioned in the concern programme curriculum)
- All clinicals must be passed at a satisfactory level according to the components stated in the clinical evaluation form. Unsatisfactory performance can lead to a learning contract
- Student have to pass both the components (theory and clinical) before appearing into final university exam

b) University Examination

- It is conducted by Ziauddin University Examination Department for all degree programmes
- The degree programmes University Examination will be held at the end of each semester of the academic year
- Examination dates for all degree programmes will be announced by the Examination Department with the consultation of the Dean/Principal of College of Nursing

ADMISSION POLICY

a) ADMISSION TEST

Ziauddin University College of Nursing conducts an Admission Test through the University Examination Department for all eligible applicants. The test consists of Multiple Choice Questions and short question of various types. The following subjects are assessed in the admission test:

Post RN BScN Programme:

The test comprises of three sections designed to assess each applicant's performance in the areas of:

- Nursing Knowledge
- Mathematics & Logical Reasoning
- English

b) INTERVIEW

Applicant will be interviewed to assess their suitability to complete the concerned course and pursue a career in nursing services. The interview will be held at the Ziauddin University College of Nursing.

c) APPLICANT SELECTION

Applicant selection in Ziauddin University College of Nursing is strictly based on merit and applicants are considered on the basis of admission tests and interview results.

ELIGIBILITY CRITERIA

- Matriculation (Biology Science Group as per HEC requirement)
- Diploma in General Nursing
- Diploma in Midwifery (For male candidates, any post basic specialty in lieu of midwifery)
- 2 years clinical experience (Including 1 year of Internship)
- Valid registration with PNC (Pakistan Nursing Council)
- Age: – No age limit

FEE STRUCTURE

Admission Fee (once at the time of admission – non-refundable):	Rs. 82,000/-
Security Deposit (once at the time of admission – refundable):	Rs. 5,000/-
Student Fund (once at the time of admission):	Rs. 4,000/-
Laboratory Charges (once at the time of admission):	Rs. 3,000/-
Enrollment Fee (once at the time of admission):	Rs. 2,000/-
Academic Visit (once at the time of admission):	Rs. 4,000/-
Tuition Fee (per semester):	Rs. 174,500/-
Examination Fee*:	Rs. 6,000/-

*Subject to increase by ZU Examination Department.

Note: Any additional taxes imposed by the government will be the liability of the students/parents/guardian.

The University reserves the right to increase the fees if required according to the recommendation of the Governing Body.

Advance fees to be paid semester-wise. All dues need to be cleared within two weeks of commencement of the academic year. 2% surcharge per month will be levied on outstanding fees after the due date.

REQUIRED DOCUMENTS

The following document the are required to be presented at the time of interview.

- Copy of Diploma in General Nursing
- Copy of Diploma in Midwifery (if male candidate then any post basic specialty in lieu of midwifery)
- Copy of valid registration with PNC card
- Copy of 2 years clinical experience letter
- Copy of Matriculation certificate (Biology Science group)
- Copy of Domicile
- Copy of candidate and parent/guardian CNIC
- NOC from concerned department (if sponsored)

CAREER OPPORTUNITIES

The opportunities in nurse careers are endless. After several years of experience, the nurse is eligible to pursue a specialisation of choice. This can often mean more opportunities in the nursing profession, including leadership, education or management.



BACHELOR OF SCIENCE IN NURSING (BSN)

This is a four years degree programme, leading to practice as a Registered Nurse. The degree programme fosters integrated nursing knowledge, skills and professional attitude. Upon completion of this programme the graduate is prepared to be a safe clinical nurse, who will be able to provide comprehensive care at primary, secondary and tertiary levels within hospitals and community settings.

Moreover, the BSN students will be registered with the Pakistan Nursing Council after completing one year internship as per given PNC internship policy and must pass the PNC Licensure examination.

PROGRAMME OBJECTIVES

The major goals of the BScN Programme are:

- To prepare competent, safe, committed, and knowledgeable nurse clinicians (hospital and Community settings).
- To educate nurses with the appropriate knowledge, skills and attitudes and with clinical competency.
- To integrate evidence-based science into clinical practice to provide holistic care for individuals, families and communities.
- To enable nurses to meet the future challenges, including changes in technology, confronting healthcare in the 21st century.
- To adhere to an established pattern of professional practices within the professional, religious, cultural, legal, and ethical boundaries of Pakistan.
- To develop effective interpersonal and communication skills while dealing with peers, patients, families, communities and other professionals.
- To initiate a leadership role in the planning, implementation, and evaluation of individual, family and community.
- To maintain a safe and healthy environment for the prevention of disease, promotion and maintenance of health.
- To provide information, counseling and health education to individuals, families and communities.
- To participate in screening, case identification and management of common minor illness and injuries.
- To act as a change agent to promote quality improvement in the performance of nursing responsibilities

ELECTIVES

Course Description

This course is designed to provide an opportunity to BScN learners to enhance their nursing knowledge and skills in selected hospital clinical settings. Emphasis will be on integration and application of knowledge and skills from previous course work in

order to demonstrate the ability to design provide manage and coordinate care in accordance with updated clinical guidance.

Course Objectives

On completion of this course students will be able to:

1. Coordinate and manage nursing care across the continuum to meet the health need of individuals, families, and population.
2. Demonstrate critical thinking in professional practice.
3. Assume leadership role within the scope of nursing practice.
4. Formulate individual goals for professional development.

LEARNING AND TEACHING STRATEGIES

Various learning and teaching strategies are used at the College of Nursing which includes: interactive lectures, small group discussion, review of articles, presentation (individual/pair), role-play, field visit, problem solving exercises, self-study, brain storming, problem based tutorials, computers based language learning and clinical integration.

SEMESTER SUMMARY

Semester- I

The first semester of BSNN Year I includes courses such as: Fundamentals of Nursing-I, Microbiology, Anatomy & Physiology-I, and Biochemistry for Nurses, English-I, and Computer Skills.

The microbiology course is designed to furnish the learners with the knowledge of basic concepts and scientific principles of Microbiology.

The Biochemistry course is designed to furnish the learners with the knowledge of basic concepts and scientific principles of Biochemistry. Biochemists mainly study the structures and functions of enzymes, proteins, carbohydrates, fats, process of metabolism and the molecular basis of the action of genes.

The Anatomy physiology course introduces learners to the structures and functions of the human body. Knowledge of Anatomy & Physiology will provide a better understanding and integration to theoretical & clinical practice in nursing care situations.

The Fundamentals of nursing introduces the student to nursing as a professional discipline. The concept of a professional nurse is addressed through a brief overview of nursing historical development, definitions of nursing, nursing education, the practice, roles of the nurse and nurse's

accountability.

Semester II

The Second semester of BScN YR I includes courses such as: Fundamental of Nursing II, Anatomy & Physiology II, Community Health Nursing I, English II, Islamiat, and Applied Nutrition & Pakistan Studies

The FON II course introduces learners to different concepts of nursing practice with emphasis on identifying the patient needs, developing communication skills and use of the nursing process. Learners will gain knowledge related to theoretical concepts, values, and norms of the profession, while learning skills for providing basic nursing care to patients in a hospital settings.

The Community Health Nursing course will introduce students to the basic concepts of Community Health Nursing with the emphasis on Primary Healthcare and Environmental Effects on health. This course introduces students to the factors influencing the health of an individual, family and community. Students will also develop knowledge about Pakistan's Healthcare System, components of health education, community services and organisations through field visits.

The applied nutrition course is designed to furnish the learners in application of knowledge of nutrition in the prevention & treatment of diet related diseases, both in the community & hospital settings. It further enhances the learners' understanding in managing nutritional needs of patients with chronic and long term diseases.

Semester III

The Adult Health Nursing aims to furnish students with the knowledge and skills to care for adult patients admitted to the hospital with various disease conditions. They also study Pathophysiology as a subject to build on the concepts and knowledge about the altered physiological mechanisms and their impact on the functional status of the body across the lifespan. In the first semesters an introduction to the content and skills needed to assess the basic health status of individuals of varying ages is taught to students with the demonstration and hands on practice.

Pathophysiology gives the opportunities to students to build on the concepts and knowledge about the altered Physiological mechanisms and their impact on the functional status of the body. It also deals with the responses of the body that participate in manifestation of disease. The usefulness of knowledge, skills and attitudes to the nurse in his/her problem solving in the hospital, school, community or home is the determining factor in the selection and integration of the content.

Pharmacology content and skills needed to assess the basic health status of individuals of varying ages. These skills can be applied to nursing care in a wide variety of clinical settings. This course emphasises history taking and physical examination skills.

English designed to help increase their reading speed. It aims at helps achieve a higher reading rate, which will also help them in other subjects in addition to English and also learnt dimensions of mathematics and help students to apply knowledge in the nursing field.

Semester IV

The second semester of BSN includes courses such as; Adult Health Nursing-II Pathophysiology II Health Assessment-II ,developmental psychology, pharmacology II, English IV and Nursing Ethics Adult Health Nursing provides opportunities to students to give safe & competent care for patients with various cardiovascular, respiratory, endocrine, musculoskeletal, Neurological and ENT disorders. It also has Pathophysiology that deals with the responses of the body that participates in manifestation of disease.

Health Assessment content and skills needed to assess the basic health status of individuals of varying ages. These skills can be applied to nursing care in a wide variety of clinical settings. This course emphasises history-taking and physical examination skills.

Pharmacology course emphasises on knowledge about drugs, their classification, therapeutic effects, anticipated reactions, toxic effects, and abuse. At this level, the emphasis is on application of concepts to patient care situations, including patient assessment, drug dosage calculations and administration.

Nursing Ethics provide the student an over view of basic concepts of ethics, its theory, principles, and norms. This course will raise awareness of factors that need to be considered when dealing with ethical decisions and affirm nursing as an ethically responsible profession.

English focuses on Reflective writing, analytical reading and using grammar and written structure. In medical context. The course builds on learner's skills in documenting reflections in an organised form.

Semester V

The first semester of BSN III includes courses such as: Pediatrics Health Nursing, Community Health Nursing-II, Teaching and Learning Principles & Practices and English-V. The focus of Pediatrics Health

Nursing course is to develop knowledge, skills and attitudes in the care of children in primary, secondary and tertiary settings. Students apply a concepts related to Growth and Development and its deviation in all aspects of children's health. The Teaching\Learning Principles & Practices introduces the basic concepts of adult learning in order to better understand one's individual learning process and strategies to facilitate the learning of others in various healthcare settings. The Community Health Nursing focuses on providing family centered care and basic concepts of Reproductive Health for males and females. The English course helps the students to reflect on their own writing process, and find ways to improve their summary writing techniques.

Semester VI

The second semester of BScN III includes courses such as: Mental Health Nursing, Introduction to Biostatistics, Behavioural Psychology, Epidemiology, Culture, Health and Society and English.

The Mental Health Nursing course familiarises the students to the concepts of mental health and mental illness, the various concepts of psychiatric nursing and its development in general and in Pakistan in particular. The Introduction to Biostatistics course provides the learners preamble knowledge to basic statistical principles and their application to qualitative and quantitative research.

The Behavioral Psychology course will help the learner understand human behaviour and provide insight into one's personal attitudes, responses to everyday situation and interactions. The Epidemiology course is designed to provide the knowledge and skills to the learners for using epidemiological concepts in assessing the contributing factors, diagnosing the problems, planning intervention and evaluating the results in the community. The Culture, Health and Society guide students to the human interaction and its impact on individual and group behaviour. It also introduces learners to the field of socio-cultural anthropology. It focuses on the exploration of values, beliefs and practices related to health and illness in general and among specific groups of people. The English course is designed to enhance the scientific information of the learners. In addition the course will also improve the scholarly and technical information of the learners.

Semester VII

In the first semester of BScN year IV students critically analyse, the assessment data of the patients and incorporate physical, psychological, social, emotional and spiritual aspects of care. They relate normal and altered physiological concepts to patient care in critical and emergency setting and learn different machinery related to intensive care

unit e.g. ventilator settings and IABP.

Moreover, students integrate various theories in relation to leadership, management, problem solving and decision making, motivation, managing change and, conflict management.

Furthermore, they recognise the research process as a systematic approach to thought and the generation of nursing knowledge and Understand the process of Evidence based healthcare.

Besides this students also learn Nursing Theories and Professional Writing in this semester.

Semester VIII

In the second semester of BSN year IV students are taught leadership skills in their senior electives in which they are assigned with an experienced person, whose responsibility is to enhance their skills. Their main focus is on evidence based research so that they can act as a change agent to promote quality improvement in the performance of nursing responsibilities.

Moreover, they are taught community health nursing and so that they can provide holistic care for individuals, families and communities.

Furthermore, to participate actively in professional organisations for the improvement of the nursing profession, students are taught Nursing Seminar/Role Transition.

ASSESSMENT OF DEGREE PROGRAMMES

a. Continuous Assessment

- Continuous assessment is conducted by the College of Nursing for regular and repeating students
- Continuous assessment weighs 50% towards the overall marking whereas the other 50% is evaluated by the University Examination Department
- Some courses will be evaluated 100% internally by the College of Nursing (those mentioned in the concern programme curriculum)
- All clinicals must be passed at a satisfactory level according to the components stated in the clinical evaluation form. Unsatisfactory performance can lead to a learning contract
- Students have to pass both the components (theory and clinical) before appearing for the final university exam

b. University Examination

- It is conducted by Ziauddin University Examination Department for all degree programmes
- The Examinations will be held at the end of each semester of the academic year
- Examination dates for all degree programmes will be announced by the Examination Department with the consultation of the Dean/Principal of the

College of Nursing

ADMISSION POLICY

a) ADMISSION TEST

Ziauddin University College of Nursing conducts an Admission Test through University Examination Department for all eligible applicants. The test consists of Multiple Choice Questions and short question of various types. The test comprises of four sections designed to assess each applicant's performance in the areas of:

- (a) English
- (b) Science
- (c) General Knowledge
- (d) Mathematics

b) INTERVIEW

Applicant will be interviewed to assess their suitability to complete concern course and pursue a career in nursing services. Interview will be held at the Ziauddin College of Nursing.

c) APPLICANT SELECTION

Applicant selection in Ziauddin College of Nursing is strictly based on merit and applicants are considered on the basis of admission test and interview results.

ELIGIBILITY CRITERIA

- Qualification: FSc. (Pre-medical group) with a minimum overall score of 50%.
- Gender: Both
- Age: 17 – 35 years

FEE STRUCTURE

Admission Fee (once at the time of admission – non-refundable):	Rs. 60,000/-
Security Deposit (once at the time of admission – refundable):	Rs. 5,000/-
Student Fund (once at the time of admission):	Rs. 4,000/-
Laboratory Charges (once at the time of admission):	Rs. 3,000/-
Enrollment Fee (once at the time of admission):	Rs. 2,000/-
Academic Visit (once at the time of admission):	Rs. 4,000/-
Tuition Fee (per semester):	Rs. 101,136/-
Examination Fee*:	Rs. 3,000/-

*Subject to increase by ZU Examination Department.

Note: Any additional taxes imposed by the government will be the liability of the students/parents/guardian.

The University reserves the right to increase the fees if required according to the recommendation of the Governing Body.

Advance fees to be paid semester-wise. All dues need to be cleared within two weeks of commencement of the academic year. 2% surcharge per month will be levied on outstanding fees after the due date.

REQUIRED DOCUMENTS

The following documents will be required to be presented at the time of interview:

- Copy of Intermediate Marksheet/Certificate verified by concern board (Pre-medical group)
- Copy of Domicile
- Copy of candidate and parent/guardian CNIC
- 15 recent passport photographs
- 3 reference letters

CAREER OPPORTUNITIES

The opportunities in the career of nurse are endless. After several years of experience, the nurse is eligible to pursue specialisation of choice. This can often mean more opportunities in the nursing profession, including leadership, education or management.

DIPLOMA IN NURSE MIDWIFERY

This is a one year programme, leading to a Diploma in Nurse Midwifery applicable for those candidates who have passed RN Examination (Post Basic). The goal of this programme is to reduce the high maternal mortality rates across the country.

LEARNING AND TEACHING STRATEGIES

Various learning and teaching strategies are used at College of Nursing which includes: Interactive Lectures, Small Group Discussion, Review of Articles, Presentation (Individual/Pair), Role-play, Field Visit, Problem Solving exercises, self-study, brain storming ,problem based tutorials, Computer Based Language Learning and Clinical Integration.

SEMESTER SUMMARY

Semester I & II

During the academic tenure, the Nurse Midwives Study the major subjects including Obstetrics and gynecology. Each Student must perform at Least 20 antenatal examination in Clinics/homes, 5 vaginal examinations and conduct 25 deliveries, each of which must be entered In their case books which must be properly maintained in its prescribed form. The Student must also witness at least 25 Cases (normal)

ASSESSMENT OF DIPLOMA PROGRAMME

- This programme is assessed by Sindh Nurses Examination Board
- Examination policy of Ziauddin College of Nursing is applicable for all diploma programmes

ELIGIBILITY CRITERIA

- RN/Generic BSN and registered with Pakistan Nursing Council (PNC)
- Female

REQUIRED DOCUMENTS

The following documents will be required to be presented at the time of the interview:

- Copy of Matric Certificate
- Copy of Diploma in General Nursing

- Copy of Domicile
- Copy of candidate and parent's/guardian CNIC
- 15 recent passport photographs

FEE STRUCTURE

Admission Fee (once at the time of admission – non-refundable):	Rs. 32,000/-
Security Deposit (once at the time of admission – refundable):	Rs. 5,000/-
Student Fund (once at the time of admission):	Rs. 5,000/-
Academic Transport (once at the time of admission):	Rs. 5,000/-
Laboratory Charges (once at the time of admission):	Rs. 3,000/-
Tuition fee (Year 1):	Rs. 150,000/-

Note: Any additional taxes imposed by the government will be the liability of the students/parents/guardian.

The University reserves the right to increase the fees if required according to the recommendation of the Governing Body.

Advance fees to be paid semester-wise. All dues need to be cleared within two weeks of commencement of the academic year. 2% surcharge per month will be levied on outstanding fees after the due date.

CAREER OPPORTUNITIES

The opportunities in the nursery careers are endless. After several years of experience, the nurse is eligible to pursue a specialisation of choice. This can often mean more opportunities in the nursing profession, including leadership, education or management.

PARAMEDICAL TECHNICIAN COURSES

The Nursing field is one where the responsibility of the professionals to provide quality care and patient centered care to patients. Due to the pandemic COVID-19, the demand of professionals has increased. To fulfill the requirement of the profession and current situation, Ziauddin University College of Nursing, has taken initiative and offers different technician programmes to empower the members of the youth to join a professional training pathway to build a professional career after the secondary school certificate.

There are few approved technician programmes which are affiliated with the Sindh Medical Faculty (SMF). Other remaining programmes are under the College of Nursing, Ziauddin University. Depending upon the response and number of students interested in different technical nursing programmes they will also be later registered with SMF.

- EEG Technician
- ECG Technician
- X-Ray Technician
- Operation Theater Technician
- Emergency Medical Technician (Ambulance)

ELIGIBILITY CRITERIA

- Matric Science (Biology Subject) with minimum 45% marks from any Educational Board of Sindh.
- Domicile only Sindh province, concerned district candidates will be given priority.
- For the admission in ICU, candidates must have a one year anesthesia course certificate.

REQUIRED DOCUMENTS

- One photocopy of Matriculation certificate/Provisional Certificate (Sindh Board)
- One photocopy of Mark sheet (Sindh Board)
- One photocopy of Domicile (Sindh), Applicant CNIC (above 18)/B.Form (under 18), Parents/Guardian CNIC
- Original copy of Medical Fitness Certificate from a Qualified Medical Practitioner
- One photocopy of Character Certificate from Principal/Headmaster
- One photocopy of Anesthesia Course Certificate for I.C.U Technician course (If applicable)

Note: Applicant selection in Ziauddin College of Nursing is strictly based on merit and applicants are considered on the basis of admission test and interview results.

Ziauddin University College of Nursing conducts an Admission Test for all eligible applicants. Interview will be held at Dr. Ziauddin Hospital and details communicated to only shortlisted candidates.

The application of candidates not fulfilling the above mentioned criteria will not be considered. Incomplete application will not be considered.

FEE STRUCTURE

Admission Fee (once at the time of admission – non-refundable):	Rs. 22,000/-
Security Deposit (once at the time of admission – refundable):	Rs. 5,000/-
Student Fund (once at the time of admission):	Rs. 5,000/-
Laboratory Charges (once at the time of admission):	Rs. 3,000/-
Tuition fee (Year 1):	Rs. 110,000/-
Examination Fee:	Rs. 5,000/-

Note: Any additional taxes imposed by the government will be the liability of the students/parents/guardian.

The University reserves the right to increase the fees if required according to the recommendation of the Governing Body.

Advance fees to be paid semester-wise. All dues need to be cleared within two weeks of commencement of the academic year. 2% surcharge per month will be levied on outstanding fees after the due date.

CNA (CERTIFIED NURSING ASSISTANT) PNC APPROVED PROGRAMME

Healthcare profession is changing with each passing day. COVID-19 has transformed the educational and professional training and education globally. The pandemic increased the burden of complex healthcare needs of patients on the healthcare industry and its workers. Pakistan is already facing severe shortage of qualified nursing staff. The College of Nursing at Ziauddin took an initiative and with collaboration of Ziauddin Board of Education which is offering F.Sc Nursing (HSSC), restarted the programme of Certified Nursing Assistant (CNA) as we feel that our healthcare system needs more nursing assistants in this profession. Dr. Ziauddin University Examination Board is offering Certified Nursing Assistant (CNA) which was successfully producing certified nursing assistants similar to the Licensed Practical Nurses (LPN) earlier.

This programme aims to produce nursing assistants, who contribute their role along with Registered Nurses. The significance of this programme is that the students will earn F.Sc

Nursing (Pre Nursing Certificate of HSSC intermediate level) on completion of CNA. This programme will directly assist in overcoming shortage of nurses, while preparing qualified staff professionally soon after completing their matriculation. In addition, the CNAs would start their career pathway having a chance to further study as a Registered Nurse later on route to PhD, under the one umbrella of ZUCON.

ELIGIBILITY CRITERIA

Duration: 2 Years

Gender: Male/Female

Age: 14 – 35 years

Qualification: Applicant must meet one of the following academic levels:

- FSc (Pre-Medical) with 45% marks minimum (Physics, Chemistry & Biology as compulsory subjects)
- Matric (Science) with 45 % marks minimum (Physics, Chemistry & Biology as compulsory subjects)
- Matric (Arts) with 50% marks, FA with

FACULTY MEMBERS

DEAN

DR. PAMELA MARSHALL

ADVISOR TO CHANCELLOR

DR. YASMIN AMARSI

DIRECTOR, POSTGRADUATE PROGRAMME

MS. AFSHAN NAZLY

DIRECTOR, UNDERGRADUATE PROGRAMME

MS. FARHANA TABASSUM

ASSISTANT. PROFESSOR

MR. RAJA

MR. SINEER MICCA

MR. SANTOSH KUMAR

MR. BADIL

SENIOR LECTURERS

MS. STELLA NAHEED

MS NADIA ALI

MS. BELLA RICHARD

MS. SONIA JOSEPH

MS. SABINA ASLAM

MS. NASIRA LATIF

MS. IQRA AKHTER

MS. AMBREEN

MR. FAISAL AMEEN

MR. JIBRAN KHAN

LECTURERS

MR. UBAID SIDDIQUI

MR. NASIR INAYAT

MS. SARA SOHAIL

MR. GULSHER

MS. MEHWISH ARIF

MR. FARHAN AHMED

MS. MEHTAB

SKILLS LAB COORDINATOR

MS. KOMAL MUMTAZ

SKILLS LAB NURSE

MS. BILQEES ALI

FACULTY OF PHARMACY



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Locate Us:

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(Site - II) Dr. Ziauddin Hospital Basement

PROGRAMMES OFFERED

DOCTOR OF PHARMACY (PHARM.D) PROGRAMME

5-YEAR PROGRAMME APPROVED BY PHARMACY COUNCIL OF PAKISTAN.

MPHIL AND PH.D PROGRAMME

THE DURATION OF M.PHIL AND PH.D PROGRAMME IS AS UNDER:

- A) M.PHIL: MINIMUM 1.5 AND MAXIMUM 4 YEARS
- B) PH.D: MINIMUM 3 AND MAXIMUM 8 YEARS



When I first joined the pharmacy programme at Ziauddin University, I had never imagined I would be able to achieve such a milestone in my life as to become a gold medalist. I was always passionate and ambitious in regards to my career and studies, and have worked just as hard to achieve my very best. The journey towards achieving this honour, however, was by no means easy. It required insurmountable efforts and dedication to reach where I am today, and it would not have been possible without the valued guidance of the faculty members and my mentors. The Pharm.D programme at Ziauddin University has state of the art facilities, and is structured in a way to make knowledge accessible to every student easily. I am not only impressed by the academic aspects of the University, but the extracurricular activities offered are also a great source of refreshing the mind and making unforgettable memories.

I had a wonderful time studying in the University during graduation and I am certain it will propel me in my professional career. Knowledge is power, and Ziauddin University has indeed proved that. I am not only elated to be a gold medalist of my batch, but utterly content with everything I have learnt and experienced in all these years. Lastly, I would like to add that the right amount of efforts and dedication, can take anyone to great heights.

SHARAN BIRIJLAL
PHARM.D

VISION

"To be a global leader in pharmacy and pharmaceutical education, research and practice with the ultimate goal of providing excellent, innovative patient care and drug development."

MISSION

"The mission of Faculty of Pharmacy is to prove excellence in pharmacy education through knowledge and skills dissemination by qualified and experienced faculty. We aim to prepare professionals who can fulfill the growing healthcare needs of society by providing standard pharmaceutical care."

INTRODUCTION

Pharmacy, along with medicine and nursing forms the backbone of our healthcare system. We cannot afford to be left behind other nations in providing quality drugs to our masses and professional manpower to our health care institutions. We have to cater to the needs of this system by producing well qualified, professionally trained and highly competent pharmacists to perform the specialised tasks in their specific areas of activity, such as drug

design, synthesis, manufacturing, quality assurance, marketing and supply system, procurement, storage, distribution and use of drugs in industry, hospital setting or in community practice. In all advanced health care systems the support of a clinical pharmacist, who is a drug therapy consultant and drug information specialist, is considered vital. Realising the importance of Pharmacy education, Ziauddin University started its 5-year Doctor of Pharmacy (Pharm.D) programme in January 2005. The Pharmacy institution of Ziauddin University is following the curriculum approved by Higher Education Commission (HEC) & Pharmacy Council of Pakistan (PCP) based on the semester examination system. This is an accredited and recognised programme of Pharmacy Council of Pakistan.

The programme provides students with core knowledge, skills, abilities, attitudes and values that are necessary to the provision of Pharmaceutical care. The professional courses in the Pharm.D curriculum consists of didactic material, laboratory courses, and practical experience in patient care environment.



DOCTOR OF PHARMACY (PHARM.D) PROGRAMME

The Pharm.D programme at Faculty of Pharmacy, Ziauddin University aims to produce pharmacists who have the abilities and skills which are necessary to achieve outcomes related to:

- Providing Pharmaceutical care to patients.
- Developing and managing medication distribution and control systems.
- Monitoring drug response in patients and adjusting dosage regimens to produce the safest, most beneficial results in therapy
- Managing the pharmacy
- Promoting public health
- Providing drug information and education
- Providing technical aid to Pharmaceutical industry and solving problems pertinent to the manufacturing of medicines
- Reviewing products evaluated for formulary consideration
- Evaluating policies, procedure, protocols and clinical pathways to ensure safe use of medications
- Analysing quality assurance activities to ensure that improvements are implemented to produce positive patient outcomes

ELIGIBILITY CRITERIA

The candidate should have passed the Intermediate Science (HSC) Examination (Medical/Biology Group) securing at least 60 % marks in aggregate from the Board of Higher Secondary Education in Pakistan or any other examination of a Foreign University which in scope and standard is found equivalent to the H.Sc. Examination (Medical Group), Pakistan.

ADMISSION POLICY

The programme is open to all individuals who meet the selection criteria. All candidates are selected on merit according to the following criteria:

Examination/interview Weightage

H.SC:	50%
Entry Test:	30%
Interview:	20%

Note: It is the responsibility of the applicant to submit the application according to instructions given with the application form.

FEE STRUCTURE

Application Fee:	Rs. 5,000/-
Admission Fee:	Rs. 50,000/-
Security Deposit:	Rs. 25,000/-
Pharma Registration:	Rs. 1,000/-
Documentation Fee:	Rs. 4,000/-
CD Study Guide:	Rs. 400/-
Student Fund:	Rs. 2,500/-
Medical Exam:	Rs. 3,500/-
Tuition Fee:	Rs. 276,100/-
Examination Fee:	Rs. 11,660/-

Note: advance income tax @ 5% under section (2361) Rs.10214 for first semester Rs.7194 for second semester.

The University reserves the right to increase the fees if required according to the recommendation of the Governing Body.

Advance fees to be paid semester-wise. All dues need to be cleared within two weeks of commencement of the academic year. 2% surcharge per month will be levied on outstanding fees after the due date.

FINANCIAL ASSISTANCE

Financial Assistance is provided to the needy and meritorious students with a good GPA, conduct and not having undergone any resit examination. It is awarded from 2nd Professional onwards.



SCHEME OF STUDY

Scheme of Courses for Pharm. D. (Five-Year Course)

1st Professional Pharm. D

1 st Semester			2 nd Semester		
Course No.	Subject (Theory Courses)	Cr. Hr.	Course No.	Subject (Theory Courses)	Cr. Hr.
ENG 300	English-A (Functional English)	03	ENG 301	English-B (Communication & Writing skills)	03
PHARM 310	Pharmaceutics-IA (Physical Pharmacy) Th.	03	PHARM 315	Pharmaceutics-IB (Physical Pharmacy) Th.	03
PHARM 311	Pharmaceutical Chemistry-IA (Organic) Th.	03	PHARM 316	Pharmaceutical Chemistry-IB (Organic) Th.	03
PHARM 312	Pharmaceutical Chemistry-IIA (Biochemistry) Th.	03	PHARM 317	Pharmaceutical Chemistry-IIB (Biochemistry) Th.	03
PHARM 313	Physiology-A Th.	03	PHARM 318	Physiology-B Th.	03
PHARM 314	Anatomy & Histology Th.	03	PHARM 328	Introduction to Clinical Pharmacy Th.	03
Course No.	Subject (Lab Courses)	Cr. Hr.	Course No.	Subject (Lab Courses)	Cr. Hr.
PHARM 319	Pharmaceutics-IA (Physical Pharmacy) Lab.	01	PHARM 324	Pharmaceutics-IB (Physical Pharmacy) Lab.	01
PHARM 320	Pharmaceutical Chemistry-IA (Organic) Lab.	01	PHARM 325	Pharmaceutical Chemistry-IB (Organic) Lab.	01
PHARM 321	Pharmaceutical Chemistry-IIA (Biochemistry) Lab.	01	PHARM 326	Pharmaceutical Chemistry-IIB (Biochemistry) Lab.	01
PHARM 322	Physiology-A Lab.	01	PHARM 327	Physiology-B Lab.	01
PHARM 323	Anatomy & Histology Lab.	01	Total Cr. Hr. 22		
Total Cr. Hr. 23					

2nd Professional Pharm. D

1 st Semester			2 nd Semester		
Course No.	Subject (Theory Courses)	Cr. Hr.	Course No.	Subject (Theory Courses)	Cr. Hr.
IS 402	Islamic Studies	03	PS 403	Pakistan Studies	02
PHARM 410	Pharmaceutics-IIA (Dosage Forms Science)Th.	03	PHARM 415	Pharmaceutics-IIB (Dosage Forms Science)Th.	03
PHARM 411	Pharmaceutics-IIIA (Pharmaceutical Microbiology & Immunology)Th.	03	PHARM 416	Pharmaceutics-IIIB (Pharmaceutical Microbiology & Immunology)Th.	03
PHARM 412	Pharmacology and Therapeutics-IA Th.	03	PHARM 417	Pharmacology and Therapeutics-IB Th.	03
PHARM 413	Pharmacognosy-IA (Basic) Th.	03	PHARM 418	Pharmacognosy-IB (Basic) Th.	03
PHARM 414	Pharmacy Practice-IA (Pharmaceutical Mathematics)	03	PHARM 419	Pharmacy Practice-IB (Bio-statistics)	03
Course No.	Subject (Lab Courses)	Cr. Hr.	Course No.	Subject (Lab Courses)	Cr. Hr.
PHARM 420	Pharmaceutics-IIA (Dosage Forms Science) Lab.	01	PHARM 424	Pharmaceutics-IIB (Dosage Forms Science) Lab.	01
PHARM 421	Pharmaceutics-IIIA (Pharmaceutical Microbiology & Immunology) Lab.	01	PHARM 425	Pharmaceutics-IIIB (Pharmaceutical Microbiology & Immunology) Lab.	01
PHARM 422	Pharmacology and Therapeutics-IA Lab.	01	PHARM 426	Pharmacology and Therapeutics-IB Lab.	01
PHARM 423	Pharmacognosy-IA (Basic) Lab.	01	PHARM 427	Pharmacognosy-IB (Basic) Lab.	01
Total Cr. Hr. 22			Total Cr. Hr. 21		

3rd Professional Pharm. D

1 st Semester			2 nd Semester		
Course No.	Subject (Theory Courses)	Cr. Hr.	Course No.	Subject (Theory Courses)	Cr. Hr.
PHARM 510	Pharmacy Practice-IIA (Dispensing Pharmacy) Th.	03	PHARM 515	Pharmacy Practice-IIB (Community Social & Administrative Pharmacy)Th.	03
PHARM 511	Pharmaceutical Chemistry-III A (Pharmaceutical Analysis) Th.	03	PHARM 516	Pharmaceutical Chemistry-III B (Pharmaceutical Analysis) Th.	03
PHARM 512	Pharmacology and Therapeutics-IIA Th.	03	PHARM 517	Pharmacology and Therapeutics-IIB Th.	03
PHARM 513	Pharmacognosy-IIA (Advanced) Th.	03	PHARM 518	Pharmacognosy-IIB (Advanced) Th.	03
PHARM 514	Pathology Th.	03	PHARM 519	Pharmacy Practice-III (Computer and its Applications in Pharmacy) Th.	03
Course No.	Subject (Lab Courses)	Cr. Hr.	Course No.	Subject (Lab Courses)	Cr. Hr.
PHARM 520	Pharmacy Practice-IIA (Dispensing Pharmacy) Lab.	01	PHARM 525	Pharmaceutical Chemistry-III B (Pharmaceutical Analysis) Lab.	01
PHARM 521	Pharmaceutical Chemistry-III A (Pharmaceutical Analysis) Lab.	01	PHARM 526	Pharmacology and Therapeutics-IIB Lab.	01
PHARM 522	Pharmacology and Therapeutics-IIA Lab.	01	PHARM 527	Pharmacognosy-IIB (Advanced) Lab.	01
PHARM 523	Pharmacognosy-IIA (Advanced) Lab.	01	PHARM 528	Pharmacy Practice-III (Computer and its Applications in Pharmacy) Lab.	01
PHARM 524	Pathology Lab.	01	Total Cr. Hr. 19		
Total Cr. Hr. 20					

4th Professional Pharm. D

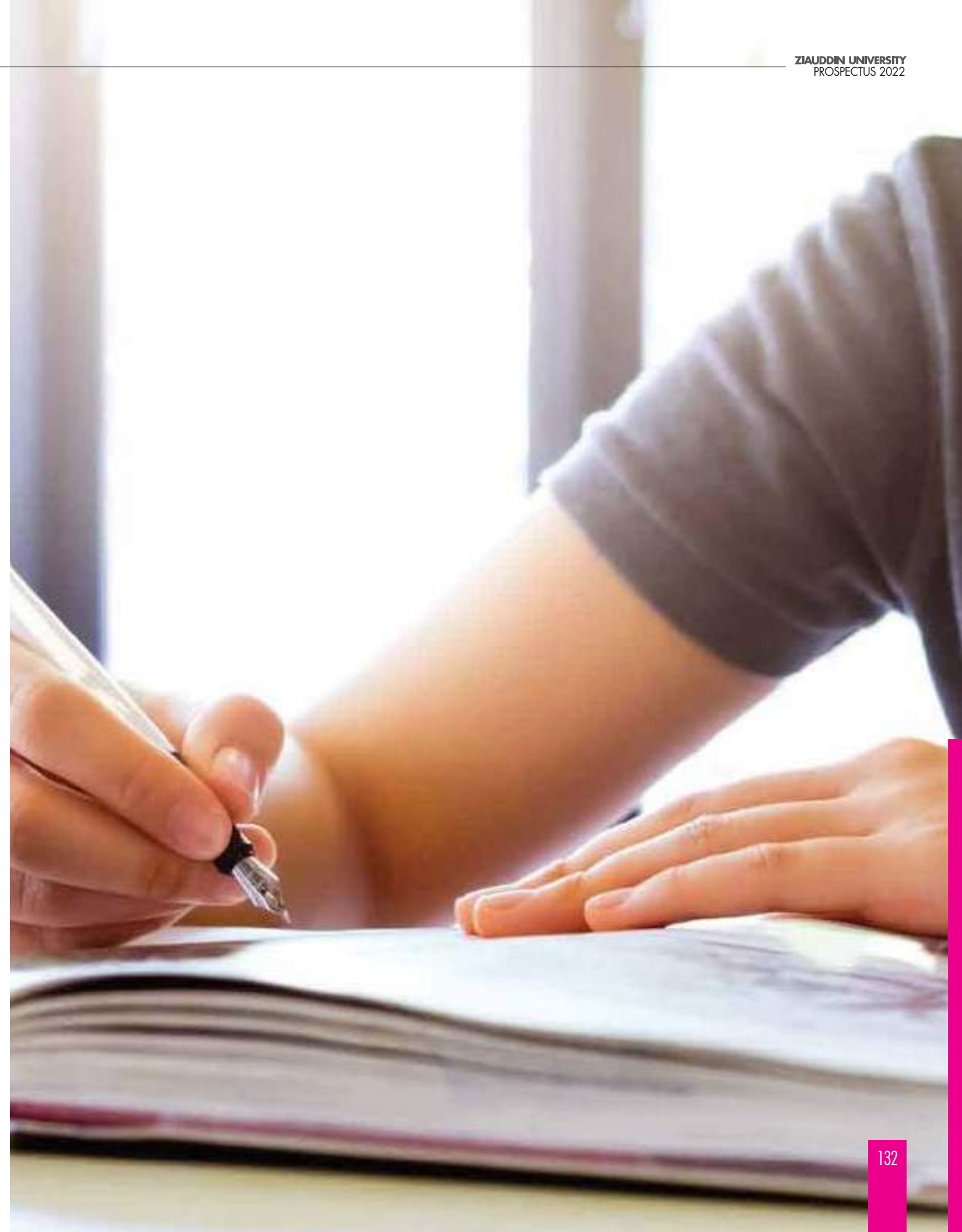
1 st Semester			2 nd Semester		
Course No.	Subject (Theory Courses)	Cr. Hr.	Course No.	Subject (Theory Courses)	Cr. Hr.
PHARM 610	Pharmacy Practice-IVA (Hospital Pharmacy) Th.	03	PHARM 615	Pharmacy Practice-IVB (Hospital Pharmacy) Th.	03
PHARM 611	Pharmacy Practice-VA (Clinical Pharmacy-I) Th.	03	PHARM 616	Pharmacy Practice-VB (Clinical Pharmacy-I) Th.	03
PHARM 612	Pharmaceutics-IVA (Industrial Pharmacy) Th.	03	PHARM 617	Pharmaceutics-IVB (Industrial Pharmacy) Th.	03
PHARM 613	Pharmaceutics-VA (Biopharmaceutics & Pharmacokinetics) Th.	03	PHARM 618	Pharmaceutics-VB (Biopharmaceutics & Pharmacokinetics) Th.	03
PHARM 614	Pharmaceutics-VIA (Pharmaceutical Quality Management) Th.	03	PHARM 619	Pharmaceutics-VIB (Pharmaceutical Quality Management) Th.	03
PHARM 628	Pharmacognosy-III (Clinical) Th.	02	Course No.	Subject (Lab Courses)	Cr. Hr.
			PHARM 624	Pharmacy Practice-VB (Clinical Pharmacy-I) Lab.	01
PHARM 620	Pharmacy Practice-VA (Clinical Pharmacy-I) Lab.	01	PHARM 625	Pharmaceutics-IVB (Industrial Pharmacy) Lab.	01
PHARM 621	Pharmaceutics-IVA (Industrial Pharmacy) Lab.	01	PHARM 626	Pharmaceutics-VB (Biopharmaceutics & Pharmacokinetics) Lab.	01
PHARM 622	Pharmaceutics-VA (Biopharmaceutics & Pharmacokinetics) Lab.	01	PHARM 627	Pharmaceutics-VIB (Pharmaceutical Quality Management) Lab.	01
PHARM 623	Pharmaceutics-VIA (Pharmaceutical Quality Management) Lab.	01	Total Cr. Hr. 19		
Total Cr. Hr. 21					

5th Professional Pharm. D

1 st Semester			2 nd Semester		
Course No.	Subject	Cr. Hr.	Course No.	Subject	Cr. Hr.
PHARM 710	Pharmaceutics-VIIA (Pharmaceutical Technology)Th.	03	PHARM 715	Pharmaceutics-VIIB (Pharmaceutical Technology)Th.	03
PHARM 711	Pharmacy Practice-VIA (Advanced Clinical Pharmacy-II) Th.	03	PHARM 716	Pharmacy Practice-VIIB (Advanced Clinical Pharmacy-II) Th.	03
PHARM 712	Pharmacy Practice-VIIA (Forensic Pharmacy) Th.	03	PHARM 717	Pharmacy Practice-VIIB (Forensic Pharmacy) Th.	03
PHARM 713	Pharmacy Practice-VIIIA (Pharmaceutical Management & Marketing) Th.	03	PHARM 718	Pharmacy Practice-VIIB (Pharmaceutical Management & Marketing) Th.	03
PHARM 714	Pharmaceutical Chemistry-IVA (Medicinal Chemistry) Th.	03	PHARM 719	Pharmaceutical Chemistry-IVB (Medicinal Chemistry) Th.	03
Course No.	Subject (Lab Courses)	Cr. Hr.	Course No.	Subject (Lab Courses)	Cr. Hr.
PHARM 720	Pharmaceutics-VIIA (Pharmaceutical Technology)Lab.	01	PHARM 723	Pharmaceutics-VIIB (Pharmaceutical Technology)Lab.	01
PHARM 721	Pharmacy Practice-VIA (Advanced Clinical Pharmacy-II) Lab.	01	PHARM 724	Pharmacy Practice-VIIB (Advanced Clinical Pharmacy-II) Lab.	01
PHARM 722	Pharmaceutical Chemistry-IVA (Medicinal Chemistry) Lab.	01	PHARM 725	Pharmaceutical Chemistry-IVB (Medicinal Chemistry) Lab.	01
Total Cr. Hr. 18			Total Cr. Hr. 18		

Pharm.D Five-Year Credit Hours Summary

Pharm. D	1 st Semester	2 nd Semester	Total
Professional	Cr. Hr.	Cr. Hr.	Cr. Hr.
1 st	23	22	45
2 nd	22	21	43
3 rd	20	19	39
4 th	21	19	40
5 th	18	18	36
Total Credit Hours	104	96	203



LEARNING AND TEACHING STRATEGIES

The following learning methods/strategies are used to promote better understanding;

- PBL (Problem Based Learning)
- Lectures
- Practical
- Assignments
- Presentations/Seminars
- Field visits
(Clinical Training/Pharmaceutical Industries)

STUDENT ASSESSMENT METHODS

- Written and practical examinations.
- Student log books or written reports
- Viva Voce
- Group or individual presentations
- Short answer written papers
- MCQs

REGULAR SEMESTER EXAMINATION

It consists of the following;

• Internal Continuous Assessment Tests:

Each course per semester carries 60 marks, which is marked as following:

- Midterm Exams 20 marks
- Quizzes/Class Tests 20 marks
- Assignments/Presentations 20 marks

Final Semester Examination:

It is conducted by the Examination Department of Ziauddin University and held at the end of each semester. It carries 40 marks of each course.

SUMMER SEMESTER

A student who has either failed or has been stopped taking the examination due to short-age of attendance or to improve his/her grade is allowed to register in the summer semester.

Summer semester will be offered as an optional semester of eight weeks duration. Students will be offered courses to remove deficiencies or pass the courses and they may register for up to 6 credit hours. The course in the summer semester will be offered with minimum course registration of 3 students. In case of less number of students, the student will be admitted in the next year summer semester.

Repeating Courses/Improvement of CGPA

If a student receives "F" grade, he/she will be required to repeat the particular course in summer semester. However, the F grade obtained earlier will be mentioned on the transcript. Undergraduate students may be allowed to repeat the course in which he/she has obtained grade C or below. Under such circumstances both the grades will be displayed on the transcript. However, only the improved grade shall be used in the calculation of the CGPA.

In the case of CGPA improvement, the grade would be recorded with 'imp' on the transcript.

GRADING POLICY

Grade	Grade Point	% Equivalence	Remarks
A	3.67 – 4.00	85 and above	
A-	3.34 – 3.66	80 – 84	
B+	3.01 – 3.33	75 – 79	
B	2.67 – 3.00	71 – 74	
B-	2.34 – 2.66	68 – 70	
C+	2.01 – 2.33	64 – 67	
C	1.67 – 2.00	61 – 63	
C-	1.31 – 1.66	58 – 60	
D+	1.01 – 1.30	54 – 57	
D	0.10 – 1.00	50 – 53	
F	0.00	Below 50	
I (Incomplete)	0.0	-	Did not complete as mentioned 15.5/-15.68 *
W (Withdrawl)	0.0	-	Withdrawal from the course is allowed till the 6th week of semester. At the 6th week, students will be awarded F Grade
X (Exempted)	0.0	-	In case migration from other institution or studied courses in exchange programme **

ELIGIBILITY FOR SEMESTER EXAMINATION

A cumulative attendance report of seventeen weeks (one semester) is displayed at the end of the semester. A student has to secure 80% attendance in each course (Theory & Lab.) to appear in the semester examination. Students who have attendance between 75% to 79% in any course will be eligible to appear in the regular semester examination after submitting assignment(s) to concerned course incharge(s).

Attendance will be marked on CMS and eligibility will be generated accordingly from CMS.

ELIGIBILITY FOR SUMMER SEMESTER

1. If a student fails in any course in the semester, s/he can enroll in summer semester.
2. Students having below 75% attendance will be eligible to appear in summer semester.

POLICY FOR REPEATING THE YEAR

Students having less than 65% attendance in any course will not be eligible to appear in the Summer Semester and will have to repeat the year.

REQUIREMENT FOR THE AWARD OF PHARM.D

- A student must have passed all prescribed courses of Pharm.D Programme.
- A student must have obtained a minimum 2.45 Cumulative Grade Point Ratio (CGPR).
- In case a student obtained less than 2.45 CGPA at the end of the final semester, he/she may be allowed to get readmission in one or more courses in which obtained grade is below C, provided he/she is not debarred under the CGPA improvement or is within the specified time duration.

GOLD MEDAL

At the time of the convocation, a Gold Medal, "Sir Ziauddin Gold Medal" is awarded by Ziauddin University to a student achieving highest CGPR but not less than 3.4 CGPR in Pharm.D.

The candidate will not qualify for Gold Medal even if he/she has achieved the highest CGPR, if he/she has appeared in the summer semester or grade improvement exams.

CO-CURRICULAR ACTIVITIES

Students of Faculty of Pharmacy, Ziauddin University are lucky to be a part of an institute with the large set-up of hospitals & clinical practice. To make best use of this opportunity, we have given much emphasis on the clinical side of the profession which is the very soul of Pharm.D programme. This is a requirement of the curriculum as approved by Pharmacy Council of Pakistan. This training also provides a better chance of learning and practicing the skills in these fields. No Pharmacy institution in the country has such an ideal situation for the training as Ziauddin University has.

CLINICAL TRAINING

This training enables these future Pharmacists to play a vital role in the improvement of quality of healthcare in our society. This will bring a unique difference between its graduates and graduates of other Pharmacy institutions of the country. It will not be out of place to mention that Pharm.D is a patient oriented programme rather than product oriented four-year B.Pharm degree of the past. Students of 4th & 5th professionals complete this training in Pharmaceutical service centres of Ziauddin Hospitals (In-patient pharmacy, emergency room pharmacy, ambulatory dispensing area, bulk store, out-patient pharmacy, satellite pharmacy) and different wards like Medical ICU, Cardiac care unit, Neonatal care unit, cardiac ward, Neuro./Psychiatry ward, Gastroenterology ward, Gynaecology ward, Paediatric ward, Dialysis centre. This training is conducted at all three sites of Dr. Ziauddin Hospital i.e. North Nazimabad, Clifton & Kemari (KDLB).

The main objectives of clinical training are:

- To develop students' communication skills for effective interaction with patients and with practitioners of other health professions
- To help students develop a patient awareness in the practice of Pharmacy
- To enable students to integrate the knowledge acquired in course work prior to clinical exposure, and to apply it to the solution of real problems, and to help students become more aware of the general methods of diagnosis and patient care specifically related to drug therapy.

COMMUNITY PHARMACY TRAINING AT ZIAUDDIN

Community pharmacy training programmes focused on advancing skills in direct patient care, patient care service development and practice management. This is the unique training programme offered by Ziauddin Faculty of Pharmacy, not available anywhere else in Pakistan. Following are the main objectives of our community training:

- To produce professionally competent pharmacists.
- To serve the community as a drug specialist.
- To enable the students to have sound knowledge and practical exposure to;
 - i. Community Pharmacy and its organisation.
 - ii. Epidemiology and its control.
- To educate and counsel the patient.
- To control drug abuse and misuse.
- To control drug inventory.
- To develop a better understanding of principles of health promotion and patient care programmes such as immunisation in community.

PHARMACY RESIDENCY PROGRAMME

In order to expand graduates' professional skills and to develop a patient oriented attitude, one year Pharmacy Practice Residency programme has been started in the clinical and hospital pharmacy. This is a one year training programme for the graduate of Ziauddin Faculty of Pharmacy. The programme aims to provide professional experience in different fields of pharmacy practice such as inpatient pharmacy, outpatient pharmacy, oncology

pharmacy, nutrition pharmacy etc.

At the end of this programme, certificates are awarded to graduates who successfully complete the programme. During the residency period a reasonable stipend is also given to the trainees. This is the only institution of Pakistan which offers such specialised training programme based on Pharmaceutical care system.

INDEPENDENT CLINICAL PHARMACY ROUNDS

The objective of this programme is to ensure rational use of medicines in Dr. Ziauddin Hospital. It allows the clinical pharmacy faculty to specialise in clinical pharmacy practice and developing clinical skills such as patient profile review, drug information, patient medication history and discharge patient counselling.

EXTRACURRICULAR ACTIVITIES

Students of Pharmacy always remain at the forefront in organizing activities of academic & non academic nature. These activities include

- Annual Pakistan Tour
- Inter and intra departmental sports Competitions
- Inter and Intra departmental debate competitions.
- Donation Drives
- Annual picnic
- Annual Dinner
- Recruitment drives

Under the patronage of Student Advisor various clubs/societies have been formulated to facilitate student's activities in many aspects, which are as under;

- Community Welfare Society
- Leisure Club
- Literary Society
- Scientific Club
- Sports Club
- Alumni Club

INDUSTRIAL VISITS

Industrial tours to different pharmaceutical industries are arranged frequently to make the students aware of the students with basic practices of manufacturing, quality control and quality assurance of medicines. These tours enable the students to relate their theoretical knowledge with different unit operations involved in dosage forms manufacturing and different QC and QA techniques to maximise the product quality.

CAREER OPPORTUNITIES

Pharmacy offers a challenging, satisfying and rewarding career to the individual whose interest lies in health services, business, scientific research, university teaching and hospital practice. Pharmacists advise their patients, and other health practitioners in the selection of, dosages, drug-drug interactions, and side effects of medications, as well as monitor the health and progress of patients to ensure that they are using their medications safely and effectively.

Areas where services of pharmacists are required include;

- Hospital Pharmacy/Clinical Pharmacy
- The Pharmaceutical Industry
- Community Pharmacy
- Academia
- Pharmaceutical Marketing
- Drug control administration
- Research & Development
- Armed Forces
- Regulatory Authorities

Many opportunities for pharmacists with Pharm.D degree are available in U.S.A, Canada, Australia & Middle East.

MPHIL AND PH.D PROGRAMME

This programme is designed to prepare students for teaching and research careers in academia, the pharmaceutical industry, hospitals and research institutes. Students are expected to select an area of specialisation from one of the pharmaceutical science disciplines including Pharmacology, Pharmaceutical Chemistry, Pharmaceutics, Pharmacognosy and Pharmacy Practice.

The MPhil and Ph.D programme consists of course work, presentations, research and publications. The objective of the programme is to provide a thorough understanding of the subject. In addition, students can choose from a variety of elective courses that allow them to gain knowledge and skills which may be used for a career of independent research and teaching in pharmacy for academic institutions, industrial laboratories, hospital or government research and administrative agencies.

The University places emphasis on excellence in research, making every effort to ensure that students are able to commit as much time as possible to their research projects, which allows them to earn the MPhil or Ph.D. degree in a timely fashion.

MISSION STATEMENT

"The mission of MPhil/PhD programme at Faculty of Pharmacy is to produce high calibre postgraduates with exceptional academic, research and leadership skills in basic, applied and professional disciplines of pharmaceutical sciences by providing them with high quality and competitive learning and research environment. This will enhance their knowledge, enlighten them to foster innovation and train them to meet their respective intra-disciplinary as well as cross-disciplinary challenges on the frontiers of pharmaceutical sciences."

DISCIPLINES OFFERED

MPhil

- Pharmacology
- Pharmaceutics

Ph.D

- Pharmacology

ADMISSION POLICY

The admission for post graduate degree programs (MPhil and Ph.D) is announced once an academic year. Strong adherence to governing HEC rules is observed at the time of admission. All candidates are selected on merit following evaluation of academic record and interview.

ELIGIBILITY CRITERIA

For MPhil Programme

Pharm.D degree from any HEC recognised university. Candidates must have passed NTS GAT exam or Entry Test of ZU with 50% marks.

For Ph.D Programme

MPhil/M.S/Equivalent Degree in relevant field of Pharmacy from any HEC recognised university with minimum CGPA 3.0 (out of 4.0 in semester system) or First Division (in annual system) and must meet all admission criteria of HEC, candidates must passed GAT Subjective (NTS or university based with minimum cumulative score of 60% or 70% respectively).

FEE STRUCTURE

MPhil

Admission Fees:	Rs. 25,000/-
Tuition Fees (per semester):	Rs. 80,607/-
Semester Exam (per semester):	Rs. 5,750/-
Thesis Defense:	Rs. 50,000/-

PH.D

Admission Fees:	Rs. 25,000/-
Tuition Fees (per semester):	Rs. 80,607/-
Semester Exam (per semester):	Rs. 5,750/-
Thesis Defense:	Rs. 100,000/-

Note: Any additional taxes imposed by the government will be the liability of the students/parents/guardian.

The University reserves the right to increase the fees if required according to the recommendation of the Governing Body.

Advance fees to be paid semester-wise. All dues need to be cleared within two weeks of commencement of the academic year. 2% surcharge per month will be levied on outstanding fees after the due date.

LEARNING AND TEACHING STRATEGIES

- Course work in the respective field of specialisation will enable students to comprehend central issues or problems in the field.
- Discussion on the sources of literature will enable students to develop the skills to select, read and survey the recent developments in any particular area of research.
- Assignments including term papers on various research topics to be prepared by students during the course work.
- Participation in the journal club on weekly basis.
- Presentations of research papers at a journal club.
- Preparation and presentation of synopsis for the thesis.
- Carrying out research projects in participation with other students as a part of assignments.
- Leading undergraduate students in research as a project or getting them involved in their own research project.
- Presentations of posters in conferences and symposia.
- Presentations in symposia and conferences of research work.
- Writing research papers and publications in national and international journals.

SEMESTER SUMMARY

Pharmaceutics: The students will learn the advanced level the immunity, infection, virology, microbial control and antimicrobial agent. The application of Pharmacokinetics and Pharmaceutical Biotechnology in the field of Pharmacy is taught along with the advanced level of the physical & biological principles which apply to the design, development and evaluation of drug delivery system.

Pharmacology: This subject deals with advance Pharmacokinetics and Pharmacodynamics knowledge of drugs, therapeutic study

of cardiovascular system, therapeutic modalities to treat cancer and management of antimicrobial therapy, study of common toxicity syndromes and standard protocols and pharmacology of derived autacoids.

Pharmaceutical Biostatistics: This course focuses on practical areas of statistics applied to pharmacy and pharmaceutical sciences Sample and Population, Test of Hypothesis and significance, Test involving binomial and normal distribution, Student "t", "Z" and "F" distribution, analysis of variance, Experimental Designs, Basic Principles, completely randomised (CR- designs), Randomized complete block designs, Latin square etc., Correlation/regression analysis, Introduction of SPSS.

Research Methodology & Clinical Trials: This course will develop the skills to select, read and survey the recent developments in any particular area of research.

Computer Application in Research: This course enables research scholars to analyse data and interpret the outputs of various software of research methodology. This also helps them to design research models and simulators.

Research Ethics: This course will help the students to know about various features while doing research because research ethics will cover different areas of fundamental research.

ATTENDANCE

Minimum 75 % attendance in a course is required to appear in the examination of that course.

EXAMINATION

In each semester, students may be required to appear in quizzes, tests, mid-semester, final semester examinations, presentations (individual/group), group discussion, and submit projects/assignments/lab reports, studio work etc. These assessment marks (to be determined by the teacher concerned) will have different weightage contributing towards the overall assessment in percent marks. This weightage may be determined on the basis of the following table:

TABLE: COURSE SUBJECT MARKS DISTRIBUTION

Sr.No	Description	Theory of Max. 100 Marks	
		Marks Distribution	
i.	Continuous Assessment		
	• Quizzes/Class Test(s)		10
	• Class Clinical Assignments/Project Presentation		10
	• Mid Semester Exam		30
ii.	Final Semester Exam:		50
	Total Marks		100

TABLE : GRADE AND GRADE POINT

Grade	Grade Point	% Equivalence	Remarks
A	4.00	85 and above	
A-	3.66	80 – 84	
B+	3.33	75 – 79	
B	3.00	71 – 74	
B-	2.66	68 – 70	
C+	2.33	64 – 67	
C	2.00	61 – 63	
C-	1.66	58 – 60	
F	0.00	Below 50	
I (Incomplete)	0.0	-	Did not complete
W (Withdrawal)	0.0	-	Withdrawal from the course till the 6th week of semester after 6th week student will be awarded F Grade
X (Exempted)	0.0	-	In case Migration from other institution or studied courses in exchange programme

CGPA REQUIRED FOR THE COMPLETION OF POSTGRADUATE PROGRAMME - MS/MPhil/Ph.D

1. For completion of PhD degree, the minimum qualifying CGPA is 3.00 (For - MS/MPhil 2.50).
2. In case a student secures less than 3.00 CGPA (2.50 for MS/M Phil) (minimum qualifying CGPA) at the end of final Semester, she/he may be allowed to get re-admission in one or more courses, in which his/her Grade is C or

below, provided that she/he is not debarred under the CGPA Improvement and time duration specified for the programme.

SUMMER SEMESTER

1. Summer semester will be offered as an optional semester of 8 weeks duration. Students will be offered courses to remove deficiencies and can register up to 6 credit hours for the summer semester.

2. Moreover, a student who has either failed or has been stopped to take the examination due to a shortage of class attendance or wishes to improve his/her grade is allowed to register in the summer semester.

3. The contact hours per week during the Summer Semester will be doubled to ensure that the course is completely taught in a summer session with half of the duration as compared to a regular (Fall/Spring) semester.

4. All the qualifying rules for the Fall/Spring semester will be applicable to the summer semester.

5. The course in the summer semester will be offered with the minimum course registration of 03 students (where intake of students is small, minimum course registration should be 50%, failure students)

6. In case of less number of students, the student will be admitted in next year summer semester.

CAREER OPPORTUNITIES

- A postgraduate qualification can enhance the career and earning prospects, and sets apart from other students who only hold an undergraduate degree.
- Postgraduate studies will enable a student to operate effectively at a senior level and go on to successful careers in business, industry and academia.
- Postgraduate study can also equip a student with the knowledge and skills, anyone need to move into a different profession.
- It is the pathway to an academic career.

Areas where Postgraduate students can serve are;

- R&D sectors/firms involved in Drug Designing, Pharmaceutical Product Development and Medicine related researches like Clinical trials, Pharmacovigilance, Pharmacokinetics/Pharmacodynamics studies.
- Individual Entrepreneurs like consultants/advisors (Training/Workshops/Consultancy/Publishing etc)
- Pharmaceutical Industrial sector
- Regulatory Bodies/Authorities (Drug Regulatory Authority of Pakistan, MOH, Drug Control Administration.)



FACULTY MEMBERS

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FACULTY OF EASTERN MEDICINE & NATURAL SCIENCES



FACULTY OF EASTERN MEDICINE & NATURAL SCIENCES

KEY INFORMATION

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INTRODUCTION

Faculty of Eastern Medicine and Natural Sciences focuses on outcomes-based learning which ensures that students receive skills that are immediately transferable to the workforce. Ziauddin University founded in the memory of Sir Dr. Ziauddin Ahmad vision to promote quality education through excellence in teaching, research, and public service. Following the vision of the founder, Faculty of Eastern Medicine and Natural Sciences is engaged to reassure the fulfillment of the vision contributing to provide a culture of collaboration and collective responsibility to develop effective and consistent teaching practices and to improve student achievement.

The aim of this Faculty is to implement its mission with the highest professional and ethical standards in an environment that enables each of our students for excellence.

VISION

The vision of the Faculty of Eastern Medicine and Natural Sciences is to create transformative impact on society through innovation in research, quality education and professional development.

MISSION

The Faculty of Eastern Medicine and Natural Sciences aims to impart quality education and develop new trends of research to play an

effective part in the development of professionals for achieving excellence in their respective fields. Our focus is on deep practical knowledge, leadership, interpersonal skills and to deal with challenges of the emerging world. Training, Research, Diet therapy, and Organic Plant Cultivation activities to serve the noble cause.

VALUES

- Our dealing with the community is based on a transparent and respectful relationship.
- To support the learning environment, we recognise the diversity and value the interaction between faculty, students, employees, and collaborators.
- The pursuit of excellence in the field is our fundamental prerequisite. Our commitment to quality education with our academic offerings is the reflection of excellence.
- Faculty endeavours to highlight social problems and seek solutions creating a balanced environment between humanity and nature.
- We try to create a positive impact leading towards the health-supportive environment.

The faculty is involved in facilitating various programmes in our colleges including:

- **College of Eastern Medicine and Natural Sciences**
- **College of Horticulture**
- **College of Natural Sciences**



COLLEGE OF EASTERN MEDICINE (CEM) BACHELOR OF EASTERN MEDICINE & SURGERY (BEMS) 5-YEAR DEGREE PROGRAMME

VISION

To recognize Eastern Medicine & Tibb-e- Nabvi as the world's most esteemed system of Healthcare and to promote, encourage and support education, clinical training & research in Eastern Medicine. We strongly believe that our graduates will serve the nation and humanity at large.

MISSION

Quality Health is the basic need of society; the College of Eastern Medicine will be serving the following:

- To provide widespread knowledge and evidence-based education in Eastern Medicine.
- To promote and develop its practice and understanding.
- To facilitate its professionals for the basic understanding of Complementary and alternative medicine in the light of Eastern Medicine & Tibb-e-Nabvi.
- To meet the highest professional and ethical standards leading to excellence in Clinical and Research activities serving the noble cause.

OBJECTIVES

- Being healthcare stakeholders, to develop our relationship with the communities and empower lives through innovation and development of Eastern Medicine & Tibb-e-Nabvi medicinal products.
- Guide Eastern Medicine & Tibb-e-Nabvi Institutions in designing Curricula that provides a proper content of basic knowledge of Eastern Medicine & Tibb-e-Nabvi
- To contribute to fulfilling the need for quality research in the field of Eastern Medicine for the treatment of chronic diseases through the development of evidence-based Eastern Medicine formulations. We strongly believe that our graduates will serve the nation and humanity at large.
- To combat diseases and improve maternal and mental health.
- To establish a network of Clinics all over the

country under the umbrella of Hiba Life for regimental therapies and treatment through Eastern Medicine & Tibb-e-Nabvi.

- To promote formal links with National and International Institutions and industry for knowledge sharing, collaborative research, clinical training, and personnel exchange.

ACCREDITATION AND REGISTRATION

- National Council for Tibb (NCT)
- Course Curriculum approved by Ministry of Health as well as by Higher Education Commission (HEC)

ELIGIBILITY CRITERIA FOR ADMISSION

Intermediate Science (Pre-Medical), A-level Biology OR Equivalent qualification

ENTRY TEST FOR ADMISSION

- Test for undergraduate programme (conduct by University)

FEE STRUCTURE

Fee	Fee Per Semester
Admission fee (one time):	15,000
Documentation fee (one time):	3,000
Enrollment fee (one time):	2,600
Security deposit (one time):	10,000
Laboratory fee (per semester):	3,000
Examination fee (per semester):	3,400
Tuition fee (per semester):	60,000
Processing fee:	4,000
Total:	101,000

Note: Any additional taxes imposed by the government will be the liability of the students/parents/guardian. The University reserves the right to increase the fees if required according to the recommendation of the Governing Body. Advance fees to be paid semester-wise. All dues need to be cleared within two weeks of commencement of the academic year. 2% surcharge per month will be levied on outstanding fees after the due date.



COLLEGE OF HORTICULTURE (CH)

BS HORTICULTURE 4-YEAR DEGREE PROGRAMME

VISION

Production of medicinal plants, vegetables, fruits and rare organic species, and to be effective producers of raw materials for evidence based formulation production both at national and an international level.

To enhance health, environment, and economy by advancing and sharing the science of medicinal plant production and use of healthy food.

MISSION

- To identify potentially profitable crops and researchable solutions, developing high-value horticultural products and horticultural enterprise, providing programs to assist the Commonwealth in adjusting to the economic and environmental impacts thus enhancing the ecosystem.
- Health and wellness products derived from plants and delivered in the form of drugs, dietary supplements (nutraceuticals), functional foods or cosmetic ingredients.
- Ethno-botanical knowledge and modern research to identify plant compounds that improve human health and well-being.
- Application of all potential tools to identify pharmacologically active phytochemicals and to study their effects on animals and people.
- Educate horticulture students with knowledge in cutting-edge research technology for horticulture, and prepare them to be more competitive in their future careers.
- Increase assistantship opportunities through graduate programmes to increase Ph.D. enrollment, mentoring students to develop an interest in the field.

OBJECTIVES

- Introduction, history, importance and future scope, Definition and divisions of horticulture, Classification of horticultural crops, Plant parts, their modifications and functions, Plant envi-

ronment; climate (temperature, light, humidity etc.)

- Soil (structure, texture, fertility etc.),
- Visit of nurseries, commercial gardens and public parks.
- Identification and nomenclature of important fruits, vegetables and ornamental plants; Garden tools and their uses,
- Media and its preparation an techniques of propagation.

CURRICULUM APPROVED BY

Higher Education Commission (HEC)

ELIGIBILITY CRITERIA FOR ADMISSION

Intermediate Science (Pre-Medical), A-level Biology OR Equivalent qualification

ENTRY TEST FOR ADMISSION

- Test for undergraduate programme (conduct by University)

FEE STRUCTURE

Fee	Fee Per Semester
Admission fee (one time):	15,000
Documentation fee (one time):	3,000
Enrollment fee (one time):	2,600
Security deposit (one time):	10,000
Laboratory fee (per semester):	3,000
Examination fee (per semester):	3,400
Tuition fee (per semester):	70,000
Processing fee:	4,000
Total:	111,000

Note: Any additional taxes imposed by the government will be the liability of the students/parents/guardian. The University reserves the right to increase the fees if required according to the recommendation of the Governing Body. Advance fees to be paid semester-wise. All dues need to be cleared within two weeks of commencement of the academic year. 2% surcharge per month will be levied on outstanding fees after the due date.



COLLEGE OF NATURAL SCIENCES (CNS)

BS HUMAN NUTRITION & DIETETICS 4-YEAR DEGREE PROGRAMME

VISION

Transformation of human health status through better nutrition and physical activity.

MISSION

- Discover, disseminate and apply knowledge to promote improved food choices, nutritional status and well-being of the people.
- Promote an academically and culturally diverse educational and research environment by providing high-quality nutrition education and skills.
- Research for health protection and improvement through judicious intake of food.
- Serve the community through participation in nutrition-related activities and increasing the awareness at the national and international levels.

SCOPE

- Nutritionists
- Nutrition Educationists
- Nutrition Consultants
- Dieticians
- Public Health Nutritionists
- Clinical Dieticians
- Food Service Administrators
- Nutrition and Health Expert
- Weight Management Expertise
- Therapeutic Diet Planning

PRIVATE SECTOR

- Multinational Companies
- Independent Private Practice
- Food Industries
- Pharmaceuticals Industry
- Hospitality industry
- Consultant for Private Companies and Hospitals
- Airlines and Railways Services
- Catering Services
- Healthcare Centres

PUBLIC SECTOR

- Public Health Departments
- School Health & Nutrition Programmes
- Research and Teaching Institutes
- International Organisations: UNICEF, UNDP,

WHO, FAO, World Bank

- Non-Governmental Organisations
- Community Development Program
- Motivational speaker

FOREIGN COUNTRIES

- Public health departments in Middle East, Europe etc.
- Independent Private Practice as registered dietitians

CURRICULUM APPROVED BY

- Higher Education Commission (HEC)

ELIGIBILITY CRITERIA FOR ADMISSION

Intermediate Science (Pre-Medical), A-level Biology OR Equivalent qualification with minimum 60%

ENTRY TEST FOR ADMISSION

- Test for undergraduate programme (conduct by University)

FEE STRUCTURE

Fee	Fee Per Semester
Admission fee (one time):	15,000
Documentation fee (one time):	3,000
Enrollment fee (one time):	2,600
Security deposit (one time):	10,000
Laboratory fee (per semester):	3,000
Examination fee (per semester):	3,400
Tuition fee (per semester):	80,000
Processing fee:	4,000
Total:	121,000

Note: Any additional taxes imposed by the government will be the liability of the students/parents/guardian. The University reserves the right to increase the fees if required according to the recommendation of the Governing Body. Advance fees to be paid semester-wise. All dues need to be cleared within two weeks of commencement of the academic year. 2% surcharge per month will be levied on outstanding fees after the due date.



FACULTY OF ENGINEERING SCIENCE, TECHNOLOGY & MANAGEMENT



FACULTY OF ENGINEERING SCIENCE & TECHNOLOGY MANAGEMENT

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DEPARTMENTS

- DEPARTMENT OF BIOMEDICAL ENGINEERING
- DEPARTMENT OF CIVIL ENGINEERING
- DEPARTMENT OF ELECTRICAL ENGINEERING
- DEPARTMENT OF SOFTWARE ENGINEERING
- DEPARTMENT OF MANAGEMENT TECHNOLOGY & INFORMATION SCIENCE



“What we learn with pleasure, we never forget”

Today I feel so proud to be a part of Ziauddin University, which is foundation of inquisitive learning, innovation and exploration. Four years ago, when I started my journey at Ziauddin University college of Biomedical Engineering, I didn't know that this college will open up a new world of experience and career opportunities for me. Education in this institution is one of the very best investments for students with a vision of enhancing potential for employability, entrepreneurship and higher studies. College of BME's distinguished and highly qualified faculty, strong policy framework and continuous effort to bring improvements has transformed it into Ziauddin University Faculty of Engineering Science and Technology. Being a graduate of ZUFEST, this degree comes with more responsibilities. ZUFEST has made me realize that in a technology driven interconnected world Biomedical Engineer has potential to make the world a fair and dignified place for all people and can improve the technological support required in modern medicine. This four years journey has provided me with the best of memories. Our faculty's support, mutual encouragement and values will last longer than classroom discussions. Friends I made here will last far beyond my college boundaries. I am sure that every student here has his/her own share of excitement and stories that they will carry along all their lives.

MUNIRA MUHAMMADI ZARIWALA
BE BIOMEDICAL ENGINEERING

VISION

Exploring uncharted waters of knowledge to make the world a better place to live.

MISSION

Ziauddin University Faculty of Engineering Science & Technology (ZUFEST) aims to create robust and well-led academic units that produce efficient & agile engineers with an improved research base to facilitate the development of an ambitious blueprint for continued growth in a knowledge based economy.

INTRODUCTION

ZUFEST aims to develop as a "contributing community" and not just an academic unit. We are focused to provide an environment where faculty, students and staff will be motivated, ambitious, and willing workers. The bonding will be such that future Alumni themselves take the lead to help their alma mater grow & develop.

Leadership of ZU is mindful of the fact that inner strength of any organisation lies with its Human Resource. Therefore, Capacity building of existing manpower and attracting new highly qualified workforce is a prime focus of ZUFEST. The highly qualified faculty is on board to support the Vision & Mission of the organisation. ZUFEST is striving hard to be known for its different pedagogic approach equipped with interactive learning tools & case study based teaching and a research base, where research is conducted for a bigger purpose rather than just for publication. ZUFEST targets to emerge as one of the most responsive research units and create upcoming opportunities in the world.

Moving forward in the pursuit of opening up new horizons, ZUFEST is aiming to launch programmes in line with the market needs. Our objective is to produce graduates in the disciplines which are not saturated hence having high job scopes. Entrepreneurial attitude shall be the highlight of ZUFEST graduates. They should have the potential to be the market leaders other than just a job seeker.

ZUFEST undergraduate policies

1. Number of Semester per Academic year

1.1. There will be two regular semesters (fall, spring) in an academic year.

1.2. Fall/Spring semesters will spread over 16-18 weeks (exclusive of 1-2 weeks for exams).

1.3. There shall be two scheduled examinations in one semester i.e. Mid Term (8 weeks teaching + 9th week for examination) and Final Term (8 weeks of teaching + 18th week for examination). Chairpersons of the departments ensure to post the schedule of examination on the students notice board at-least two weeks before the conduction in consultation with Head Invigilator.

1.4. A Summer Semester may be of 8 weeks of concentrated study for completing remedial/deficiency course work.

1.5. Summer semester may be offered as an optional semester of 8 weeks duration (exclusive of 1 week for exams). Students will be offered courses to remove deficiencies and can enroll in upto a maximum of 2 courses during summer.

1.6. Moreover, a student who has either failed or has been stopped to take the examination due to the shortage of class attendance or wishes to improve his/her grade is allowed to register in summer.

1.7. The contact hours per week during the summer semester will be doubled to ensure that the course is completely taught in a summer session with half of the duration as compared to a regular (Fall/Spring) semester.

1.8. If any student repeats any course during his/her undergrad degree programme, he/she will be disqualified from the Gold Medal.

2. Course load for Fall and Spring Semester

2.1. An undergraduate programme of instruction generally includes a 12-18 credit hours course load including exams in a regular semester.

2.2. In case any student wishes to enroll for one more course beyond 18 cr. Hours he/she may be allowed by the concerned Chairperson on recommendation of Class Advisor in either of the two cases—

- If his/her CGPA is above 3.2
- The student needs the course to graduate

on time in the Final year

3. Enrollment/Registration in courses

3.1. Chairperson will assign a Class advisor to each section/Batch of the programme. The advisor and the student of that section together will develop a course registration strategy subject to student academic performance. The advising file will be updated each semester and will include copies of transcripts and GPA earned.

3.2. Students are required to choose the courses they wish to enroll in, before the start of a semester with the advice of the class advisor taking into consideration the pre-requisite courses.

3.3. A student who wishes to add or drop a course, or change a section of a course after registration must complete the relevant procedure as prescribed by ZUFEST within two week of semester commencement.

3.4. No drop and add will be allowed after the second week of the semester commencement.

4. Admission

4.1. Admission will be announced twice a year in (fall and spring) for undergraduate programmes.

4.2. The Number of batch intakes per year per programme will be maintained as per the approval of the respective accreditation council recommendation for every programme.

4.3. The number of students per batch will be maintained as per the approval of the respective accreditation council recommendation for every programme.

4.4. Provisional admission may be given by the departmental chairperson in consultation with the Dean. However, the maximum provision time given to any candidate should not exceed 30 days from the date of provisional admission.

4.5. Failing to meet the 30 days may result in cancellation of provisional admission without any further extension and no fees will be refunded.

4.6. In the case of percentage deficiency cases, transfer of programme within ZUFEST may be considered, providing the applicant fulfills all the admission requirement of that programme and sufficient number of seats is

available to accommodate the student.

4.7. All the prospective students need to apply online via the portal and need to submit admission processing fees as prescribed by the university (recommended Rs 2500 for all ZUFEST undergraduate programme).

4.8. All undergraduate student need to appear in university aptitude test and their merit is defined as per following criteria:

Criteria	Weightage
Aptitude test	50%
Intermediate matriculation	40%
	10%

* Subject to appear in interview

4.9. Council recommendation must be followed for DAE/BTECH/BS Technology quota for admission in Engineering and all undergraduate programs.

4.10. IBCC equivalence must be required for all foreign recognised qualifications including A-levels.

5. Repeating courses/improvement of CGPA

5.1. If a student gets 'F' grade, s/he will be required to repeat the course in full. There will be no Supplementary/Special Examination in a Semester System; if a student fails in a course, s/he is required to repeat it.

5.2. Students may be allowed to repeat a course in which s/he has obtained grade below "C". In such a case both the previous and new grade obtained will be recorded on the transcript, however, only the better grade shall be used in the calculation of CGPA. The students are allowed to take a maximum (6) of courses to repeat in 8 semester degree programme.

6. Freezing of a semester

6.1. If a student freezes a semester(s), s/he will resume his/her studies from the same stage where s/he left (froze). No freezing during the semester will be allowed. The maximum duration of the degree programme shall remain the same i.e. 7 years from the date of admission.

6.2. If a student is not enrolled in any course in a semester, s/he will not be considered a regular student of the university in that period. The student may then enroll in these courses in a

subsequent semester; however, s/he will have to meet pre-requisites of any course taken. In addition, it is understood that the university is not required to offer all courses in each semester.

6.3. The maximum duration of freezing is one year; a candidate who gets a semester freeze can get registration of next year with upcoming batch.

6.4. The student needs to pay semester charges to freeze semester.

6.5. Freezing of semester will only be allowed after the successful completion of 1st semester as prerequisite as the case may be for other semester's predecessor to the freezing Semesters.

6.6. Under following special circumstances, freezing of the first semester can be considered by the approval of competent authority:

- a. Iddah
- b. Maternity
- c. Death in the immediate family
- d. Any other subject to acceptance on justified rationale

6.7. Student can avail the freeze option, only 2 times, during undergrad programme; however two consecutive freezing applications shall not be entertained.

7. Transfer of credit hours for undergraduate programme

7.1. Transfer of credits from HEC recognised institute may be permissible if the programme in consideration is approved from HEC and the respective accreditation council for the HEI from where students want to transfer.

7.2. On receiving a request of transfer from a prospective applicant, a three member departmental standing committee headed by the Departmental Chairperson work on the equivalency of the credits earned in other HEI. The Chairperson will submit the credit transfer recommendations to Vice Chancellor/Academic Council through Dean within two weeks of receiving of application.

7.3. Credits are transferred on course to course basis i.e. a person taking course A at HEI X is allowed to transfer his/her credits to ZUFEST provided that course A is equivalent to course B taught at ZUFEST.



7.4. No credit hour of a course will be transferred if the grade is D.

7.5. Credit hours may only be transferred between duly recognised HEIs and internationally recognised universities.

7.6. The transfer of credit does not alter the maximum time duration for completion of the degree. The total time duration will be counted from the date of admission to the degree programme in first HEI.

8. Requirement of the award of degree

8.1. A student must have a regular admission in the Undergraduate programme of the institution and should earn a minimum of 50% credit hours out of a total of 128–140 credit hours from ZUFEST from where s/he will be entitled to the degree. (This para should be read in conjunction with para 7).

8.2. For completion of the degree, the minimum qualifying CGPAs for BS is 2.0

8.3. In case a student secures less than 2.00 CGPA (minimum qualifying CGPA) at the end of the final semester, s/he may be allowed to get re-admission in one or more courses, in which his/her Grade is below C, along with the forthcoming semester, provided that s/he is not debarred under the CGPA Improvement Regulation and time duration specified for the programme i.e. 7 years. ((This para should be read in conjunction with para 5).

9. Programme Duration

All the undergraduate programmes in ZUFEST must be of minimum 8 regular semester (excluding summer semester)

9.1. Minimum duration to complete an undergraduate programme is 4 years.

9.2. Maximum duration to complete an undergraduate programme is 7 years.

10. Cancellation of University Enrollment

Admission and University enrollment of the student will be canceled in any of the following circumstances:

10.1. If a student fails to attend any lecture during the first four weeks after the commencement of the first semester as per the announced schedule.

10.2. If the prerequisite academic documents of the students are found fake, forged, altered

or not in requirement with admission criteria mentioned by the university even after graduation from the university.

10.3. If it does not meet the minimum admission criteria set by the respective regulatory/accreditation council.

10.4. If the provision admission requirements do not meet by the deadline specified in the letter for submission of a certain mentioned milestone.

10.5. If a student fails to register in two consecutive semesters without any written prior approval from Chairperson and Dean.

10.6. If a student has involved in serious disciplinary misconduct.

10.7. If a student fails to complete the degree requirement within 7 years duration

In case of cancellation of admission because of any of the clauses as mentioned above) no fees will be returned.

11. Fee refund Policy

Fee deposited at the time of admission by fresh students or before the start of the semester, shall only be refunded under the following time frame:

- Upto 7th day (inclusive of holidays) of the commencement of classes 100%
- Upto 14th day (inclusive of holidays) of the commencement of classes 50%
- Only security will be refunded if a request for withdrawal is made after 14 days

12. Grading policy

12.1. In general, Relative Grading System is adopted in ZUFEST

12.2. Following letter grade and equivalent GPA are used:

Letter Grade	Grade Point
A	4.00
B+	3.70
B	3.50
B-	3.00
C+	2.70
C	2.50
C-	2.30
D	2.00
F	0.00
W	Withdraw
I	Incomplete

12.3. In case of class size less than 20 students,



course instructor may opt for absolute grading with the written permission of Dean on recommendation of Chairperson after course registration completion.

12.4. Both in case of relative and absolute grading it is recommended to normalised the result to maintain the standard of grading practice.

12.5. Grading Policy for each course identifies weightage of Homework, Quizzes, Mid-Semester Examination, Final Examination, Lab and Project etc. as approved by respective departmental chairperson is as follows:

Nature of Examination	Courses With Lab	Courses Without Lab
Sessional Examinations (Quizzes/ Assignments/ Presentations)	13.33%	20%
Midterm Examination	20%	30%
Final Examination	33.33%	50%
Lab (Lab Exam/Lab Report/Lab Assignments/ Projects)	33.33%	

12.6. Students may be allowed to withdraw from a course within 6 weeks of the semester. In such a case the transcript shall record the student enrolled in the course and withdrew. Consequently, grade 'W' will be awarded to the student which shall have no impact on the calculation of the SGPA/CGPA of the student. However, at the time of re-registration, this course will be treated as a new course and full fees will be charged. Additionally, any such course does not come under deficiency courses so it cannot be opted in the summer semester.

12.7. A student withdrawing after the 6th week shall be automatically awarded "F" grade which shall count in the GPA and stay on the

transcript.

12.8. Full fees will be charged for all withdraw courses. There shall be "no full or partial refund of fee" allowed under any circumstances

12.9. If a student fails to appear in the final examination of any registered course because of the reason/circumstance subject to acceptance on the justified rationale. S/he will be marked with grade "I". The status, of course, will be incomplete.

12.10. For grade "I", the student must have attendance (>75%) in that specific course and have satisfactory performance (>70%) in mid-term, quiz, assignment and all academic activities of that class.

12.11. At the time of re-registration of course with grade "I" no course fee will be charged. Additionally, such courses come under deficiency courses and maybe opted in the summer semester. However, the maximum course load in the summer semester should not exceed two courses including this course.

12.12. All the written request following the policy of "W" and "I" grades must be a route through the respective class advisor and submitted to Dean for approval on recommendation of Departmental chairperson.

12.13. No request for "W" grade is entertained after 6 weeks of commencement of classes. No request for the "I" grade is entertained after the end of the final examination.

13. Make up Examination

13.1. No make-up/re-take examination shall be allowed in a case where a student falls short of the required level of attendance or he/she fails the course. In such cases, the student shall repeat the complete course. Full course fees shall be charged when students again re-register for failed courses.

13.2. The make-up final examination may, however, be allowed with the next semester examination in case of death of parents, spouse or children of the student and course with "I" grade.

14. Student grievance committee

14.1. A four (4) member committee constituted of a senior faculty member/Head Invigilator,

relevant departmental Chairperson, Dean headed by Controller of Examinations to redress the grievances of the students about any course instructor or grades or for any other issue pertaining to final examination.

14.2. In respect of grade, a student must submit the grievance application if any, in writing to the departmental Chairperson within (07) seven working days of the receipt of the grade. The departmental Chairperson shall forward the grievance application to the Committee. It will be mandatory for the Committee to hear both sides (student and the instructor) and will give its final decision within (05) five working days or before the start of registration for the new semester, whichever comes earlier. The decision of the committee will be deemed final and will be binding on all parties.

15. Harassment policy

"Harassment covers the following

i. Passing remarks, placing visual or written material, aimed at a specific person or gender with the intention of physical assault or causing harm to the person.

ii. Any unauthorised use of electronic or other devices to make a picture or audio/video record of any person while on University premises without his or her prior knowledge."

15.1. The University does not tolerate any form of harassment or victimisation and expects all students and teacher to treat each other with respect, courtesy and consideration

15.2. Any student feels s/he has been subject to harassment can make a written complain to Departmental Chairperson via the appropriate

Procedure in relation to complaints about university staff or university student.

15.3. All such complains shall be forwarded to Registrar office for further action via Dean within (03) working days of the receipt of the written complain after initial scrutiny/fact finding.

16. Attendance Policy

16.1. Attendance in classes is mandatory especially in a semester system. Students need to maintain minimum attendance (>75 %) in a course to complete the requirements of a course.

16.2. The instructor should inform student about his attendance and must report in written student's absences at-least once before mid-term examination to his departmental chairperson. The department should officially warn the student via notice to maintain minimum attendance to qualify for final examination immediately after midterm examination.

16.3. A student may be stopped from appearing in the course final examination if he is unable to maintain minimum attendance in that specific course. He will be assigned "F" grade in that course and need to re-register in the course.

16.4. A student with exceptional cases such as serious accident or serious health ailment may request in written with a official hospital discharge sheet and medical report for relaxation upto further 10% to Departmental Chairperson through course instructor. However this cannot be availed more than twice during the whole student tenure.

DEPARTMENT OF BIOMEDICAL ENGINEERING

VISION

To become a top tier Department of Biomedical Engineering across the nation by imparting engineering knowledge to serve healthcare industry with excellence.

MISSION

The Department of Biomedical Engineering aims to serve the society in the best manner wherein the graduates will be equipped with required technical and interpersonal skills, motivated for research and lifelong learning; ethical values along with leadership and entrepreneurship qualities.

INTRODUCTION

Ziauddin University, Faculty of Engineering Science and Technology is offering 4 years bachelor programme entitling BE Biomedical Engineering at Ziauddin University, Biomedical Engineering is more focused on the instrumentation and biomedical computing. The instrumentation or more formerly Bio-Instrumentation is the field for a travel enthusiastic person, as the installation, sales, and service of the biomedical instruments. It keeps the engineers on the wheel, to maintain the instruments operational for the patient support in hospitals, pharmaceutical industries, and healthcare laboratories. Moreover, the instrumentation track of Biomedical Engineering also serves humanity by developing assistive devices for patients and elderly people. The patient can wear robotic suits, also known as an exoskeleton. These suits assist the wearer in achieving the mobility they lost due to disease, trauma or

age factor. Also, the development and rehabilitation of artificial limbs lie under the umbrella of the instrumentation track. The emerging focused area of Biomedical Engineering at ZUFEST shall be Biomedical Computing. Biomedical computing facilitates the development of complex biomedical systems like clinical and computer-based decision support, knowledge acquisition and management, medical imaging, computational intelligence in bio-clinical medicine, molecular medicine, and healthcare organisational aspects. It implies the use of Artificial intelligence for machine learning, bioinformatics for genes and protein modeling, and Medical Image Processing. To incorporate these skills with the knowledge of the students, Biomedical Engineering at ZUFEST introducing Telemedicine system, Computational Fluid Dynamics, Bioinformatics, and Hospital information system. Five batches of Biomedical Engineering have been successfully passed out and accredited by PEC, and almost all the students are well placed at suitable biomedical jobs in the market. The curriculum is in line with HEC/N-CRC.

Department of Biomedical Engineering is offering the following programmes:

- 1) BE Biomedical Engineering (Morning Programme)
- 2) BS Biotechnology (Morning Programme)
- 3) BS Biomedical Engineering & Technology (Evening Programme)
- 4) MS Biomedical Engineering (Evening Programme)



BE BIOMEDICAL ENGINEERING

SCOPE & OPPORTUNITIES

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 to meet the daily challenges. Pakistan has a growing biomedical industry with the increased development of surgical tools, update of instrumentation in the hospitals and spending of large budgets on the research & development.

A biomedical Graduate can:

- Design biomedical equipment and devices, such as artificial internal organs, replacements for 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 biomedical equipment
- Research the engineering aspects of the biological systems of humans and animals with life scientists, chemists, and medical scientists
- Prepare procedures, write technical reports, publish research papers, and make recommendations based on their research findings
- Present research findings to scientists, non-scientist executives, clinicians, hospital management, engineers, other colleagues, and the public

PROGRAMME EDUCATIONAL OBJECTIVES (PEOS)

PEO 1: Able to solve complex biomedical engineering problems using fundamental principles of technical, basic and health sciences.

PEO 2: Able to compete in the field of research and development by incorporating life-long learning using modern tools and techniques and responsive to the demands of society in ethical, professional and safe manner.

PEO 3: Able to possess leadership and communication skills essential for the project management and entrepreneurship to serve the healthcare industry in the best possible way.

LENGTH OF DEGREE PROGRAMME

Minimum 4-years and maximum 7 years (138 Credit Hours)

ELIGIBILITY CRITERIA

To be admitted to the Bachelors of Engineering in Biomedical Engineering BE degree Program students have to satisfy the following requirements:

- Minimum 60% marks in HSC (Pre-Engineering or Pre-Medical Group)/A Level or an equivalent qualification, DAE in Biomedical/Electrical or Electronic Technology with 60% marks are required for admission.
- Applicants are required to appear for a written test and interview.

FEE STRUCTURE

Tuition fee/credit:	Rs. 3,500/-
Exam fee/credit:	Rs. 500/-
No. of credit/sem:	17
Tuition fees:	Rs. 59,500/-
Exam fees:	Rs. 8,500/-
Sem registration fee:	Rs. 5,000/-
Activity fee/sem:	Rs. 2,000/-
Admission fee:	Rs. 10,000/-
Security Deposit:	Rs. 5,000/-
Transport:	Rs. 30,000/-
Semester fees:	Rs. 120,000/-

Note: Any additional taxes imposed by the government will be the liability of the students/parents/guardian.

The University reserves the right to increase the fees if required according to the recommendation of the Governing Body.

Advance fees to be paid semester-wise. All dues need to be cleared within two weeks of commencement of the academic year. 2% surcharge per month will be levied on outstanding fees after the due date.

SCHEME OF STUDY

SEMESTER I		
Code	Course	Cr. Hr.
NS-106	Applied Physics	2+1
CS-101	Introduction to Computing	2+1
EE-105	Basic Electrical Engineering	3+1
NS-115	Basic Mathematic/	4+0
NS-116	Basic Biology	4+0
BM-101	Introduction to Biomedical Engineering	1+0
HS-101	Islamic Studies/	2+0
HS-102	Ethical Behavior	2+0
	TOTAL	17

SEMESTER II		
Code	Course	Cr. Hr.
HS-103	Pakistan Studies	2+0
NS-109	Calculus & Analytical Geometry	3+0
BM-113	Physiology I	2+1
EE-104	Circuit Analysis	3+1
CS-113	Object Oriented Programming	2+1
BM-112	Human Anatomy	2+1
	TOTAL	18

SEMESTER III		
Code	Course	Cr. Hr.
NS-223	Complex Variable & Transformation	3+0
BM-211	Physiology II	2+1
BM-202	Biochemistry	2+1
EE-210	Basic Electronics	3+1
EE-214	Computer Aided Engineering Drawing	0+1
HS-112	Communication Skills	2+0
	TOTAL	16

SEMESTER IV		
Code	Course	Cr. Hr.
BM-213	Biomedical Electronics	3+1
EE-212	Digital Logic Design	3+1
NS-113	Linear Algebra & Differential Equation	3+0
BM-214	Biomechanics	3+1
EE-231	Signals & Systems	3+1
	TOTAL	19

SEMESTER V		
Code	Course	Cr. Hr.
BM-311	Biomedical Instrumentation 1	3+1
NS-206	Probability & Statistics	3+0
NS-312	Numerical Methods	3+0
EE-311	Microprocessor & Interfacing	2+1
BM-312	Biomedical Signal Processing	3+1
	TOTAL	17

SEMESTER VI		
Code	Course	Cr. Hr.
BM-313	Biomedical Instrumentation II	3+1
BM-XXX	Elective I	3+0
BM-314	Biomedical Control Systems	3+1
CS-311	Modeling & Simulation	2+1
BM-315	Biomaterials	3+1
	TOTAL	18

SEMESTER VII		
Code	Course	Cr. Hr.
MS-465	Engineering Management	3+0
BM-411	Medical Imaging	2+1
BM-XXX	Elective II	3+0
BM-XXX	Elective III	3+0
HS-222	Technical Report Writing	3+0
BMP-402	Biomedical Engineering Project (Phase I)	0+3
	TOTAL	18

SEMESTER VIII		
Code	Course	Cr. Hr.
BM-XXX	Elective IV	3+0
MS-411	Professional Practices & Ethics	3+0
BM-XXX	Elective V	3+0
BMP-402	Biomedical Engineering Project (Phase II)	0+3
MS-403	Entrepreneurship	3+0
	TOTAL	15



BS BIOTECHNOLOGY

SCOPE & OPPORTUNITIES

Biotechnology is defined as the application of biological systems to basic and technical and industrial processes. Biotechnology has applications in health, environment and industry; the graduates of biotechnology programme will play a significant role in the development at national and international level by rendering their services as a scientist, analyst and expert. The potential employment area for the graduates of Biotechnology are Pharmaceutical and Health science industries. Also, countless opportunities are available in clinical laboratories, research institutes and teaching institutions.

PROGRAMME EDUCATIONAL OBJECTIVES (PEOS)

Consistent with the Department of BME Vision and Mission, the Programme Educational Objectives of the study programme BS Biotechnology are:

PEO 1: To produce graduates who will contribute to the field of biotechnology and allied industries designing, developing and providing solutions to improve current processes and development.

PEO 2: To produce entrepreneurs and team leaders having theoretical and practical knowledge of the instruments, techniques and methods with strong ethics and management skill.

PEO3: To produce graduates with the ability to initiate scientific research and pursue higher education in reputed institutes at a national and international level.

ELIGIBILITY CRITERIA

The criteria for students seeking admission to the programme are as follows:

- Intermediate or equivalent qualification.
- Minimum score for eligibility is 45% in the ZU Admissions Test.

FEE STRUCTURE

Tuition fee/credit:	Rs. 3,500/-
Exam fee/credit:	Rs. 500/-
No. of credit/sem:	17
Tuition fees:	Rs. 59,500/-
Exam fees:	Rs. 8,500/-
Sem registration fee:	Rs. 5,000/-
Activity fee/sem:	Rs. 2,000/-
Admission fee:	Rs. 10,000/-
Security Deposit:	Rs. 5,000/-
Semester fees:	Rs. 90,000/-

Note: Any additional taxes imposed by the government will be the liability of the students/parents/guardian.

The University reserves the right to increase the fees if required according to the recommendation of the Governing Body.

Advance fees to be paid semester-wise. All dues need to be cleared within two weeks of commencement of the academic year. 2% surcharge per month will be levied on outstanding fees after the due date.

SCHEME OF STUDY

SEMESTER I		
Code	Course	Cr. Hr.
HS 104	Functional English	3+0
HS 101	Islamic Studies/	2+0
HS 102	Ethical Behavior	
NS 114/	Basic Mathematics (pre-calculus)/	3+0
NS 111	Basic Biology	
BT 101	Ecology, Biodiversity and Evolution	3+0
BT 105	Organic Chemistry	2+1
CS 101	Introduction to Computing	2+1
	TOTAL	17

SEMESTER II		
Code	Course	Cr. Hr.
BT 102	Introduction to Biotechnology	3+0
HS 103	Pakistan Studies	2+0
HS 107	Psychology	3+0
BT 120	Inorganic Chemistry	2+1
NS 101	Physics	2+1
BT 110	Cell Biology	2+1
	TOTAL	17

SEMESTER III		
Code	Course	Cr. Hr.
HS 112	Communication Skill	2+0
HS 231	Sociology	3+0
BT 205	Physical Chemistry	3+0
BT 216	Biomathematics	3+0
BT 202	Biochemistry-I	2+1
BT 125	Microbiology	2+1
	TOTAL	17

SEMESTER IV		
Code	Course	Cr. Hr.
BT 215	Biological Physics	3+0
NS 212	Probability & Biostatistics	3+0
BT 207	Immunology	3+0
BT 248	Analytical Chemistry and Instrumentation	2+1
BT 225	Classical Genetics	2+1
BT 230	Molecular Biology	3+0
	TOTAL	18

SEMESTER V		
Code	Course	Cr. Hr.
BT 326	Biochemistry II	3+0
HS 222	Technical Report writing	3+0
BT 337	Microbial Biotechnology	1+2
BT 315	Principles of Biochemical Engineering	2+1
BM 348	Bioinformatics	1+2
	TOTAL	15

SEMESTER VI		
Code	Course	Cr. Hr.
BT 331	Genetic Resources & Conservation	3+0
BT 311	Methods in Molecular Biology	3+0
BT 342	Agriculture Biotechnology	2+1
BT 347	Food Biotechnology	3+0
BT-XXX	Elective-I	3+0
BT 351	Research Methodology & Skill Enhancement	3+0
	TOTAL	18

SEMESTER VII		
Code	Course	Cr. Hr.
BT 401	Health Biotechnology	3+0
BT 413	Seminar-I	1+0
BT 421	Environment Biotechnology	3+0
BT 427	Genomics and Proteomics	3+0
BT-XXX	Elective-II	3+0
BT 489	Research Project/Internship or Special Paper-I	3+0
	TOTAL	16

SEMESTER VIII		
Code	Course	Cr. Hr.
BT-XXX	Elective -III	3+0
BT-XXX	Elective-IV	3+0
BT 413	Seminar-II	1+0
BT 431	Industrial Biotechnology	3+0
BT 489	Research Project/Internship or Special Paper-II	3+0
BT 441	Biosafety and Bioethics	2+0
	TOTAL	15



BS BIOMEDICAL ENGINEERING TECHNOLOGY

SCOPE & OPPORTUNITIES

With a degree in Biomedical Engineering Technology, students are prepared for entry-level jobs, trouble shooting, diagnosing, repairing and calibrating biomedical equipment. The evening programme allows them to continue their education without compromising their job responsibilities. This will not only provide them with ease of mind but also enable them for self-sustainability.

Graduates of Biomedical Engineering Technology will be able to work in the Pharmaceutical industries, Hospitals, Patient care facilitation center, health practitioner offices, and Doctor's offices with medical testing equipment.

PROGRAMME EDUCATIONAL OBJECTIVES (PEOS)

Consistent with the Department of BME Vision and Mission, the Programme Educational Objectives of BS Biomedical engineering & technology are:

PEO 1: To produce graduates who will be equipped with the knowledge of Science, Technology, mathematics, modern tools and skills to propose ideas and solutions, culminating into a technology or equipment in health care system.

PEO 2: To produce graduates able to monitor, repair and calibrate the products using modern tools for the maintenance in biomedical engineering technology and generate employment through entrepreneurship.

PEO 3: To produce graduates who will be able to manage and communicate multidisciplinary teams and assist in research and development.

ELIGIBILITY CRITERIA

- At least 50% marks in DAE/Intermediate (Pre-engineering/Pre-medical) or an equivalent examination
- Applicants are required to appear for a written test and interview.

SCHEME OF STUDY

SEMESTER I		
Code	Course	Cr. Hr.
NS-108	Applied Mathematics-I	3+0
NS-106	Applied Physics	2+1
NS-111	Basic Biology	3+0
ET-114	Linear circuit analysis	2+2
ET-133	Computer applications	1+2
	TOTAL	16

SEMESTER II		
Code	Course	Cr. Hr.
HS108	Islamic studies	1+0
HS-109	Pakistan studies	1+0
BM-202	Biochemistry	2+1
MT-153	Basic Mechanical Technology	2+1
HS-112	Communication Skills	2+0
ET-114	Electronics	2+2
	TOTAL	14

SEMESTER III		
Code	Course	Cr. Hr.
NS213	Applied Mathematics-II	3+0
ET234	Digital Electronics	2+2
ET225	Network Analysis	2+2
ET123	Engineering Drawing	0+2
BM112	Human Anatomy	2+1
	TOTAL	16

SEMESTER IV		
Code	Course	Cr. Hr.
BE220	Clinical Equipment	3+1
BE213	Physiology	2+1
ET240	Introduction to Embedded System	2+1
ET246	Electrical Machine Transformer	2+2
BM213	Biomedical Electronics	3+1
	TOTAL	18

SEMESTER V		
Code	Course	Cr. Hr.
BE311	Laboratory Equipment	3+1
BE302	Bio-Ethics and Bio safety	3+0
HS221	Technical Report writing	2+0
BE312	Biomedical signal analysis	2+1
BE387	Rehabilitation Sciences	3+0
	TOTAL	15

SEMESTER VI		
Code	Course	Cr. Hr.
BE313	Radiology Equipment & Instrumentation	3+1
BE315	Biomaterial	2+1
BE382	Medical Image Processing	2+1
ET364	Data and Computer Communications	2+2
HS106	Psychology	2+0
	TOTAL	16

SEMESTER VII		
Code	Course	Cr. Hr.
BT482	Supervisor Industrial Training	0+15
BT414	Project	0+3
	TOTAL	18

SEMESTER VIII		
Code	Course	Cr. Hr.
BT482	Supervisor Industrial Training	0+15
BT414	Project	0+3
	TOTAL	18



DEPARTMENT OF CIVIL ENGINEERING

VISION

To achieve excellence in acquiring skills in the domain of Civil Engineering to serve humanity as a whole.

MISSION

To impart fundamental education leading to the independent knowledge and methodologies to help develop the capacity for the graduates to plan, design, execute and manage the Civil Engineering projects and be outlets to the industry stakeholders.

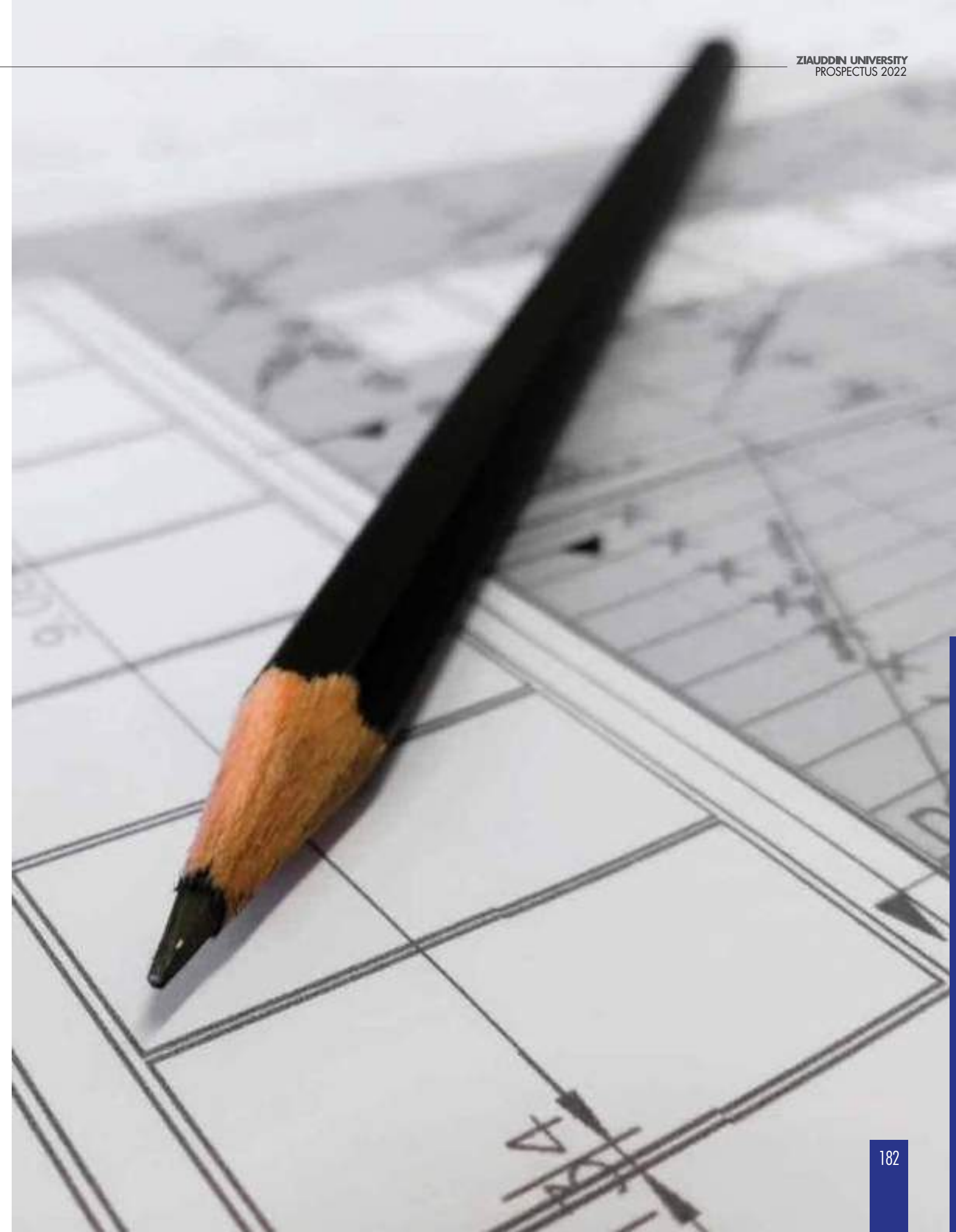
INTRODUCTION

The field of Civil Engineering is achieving its high demand with time and with the growing trend. It is an undoubted truth that there is an

increase in a number of development of high rise buildings and infrastructure so it is an immense need to be the part of the profession of Civil Engineering in a broader perspective of field specialisation. The demand for Civil Engineering is almost equal in all areas including Construction Management, Traffic or Transportation Engineering, Geotechnical Engineering, Urban Engineering, Coastal & Harbor Engineering, Earthquake Engineering, Structural Engineering, and Environmental Engineering.

Department of Civil Engineering is offering the following programmes:

- 1) BS Civil Engineering (Morning Program)
- 2) BS Civil Technology (Evening Program)



BS CIVIL ENGINEERING

SCOPE & OPPORTUNITIES

The area of Civil Engineering is very broad and linked with industrial development. It is expected that human resource demand in technical areas shall rise due to CPEC. Some salient features are as follows:

- The students will be able to explore or develop their construction industries or business as consultants, contractors, and designers.
- Imparting their knowledge in the water resources area with the development of dams, barrages, culverts, etc.
- Strengthen the area of Irrigation Engineering in undeveloped areas of Pakistan.
- To produce and may get along with the transportation firms for traffic management studies, safety and accident studies, signage plans, road furniture, and infrastructure improvement plans.
- Students may approach and join hands with the soil testing laboratories.
- Students may play a vital role in the industries for wastewater treatment and solid waste management in the purview of CPEC.
- Students can engage with the public, private and education sectors as well.

PROGRAMME EDUCATIONAL OBJECTIVES (PEOS)

PEO-1: Graduates having technical and Professional Engineering knowledge with basic understanding enabling them to synchronise the problems with modern techniques and investigation procedures.

PEO-2: To produce graduates with professional development in a manner that they successfully and ethically practice in all the related fields of Civil Engineering society.

PEO-3: Graduates with the motivation of lifelong learning and imparting the knowledge with design aspects and sustainability, and contribute with substantial growth in Research and Development.

PEO-4: Graduates having strong capability of teamwork, possessing leadership qualities, focusing entrepreneurship and connection with stakeholder.

LENGTH OF DEGREE PROGRAMME

Minimum 4-years and maximum 7 years (139 Credit Hours)

ELIGIBILITY CRITERIA

To be admitted to the Bachelors of Science in Civil Engineering BS degree programme students have to satisfy the following requirements:

- Minimum 60% marks in HSC (Pre-Engineering Group)/A Level or an equivalent qualification, DAE in Civil Technology/Land & Mine Surveying/Architecture with 60% marks in the relevant discipline are required for admission.
- Students are required to appear for a written test and interview.

FEE STRUCTURE

Admission Processing Fees:	Rs. 2,500/-
Admission Fees:	Rs. 10,000/-
Security Deposit (refundable):	Rs. 5,000/-
Student Activity Fee (Per Semester):	Rs. 2,000/-
Semester Reg. Fee (per semester):	Rs. 5,000/-
First Semester Credit Hours Fee:	17/Rs. 4,000/-
Examination Fees:	Rs. 8,500/-
First Semester Credit Hours Fee:	Rs. 68,000/-
Transportation charges mandatory	
North To link Road Campus:	Rs. 30,000/-
Total Fee at the time of admission:	Rs. 128,500/-

Note: Any additional taxes imposed by the government will be the liability of the students/parents/guardian.

The University reserves the right to increase the fees if required according to the recommendation of the Governing Body.

Advance fees to be paid semester-wise. All dues need to be cleared within two weeks of commencement of the academic year. 2% surcharge per month will be levied on outstanding fees after the due date.

SCHEME OF STUDY

SEMESTER I		
Code	Course	Cr. Hr.
HS-101	Islamic Studies or Ethical Behavior*	2+0
HS-105	Functional English	2+0
NS-109	Calculus & Analytical Geometry	3+0
CV-101	Engineering Drawing	2+1
HS-106	Psychology	2+0
CV-102	Fundamentals of Surveying	3+1
TOTAL		16

SEMESTER II		
Code	Course	Cr. Hr.
EE-109	Basic Electro Mechanical Engineering	2+1
CV-131	Surveying & Geo-Informatics	3+1
HS-103	Pakistan Studies	2+0
NS-104	Engineering Mechanics	3+1
NS-113	Linear Algebra & Differential Equations	3+0
CV-103	Civil Engineering Materials	3+0
TOTAL		19

SEMESTER III		
Code	Course	Cr. Hr.
CS-215	Civil Engineering Drawing	1+2
CV-204	Fluid Mechanics	3+1
CV-215	Mechanics of Solid - I	3+1
NS-321	Numerical Analysis	3+0
CS-101	Introduction to Computing	2+1
HS-205	Law & Ethics	2+0
TOTAL		19

SEMESTER IV		
Code	Course	Cr. Hr.
CV-261	Mechanics of Solid - II	3+0
CV-232	Reinforced Cement Concrete (RCC)	3+1
CV-216	Structural Analysis-I	3+0
NS-205	Engineering Geology	2+1
HS-216	Technical Report Writing & Presentation Skills	3+0
NS-206	Probability and Statistics	3+0
TOTAL		19

SEMESTER V

Code	Course	Cr. Hr.
CV-333	Structural Analysis-II	3+0
CV-317	Soil Mechanics-I	3+1
CV-362	Elements of Structural Design	3+1
MS-311	Engineering Economics & Management	3+0
CV-318	Construction Engineering	2+1
CS-313	Quantity Surveying & Costing	2+1
	TOTAL	20

SEMESTER VI

Code	Course	Cr. Hr.
CV-353	Soil Mechanics - II	3+1
CV-354	Steel Structures	3+0
CV-335	Construction Management	3+0
MS-312	Water Resource Management	3+0
CV-334	Transportation Engineering-I	3+1
AR-311	Architecture & Urban Planning	3+0
	TOTAL	20

SEMESTER VII

Code	Course	Cr. Hr.
CV-455	Design of Structures	3+0
CV-456	Transportation Engineering-II	3+0
CV-436	Irrigation & Drainage Engineering	3+0
CV-437	Environmental Engineering - I	2+1
CV-499	Project	0+3
	TOTAL	15

SEMESTER VIII

Code	Course	Cr. Hr.
CV-448	Traffic Engineering	2+0
CV-457	Environmental Engineering - II	2+0
CV-xxx	CI - Elective Course-I	2+0
MS-xxx	MS - Elective Course	2+0
CV-499	Project	0+3
	TOTAL	11



BS CIVIL TECHNOLOGY

The field of Civil Technology is achieving its high demand with the passage of time and market needs. There is a signified increase in a number of development of high rise buildings and infrastructure so it is an immense need to be the part of the profession of the civil domain from a broader perspective. The focused area of this technology includes Construction Management, Traffic or Transportation, Geotechnical & Foundation works, and Coastal & Harbor works Structures and Environmental assessment. The programme is valuable and beneficial for the students with mixed, interests.

The department of Civil Engineering is well equipped with state of art laboratories of surveying, construction engineering, fluid mechanics, and the strength of materials, drawing halls and engineering mechanics. Not only that, the balance is created in theory and practical knowledge with the induction of highly qualified and senior faculty members having enough field and research experiences. Lab staff and attendants are also available for supporting actions. To strengthen the research in the civil profession, the departmental library is established having a sufficient number of titles in the specialisation. The curriculum is designed on the guidelines of HEC NCRC. In factual terms, by the end of the course programme, the student will be in a

position to select and set in a stable position of Civil Engineering Technology followed by technical skills learned.

PROGRAMME EDUCATIONAL OBJECTIVES (PEOS)

PEO-1: To produce graduates that are technically skillful and competent to formulate, analyze and solve problems using appropriate engineering tools and techniques.

PEO-2: To produce effective and employable engineering graduates that successfully & ethically practice civil engineering skills in related fields.

PEO-3: To produce graduates motivated for lifelong learning and create new knowledge and technical solution through cutting edge research and entrepreneurship.

PEO-4: To produce graduates with the capacity to work as an effective team member with strong leadership qualities.

ELIGIBILITY CRITERIA

- Minimum 50% marks in HSC/A Level or an equivalent qualification, DAE in the relevant discipline Technology with 50% marks are required for admission.

- Students are required to appear for a written test and interview.

SCHEME OF STUDY

SEMESTER I		
Code	Course	Cr. Hr.
NS108	Applied Mathematics-I	3+0
CS101	Computer Applications	1+2
CT101	Geology	2+1
CT113	Surveying & Leveling	2+2
CT111	Civil Engineering Drawing	1+2
	TOTAL	16

SEMESTER II		
Code	Course	Cr. Hr.
CT112	Concrete Technology	2+2
NS109	Islamic & Pakistan Studies	2+0
CT114	Applied Mechanics	2+2
CT125	Introduction to Construction Materials	2+2
HS112	Communication Skills	2+0
	TOTAL	16

SEMESTER III		
Code	Course	Cr. Hr.
NS213	Applied Mathematics- II	3+0
CT226	Qty Surveying & Costing	2+2
CT231	Soil Mechanics	2+2
CT232	Fluid Mechanics	2+1
CT243	Mechanics of Solids	2+2
	TOTAL	18

SEMESTER IV		
Code	Course	Cr. Hr.
CT244	Transportation Engineering	2+2
CT235	Water Supply & Waste Water Management	2+2
CT251	Structural Analysis	2+0
MS202	Occupational Health & Safety Management	2+0
CT217	Reinforced Cement Concrete	2+2
	TOTAL	16

SEMESTER V		
Code	Course	Cr. Hr.
CT316	Construction Engineering	2+1
CT352	Construction & Hydraulic Machinery	2+2
CT364	Foundations Engineering	2+0
CT353	Pre-stressed & Precast concrete	2+1
CT354	CAD (Building Modeling)	1+3
	TOTAL	16

SEMESTER VI		
Code	Course	Cr. Hr.
CT345	Hydrology & Irrigation Engineering	2+2
MS321	Environmental Management	2+2
CT367	Irrigation & Hydraulic Structures	2+2
CT368	Steel Structures	2+0
CT323	Construction & Project Management	2+2
	TOTAL	18

SEMESTER VII		
Code	Course	Cr. Hr.
CT41X	Project	0+3
CT44X	Internship/Supervised Training	0+15
	TOTAL	18

SEMESTER VIII		
Code	Course	Cr. Hr.
CT41X	Project	0+3
CT44X	Internship/Supervised Training	0+15
	TOTAL	18



DEPARTMENT OF ELECTRICAL ENGINEERING

VISION

To be the best at serving society with the acquired skill set in the domain of Electrical Engineering and Technology.

MISSION

To impart quality education in electrical engineering and produce graduates that conduct research, develop technologies and contribute to the national and international scientific and socioeconomic growth.

INTRODUCTION

In the field of engineering, Electrical Engineering organised with the study and applications of electrical systems and electricity, which include the power generation, distribution, transmission, utilisation, communication, control and/or mechanical system for industrial and domestic usage. Electrical Engineering comprises electronics, computers, instrumentation, communication and control engineering. Therefore, Electrical Engineering is essential for all engineering

disciplines and its scope is vast and unlimited. The applications vary from design, commissioning, production, and testing of hydroelectric, thermal and renewable as well as nuclear power plants, to the domestic and industrial consumption and appliance control. There are remarkable career opportunities for an Electrical Engineer especially in Pakistan as well as in other developed countries across the world. The current economic and industrial growth in Pakistan also increased the demands of an Electrical Engineering many folds in industries, education and research institutes.

Department of Electrical Engineering is offering the following programmes:

- 1) BS Electrical Engineering (Morning Programme)
- 2) BS Electrical Technology (Evening Programme)
- 3) MS Electrical Engineering (Evening Programme)
- 4) PhD Electrical Engineering (Evening Programme)



BE ELECTRICAL ENGINEERING

SCOPE & OPPORTUNITIES

With current industrial and infrastructure growth in Pakistan such as CPEC, it is expected that human resource demand in technical areas shall rise. Huge market for Electricians and Electrical Technologist is forecasted with the emerging Industrial Units, Power Generation & Distribution Plants, etc. After completing the BS-Electrical Engineering graduates can:

- Start their own business as an entrepreneur engineer.
- Find placements in power generating station, K-Electric, WAPDA, public health, radio, and TV broadcasting, Sui-gas, etc.
- Start jobs in the industrial zone (textile, automotive, manufacturing plants)
- Can work as Engineer in Pakistan Atomic Energy Commission, OGDC, and Pakistan Railways and other Government and private organisations.
- Junior Lecturer in Engineering University/Institute

PROGRAMME EDUCATIONAL OBJECTIVES (PEOS)

With current industrial and infrastructure growth in Pakistan, it is expected that human resource demand in technical areas shall rise. Huge market for Electricians and Electrical Technologist is forecasted with the emerging Industrial Units, Power Generation & Distribution Plants etc. Our aim is to:

PEO 1: To produce graduates that are technically skillful and competent to formulate, analyze and solve complex engineering problems using appropriate technological tools and techniques.

PEO 2: To produce employable graduates with effective communication skills that successfully & ethically practice electrical engineering and technology-related fields.

PEO 3: To produce graduates motivated for lifelong learning through research and entrepreneurship.

PEO 4: To produce graduates with the capaci-

ty to work as an effective team member and strong leadership qualities

LENGTH OF DEGREE PROGRAMME

Minimum 4-years and maximum 7 years (134 Credit Hours)

ELIGIBILITY CRITERIA

To be admitted to the Bachelors of Science in Electrical Engineering BS degree Programme students have to satisfy the following requirements:

- Minimum 60% marks in HSC (Pre-Engineering Group)/A Level or an equivalent qualification, DAE in relevant Technology with 60% marks are required for admission.
- Students are required to appear for a written test and interview.

FEE STRUCTURE

Credit Hours:	136
Per Credit Fee (Tuition+Exam):	Rs. 5,750/-
Semester Registration Fee:	Rs. 5,000/-Per Sem
Student Activity Fee Per Sem:	Rs. 1000/-Per Sem
Admission Fee:	Rs. 25,000/-
Security Deposit Refundable:	Rs. 25,000/-

Note: Any additional taxes imposed by the government will be the liability of the students/parents/guardian.

The University reserves the right to increase the fees if required according to the recommendation of the Governing Body.

Advance fees to be paid semester-wise. All dues need to be cleared within two weeks of commencement of the academic year. 2% surcharge per month will be levied on outstanding fees after the due date.

SCHEME OF STUDY

SEMESTER I		
Code	Course	Cr. Hr.
HS-104	Functional English	2+0
NS-109	Calculus and Analytical Geometry	3+0
EE-103	Linear Circuit Analysis	3+1
CS-103	Introduction to Computing	1+1
HS-101	Islamic Studies	2+0
NS-106	Applied Physics	3+1
TOTAL		17

SEMESTER II		
Code	Course	Cr. Hr.
NS-112	Differential Equations	3+0
HS-114	Communication Skills & Presentation	2+0
EE-101	Workshop Practices	0+1
HS-103	Pakistan Studies	2+0
CS-107	Programming Fundamentals	3+1
EE-108	Electronic Devices and Circuits	3+1
TOTAL		16

SEMESTER III		
Code	Course	Cr. Hr.
NS-221	Complex Variables and Transforms	3+0
ME-101	Basic Mechanical Engineering (IDEE-I)	2+1
EE-212	Digital Logic Design	3+1
CS-211	Data Structure & Algorithm	3+1
EE-211	Electrical Network Analysis	3+1
TOTAL		18

SEMESTER IV		
Code	Course	Cr. Hr.
CV-105	Basic Civil Engineering (IDEE-II)	2+1
NS-201	Linear Algebra	3+0
EE-233	Instrumentation & Measurements	3+1
EE-232	Electromagnetic Field Theory	3+0
EE-325	Signals and Systems	3+1
EE-214	Computer Aided Engineering Drawing	0+1
TOTAL		18

SEMESTER V		
Code	Course	Cr. Hr.
EE-231	Electrical Machines	3+1
EE-324	Probability Methods in Engineering	3+0
HS-221	Technical Report Writing	3+0
EE-355	Power Distribution & Utilization	3+1
EE-326	Introduction to Embedded Systems	3+1
TOTAL		18

SEMESTER VI		
Code	Course	Cr. Hr.
EE-451	Electric Power Transmission	3+1
HS-301	Organizational Behavior (HSSE-I)	3+0
NS-321	Numerical Analysis	3+0
EE-341	Linear Control Systems	3+1
EE-452	Power System Analysis	3+1
TOTAL		18

SEMESTER VII		
Code	Course	Cr. Hr.
EE-451	Depth Elective-I	3+1
HS-301	Power Generation	3+0
NS-321	Project Mgmt. & Entrepreneurship (MSE-I)	3+0
EE-341	Professional Psychology (SSE-II)	3+1
EE-452	Final Year Project – I	3+1
TOTAL		18

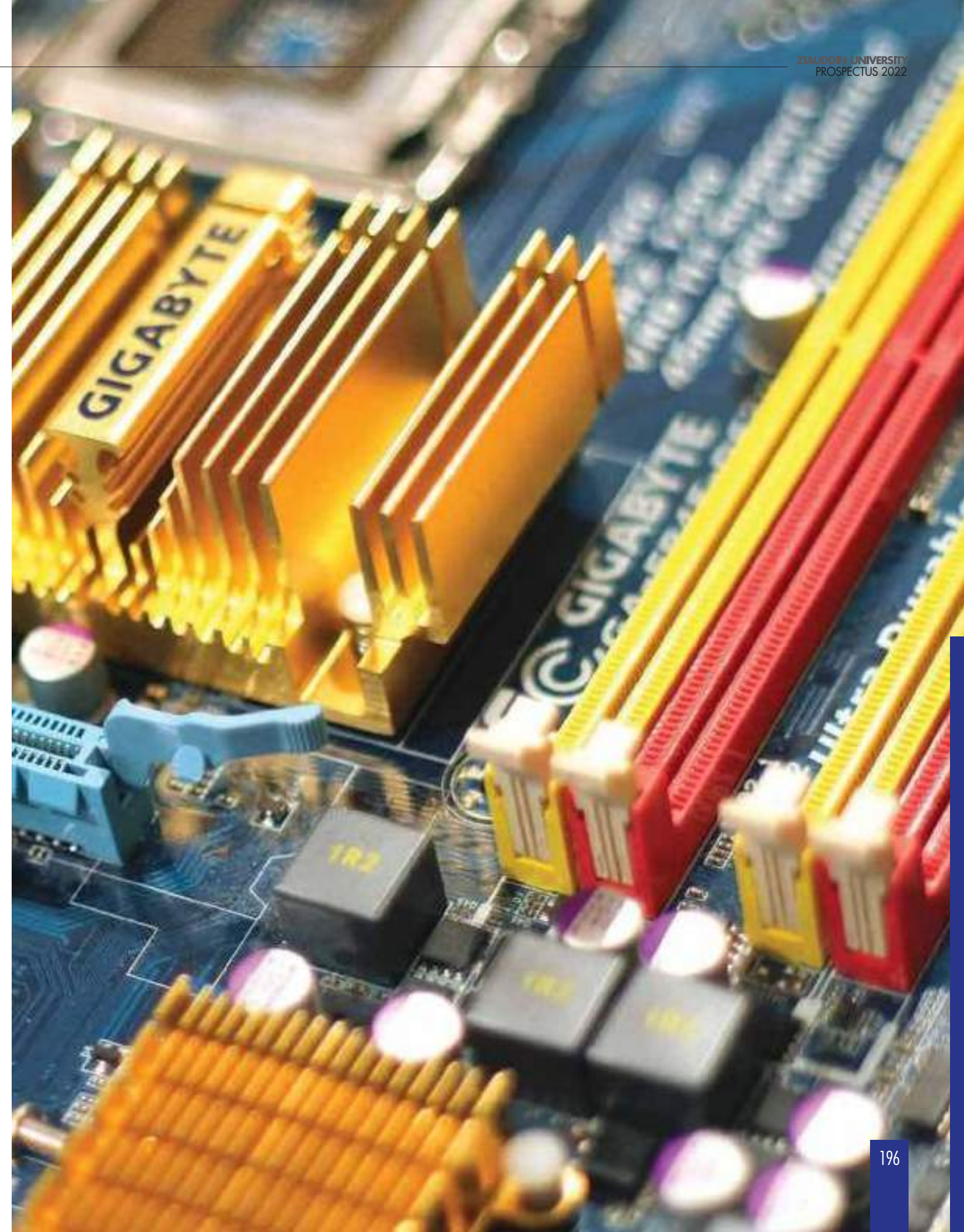
SEMESTER VIII		
Code	Course	Cr. Hr.
MS-410	Engineering Economics & Mgmt. (MSE-II)	3+0
EE-331	Communication Systems	3+1
EE-XXX	Depth Elective – II	3+0
EE-499	Final Year Project – II	0+4
TOTAL		14

Depth Elective – I (3+1)

- EE-352 Power Electronics
- EE-353 Power Electronics and Industrial Drives
- EE-453 Power System Protection
- EE-466 Digital Control Systems

Depth Elective – II (3+0)

- EE-454 Power System Stability & Control
- EE-464 Renewable Energy Systems
- EE-462 Advance Electrical Machines
- EE-463 High Voltage Engineering
- EE-469 PLC and Industrial Drives
- EE-474 Smart Grid



BS ELECTRICAL TECHNOLOGY

BS Electrical Technology is a bachelors level four years degree programme which has raised its demand in technological fields not only in Pakistan but worldwide. Ziauddin University-Faculty of Engineering Science & Technology is offering a BS evening programme in Electrical Technology. The highly qualified faculty, state of art laboratories, reference and digital library shall provide the enabling environment for learning.

The evening programme is launched to encourage and cater to the youth who discontinued their higher studies for different reasons. This programme shall provide an opportunity to them so that they may pursue their higher education. The curriculum is fully aligned with HEC NCRC guidelines and ZUFEST is committed to ensuring best teaching practices both in theory and practice.

PROGRAMME EDUCATIONAL OBJECTIVES (PEOS)

The Programme Educational Objectives (PEOs) of the BS in Electrical Technology programme

are as under:

PEO 1: To produce graduates with strong mathematical, electrical and hands-on knowledge that lead them into a successful career as an electrical technologist.

PEO 2: To produce graduates that can demonstrate its technical and communication skills to solve electrical technology problems as an individual or team member.

PEO 3: To prepare graduates with high ethical and professional standards with an entrepreneurial spirit that have a strong impact on the socio-economic growth of the society and nation at large.

ELIGIBILITY CRITERIA

- Minimum 50% marks in HSC/A Level or an equivalent qualification, DAE in the relevant discipline Technology with 50% marks are required for admission.

- Students are required to appear for a written test and interview.

SCHEME OF STUDY

SEMESTER I		
Code	Course	Cr. Hr.
NS-108	Applied Mathematics – I	3+0
NS-106	Applied Physics	2+1
ET-114	Linear Circuits Analysis	2+2
ET-123	Engineering Drawing	0+2
ET-133	Computer Applications	1+2
	TOTAL	15

SEMESTER II		
Code	Course	Cr. Hr.
HS-108	Islamic Studies	1+0
HS-109	Pakistan Studies	1+0
CS-109	Programming Fundamentals	1+2
ET-144	Electronics	2+2
MT-153	Basic Mechanical Technology	2+1
ET-174	DC Machines & Transformers	2+2
HS-112	Communication Skills	2+0
	TOTAL	18

SEMESTER III		
Code	Course	Cr. Hr.
NS-213	Applied Mathematics – II	3+0
ET-214	Electrical Instruments & Measurements	2+2
ET-224	AC Circuit Analysis	2+2
ET-234	Digital Electronics	2+2
HS-221	Technical Report Writing	2+0
	TOTAL	17

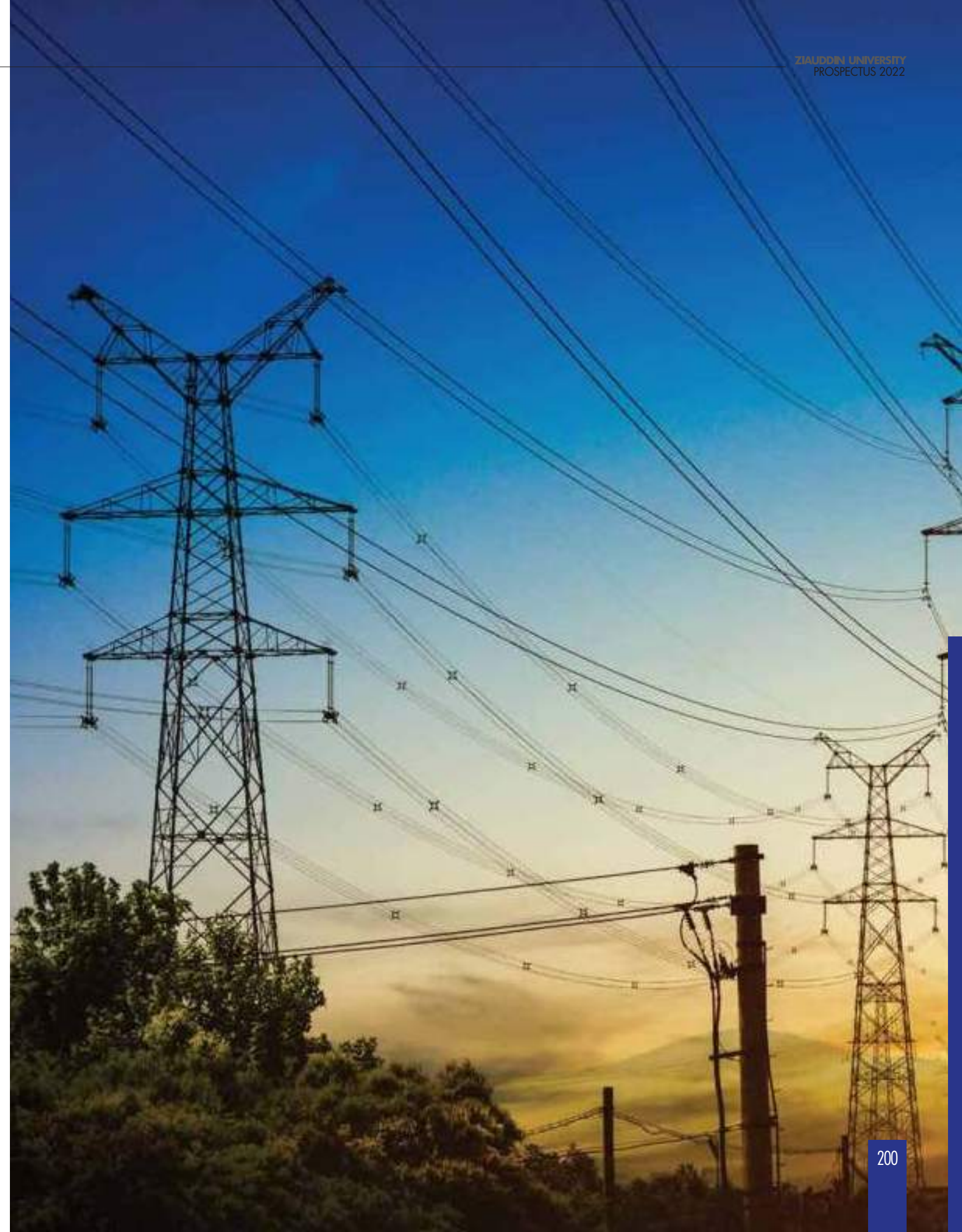
SEMESTER IV		
Code	Course	Cr. Hr.
ET-252	Electromagnetic Fields	2+0
ET-313	Microprocessor & Microcontroller Systems	2+1
ET-284	Power Electronics	2+2
ET-351	Electrical Power Distribution & Utilization	2+1
ET-244	AC Machines	2+2
	TOTAL	16

SEMESTER V		
Code	Course	Cr. Hr.
ET-383	Industrial Drives and PLC	2+2
ET-352	Electrical Power Transmission	2+1
ET-334	Communication Technology	2+1
ET-343	Control Technology	2+1
MS-301	Total Quality Management	2+0
	TOTAL	15

SEMESTER VI		
Code	Course	Cr. Hr.
ET-250	Power Generation Systems	3+0
ET-323	Switch Gear & Protective Devices	2+1
ET-364	Data & Computer Communication	2+2
ET-373	High Voltage Technology	2+0
ET-353	Power System Analysis	2+1
	TOTAL	14

SEMESTER VII		
Code	Course	Cr. Hr.
ET-482	Supervisor Industrial Training	0+15
ET-413	Project	0+3
	TOTAL	18

SEMESTER VIII		
Code	Course	Cr. Hr.
ET-482	Supervisor Industrial Training	0+15
ET-413	Project	0+3
	TOTAL	18



DEPARTMENT OF SOFTWARE ENGINEERING

VISION

Our graduates to be recognised as innovators, leaders and experts in the area of research & development, implementation, and evolution of Software Engineering

MISSION

To produce graduates equipped with the latest tools and technologies for the development of a knowledge-based economy in Pakistan. Along with academic learning, our ambition is to produce software engineers as successful innovators, entrepreneurs, researchers with emphasis on professional and social ethics for dynamic and global careers.

INTRODUCTION

Software Engineering (SE) derives its essence from computer science as other engineering disciplines do from natural or life sciences, with an emphasis on issues of process, design, implementation, maintenance, analysis, and verification providing a strong foundation in engineering principles and practices as applied to software development.

Software Engineering and computer science differ in much the same way as do Electrical

Engineering and Physics. Generally, engineering should be concerned with applying what we already know to create products, while science is more theoretical. Therefore, the goal of Computer Science, according to Parnas, "is to learn and extend the science". Software Engineering, on the other hand, aims to use science and technology already available to create products and tools for use.

ZUFEST offers a four years NCEAC recognised degree programme (133 Credit Hours) with a balanced mix of Computing & Software Development subjects. The SE graduates develop, design and assess software that a computer uses to function. The problem-solving skills are a key to success in this endeavor. A software engineer can find a place to study existing apps, develop new software modules & programmes or maintain the computer applications in a software house, IT firm, Bank, etc.

Department of Software Engineering is offering the following programmes:

- 1) BS Software Engineering (Morning Programme)
- 2) BS Data Science (Morning Programme)



BS SOFTWARE ENGINEERING

SCOPE & OPPORTUNITIES

Software Engineer is the most in-demand job title across all industries, according to job sites such as Glassdoor, employment growth for software developers between 2012 and 2022 was significantly higher than the national average for all occupations.

These are some top industries where software engineers should find plenty of room for career growth:

- Research and Development
- Business and IT services
- Silicon valley Hi-tech
- Government and Defense
- Retail
- Healthcare

PROGRAMME EDUCATIONAL OBJECTIVES (PEOS)

PEO 1 Possess essential knowledge of software engineering fundamentals and ability to design, analyse and investigate the appropriate procedures using modern tools and to polish the skills to solve complex Software Engineering problemmes.

PEO 2: Engage and Succeed in their professional carriers through proactive involvement in societal needs for sustainable development, and ethical behaviour.

PEO 3: Demonstrate an ability to present and communicate effectively and to perform as an individual or team and show managerial, entrepreneurial and leadership skills.

PEO 4: Understand the importance of life-long learning through professional development, specialised certifications and pursue postgraduate studies and succeed in industrial and research careers.

LENGTH OF DEGREE PROGRAMME

Duration (Minimum): 4 years
Duration (Maximum): 7 years

ELIGIBILITY CRITERIA

The criteria for students seeking admission to BS Software Engineering are as follows:

- Minimum 50% marks in HSC/A Level or an equivalent qualification, DAE in the relevant discipline technology with 50% marks are required for admission.
- Students are required to appear for a written test and interview.

FEE STRUCTURE

Tuition fee/credit:	Rs. 3,500/-
Exam fee/credit:	Rs. 500/-
No. of credit/sem:	16
Tuition fees:	Rs. 56,000/-
Exam fees:	Rs. 8,000/-
Sem registration fee:	Rs. 5,000/-
Activity fee/sem:	Rs. 2,000/-
Admission fee:	Rs. 10,000/-
Security Deposit:	Rs. 5,000/-
Semester fees:	Rs. 86,000/-

Note: Any additional taxes imposed by the government will be the liability of the students/parents/guardian.

The University reserves the right to increase the fees if required according to the recommendation of the Governing Body.

Advance fees to be paid semester-wise. All dues need to be cleared within two weeks of commencement of the academic year. 2% surcharge per month will be levied on outstanding fees after the due date.

SCHEME OF STUDY

SEMESTER I		
Code	Course	Cr. Hr.
CS-102	Introduction to Computing	3+1
CS-104	Programming Fundamentals	3+1
NS-101	Physics	2+1
NS-109	Calculus and Analytical Geometry	3+0
HS-104	English –I (Functional English)	3+0
TOTAL		17

SEMESTER II		
Code	Course	Cr. Hr.
CS-103	Discrete Structures	3+0
CS-112	Object Oriented Programming	3+1
EE-106	Basic Electrical Engineering (Supporting Elective-I)	2+1
MS-101	Principles of Accounting (GE/University Elective-I)	3+0
HS-113	English –II (Communication Skills)	3+0
HS-103	Pakistan Studies	2+0
TOTAL		18

SEMESTER III		
Code	Course	Cr. Hr.
CS-212	Introduction to Software Engineering	2+1
CS-211	Data Structures and Algorithms	3+1
EE-212	Digital Logic Design Complex Variable and Transforms (Supporting Elective-II)	3+0
NS-221	Islamic Studies/ Ethical Behavior	2+0
HS-101/ HS-102		
TOTAL		16

SEMESTER IV		
Code	Course	Cr. Hr.
SE-231	Object Oriented Software Engineering	3+1
CS-233	Introduction to Database System	3+1
CS-234	Operating System	3+1
MS-203	HR Management (GE/University Elective-II)	3+0
NS-201	Linear Algebra	3+0
TOTAL		18

SEMESTER V		
Code	Course	Cr. Hr.
SE-341	Software Requirement Specifications	3+0
CS-351	Automata Theory and Formal Languages (SE Elective-I)	3+0
CS-322	Introduction to Bioinformatics (SE Application Domain Elective-I)	3+0
HS-107	Psychology (GE/University Elective-III)	3+0
NS-311	Numerical and Symbolic Computing (Supporting Elective-III)	2+1
NS-206	Probability and Statistics	3+0
	TOTAL	18

SEMESTER VI		
Code	Course	Cr. Hr.
SE-342	Software Verification and Validation	3+0
CS-353	Computer Communication and Networks	3+1
SE-343	Software Architecture & Design	3+0
SE-344	Human Computer Interaction	3+0
HS-222	English-III (Technical Report Writing)	3+0
	TOTAL	16

SEMESTER VII		
Code	Course	Cr. Hr.
SE-451	Final Year Project - I	0+3
SE-442	Software Project Management	3+0
HS-401	Professional Practice	3+0
CS-451	Distributed Computing (SE Elective-II)	3+0
CS-452	Neural Networks and Fuzzy Logic (SE Application Domain Elective-II)	3+0
	TOTAL	15

SEMESTER VIII		
Code	Course	Cr. Hr.
SE-451	Final Year Project -II	0+3
CS-413	Web Engineering (SE Elective-III)	3+0
CS-454	Cloud Computing (SE Elective-IV)	3+0
CS-445	Software Engineering Economics (SE Elective-V)	3+0
MS-414	Entrepreneurship and Leadership (GE/University Elective-IV)	3+0
	TOTAL	5

BS DATA SCIENCE

SCOPE & OPPORTUNITIES

Data Science is an exponentially growing field these days especially after the evolution of 5G and IoT applications. The specialised human resource in this field is highly in demand. Since students will be exposed to cases and other pedagogical tools, as well as interact regularly with the corporate sector, graduates are expected to be absorbed in the value-addition sectors of Pakistan, including technology, food and beverages, transportation, telecom, automotive, and the health sectors. They will also be able to engage in start-up businesses pertaining to cloud services and data mining & management technologies.

PROGRAMME EDUCATIONAL OBJECTIVES (PEOS)

Consistent with the Department of SE Vision and Mission, the Programme Educational Objectives of BS Data Science are:

- **PEO 1:** To produce team leaders having theoretical and practical knowledge with algorithms, instruments, techniques and methods

used in field of Data Science & Management.

- **PEO 2:** To produce graduates with the ability to design & analyse small and large-scale database identifying problematic components, selecting solution strategies, implementing the necessary adjustments without compromising the professional ethics.

- **PEO 3:** To produce graduates with necessary skills needed to independently start scientific research with the ability to independently apply publicised results or techniques in a new context.

LENGTH OF DEGREE PROGRAMME

Duration (Minimum): 4 years

Duration (Maximum): 7 years

ELIGIBILITY CRITERIA

The criteria for students seeking admission to programme are as follows:

- Intermediate or equivalent qualification.
- Minimum score for eligibility is 45% in the ZU Admissions Test.

SCHEME OF STUDY

SEMESTER I
Course
Introduction to Data Science
Programming Fundamentals
Probability theory & Statistics I
Calculus and Analytical Geometry
Islamic Studies
Academic English

SEMESTER II
Course
Multi variable Calculus
Object Oriented Programming
Probability Theory & Statistics II
Methods in Business Writing
Discrete Structures
Pakistan Studies

SEMESTER III
Course
Linear Algebra
Intro. to Info. & Communication Tech.
Model & Inference
Interpersonal Communication Skills OR Foreign Language I
Data Structures and Algorithms
Micro and Macroeconomics

SEMESTER IV
Course
Differential Equations
Computer Architecture & Organization
Methods of Data Analysis
Business Process Analysis
Data Communication and Networking
Intro. to Database Management Systems

SEMESTER V

Course

Numerical Computing/Analysis
Data Mining - I
Applied Regression Analysis
Introduction to Software Engineering
Mobile Computing
Theory of Automata & Formal Language

SEMESTER VI

Course

Principles of Management
Introduction to Econometrics
Data Mining-II
Design & Analysis of Algorithms
Artificial Intelligence
Network Security

SEMESTER VII

Course

Data Visualization
Digital Logic Design
Time Series Analysis
Project I
Big Data Concept & Techniques
Introduction to Financial Accounting

SEMESTER VIII

Course

Project II
Introduction to Data Warehousing
Big Data & Analytics
Project Management
Machine Learning
Web Engineering



DEPARTMENT OF MANAGEMENT TECHNOLOGY & INFORMATION SCIENCE

VISION

To be recognised as a leader in management technology & information science education producing a highly capable resource pool for the relevant market

MISSION

To produce quality graduates to add value as a critical component of corporate strategy and planning and lead the economic development of Technology & Information Science sector through effective Research and Development, Entrepreneurship and lifelong learning.

INTRODUCTION

The field of management science involves the use of analytical methods to make decisions. Management science can be used in the fields of engineering, computer science, statistics, information engineering, logistics, marketing, and economics. Programmes in management science provide students with the skills

they need to make optimal decisions. They learn mathematical research skills and apply them to decision making processes in a variety of fields. Methods can also be used to create and manage more efficient production systems. Management scientists perform analysis with computer math models. Translating business problems into analytical problems, developing analytical models, managing big volumes of data, analysing data for providing solutions across business functional areas, interpreting analytical solutions for managerial decision-making, and communicating analytical results to novice and advanced technical audiences in a business environment

Department of Management Technology & Information Sciences is offering the following programmes:

- 1) Bachelor of Business Administration (BBA) (Morning Programme)
- 2) BS Management & Technology (Evening Programme)



BACHELOR OF BUSINESS ADMINISTRATION (BBA)

SCOPE & OPPORTUNITIES

The Bachelor of Business Administration (BBA) programme is planned for individuals who want to mix business theory, practical knowledge, and professional skills in preparation for careers as business leaders. The BBA programme indicates a strong professional business education within a broad background. It offers practical management training that can prepare students to successfully work within any organisation.

PROGRAMME EDUCATIONAL OBJECTIVES (PEOS)

PEO1: To produce graduates with a strong foundation in the areas like Mathematics, Statistics, Economics, and functional Management to develop managerial qualities.

PEO 2: To produce graduates with the ability to think creatively and critically, analysing problems quantitatively, and using information technology to solve business issues.

PEO 3: To produce graduates with an understanding of social and ethical issues that is a concern for the whole business community.

PEO 4: To produce graduates with strong entrepreneurial skills for creating and managing innovations, new business development and identifying a high-growth potential entity

LENGTH OF DEGREE PROGRAMME

BBA (Minimum): 4 years Duration (Maximum): 7 years

ELIGIBILITY CRITERIA

The criteria for students seeking admission to programme are as follows:

- Intermediate or equivalent qualification.
- Minimum score for eligibility is 50% in the ZU Admissions Test.

FEE STRUCTURE

Tuition fee/credit:	Rs. 2,700/-
Exam fee/credit:	Rs. 300/-
No. of credit/sem:	17
Tuition fees:	Rs. 45,900/-
Exam fees:	Rs. 5,100/-
Sem registration fee:	Rs. 5,000/-
Activity fee/sem:	Rs. 2,000/-
Admission fee:	Rs. 10,000/-
Security Deposit:	Rs. 5,000/-
Semester fees:	Rs. 73,000/-

Note: Any additional taxes imposed by the government will be the liability of the students/parents/guardian.

The University reserves the right to increase the fees if required according to the recommendation of the Governing Body.

Advance fees to be paid semester-wise. All dues need to be cleared within two weeks of commencement of the academic year. 2% surcharge per month will be levied on outstanding fees after the due date.

SCHEME OF STUDY

SEMESTER I		
Code	Course	Cr. Hr.
HS-104	Functional English	3+0
MS-103	Principle of Management	3+0
CS-101	Introduction to Computing	2+1
HS-101/02	Islamic Studies/Ethical Behavior	2+0/2+0
MS-107	Business Mathematics	3+0
MS-105	Introduction to Business	3+0
TOTAL		17

SEMESTER II		
Code	Course	Cr. Hr.
MS-102	Financial Accounting, I	3+0
MS-104	Micro Economics	3+0
MS-106	Principle of Marketing	3+0
MS-108	Business Statistics	3+0
HS-103	Pakistan Studies	2+0
MS-110	Foreign Language	3+0
TOTAL		17

SEMESTER III		
Code	Course	Cr. Hr.
HS-222	Technical Report Writing	3+0
MS-201	Macro Economics	3+0
MS-203	Human Resource Management	3+0
MS-205	Marketing Management	3+0
HS-107	Psychology	3+0
MS-207	Financial Accounting II	3+0
TOTAL		18

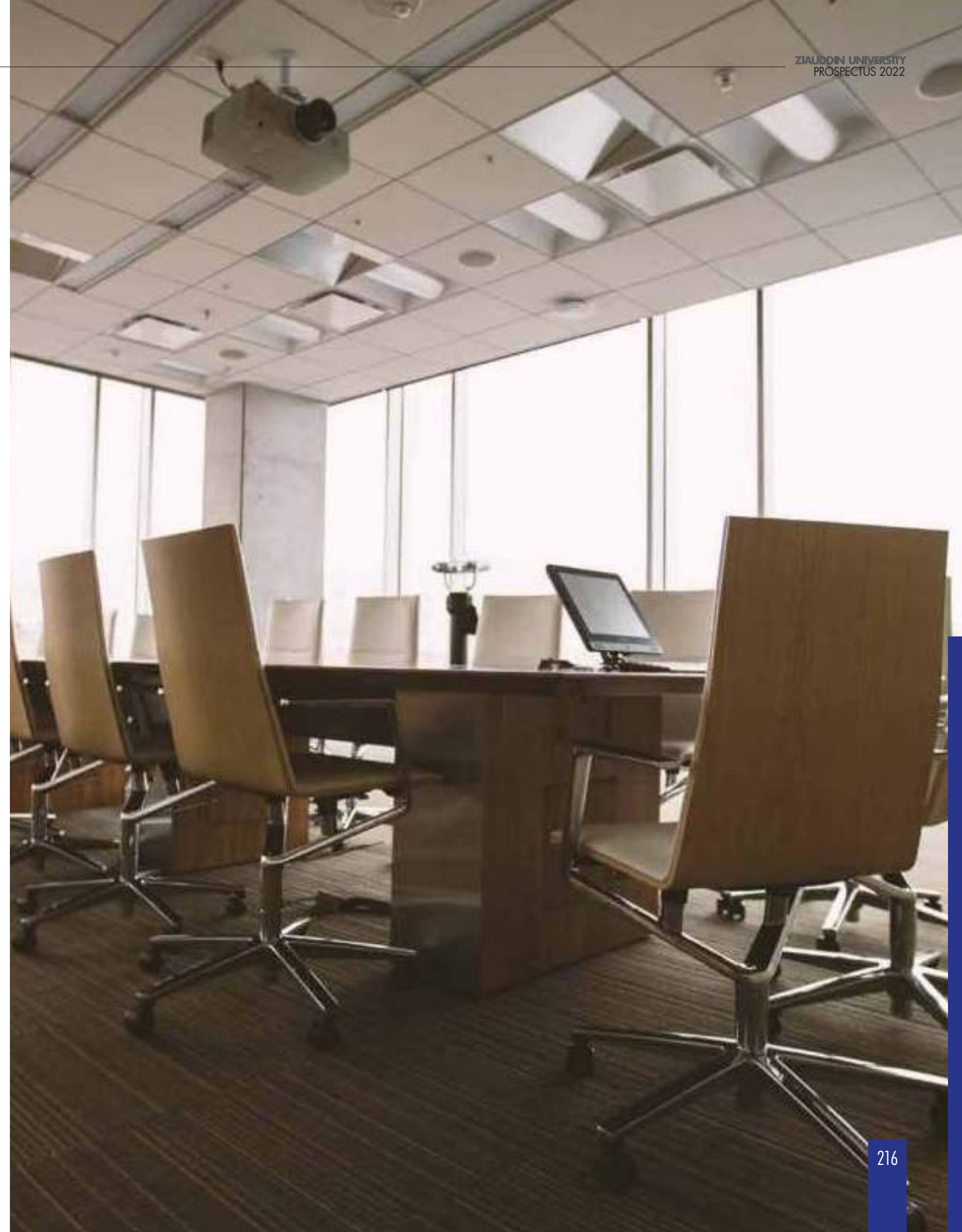
SEMESTER IV		
Code	Course	Cr. Hr.
MS-202	Introduction to Business Finance	3+0
MS-204	Business Law	3+0
MS-206	Statistical Inference	3+0
MS-208	Management Information Systems	3+0
MS-210	E-Commerce	3+0
TOTAL		15

SEMESTER V		
Code	Course	Cr. Hr.
MS-301	Cost Accounting	3+0
MS-303	Financial Management	3+0
MS-305	Money and Banking	3+0
MS-307	Supply Chain Management	3+0
MS-309	Business Communication	3+0
MS-331	Quantitative techniques	3+0
TOTAL		18

SEMESTER VI		
Code	Course	Cr. Hr.
MS-302	Organizational Behavior	3+0
MS-314	Business Research Methodology	3+0
MS-306	Managerial Economics	3+0
MS-308	Oral Communication	3+0
MS-310	Business Ethics	3+0
TOTAL		15

SEMESTER VII		
Code	Course	Cr. Hr.
MS-401	Operations Management	3+0
MS-403	Entrepreneurship	3+0
XXX	Elective I	3+0
XXX	Elective II	3+0
MS-480	Project/Thesis	3+0
MS-405	Managerial Accounting	3+0
TOTAL		18

SEMESTER VIII		
Code	Course	Cr. Hr.
MS-402	Business Policy	3+0
MS-404	International Business	3+0
XXX	Elective III	3+0
XXX	Elective IV	3+0
MS-480	Project/Thesis	3+0
MS-406	Strategic Management	3+0
TOTAL		18



BS MANAGEMENT & TECHNOLOGY

SCOPE & OPPORTUNITIES

This programme usually covers topics such as accounting and financial management. The programme also covers emerging technologies and sustainability. Technology managers keep up with fast-changing technology developments and innovations. They understand products and services and what new ones that will thrive in the market. Graduates in Management & Technology go on to become chief technology officers, project manager, business development executive/manager, product manager, marketing manager, analytics manager, business analyst, technical programme manager, senior product manager, and technical product manager

PROGRAMME EDUCATIONAL OBJECTIVES (PEOS)

Consistent with the Department Vision and Mission, the programme Educational Objectives of the BS Management & Technology are to educate individuals with interdisciplinary and practical knowledge who:

- **PEO-1:** Make successful careers as managers in industry, R&D organisations, laboratories and business incubators.
- **PEO-2:** Provide services and/or Start up technology management Consulting firms
- **PEO-3:** Serve the society with their innovative ideas to manage various technologies and developed products within a diverse environment maintaining ethical standards required for certain technology operation.
- **PEO-4:** Promote continuous development of professional know how but also their social knowledge and skills.

LENGTH OF DEGREE PROGRAMME

BSM&T (Minimum): 4 years duration (Maximum): 7 years

ELIGIBILITY CRITERIA

The criteria for students seeking admission to programme are as follows:

- Intermediate or equivalent examination.
- Minimum score for eligibility is 50% in the ZU Admissions Test.

SCHEME OF STUDY

SEMESTER I		
Code	Course	Cr. Hr.
HS-104	Functional English	3+0
MS-103	Principle of Management	3+0
HS-108	Islamic Studies	1+0
HS-109	Pakistan Studies	1+0
NS-108	Applied Mathematics I	3+0
MS-105	Introduction to Business	3+0
EE-105	Basic Electrical Engineering	3+1
TOTAL		18

SEMESTER II		
Code	Course	Cr. Hr.
MS-112	Financial Accounting	3+0
MS-104	Micro Economics	3+0
MS-106	Principle of Marketing	3+0
CS-106	Computing Fundamentals & Programming	3+1
HS-402	Professional Psychology	2+0
MS-110	Foreign Language	3+0
TOTAL		18

SEMESTER III		
Code	Course	Cr. Hr.
MS-309	Business Communication	3+0
MS-201	Macro Economics	3+0
ET-233	Digital Electronics	2+1
MT-203	Marketing Research & Analytics	3+0
NS-213	Applied Mathematics II	3+0
MT-205	Industrial Relations	2+0
TOTAL		17

SEMESTER IV		
Code	Course	Cr. Hr.
MS-202	Introduction to Business Finance	3+0
MS-204	Business Law	3+0
MT-202	Emerging Trends in Engineering	2+0
CS-113	Object Oriented Programming	2+1
CS-210	E-Commerce	3+0
MS-206	Statistical Inference	3+0
TOTAL		17

SEMESTER V		
Code	Course	Cr. Hr.
CS-301	Database Management Systems	2+1
MS-303	Financial Management	3+0
CS-303	Data Communications & Computer Networks	3+1
MS-307	Supply chain Management	3+0
MT-305	Digital Marketing	2+0
MS-312	Cost & Managerial Accounting	3+0
TOTAL		18

SEMESTER VI		
Code	Course	Cr. Hr.
MS-302	Organizational Behavior	3+0
MS-304	Business Research & Report Writing	3+0
MS-208	Management Information Systems	3+0
MS-403	Entrepreneurship	3+0
MT-302	Promotional Startups	2+0
TOTAL		14

SEMESTER VII		
Code	Course	Cr. Hr.
MS-401	Operations Management	3+0
MT-407	Enterprise Resource Planning	3+0
MS-409	Total Quality Management	2+0
MT-403	Business & Technical Strategy	3+0
MT-480	Project/Thesis	3+0
MS-306	Managerial Economics	3+0
TOTAL		17

SEMESTER VIII		
Code	Course	Cr. Hr.
MT-402	Business Decision Making	3+0
MS-404	International Business	3+0
MT-404	Intellectual Property Rights	2+0
MT-406	Project Management	3+0
MT-480	Project/Thesis	3+0
MS-412	Auditing & Taxation	3+0
TOTAL		17



MS PROGRAMME

Ziauddin University's vision is to become a prestigious institution of higher education by seeking a futuristic approach in imparting knowledge, skills and research/development. Keeping this in view, Ziauddin University, Faculty of Engineering Science and Technology (ZUFEST) initiated a postgraduate programme in the year 2017 with prior approval of HEC.

ZUFEST offers a Master of Science (MS) in Electrical Engineering and Biomedical Engineering with specialisation streams. With the successful launch of MS programme, ZUFEST also offered PhD in Electrical Engineering as per the guidelines provided by the HEC. The Faculty of Engineering Science and Technology, Ziauddin University is offering MS programme in the following fields of specialisation: Master of Science in Electrical Engineering with specialised streams/tracks in the following domains:

- a) Control and Automation
- b) Computer & Communication Networks
- c) Telecommunication Systems

1. Master of Science in Biomedical Engineering with specialised streams/tracks in following domains:

- a) Bio Informatics
- b) Clinical Instrumentation
- c) Rehabilitation Engineering

ELIGIBILITY CRITERIA FOR ADMISSION IN MS ENGINEERING

- o 16 Years of education in the relevant discipline, Minimum CGPA 2.50/4.00 or 60% marks
- o Passed NTS GAT (general) or the University GAT test.
- o An interview must be cleared.

MS COURSE WORK & THESIS REQUIREMENT

Each MS student has to select three core

courses and five or seven elective courses from the specialization stream. A student can opt for six credit hours research work/thesis instead of two courses from the specialization stream.

Minimum for the MS degree, candidates will need to either complete 30 credit hours of coursework or complete 24 credit hours of coursework along with a minimum of six credit hours for research work/thesis.

The thesis may be taken after completing 18CH (minimum).

DURATION OF MS AND SEMESTER-WISE BREAK-UP

Typical/Average duration for MS programme is 1.5 years (4 years maximum). A generalised semester wise break-up is as follows:

Course Work Only Option

Number of semesters	04 (Typical)
Programme Credit hours	30 (Min)
No. of Courses Core:	04
Elective:	06
Coursework Credit Hrs.	30
Thesis C Hrs.	-
Credits allowed per semester	09 (max) in Spring/Fall semester
	03 (max) in Summer

Coursework + Thesis Option

Number of semesters	04 (Typical)
Programme Credit hours	30 (Min)
No. of Courses Core:	04
Elective:	04
Coursework Credit Hrs.	24
Thesis C Hrs.	06
Credits allowed per semester	09 (max) in Spring/Fall semester
	03 (max) in Summer

MS ELECTRICAL ENGINEERING

Code	Course
EE 802	Analysis of Stochastic Systems
EE 803	Advance Simulation and Modeling
EE 812	Advanced Digital Signal Processing

SPECIALISATION: CONTROL AND AUTOMATION

Code	Course
EE 821	Electronic System Design
EE 701/801	Research Methodology
EE 822	Advanced Instrumentation
EE 823	Advanced Power Electronics
CS 801	Neural and Fuzzy Systems
CS 811	Machine Vision
EE 824	Robotics
EE 825	Advanced Digital System Design
EE 826	Adaptive Control Systems
EE 850	Adaptive Filter Design
EE827	PLCs and Control Systems
EE 813	Optimization Theory
EE 820	Smart Grid Architecture

Code	Course
EE 841	Convex Optimization
EE 811	Linear System Theory
EE 842	Multivariable Control Theory
EE 830	Network and Embedded Control Systems
EE 843	Non-Linear Control Systems
ES 844	Optimal Control Systems
EE 845	Predictive Control
EE 834	Process Control
EE 840	Selected Topics in Control and Automation
EE 846	Mobile Robotics
EE 828	Advanced Classical Control Systems
CS 815	Machine Learning

SPECIALISATION: TELECOMMUNICATION SYSTEMS

Code	Course
TS 801	Advanced Communication Networks
EE 701/801	Research Methodology
TS 802	RF and Microwave Engineering
CS 802	Advanced Computer Networks
TS 805	Optical Communication Systems
CS 803	Information Theory and Coding
CS 804	Internet Protocols
TS 803	Advanced Digital Communication
CS 810	Computer and Network Security
EE 831	Error Control Coding
CS 823	High-Speed Broadband Networks
CS 824	Internetworking Architectures, Protocols and Applications
CS 825	IP Telephony and Voice over IP
CS 826	Multilayer Switching Architecture
CS 830	Network Management
CS 831	Network Performance Analysis
CS 815	Machine Learning

Code	Course
CS 812	QoS Architecture for Multimedia Wireless Networks
EE 811	Linear System Theory
TS 810	Telecommunication Traffic Engineering
TS 804	Wireless and Mobile Communication Systems
TS 821	Next Generation Networks
TS 811	Wireless Multiple Access Communication
CS 822	Wireless Sensor Networks
TS 806	Satellite, Fixed and Mobile Radio Systems
TS 814	Electromagnetic Compatibility and Interface
TS 807	Digital Design for Communication Systems
TS 851	Selected Topics in Communication Systems
CS 832	GIS and Remote Sensing
TS 808	Queuing Theory
TS 809	Radar Systems
EE 850	Adaptive Filter Design
EE 811	Linear System Theory
EE 820	Smart Grid Architecture

SPECIALISATION: COMPUTER AND COMMUNICATION NETWORKS

Code	Course
CS 802	Advanced Computer Networks
EE 701/801	Research Methodology
CS 803	Information Theory and Coding
CS 804	Internet Protocols
CS 816	Advanced Computer Architecture
CS 813	Internet Programming
TS 802	RF and Microwave Engineering
CS 801	Neural and Fuzzy Systems
TS 801	Advanced Communication Networks
TS 803	Advanced Digital Communication
CS 810	Computer and Network Security
EE831	Error Control Coding
CS 823	High-Speed Broadband Networks
CS 824	Internetworking Architectures, Protocols and Applications
CS 825	IP Telephony and Voice over IP
CS 826	Multilayer Switching Architecture
CS 830	Network Management
CS 851	Advanced Artificial Intelligence
EE 820	Smart Grid Architecture

Code	Course
CS 831	Network Performance Analysis
EE 811	Linear System Theory
TS 821	Next Generation Networks
TS 805	Optical Communication Systems
CS 812	QoS Architecture for Multimedia Wireless Networks
TS 810	Telecommunication Traffic Engineering
TS 804	Wireless and Mobile Communication Systems
TS 811	Wireless Multiple Access Communication
CS 822	Wireless Sensor Networks
CS 841	Multimedia Networking
CS 852	Selected Topics in Computer & Communication Networks
CS 853	Web Services and Service Oriented Architecture
CS 854	Cloud Computing
CS 855	Cryptography
CS 856	Ubiquitous Computing
CS 857	Graphics Programming
EE 850	Adaptive Filter Design
EE 811	Linear System Theory
CS 815	Machine Learning

MS BIOMEDICAL ENGINEERING

Code	Course
BM 701	Research Methodology
BM 711	Advanced Biomedical Signals & Systems
BM 714	Advanced Biomedical Control Systems

SPECIALISATION: BIO INFORMATICS

Code	Course
BM 720	Medical Informatics
BM 705	Biomedical Ethics
BM 721	Computer Vision
BM 722	Tissue & Cell Engineering
BM 730	Telemedicine System
BM 731	Pattern Recognition
BM 801	Proteomics
BM 802	Cell and Molecular Biology

Code	Course
BM 740	Drug Delivery & Pharmacology
BM 741	Advanced Computational Biology
BM 742	Advanced Biochemistry
BM 703	Modeling & Simulation of Physiological Systems
BM 750	Structural Bioinformatics
BM 751	Functional Genomics
BM 752	Advanced Mass Transfer

SPECIALISATION: CLINICAL INSTRUMENTATION

Code	Course
BM 722	Tissue & Cell Engineering
BM 704	Mechatronics System Design
BM 723	Embedded Systems & Applications
BM 724	Biomaterial Science & Engineering
BM 725	Medical Image Processing
BM 742	Advanced Biochemistry
BM 751	Functional Genomics
BM 753	Design of Medical Devices
BM 754	Advanced Medical Imaging
BM 755	Adaptive Signals and Filter Design

Code	Course
BM 732	Advanced Clinical Instrumentation
BM 733	Medical Microsystems
BM 702	Biomedical Engineering Design
BM 734	Bio-electromagnetism
BM 735	Ultra-Power Electronics
BM 760	Biomaterials and Drug Delivery
BM 761	Cardiovascular Fluid Mechanics
BM 801	Proteomics
BM 715	Advanced Biomedical Instrumentation
BM 802	Cell and Molecular Biology

SPECIALISATION: REHABILITATION ENGINEERING

Code	Course
BM 722	Tissue & Cell Engineering
BM 723	Embedded Systems & Applications
BM 724	Biomaterial Science & Engineering
BM 726	Rehabilitation Engineering
BM 727	Computational Biomechanics
BM 735	Medical Robotics
BM 762	Advanced Bio-Fluid Mechanics
BM 763	Injury Mechanics
BM 801	Proteomics
BM 802	Cell and Molecular Biology

Code	Course
BM 736	Prosthetics and Orthosis
BM 742	Advanced Biochemistry
BM 743	Clinical Gait Analysis
BM 751	Functional Genomics
BM 755	Adaptive Signals and Filter Design
BM 760	Biomaterials and Drug Delivery
BM 803	Design of Implants/Artificial Organs
BM 804	Advanced Biomechanics
BM 712	Finite Element Methods
BM 813	Experimental Biomechanics

SPECIALISATION: CLINICAL INSTRUMENTATION

Code	Course
BM 722	Tissue & Cell Engineering
BM 704	Mechatronics System Design
BM 723	Embedded Systems & Applications
BM 724	Biomaterial Science & Engineering
BM 725	Medical Image Processing
BM 742	Advanced Biochemistry
BM 751	Functional Genomics
BM 753	Design of Medical Devices
BM 754	Advanced Medical Imaging
BM 755	Adaptive Signals and Filter Design

Code	Course
BM 732	Advanced Clinical Instrumentation
BM 733	Medical Microsystems
BM 702	Biomedical Engineering Design
BM 734	Bio-electromagnetism
BM 735	Ultra-Power Electronics
BM 760	Biomaterials and Drug Delivery
BM 761	Cardiovascular Fluid Mechanics
BM 801	Proteomics
BM 715	Advanced Biomedical Instrumentation
BM 802	Cell and Molecular Biology

PH.D IN ELECTRICAL ENGINEERING

Each Ph.D student must select one Area of Specialization (AoS) in consultation with the GEC/Supervisor. A Ph.D student must take four courses from AoS as major subjects including Independent Study. There are two compulsory courses for Ph.D students namely Research Methodology and Simulation & Modeling. A programme structure of Ph.D Electrical Engineering is given as:

Course Description	No. of Courses	CH
Area of Specialisation (AoS)	4	12
Compulsory Courses	2	6
Thesis/Dissertation		30
Total Coursework Credit Hours 48		

TITLE OF THE PROGRAMME TO BE APPEAR ON THE DEGREE

o Doctor of Philosophy (Ph.D) in Electrical Engineering

ELIGIBILITY CRITERIA FOR ADMISSION IN PH.D ELECTRICAL ENGINEERING

a) 18 Years of education with relevant specialization, Minimum CGPA 3.00/4.00 or First Division (in the Annual System) in M.Phil/M.S./Equivalent is required, Passed NTS/HEC GAT (Subject) or the University admission test.

b) In the case of GAT, Subject test with minimum of 60% marks is required to take admission. Presently following subjects are available for GAT subject test and are eligible to apply for Ph.D in Electrical Engineering:

- Computer Engineering
- Telecom Engineering
- Electronic/Electrical Engineering

If the Test is not available in GAT subject list, then a University Committee consisting of at least 3 Ph.D faculty members in the subject area and approved by the HEC will conduct the Test at par with GRE Subject Test and qualifying score for this will be 70% score.

Students admitted in Ph.D Programmes have to submit the requisite GAT Subject or GRE Subject at the time of admission preferably or before the end of first semester of the respective programme.

DURATION OF PH.D ELECTRICAL ENGINEERING AND SEMESTER-WISE BREAK-UP

Typical/Average duration for PhD programme is 04 years and maximum duration is 8 years. A generalise semester-wise break-up is as follows:

SEMESTER I		
Course ID	Course Title	Cr. Hr.
ABC-xxx	AoS – I	3
ABC-xxx	AoS – II	3
ABC-xxx	Research Methodology	3
SEMESTER CH		9

SEMESTER II		
Course ID	Course Title	Cr. Hr.
ABC-xxx	AoS – III	3
ABC-xxx	AoS – IV	3
ABC-xxx	Simulation & Modeling	3
SEMESTER CH		9

SEMESTER III		
Comprehensive Exam		

SEMESTER IV		
Thesis/Dissertation (Proposal Defense)		

SEMESTER V		
Thesis/Dissertation (Progress Report-I)		

SEMESTER VI		
Thesis/Dissertation (Progress Report-II)		

SEMESTER VII		
Thesis/Dissertation (Progress Report-III)		

SEMESTER VIII		
Thesis/Dissertation (Defense)		

PH.D COURSE WORK

Course work of 18 credit hours preferably in the first year is required to be completed scoring minimum 3.0 CGPA out 4.0 and followed by a comprehensive examination for granting candidacy as Ph.D researcher.

COMPREHENSIVE EXAMINATION PROCEDURE

After the declaration of the result/completion of all the requirements for the course work, PGP office shall request students to fulfill the administrative requirements for the written comprehensive exam within three weeks' time. It may include fee clearance, exam request form submission, proposed date within the allowed duration of six months from the date of declaration of the result of the last course taken by the candidate.

The candidate may be asked to submit a tentative synopsis of the research work/selected specific research area before the written exam. Two relevant courses to that synopsis may be chosen from the candidate's transcript either by FEST-RC or the candidate by self.

The written exam shall be scenario-based that includes a complex problem to be solved by using the knowledge area(s) of interest identified by candidate either by synopsis or the opted courses.

2-3 experts (internal/external or both) from the relevant area may set the question paper with mutual consultation and assess the paper individually. The qualitative assessment shall be done based on the approach presented to solve the given problem. The outcomes may be Pass, Pass with a condition (to appear and pass the oral examination), Failure with retake and Failure.

Pass: All or the majority of experts are satisfied

Pass with Condition: Majority of the experts are partially satisfied

Failure with retake: None of the experts are

satisfied. The candidate should follow the whole process as defined for written comprehensive exam and reappear.

Failure: None of the experts are satisfied at all in the second attempt. It leads to termination from the Ph.D programme. The transcript may be issued for the taken courses after due clearance.

The Director PGP shall convey the decision to the students and the FEST-RC not later than three weeks from the date of conduct of the written examination.

ORAL EXAMINATION

The focal person is the AD-PGP for all the relevant communications between student and FEST-RC. FEST-RC shall fix the date and examiner panel for the said exam. The date must be communicated to the student and the expert panel (essentially the same as that for written examination) at least two weeks before the commencement.

The panel shall be composed of at least two FEST-RC members preferably with the relevant expertise. The satisfied experts of the comprehensive exam may be excluded from the panel of the oral examination. Qualitative assessment of the panel shall result in Pass, Retake or Failure.

Pass: Majority including all experts (for the written exam) are satisfied

Retake: Majority (FEST-RC Members only), but none of the experts (for the written exam) is satisfied

Failure: The majority (either FEST-RC Members or the experts) of the panel is not satisfied. The candidate should re-attempt the comprehensive written exam following the defined procedures.

The result must be announced within 5 working days of the date of conduct of the oral examination.

DESIGNATING A SUPERVISOR

After the successful completion of the comprehensive examination candidate should choose the supervisor that should preferably must be a full-time faculty member of ZU (essentially HEC approved PhD supervisor) with relevant expertise to the research topic/submitted synopsis.

In case of unavailability of the required expertise in the given pool of ZU supervisor, candidate may propose any HEC approved Ph.D Supervisor name with consent and resume the proposed supervisor.

In either case, candidate should request to Director PGP for the allocation of the supervisor. This request will be forwarded to FEST-RC by the Director PGP for the final decision.

The FEST-RC shall also allocate an internal Co-Supervisor

- i. For the candidates having main supervisors outside the ZUFEST pool
- ii. Supervisors' commitment with more than 5 Ph.D students
- iii. The supervisor leaves the job
- iv. Supervisor disqualifies HEC criteria

The AD-PGP shall communicate the FEST-RC decision to the candidate and the supervisor(s).

FORMATION OF GRADUATE EVALUATION COMMITTEE (GEC):

A doctoral GEC will be formed right after the supervisor(s) assignment. There must be three Ph.D members (preferably FEST-RC members with relevant specialisation) in additions to the supervisor and co-supervisor (if any). At least one GEC member must be from reputed university/relevant industry/R&D organisation. The GEC shall be formed by the Director PGP with the consultation of assigned supervisor(s). The approval for the formed GEC must be taken from Director PGP and VC ZU.

Once GEC is constituted, the composition of the committee can only be changed upon recommendation by both the faculty research advisor and the Director PGP and the approval of FEST-RC.

The Director PGP shall inform the candidate about GEC and ask to submit a written proposal within 6 weeks of the date of information.

In case of delay the PGP office shall write to the candidate and supervisor. Upon the appropriate response, two weeks' time may be given for submission of proposal.

PROPOSAL SUBMISSION AND DEFENSE PROCEDURE

Passing the proposal phase is partially achieved by the acceptance of all/majority committee members (FEST-RC/ZU-BASR) of the written proposal.

The written proposal must be well structured with all the required ingredients like the title must be well elaborated and specific to the scope of work. Motivation Problem identification, Problem definition, Literature Review, proposed methodology, measurable objectives, and timeline.

Proposal with missing or lacking in any of the details above shall not be accepted and the candidate may be asked to resubmit either with the same or different title. Although in case of minor deficiency (ies), with the consent of the members of the committee candidate may qualify for the oral defense.

After the decision of the FEST-RC/ZU-BASR, Director PGP shall communicate the same to the candidate and the supervisor for further required action.

For the oral defense, the proposal defense date may be proposed by the supervisor and the candidate not later than a week from the date of the decision received.

The GEC and the candidate shall be informed after the approval of the date by the FEST-RC. The Director PGP shall be responsible for the necessary arrangements and announcements regarding the oral defense. GEC members will assess the proceedings. The assessment will be quantitative (Performa) as well as qualitative in terms of remarks. The outcomes may be Pass, Conditional Pass, Retake or Failure.

Outcome	Qualitative Comments	Quantitative Score	Status/Action
Pass	Satisfied	80% or above	Proposal Approved
Conditional Pass	Needs improvement	60% - 79%	Proposal approved but with a condition e.g extra course in the perceived area of weakness, external evaluation required or as suggested by house
Re-take	Major problem in the proposed methodology or feasibility issue	50% - 59%	Proposal neither approved nor rejected till the re-exam. The revised presentation in compliance to the given observations is required for the re-exam.
Failure	Unsatisfactory/Weak problem definition /exhausted area of study/conventional solution with known results	Less than 50%	Proposal rejected

The result shall be announced within a weeks time by the PGP office. For the Pass candidate, the first progressive is due within 8 to 10 months of the proposal approval. For Conditional Pass, the candidate should fulfill the condition within maximum 6 months from the date of announcement of the result.

In case of external evaluation, the PGP office should send the case to the Dean with pool of examiners within 10 working days from the date of announcement of result. The pool shall be formed by PGP office with the consultation of the supervisor but the final examiner will be confidentially set by the Dean within a week's time upon the response. PGP office will then send the proposal for evaluation. The evaluation must be sent to the GEC members, the candidate, the Dean, and the Director. The candidate must report to the Supervisor with the revised proposal (if required) within a month or two at maximum. If the supervisor is satisfied with the modifications and revisions then the proposal must be sent to PGP office for further submission and final approval to GEC.

Only one retake is allowed. For a re-take, a new date will be proposed by the supervisor in consultation with the candidate to the PGP office. The date should not be farther than 6 months from the date of the announcement of the result.

The first-time failure leads to the resubmission of the written proposal with all pre-defined procedures as that for first-time submission.

Second-time failure is the termination from the programme.

PH.D CANDIDACY

Qualification and advancement to Ph.D candidacy is subject to:

- o Passing Ph.D coursework with required CGPA
- o Passing Ph.D qualifying examination
- o Formulation of Guidance & Examination Committee (GEC)
- o Writing and successfully defending the research proposal

DISSERTATION CREDITS

In addition to coursework, all Ph.D scholars must register in doctoral research of 30 Cr Hrs and submit progress reports approved by the supervisor.

PH.D PROGRESS EVALUATION PROCEDURE

There will be three progressive presentations before the final defense. The first progress evaluation should be done within 8-10 months' time from the date of the approval of the Research Proposal. The second and the third progress evaluation are due after every 6 months (minimum) or 8 months (maximum) of the successful previous evaluation. The Supervisor should request for the date of due evaluation (1, 2 or 3) based upon the respective checklist.

Checklist for 1st Progress Presentation:

1. Literature review; any new development relevant to the proposed methodology since the time of proposal defense
2. In case of external evaluation of the research proposal, the recommendations and

observations (if any) of the expert are incorporated and addressed.

3. Magnitude of the work done; status of targeted objectives (as per given time line at the time of proposal defense) must be completed. In case of partially achieved objectives due justification must be provided by the candidate.

4. Preliminary results; in terms of development and implementation of the proposed methodology/Test bed/verification platform/protocol design

5. Next target identification for the 2nd progressive

Checklist for 2nd Progress Presentation:

1. Review Paper/Preliminary results published or at least accepted for publication in any ISI indexed conference proceedings. (List of ISI Indexed conferences available at Thomas Reuter's official website)

2. Completion of milestones as committed in 1st progress evaluation

3. Observation(s) received by the panel in the previous evaluation are incorporated

4. Current status of results is satisfactory and in the direction of the goal set for the study

5. Next target identification for the 3rd progressive

Checklist for 3rd Progress Evaluation:

1. Publication requirement must be fulfilled as per HEC criteria/ZUFEST Ph.D policy

2. Observation(s) received by the panel in the previous evaluation are incorporated

3. Final results are obtained

4. Analysis of results is sufficient to draw a conclusion

5. Research outcomes/preliminary conclusion is clearly defined

6. First draft of the thesis is ready to present (optional)

The outcomes of the 1st progressive may be Satisfactory, Partially satisfactory or Unsatisfactory based upon the qualitative assessment done by the GEC on a prescribed Performa. The major attributes to be checked will be point 3 and 4 of the respective checklist. The results should demonstrate the following:

- i. Key parameters of the study
- ii. Effect of input on expected outputs
- iii. Validation of results by comparing either with experimental data & theoretical model or with reference to the published results
- iv. Highlighting deviations/improvements and their justifications

Outcome	Quantitative Score	Status/Action
Satisfactory	80% or above	Through for the 2 nd progress evaluation
Partially Satisfactory	60% - 79%	Through for the 2 nd progress evaluation with the condition that point 3 given in the checklist for the aforementioned is compulsory to be fulfilled before the next evaluation
		1 st Attempt: Re-take the Progress evaluation within 3 months of the date of conduct of the 1 st evaluation
Unsatisfactory	Below 60%	2 nd Attempt: Candidate may choose among the two options; 1. Termination from the Ph.D degree programme with a Postgraduate Diploma (PGD), 2. Repeat the procedure for the re-submission of the fresh Research Proposal

The outcomes of the 2nd progressive may be Satisfactory, Partially satisfactory or Unsatisfac-

tory based upon the qualitative assessment done by the GEC on a prescribed Performa.

Outcome	Quantitative Score	Status/Action
Satisfactory	80% or above	Through for the 3 rd progress evaluation
Partially Satisfactory	60% - 79%	Through for the 3 rd progress evaluation with the condition that point 2 given in the checklist for the aforementioned is compulsory to be fulfilled before the next evaluation
		1 st Attempt: Re-take the Progress evaluation within a month time from the date of conduct of the evaluation
Unsatisfactory	Below 60%	2 nd Attempt: Termination from the Ph.D degree programme with a Postgraduate Diploma (PGD)

The outcomes of the 3rd progressive may be Satisfactory, Partially satisfactory or unsatisfactory based upon the qualitative assessment

done by the GEC on a prescribed Performa. The FEST-RC members should also be invited to witness the 3rd progress evaluation.

Outcome	Quantitative Score	Status/Action
Satisfactory	80% or above	Through for the thesis submission and evaluation
Partially Satisfactory	60% - 79%	Through for the thesis submission and evaluation after complying all the observations and recommendations of the GEC. The supervisor will check the compliance.
		1 st Attempt: Comply all the observations and recommendations of the GEC and submit within a month from the date of evaluation. DRC shall check the compliance (either by documented evidence or by hearing candidate) to approve the case for thesis submission and evaluation.
Unsatisfactory	Below 60%	2 nd Attempt: Candidate may choose either termination from the Ph.D degree programme with a Postgraduate Diploma (PGD) or to appear for M.Phil Exam

THESIS SUBMISSION AND EVALUATION PROCEDURE

Candidate should submit the thesis in a specified format to the office of AD PGP with the proper approval of assigned supervisor(s) not later than 3 months of the 3rd Progress Evaluation.

Director PGP shall send the thesis for the scanning to the PGP examination department within 3 days. The scanning report should not be delayed more than 5 working days from the date of received by the examination.

If the report is satisfactory then Director PGP should write to the supervisor to submit the pool of external (foreign) and internal (national) evaluators for the thesis, not later than 10 work-

ing days of the request.

If the report is unsatisfactory then Director PGP should communicate the result to the candidate and share the report with the supervisor. The candidate should resubmit the revised thesis draft within a month time for rescanning. The Dean/ZU-BASR shall finalise two evaluators from each pool. Director PGP shall acquire the consent and send the thesis draft to the chosen experts. In case of regret, the case may be redirected to the Dean for the re-nomination of the evaluator(s).

The Evaluation reports should be received in 3-4 months. If not then a reminder may be sent by Director PGP to the relevant expert. The evaluation report should be immediately sent to the GEC and the candidate.

In case of minor revisions, the supervisor may request and propose the date for the thesis defense in consultation with the candidate. FEST-RC shall decide in this regard.

In case of major revisions, GEC shall advise the FEST-RC about the required time to address and remove the observations made by the experts.

Depending upon the quantum of change, in the results and conclusion that may occur due to the required revisions, the FEST-RC shall decide the re-evaluation. If the re-evaluation of the thesis is required then the thesis should be preferably sent to the same evaluator provided his consent. In case of regret, the case may be redirected to the Dean for the re-nomination of the evaluator(s). The FEST-RC decision shall be immediately conveyed to the candidate and the supervisor(s).

FINAL THESIS DEFENSE PROCEDURE

Upon receiving the decision of FEST-RC about the supervisor's request to conduct the Thesis Defense, the Director PGP should get the consent of the internal evaluators of the thesis to assess the oral defense as an external examiner. In case of regret, the Dean and the Vice-Chancellor shall nominate the external examiner from the submitted list of internal evaluators/examiners' pool by the supervisor.

The examination panel shall include nominated external examiners and GEC members, Director PGP. The Dean must also be invited by the Director PGP.

The outcome of the defense may be Successful, Conditionally Successful or Unsuccessful based upon the qualitative assessment done by the GEC on a prescribed Performa.

CORRESPONDENCE FOR THESIS REVIEW

The official emails may be used to send the thesis for review but personal email address shouldn't be used. All the correspondence should be done on official email addresses.

Ph.D ELECTRICAL ENGINEERING DEGREE REQUIREMENT

- 18 Cr. Hr. Coursework with CGPA 3.0 or above
- 30 Cr. Hr. Thesis with 2 Research Publications in HEC Approved Journal List.

Outcome	Status/Action
Successful	No revisions required, degree should be awarded after necessary formalities
Conditionally Successful	Minor revisions suggested by external examiner; re-submit the final draft after compliance with the approval from the supervisor with in the given time by the examination panel. Degree should be awarded after necessary formalities
Unsuccessful	1 st Attempt: Lack of information or fails to provide enough data to establish the evidence for the drawn conclusion. Re-take the oral defense with complete resources and evidence.
	2 nd Attempt: M. Phil may be awarded

POLICY FOR PUBLICATIONS

• A student must have a minimum of 2 research papers published/accepted for publication, preferably presented in HEC approved journals/international conferences of good repute, out of which at least one research paper must be published in an ISI indexed journal (with impact factor) in the relevant area as specified by FEST-RC.

• Only those publications related to the research work will be counted in which the student name appears as 1st author and supervisor or co-supervisor as 2nd or 3rd author

and clearly mentions student affiliation with

Ziauddin University, Faculty of Engineering Sciences and Technology.

- FEST-RC is the final authority on determining whether the research publication meets the prescribed standards and requirements.

PLAGIARISM TEST

It is a mandatory part of dissertation evaluation process. The supervisor will make sure that prior to submission, research work passes through anti-plagiarism software before it is sent for evaluation.

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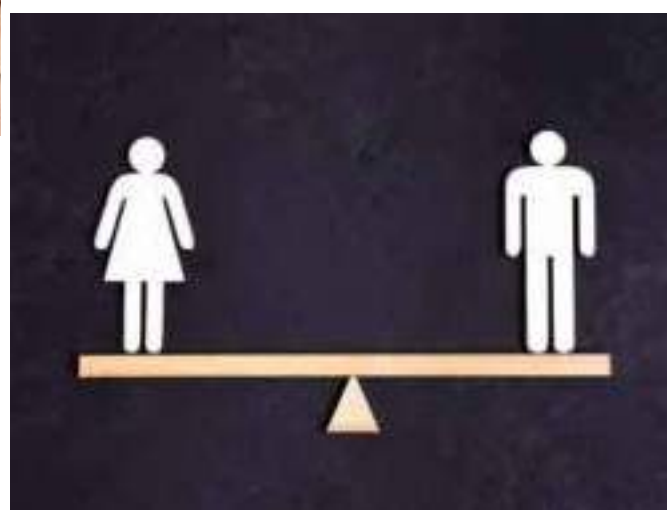
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FACULTY OF LAW



FACULTY OF LAW

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INTRODUCTION

Over the course of 20 years, Ziauddin University has emerged into a diverse platform in academia. With an aspiration to broaden its academic horizon, Ziauddin university introduces Faculty of Law.

Under the dynamic leadership of Ms. Shaaista Sarki, Faculty of Law aims to instill expert legal reasoning which responds to social phenomena and contributes to development of various institutions. Ziauddin Faculty of Law, is currently offering five years LL.B. Degree programme, spreading over ten semesters. The curriculum is in accordance with Federal HEC standards & Pakistan Bar Council.

MISSION

We commit to excellence and humanity. Not just in theory but in practice.



BACHELOR OF LAWS (LL.B.)

INTRODUCTION

Ziauddin Faculty of Law offers a five-year under-graduate degree programme leading to Bachelor of Laws (LL.B.). Following are the details:

Categories	Electives within the major	Credit Hours
Compulsory Requirement (No Choice)	10 – 10	28 – 28
General and Foundation Courses	08 – 08	24 – 24
Major Courses including Research Project/Internship	34 – 34	102 – 102
Electives within the major	102 – 102	12 – 12
TOTAL	56 – 56	166 – 166

Total numbers of Credit Hours: 166
 Duration: 5 Years
 Semester duration Semesters: 16-18 weeks
 Course Load per Semester: 15-18 Cr Hrs
 Number of courses per semester: 5-6

LL.B.

LL.B. programme is divided into five academic years; each year comprises a number of modules related to subject specific information, in accordance with PAKISTAN BAR COUNCIL and HEC recognised curriculum.

ELIGIBILITY CRITERIA

Eligibility/Pre-requisite for admission: FA/FSc/A-levels

Admission to Ziauddin Faculty of Law, for a five years LL.B. degree programme is open to all individuals who meet the selection criteria. All candidates are selected for their academic achievements and potential. Students are

admitted to the first year of LL.B. on previous high school and/or college academic record, passing of LAT (conducted by HEC) and interview conducted by the Ziauddin University.

Selection of student is on the basis of an admission policy approved by the Governing Body of Ziauddin University, which is in line with the regulations of Pakistan Bar Council and HEC.

LEARNING OBJECTIVES

To inculcate in students a broad understanding of the social, political and economic contexts within which the Pakistani and global legal system operates. To equip students with knowledge and understanding of the fundamental doctrines of law.

FEE STRUCTURE

Processing Fee: 5,000
 Admission Fee: 30,000
 Security Deposit: 25,000
 Student Fund (Per Semester): 1,500
 Tuition Fee (Per Semester): 110,000
 Examination Fee (Per Semester): 23,000
 Pakistan Bar Council (PBC): 1,000

Not including taxes

Note: Any additional taxes imposed by the government will be the liability of the students/parents/guardian.

The University reserves the right to increase the fees if required according to the recommendation of the Governing Body.

Advance fees to be paid semester-wise. All dues need to be cleared within two weeks of commencement of the academic year. 2% surcharge per month will be levied on outstanding fees after the due date.



CENTRE FOR ACCESS TO JUSTICE

INTRODUCTION

ZU-CAJ located within the ZU Faculty of Laws, uses law and legal knowledge as an effective tool for social change. The mission of the centre is threefold;

PRO-BONO LEGAL CLINIC

ZU Centre for Access to Justice offers members of marginalised and poverty stricken sections of society, legal advice free of cost. This advice is delivered in person and over modern means of communication and extends to those areas of the law which are concerned with social welfare, e.g. inheritance, custody and bails.

This legal advice is offered due to the pro bono work that both faculty members and law students at Ziauddin University extend. The university and the centre encourage students to work pro bono not only for the benefit of society but also their own benefit, as it results in personal and professional growth through exposure to the practical and real legal world. The result is innovation and greater participation in the law.

ZU LAW REVIEW

Another aspect of the Access to Justice is legal research, which unfortunately is one area where the great nation of Pakistan lacks behind in the global order. Ziauddin Law Review, seeks to address all areas of the law

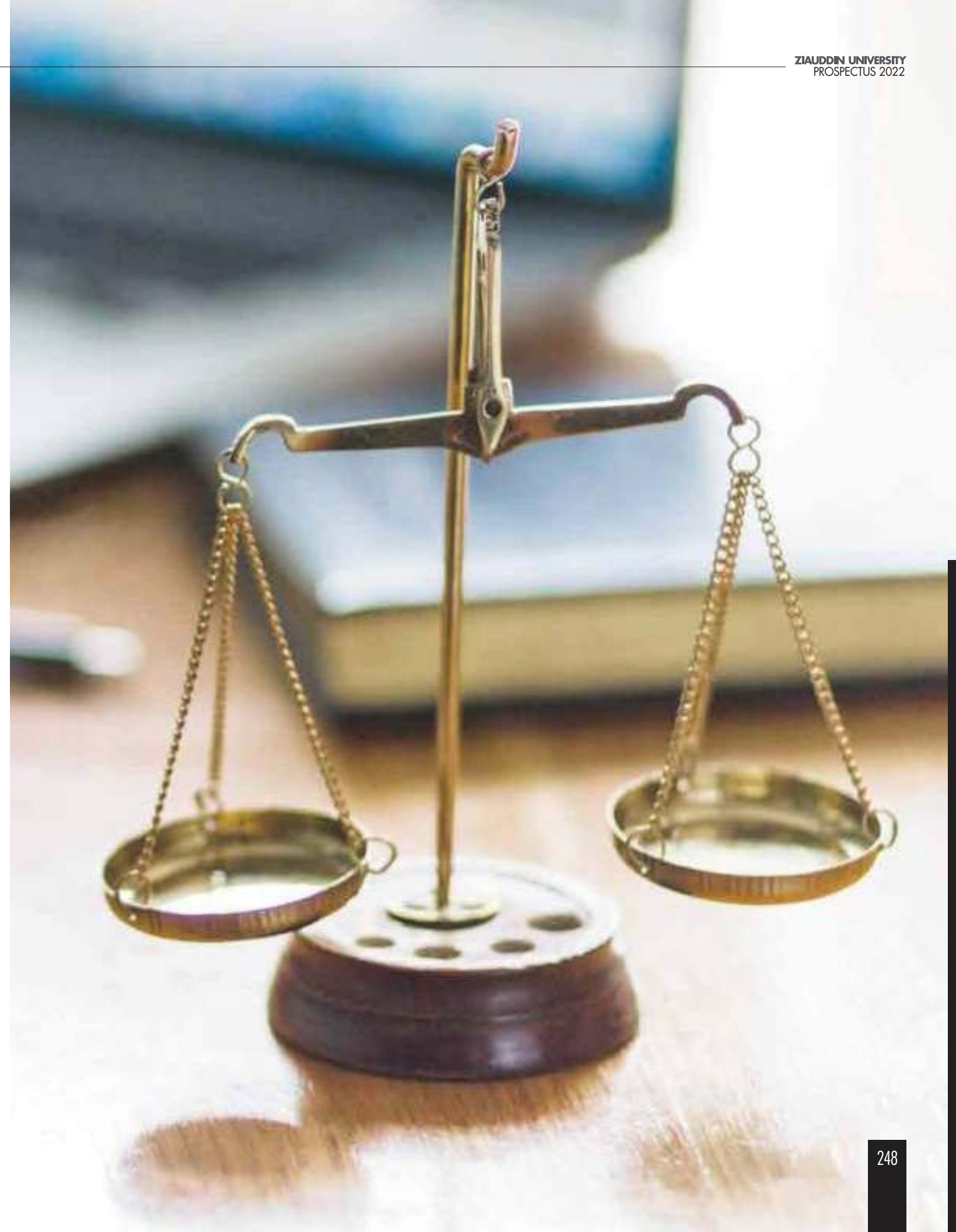
and publish articles on all aspects of law. As a matter of priority, the law review aims to develop discourse on contemporary legal developments, whether prompted by judicial decisions or legislation and would be especially devoted to the development of jurisprudence. It would seek to reform the law in line with notions of fairness and justice and provide solutions aimed towards legal restructuring, a dire need for the country. The law review would be of interest to all and sundry, legal practitioners, law students, legal academia, judges and the bureaucracy.

LEGAL SEMINARS AND CONFERENCES

The Centre for Access to Justice will not only provide pro bono legal advice and legal research as projects for legal and social change, but would also conduct legal education and supervision at public forums to develop legal awareness, and would use all mediums including conferences and seminars to effect legal and social change.

LEGAL INCUBATION CENTRE

The ZU Faculty of Law believes in supporting start-ups in the field of law. Our Incubation Centre provides an office space to young lawyers who wish to start their own law firm but lack the funds and resources to do so. Licensed Advocates are provided with a working space and access to research resources, free of cost.



CENTRE FOR HUMAN RIGHTS

INTRODUCTION

All human beings are born with equal and inalienable rights and fundamental freedoms. The United Nations is committed to upholding, promoting and protecting the human rights of every individual. This commitment stems from the United Nations Charter, which reaffirms the faith of the people of the world in fundamental human rights and in the dignity and worth of the human person. In the Universal Declaration of Human Rights, the United Nations has stated in clear and simple terms the rights which belong equally to every person. These rights belong to you. They are your rights. Familiarise yourself with them. Help to promote and defend them for yourself as well as for your fellow human beings.

UN Charter 1947

CENTRE FOR HUMAN RIGHTS

ZU-CHR located within the ZU Faculty of Laws, uses law and legal knowledge as an effective tool for promoting and securing human rights. To accomplish this momentous task we have different segments within the center to address the top areas:

- ADVOCACY
- PEACE & CONFLICT STUDIES
- CHILD RIGHTS PROGRAMME
- PRISON PROJECT

ADVOCACY

The Advocacy for Human Rights works to create public policy that respects, protects, and fulfills human rights obligations in our home community and around the world.

Our Priorities

Our advocacy priorities are protecting the human rights of asylum seekers, refugees and immigrants; protecting the human rights of women and girls; supporting the work of human rights defenders and working to help incorporate international human rights standard in Pakistan.

Our Strategies

Using international human rights mechanisms, including those of the United Nations, to highlight human rights violations and advocate for policy change;

- Advocating for public policy changes in Pakistan both on a local and national level on multiple platforms: media, talks, seminars, and etc.
- Providing direct legal advocacy in public litigation cases and supporting causes promoting human rights
- Advancing our priorities by working in local, national, and international coalitions.

PEACE & CONFLICT STUDIES

Peace and conflict studies is a social science field that identifies and analyzes violent and nonviolent behaviors as well as the structural mechanisms attending conflicts (including social conflicts), with a view towards understanding those processes which lead to a more desirable human condition.

Our Strategies

- Promotion of Alternative Dispute Resolution particularly Mediation training and workshops
- Conducting field studies to arriving at the heart of common conflicts within the general public in Pakistan – be it local or international
- Regional emphasis on Afghanistan & India peace & conflict studies
- De-radicalisation efforts thru engagement with government institutions and NGOs in the promotion peace and dialogue

CHILD RIGHTS PROGRAMME

Children are the most vulnerable of all human beings and their protection is the utmost important as they are the future.

At ZU-CHR the Child Rights Programme is geared to work with Child Protection Unit government bodies, orphanages, and adoption agencies for the active change and development in policies to enhance children rights.

Our Strategies

- Promoting and advocating the Hague Convention Child protocols
- Working with international adoption agencies and providing training to orphanages to secure children rights within institutions
- Working in the sensitive area a street children and providing solutions protecting their rights
- Conducting studies to tackle child abandonment and mechanisms to prevent trafficking

THE PRISON PROJECT

Prisoner Rights has been a key area within Human Rights often neglected. Giving voice to the voiceless is an important element. Working with NGOs and government institutions to bring appropriate prison reform to enhance prisoner rights and help create a full rehabilitation programme

Our Strategies

- Prison Rehabilitation Programmes promotion – particularly Bacha Jail
- Legal Aid to pending cases
- Jail visits and inspection reports to influence policy change
- Focusing on international prisoners and their repatriation to their home countries
- Half-way house and follow up after release



CENTRE FOR LAW & TECHNOLOGY

INTRODUCTION

The 21st Century has brought with it a boom in technological advancement, arguably becoming an era in history which will be seen as the one which saw progress manifest the quickest and most disruptively. The word 'disruptive' (in the context of technology) only insinuates that the technology was so far reaching, so pervasive, and so all-encompassing that it resulted in drastic changes to the modes in which society and commercial activities operate.

It is no secret that codified law always lags behind the zeitgeist of an era. Matters which require regulation are without exception regulated in retrospect rather than proactively. The reason for this is summarised eloquently in the Collingridge Dilemma. The dilemma highlights a hard problem with regulating technology in 2 simple prongs. First, when a technology is created, not enough is known about it in order to effectively regulate it before understanding its ramifications on society, economics and individuals. Second, when such knowledge is attained (after the passage of time), that technology is far too entrenched in society to be effectively regulated. A good example is the internet. When it was initially created, it was a closed network started by DARPA (a US Military Programme) for intelligence-sharing and secure communication. However, at the time of its creation, not even its creators could imagine the impact that the internet would have on the world once it became globalised. Today, the internet's reach is (relatively) well understood, but it is far too entrenched in our everyday lives to be effectively regulated without completely changing the nature and use of the internet.

An understanding of the complex problems revolving around technology is essential for every lawyer, social scientist, politician, and businessperson, in order for our world to move forward in a careful, balanced and thoughtful manner. The industrial revolution reaped great

results in terms of technology put into practice, but the costs to natural resources and air/ozone quality were not well understood. Thus today, we see an escalation in climate change which can largely be attributed (and traced back to) the boom in industry. There will definitely be negative impacts of technology on the environment, on economics and even on the very fabric of our social values, and thus it is imperative to ensure our policymakers are aware of the multifarious elements which progress along with technology in order to effectively utilise it whilst minimising associated risks.

THE CENTRE FOR LAW & TECHNOLOGY

There is a philosophical concept which reads: 'what we create, in turn creates us'. The same is true for technology we create. Granted, Pakistan is an emerging name on the global map when it comes to technology innovation. However, a lack of infrastructure and innovation-related opportunities does not need to percolate into our legal community- lawyers ought to be, and are expected to be at par with all global shifts in technology and must remain up-to-date with developments in these areas.

In order to assist the Courts or legislative assemblies, lawyers and lawmakers must be aware of the multifarious nature and modalities of technology. This understanding can only exist once a systematic, considered approach is taken to understand the fundamentals of technology and its impact on the various aspects of the *staus quo*.

With the novel Centre for Law & Technology, our aim is to ensure that the students who graduate from the Ziauddin Faculty of Law are at par with their foreign counterparts, and are well-versed with internationally-acclaimed ideas revolving around the use of various modalities of technology, and subsequently, the regulation of such technologies. Our contribution to the society of the 21st Century is not

only the need of the hour, but rather will pave the way our society sees technology for decades to come.

Our team is spearheading national research and is engaging in targeted, merit-based advocacy in this regard.

FLAGSHIP RESEARCH

With international and national collaborations, strategic academic partnerships and expert

opinions, the Centre for Law and Technology is engaged in research on topics of international importance.

- Personal Data & its implications in the digital world
- Data Protection in Pakistan
- Cybersecurity & data
- Pakistan's [tech-centric] legislative landscape



FACULTY OF LIBERAL ARTS & HUMAN SCIENCES



FACULTY OF LIBERAL ARTS & HUMAN SCIENCES

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INTRODUCTION

The programmes offered at the Faculty of Liberal Arts and Human Sciences encourage students to cross traditional disciplinary boundaries to access available knowledge and skills in areas relevant to their interests and future life aspirations. For instance, we are happy to see a student majoring in Visual Arts study Biology, Psychology, and Anatomy as electives, and apply the knowledge and skills to the study of the human body in works of art. We believe that this interdisciplinary approach not only fosters the development of a holistic understanding and appreciation of the world around us, but it also helps to nurture the graduates' skills and abilities to analyse in-depth complex human issues which further results in identifying ways to address the issues effectively for peace and harmony.

VISION

To develop empowered individuals able to deal with the complexities of life and society using critical thinking, communication skills, and a problem-solving approach. To develop empowered individuals able to deal with the complexities of real-life and society using critical thinking, communication skills, and a problem-solving approach.

MISSION

To provide students with a broad knowledge of the world to maximise their potential and engagement with human issues as citizens of a globalised and an increasingly technological world.

Faculty of Liberal Arts and Human Sciences offers various programmes for students to discover their full potential to fulfill their dreams as well as to strive for a better tomorrow both for themselves and for future generations. The Faculty comprises of three Colleges and one Centre:

- College of Languages, Literature and Culture
- College of Education
- College of Media Sciences
- The Language Centre

- Public Forum

THE PUBLIC FORUM SERIES

The Public Forum, an initiative of the Faculty of Liberal Arts and Human Sciences, aims to provide a platform for meeting of minds and provide an opportunity to the youth, in particular, to engage with the civil society in a well-informed discussion on public issues. It is held quarterly and is open to both students from all educational institutions and members of the public at large. It is offered free of charge to allow maximum participation of people from all walks of life.

LEARNING AND TEACHING

Our learning and teaching philosophy is student-centered. The aim is to develop students as life-long learners. Students are provided an environment for self-growth and are engaged in tasks and activities that help them grow as critical thinkers and autonomous learners. Both in-class and out-of-class opportunities to discuss, debate and dialogue on concepts and shared experiences lead to the learning and utilisation of these concepts in the real world. Internships and service learning are important components of students' learning experience in all colleges of the faculty.

CAREER OPPORTUNITIES

Graduates of the various programmes in the Faculty of Liberal Arts and Human Sciences will develop a range of 21st Century employability skills, such as analysis and synthesis, working collaboratively in teams, critical thinking and problem-solving, and effective oral and written communication. As a result, they will be able to follow diverse career pathways in various fields such as communication and design, banking, teaching, research, journalism, and media.

FACULTY MEMBERS

DEAN FLAHS

PROF. DR. FAUZIA SHAMIM
PHD TESOL, UK; MA LINGUISTICS FOR ELT, UK; MA ENGLISH, KARACHI, PAKISTAN.

SENIOR LECTURER

ADEEBA AHMAD
MPHIL EDUCATION, KARACHI; MA ENGLISH LITERATURE, KARACHI; TEAP, UK.

BOARD OF FACULTY

PROF. DR MOONIS AHMAR
MERITORIOUS PROFESSOR OF INTERNATIONAL RELATIONS,
UNIVERSITY OF KARACHI

PROF. DR SAJIDA ZAKI
CHAIRPERSON, DEPARTMENT OF HUMANITIES
NED UNIVERSITY OF ENGINEERING & TECHNOLOGY

PROF. DR NELOFER HALAI
PROFESSOR
AGA KHAN UNIVERSITY
INSTITUTE FOR EDUCATIONAL DEVELOPMENT
(AKU-IED)

COLLEGE OF MEDIA SCIENCES

KEY INFORMATION

FOUNDING DIRECTOR
FAIZAN S. SYED

PRINCIPAL
TEHMINA LODHI

CONTACT INFORMATION

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SPECIALIZATIONS

- COMMUNICATION DESIGN
- FILM & TV
- JOURNALISM



The four years that I've spent at Ziauddin College of Media Sciences has been a roller coaster ride, an emotional rampage and lots of cheerful reminiscences. ZCOMS offers a variety of choice of different courses which lead to valuable experiences within and outside campus.

In my four years tenure of Bachelors, I've learnt to accept challenges and deal with different people that helped me to strengthen my communication skills. The finest part about ZCOMS is that teachers are willing to assist their students with individual attention & care. They take personal interest in their student's successful future.

I had the opportunity to work for three internships (from ZCOMS platform) which facilitated me in my courses; as I have applied all my practical knowledge into it. At ZCOMS, we are taught and groomed by professionals who enlighten us with ground reality of how the industry works and prepare us to work for it. ZCOMS is a unique institute; where one is nurtured and molded to become the best versions of themselves.

SANIYA YOUSUF
BS CMS

INTRODUCTION

Ziauddin College of Media Sciences (ZCOMS) caters to the growing needs of Pakistan's media industry. As the industry continues to grow exponentially, there is a surge in demand for qualified media professionals with academic and practical knowledge requirements of the industry.

ZCOMS is unique as it has a state of the art TV channel, a radio studio, a newspaper, and a digital media company all located on-site where students can apply their in-class theory and gain practical experience during their four years, well before starting their careers.

The undergraduate academic programme covers a variety of liberal arts and technically-oriented subjects including theoretical, analytical, and practical application approaches to communication process and media. At the end of the four-year programme, the graduates are equipped with necessary technical and professional orientation to exceed the qualification for jobs offered to undergraduate students in media institutions.

This college has been conceived with a vision to bridge the gap between academia and practice. The crux of ZCOMS programme is parallel application, be it in print, radio, TV, or new media and learning technologies. ZCOMS is emerging as a premier media institute in Pakistan.

ZCOMS draws its strength from its in-house TV channel 'HNOW', on-site radio 'FM 98.2', English daily newspaper 'The National Courier' and Digital Agency 'East River'

The institute offers a 4-year Bachelors Programme in Communication and Media Sciences. It is spread over a period of 4 years, covering 44 courses, an internship, and thesis to complete 136 credit hours in all.

In their First Year, all students begin with a Foundation Year, where they are introduced to the subjects that they will be studying for the next 4

years. The curriculum is designed to encourage clear and critical thinking, understand concepts related to film, communication & design, and journalism. Through exposure to various media, students are encouraged to develop their own personal visual language.

In the Second and Third Year, students learn the fundamentals of their core subjects to build on for the rest of the Bachelor's degree. Each semester builds on the previous one, in addition to becoming more demanding and complex. These 2 years train the student to work independently on various projects, while constantly reinforcing personal visual vocabulary through different approaches and media.

A 6 credit hour thesis rounds up the 4-year Bachelor's programme. Students have to choose a topic of their choice, explore and research, both theoretically and practically. An external jury makes the final assessment.

OUR VISION

To develop & Empower future Media professionals to be leaders of the industry.

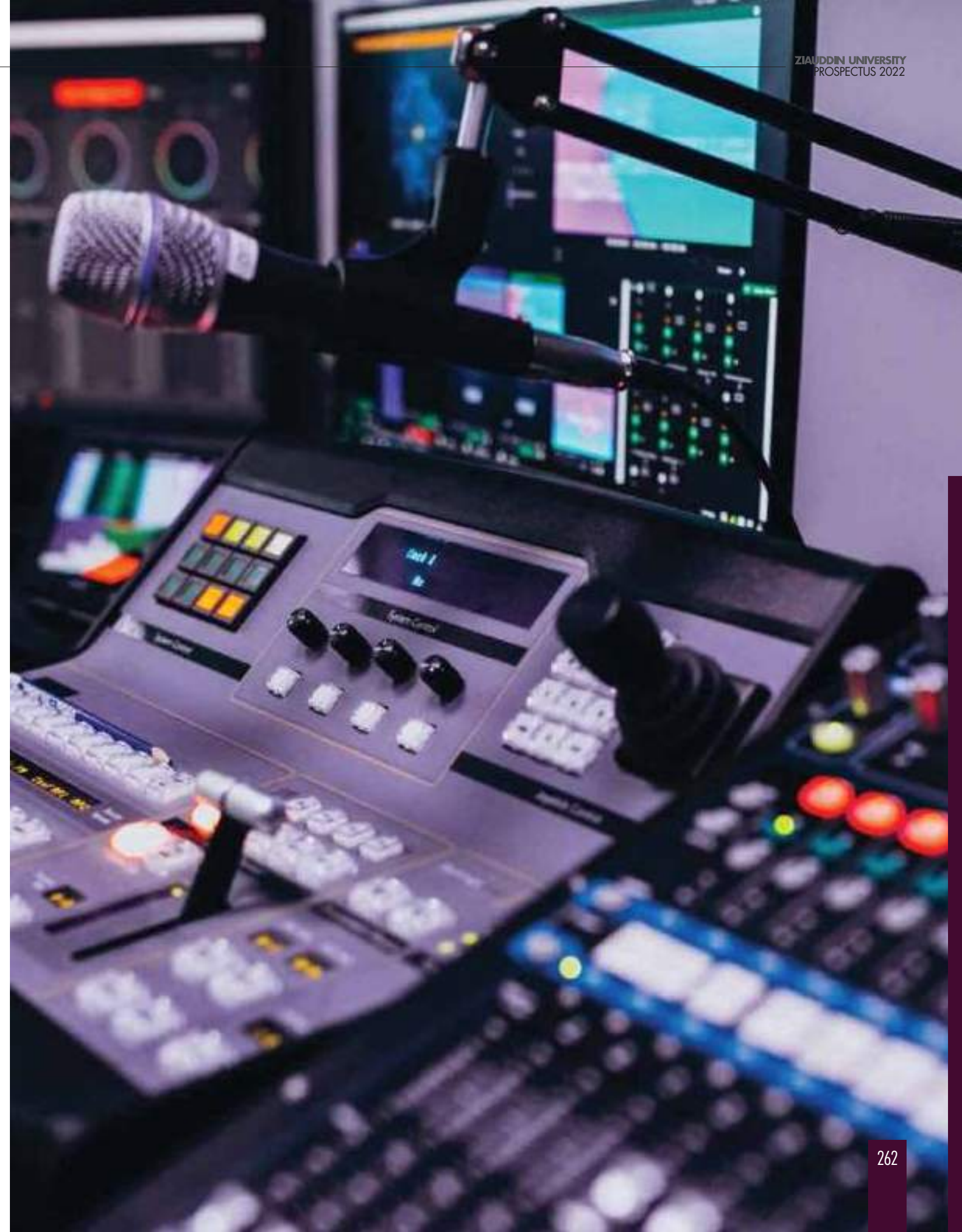
OUR MISSION

ZCOMS offers media education by providing state-of-the-art infrastructure to develop curiosity and highest intellectual and professional growth for the advancement of the media industry and development of a tolerant communicative ethical society through research, exploration and experiment.

CORE VALUES

As a member of the ZCOMS community in particular and Ziauddin University at large we lay great emphasis that our students should:

- Be always ready to strive for excellence
- Be open to new learning
- Be tolerant
- Be ethical
- Be open to critique
- Be respectful towards the environment and work towards a better world
- Be humble



PROGRAMMES OFFERED

The undergraduate BS programme covers a variety of liberal arts and technically-oriented subjects covering theoretical, historical, analytical, critical, and performance approaches to communication processes and media. At the end of the four years programme, the graduates are equipped with necessary technical and professional orientation to qualify for jobs in business or institutions that require effective communicators, as well as the background needed to pursue further education in communication or related fields. The college is conceived with a vision to bridge the gap between academics and practice. The crux of the ZCOMS programme is parallel application, be it in print, radio, TV or digital media and learning technologies. Given the kind of hands-on experience, ZCOMS is set to emerge as a premier communication, media and journalism institute in Pakistan

We offer four Specialisations:

- Communication Design
- Film and Tv
- Journalism
- Digital Marketing

COMMUNICATION & DESIGN

This programme teaches students how to translate communication ideas into concepts with the help of visuals to attract attention, interest and sell the idea. It's a multidisciplinary field that combines marketing, advertising and design; covers courses on, video production, art, illustration, typography and digital image manipulation. The students will be trained to create meaningful messages with compelling images for various mediums. The programme enhances the overall communicative and visual skills of the students.

CAREER OPPORTUNITIES

The industry offers vast creative pathways for young graduates to explore a variety of options available. They can choose among many professions including but not limited to, creative directors, copywriters, graphic designers, art directors, commercial artists, web developers, web designers, digital media strat-

egist, and digital artists.

Our alumni are doing well as a part of the diverse fields of this discipline.

FILM AND TV

We live in a media saturated world. These moving images helps us form a critical understanding of the contemporary world.

Film in its many forms does not only entertains, but also informs, and brings the world together.

At ZCOMS the nature of the FILM & TV programme ensures that the student understands both the theoretical and the practical framework of the discipline. Students are taught by leading media professionals who work closely to develop their skills. Access to onsite H Now studios gives the students an opportunity to gain hands on experience in the professional world.

As part of the programme, students are also given a chance to produce and host radio shows on FM 98.2, our onsite radio station.

The curriculum is constantly updated in line with the latest developments in the discipline.

CAREER OPPORTUNITIES

Given the interdisciplinary nature of the program, students have a diverse range of career opportunities from academia to the creative agencies. Graduates can find careers on stage, in the film and TV industry (on-screen and off-screen), radio, and the Internet.

The learning prepares our students to be creative script writers, directors, producers, actors, set designers, art directors, radio jockeys, and many more.

Our young college graduates of FILM & TV are working at various well-known organisations.

JOURNALISM

The human capacity for information is insatiable and the existence of news will always be a natural phenomenon. With unique and thorough training in reporting, writing, editing,

script writing, news, art and skills of interviewing, students leave their mark in the evolving field of journalism.

At ZCOMS the JOURNALISM programme teaches students the art of communicating clearly and directly with their audience. Writing objectively without personal bias is the true essence of Journalism. The medium has changed greatly with the surge in web, blogging and social media platform, which serves as vital means of immediate and instantaneous news and information.

CAREER OPPORTUNITIES

Today the Print media and the Digital media provides opportunities for media graduates. One can become a broadcast journalist, reporter, editorial assistant, sub editor, magazine feature editor, newspaper journalist, columnist, copy-editor, proofreader, news anchor, web content manager and many more.

DIGITAL MARKETING

The growth of digital media has not only changed the way businesses operate but also influenced the way products and services are marketed. The latest online tools, technologies and platforms enable businesses to reach their targeted customer more accurately than ever before and interact with them using rich multimedia content. Recognising the need of the day, ZCOMS offers a specialization in "Digital Marketing" where students will be taught the most effective ways of integrating media content with digital marketing activities. The students will be able to understand the broad system governing marketing activities and will get insights in different relevant areas such as data management, web content development, media management for web and social media targeting and optimisation.

CAREER OPPORTUNITIES

Digital marketing provides an opportunity for many creative people. There are jobs in writing, designing and audio and video productin developing marketing strategies, solving problems and finding ways to engage audiences

require creative solutions as well.

LEARNING AND TEACHING STRATEGIES

ZCOMS believes in skill-based assessment and focuses on interactive and practical learning to enhance the experience & creative thought process. Along with traditional teaching methodologies like class lectures, assignments, presentations, projects, and quizzes are also practiced.

Students go on educational excursions, visit exhibitions, attend seminars, participate and organise events, volunteer at media events to gain first-hand field experience and witness the rigor.

At ZCOMS we have had:

1. Guest Speaker Sessions at ZCOMS:

- Namsa Abbasi Namsa Abbasi is a production designer with 13 years of experience, having worked on 2 feature films (Moor and The Legend of Maulajat), over a hundred commercials for leading brands and music videos.
- Nida Lakhani is producer at Seeme Productions, a renowned production house and has over 8 years of production experience of reality shows, talk shows and TV commercials in Pakistan and abroad.
- Farhan Ali Siddiqui is an artist, brand director, GFX and logo designer.
- Shaikh Mawlana Kamaluddin Ahmed is a qualified Islamic scholar and university academic in the field of Islamic Studies, specialising in Qur'an, Hadith, law, history, spirituality and ethics.
- Rizwan Jaffar is a senior media figure who is currently working as an Anchor at Aaj News. He is also the Founder Chairman of Youth Parliament.
- Kashan Admani is a musician, composer, music producer, guitar player, and founder of music band Mizmaar.
- Rana Asif and Irfan ul Haq are well known figures on social media. In this live session they talked about the current and emerging social media trends in Pakistan.
- Zoe Viccaji is a singer-songwriter and actress. She began her career as a backing vocalist at Coke Studio and later moved on to becoming one of the featured artists.

- Yousuf Bashir Qureshi (YBQ) is a well known artist, photographer and fashion designer. His fashion design studio is among the top brands in the country.
- Imran Ali Dina is a well known digital artist and teacher. He is mostly recognised by his online alias GFXMentor.
- Adnan Faisal is the CEO of FHM magazine and People magazine.

2. Events

- ZCOMS Media Awards - event organised to promote and showcase the artistic talent of young students from different institutions.
- QUIZCOMS- A game show titled "QuizComs" was produced by ZCOMS where students from different schools were invited to participate in a series of quiz shows.
- Rawadari a multi-disciplinary art exhibition centered around the intersection between art and literature.
- Cover song: "Queen of Rain" by Roxette – To showcase musical talents of students, ZCOMS has initiated a series of music productions by the name of "MuZCOMS". The first production, "Queen of Rain" was a tribute to Marie Fredriksson, lead vocalist of Roxette who passed away on December 9, 2019. The song was produced and performed by the students of ZCOMS.
- Yoga and meditation workshop was organised both for students and faculty to help unleash creative energy to explore your creative side.

ADMISSION POLICY

Basic Admission Criteria:

- Minimum A-Levels 3 passes/Intermediate (45% marks, including first year no supplementary) or equivalent from a recognised institution.
- Merit will be decided upon basic admission criteria
- Final list will be displayed after evaluation of ZCOMS entrance test and interview.
- A student who clears the entrance test, but has a low test score in the English component, will have to enroll in 2 paid non-credit Remedial English courses in years 1 and 2 at the university, to improve their English language skills.

*Candidates awaiting result can also apply.

CONTACT INFORMATION

For more information:

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<https://zcoms.zu.edu.pk/>

admission@zu.edu.pk

www.facebook.com/zuedu

Twitter: @ZCOMS_ZU

Instagram: zu_zcoms

FEE STRUCTURE

Admission Fee:	Rs.10, 000/-
Security Deposit:	Rs.10, 000/-
Student Activity:	Rs. 10,000/- (per year)

43 courses (Rs. 15,000/- per course & Rs.1000/- per exam)

Thesis 1 (Rs. 20,000/- Thesis 1 & Rs. 5000/- Thesis jury)

Thesis 2 (Rs. 20,000/- Thesis 2 & Rs. 5000/- Thesis jury)

Note: Any additional taxes imposed by the government will be the liability of the students/parents/guardian.

The University reserves the right to increase the fees if required according to the recommendation of the Governing Body.

Advance fees to be paid semester-wise. All dues need to be cleared within two weeks of commencement of the academic year. 2% surcharge per month will be levied on outstanding fees after the due date.



FACULTY MEMBERS

PRINCIPAL/ASSOCIATE PROFESSOR

TEHMINA LODHI

MA APPLIED ARTS, UNIVERSITY OF HERTFORDSHIRE, UK
BA GRAPHIC DESIGN, UNIVERSITY OF HERTFORDSHIRE, UK

ASSOCIATE PROFESSOR

MR. LATIF ABBASI

M. PHIL IQRA UNIVERSITY, KARACHI
MBA SOUTHEASTERN UNIVERSITY WASHINGTON DC

ASSISTANT PROFESSOR

ATA SYED

MBA MARKETING, IQRA UNIVERSITY
MMS ADVERTISING, IQRA UNIVERSITY
BA, KARACHI UNIVERSITY

LECTURER

S.M. RAZA HAIDER RIZVI

EXECUTIVE OFFICER
BS MEDIA SCIENCES, IQRA UNIVERSITY

VISITING FACULTY

INDUSTRY EXPERTS AS REQUIRED

BOARD OF STUDIES MEMBERS

MR. FAIZAN SYED

DIRECTOR FINANCE,
ZIAUDDIN UNIVERSITY

DR. NIDA HUSSAIN

PRO CHANCELLOR,
ZIAUDDIN UNIVERSITY

MS. TEHMINA LODHI

PRINCIPAL,
ZCOMS

MR. LATIF ABBASI

ASSOCIATE PROFESSOR,
ZCOMS

MR. ATA SYED

ASSISTANT PROFESSOR,

ZCOMS

MR. KAMAL SIDDIQUI

DIRECTOR,
CEJ,
IBA

MS. NIALA MEHMOOD

LECTURER/DESIGNER,
IVS

MR. KHURRAM QADEER

INDUSTRY EXPERT

MS. LARAIB SALEEM

INDUSTRY EXPERT

MR. SHEHAN RAYER

INDUSTRY EXPERT

MR. FAATIR SIDDIQUI

INDUSTRY EXPERT



COLLEGE OF LANGUAGES, LITERATURE & CULTURE

KEY INFORMATION

DEAN FLAHS

Prof. Dr. Fauzia Shamim

CONTACT INFORMATION

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Locate Us:

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VISION

The College of Languages, Literature & Culture, housed within the Faculty of Liberal Arts and Human Sciences, aims to develop the next generation of citizens for an extremely fragmented yet interrelated world, with an appreciation and understanding of diversity in languages, literature and cultures within a broad humanistic context.

MISSION

To engage in teaching, research and service in languages, literature and culture to develop graduates as critical thinkers with excellent language and communication skills, and an appreciation of diversity in cultures to promote tolerance and peace in a globalised world.

PROGRAMMES OFFERED

1. Diploma of Arts in TESOL leading to MA TESOL (2 years after 14 years of education)
2. BS English (4 years after Intermediate/A levels)
3. BS English and Media Studies.(Intermediate/A Levels (12 years of study) with a minimum of 50% marks in the last exam.)

Specialisations:

Language and Literature; Applied Linguistics; Literature

All students will need to clear the entrance test/interview for admission.

DIPLOMA OF ARTS IN TESOL LEADING TO MA TESOL

AIMS

To enable English language teachers to improve their knowledge and skills for teaching English to speakers of other languages.

TARGET POPULATION

In-service teachers

ENTRY REQUIREMENTS

1. BA/BSc/B. Com (a minimum of 14 years of study)
2. One-year full-time experience of teaching English (preferable)
3. Should be serving teachers of English to fulfill the classroom-based practicum and teacher-research requirements

NATURE/DURATION

Evening Program: 2 semesters for full course load (course work including practicum and research project); 4 semesters for part-time students (course work including practicum and research project).

DAYS/TIMINGS

Full-time: (5 modules per semester) 3 days a week (Monday, Wednesday, Friday), Saturdays, 9.00-4.00)

Part-time: (2-3 modules per semester)

COURSE REQUIREMENTS AND STRUCTURE

Credits required: 30

Dip TESOL has three main components:

1. Course work: 7 modules- 3 credit hours each. Total 21 credits
2. Developing Professional Practice (DPP):

2 Modules:

- i). DPP 1: (Micro-teaching, classroom observation skills etc).
- ii). DPP 2: (Supervised practicum including maintaining a teaching portfolio with a record

of 10 teaching lessons out of which 3 lessons per participant will be observed), 3+3=6 credits

3. Action research project (including background reading, data collection and analysis and write-up), 3 credits.

Course Code	Semester 1
DAT 101	Learning and the Learner
DAT 102	Methodology: Teaching the four language skills, grammar, and vocabulary
DAT 103	The study of language systems (grammar and structure, phonology, discourse, & pragmatics)
DAT 104	Language awareness: Researching and reflecting on classroom language
DAT 105	Developing Professional Practice I Micro-teaching, lesson observation
Total =	5 Courses
Course Code	Semester 2
DAT 106	Curriculum, materials and teaching-learning resources
DAT 107	Planning and managing language learning and teaching in under resourced, large and multilevel classes
DAT 108	Assessment, monitoring and evaluation
DAT 109	Developing Professional Practice II Supervised practicum with teacher portfolio: a record of 10 lessons with materials used and follow-up teacher reflections (3 lessons will be observed for assessment)
DAT 110	Action-research project Teachers may be allowed extra time (one semester) to complete their research projects, if required.
Total =	5 Courses

COURSE LOAD

Full-time students will need to study 5 courses in each semester (15 credit hours); Part-time students will need to study 2-3 courses per semester.

CERTIFICATION

A diploma may be awarded on completion of all course requirements (30 credit hours) according to defined standards as per university rules. This includes successful completion of course work, supervised teaching practice and an action-research project.

A waiver can be considered for a maximum of 2 courses per semester and only at the Diploma level. (For waiver, the applicants will need to pass a 3-hour waiver exam with a minimum of 60% marks in each course for which waiver has been applied for.)

ENTRY AND EXIT PATHWAYS

Semester 1:

Entry in Diploma Programme (Both full-time and part-time options available)

Semester 2:

Exit after completing course work (Award of Diploma)

Semester 3:

Entry in the MA TESOL Programme (Semesters 3 and 4) provided the candidate has an overall GPA score of 2.5 or above in course work at Diploma level.

FEE STRUCTURE

Diploma of Arts in TESOL

Duration:	1 years (FT); 2 years (PT)
Admission Fee:	Rs. 5,000/-
Tuition Fee:	Rs. 15,000/- per course (including examinations)
Security Deposit:	Rs. 5,000/-
Student activity fund:	Rs. 5,000/- per year

Masters in TESOL

Duration:	1 years (FT)
Admission Fee:	Rs. 5,000/-
Tuition Fee:	Rs. 15,000/- per course (including examinations)
Security Deposit:	Rs. 5,000/-
Student activity fund:	Rs. 5,000/- per year

Note: Any additional taxes imposed by the government will be the liability of the students/parents/guardian.

The University reserves the right to increase the fees if required according to the recommendation of the Governing Body.

Advance fees to be paid semester-wise. All dues need to be cleared within two weeks of commencement of the academic year. 2% surcharge per month will be levied on outstanding fees after the due date.



BS ENGLISH

ENTRY REQUIREMENTS

Intermediate/A Levels (12 years of study) with a minimum of 50% marks in the last exam

NATURE/DURATION

Morning Programme (full-time only)

COURSE DETAILS

1. Compulsory Requirement (No Choice)	
No. of Courses:	09
Credit Hours:	25
2. General Courses	
No. of Courses:	08
Credit Hours:	24
3. Foundation Courses	
No. of Courses:	10
Credit Hours:	30
4. Major Courses including Research Project	
No. of Courses:	13
Credit Hours:	39
5. Electives within the Major	
No. of Courses:	04
Credit Hours:	12
TOTAL	
No. of Courses:	44
Credit Hours:	130

TOTAL NUMBERS OF CREDIT HOURS

130

DURATION

4 Years

SEMESTER DURATION

16-18 weeks

COURSE LOAD PER SEMESTER

15-18 Cr Hrs.

NUMBER OF COURSES PER SEMESTER

5-6

COURSE REQUIREMENTS AND STRUCTURE

The HEC approved curriculum will be used for the BS English Programme with relevant changes and additional General and Elective Courses as approved by the Ziauddin University Academic Council.

Please note:

- The Foundation courses are mandatory for all Literature and Applied Linguistics students.
- Depending upon the results of the entrance test, the students will need to study up to two paid non-credit courses in years 1 and 2 to improve their English language skills. It will be mandatory for students to pass these courses.

ASSESSMENT

Assessment will be done through classroom-based tasks (40%) and mid-term/final exam (60%).

ATTENDANCE

Attendance in classes is mandatory. You will need a minimum of 80 % attendance in a course to sit for the final exam.

CAREER OPPORTUNITIES

Our graduates will be life-long learners and will be able to join the work force in diverse professions and enterprises such as business, government, and academia. Generally preferred fields are journalism, film and social media, banking, customer care services, and teaching and research.

FEE STRUCTURE

BS in English

Duration:	4 years
Admission Fee:	Rs. 5,000/-
Tuition Fee:	Rs. 180,000/-
Security Deposit:	Rs. 5,000/-
Student activity fund:	Rs. 5,000/-

Note: Any additional taxes imposed by the government will be the liability of the students/parents/guardian.

The University reserves the right to increase the fees if required according to the recommendation of the Governing Body.

Advance fees to be paid semester-wise. All dues need to be cleared within two weeks of commencement of the academic year. 2% surcharge per month will be levied on outstanding fees after the due date.

BS ENGLISH AND MEDIA STUDIES

ENTRY REQUIREMENTS

Intermediate/A Levels (12 years of study) with a minimum of 50% marks in the last exam

NATURE/DURATION

4 years (8 semesters)

COURSE DETAILS

1. Compulsory Requirement (No Choice)

No. of Courses: 09
Credit Hours: 25

2. General Courses

No. of Courses: 08
Credit Hours: 24

3. Foundation Courses (minimum 4 each from English and Media Sciences)

No. of Courses: 08
Credit Hours: 24

4. Major Courses including Research Project

No. of Courses: 13
Credit Hours: 39

5. Electives within the Major (2 each from English and Media Sciences)

No. of Courses: 06
Credit Hours: 18

TOTAL

No. of Courses: 44
Credit Hours: 130

TOTAL NUMBERS OF CREDIT HOURS

130

DURATION

4 Years

SEMESTER DURATION

16-18 weeks

COURSE LOAD PER SEMESTER

15-18 Cr Hrs.

NUMBER OF COURSES PER SEMESTER

5-6

COURSE REQUIREMENTS AND STRUCTURE

Courses from the HEC approved curriculum for BS English will be used along with approved courses offered by the College of Media Sciences for the BS English and Media Studies Programme with relevant changes and additional General and Elective Courses as approved by the Ziauddin University Academic Council.

Please note:

- The Foundation courses are mandatory for all students.
- Depending upon the results of the entrance test, the students will need to study up to two paid non-credit courses in years 1 and 2 to improve their English language skills. It will be mandatory for students to pass these courses.

LEARNING AND TEACHING

Our teaching, based in principles of holistic education, promotes student-centered learning and active participation through collaborative discussion.

ASSESSMENT

Assessment will be done through classroom-based tasks (40%) and mid-term/final exam (60%).

ATTENDANCE

Attendance in classes is mandatory. You will need a minimum of 80% attendance in a course to sit for the final exam.

CAREER OPPORTUNITIES

Our graduates will be life-long learners and able to join the work force in diverse professions and enterprises in the corporate sector, public sector, and social sector. Generally preferred fields are business, bureaucracy, journalism, film and social media, banking, public relations, and teaching and research.

FEE STRUCTURE

BS in English and Media Studies

Duration:	4 years
Admission Fee:	Rs. 5,000/-
Tuition Fee:	Rs. 180,000/-
Security Deposit:	Rs. 5,000/-
Student Fund:	Rs. 5,000/-

Note: Any additional taxes imposed by the government will be the liability of the students/parents/guardian.

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FACULTY MEMBERS

DEAN FLAHS

PROF. DR. FAUZIA SHAMIM
PHD TESOL, UK; MA LINGUISTICS FOR ELT, UK; MA
ENGLISH, KARACHI, PAKISTAN.

SENIOR LECTURER

ADEEBA AHMAD
MPHIL EDUCATION, KARACHI; MA ENGLISH LITERA-
TURE, KARACHI; TEAP, UK.

VISITING FACULTY

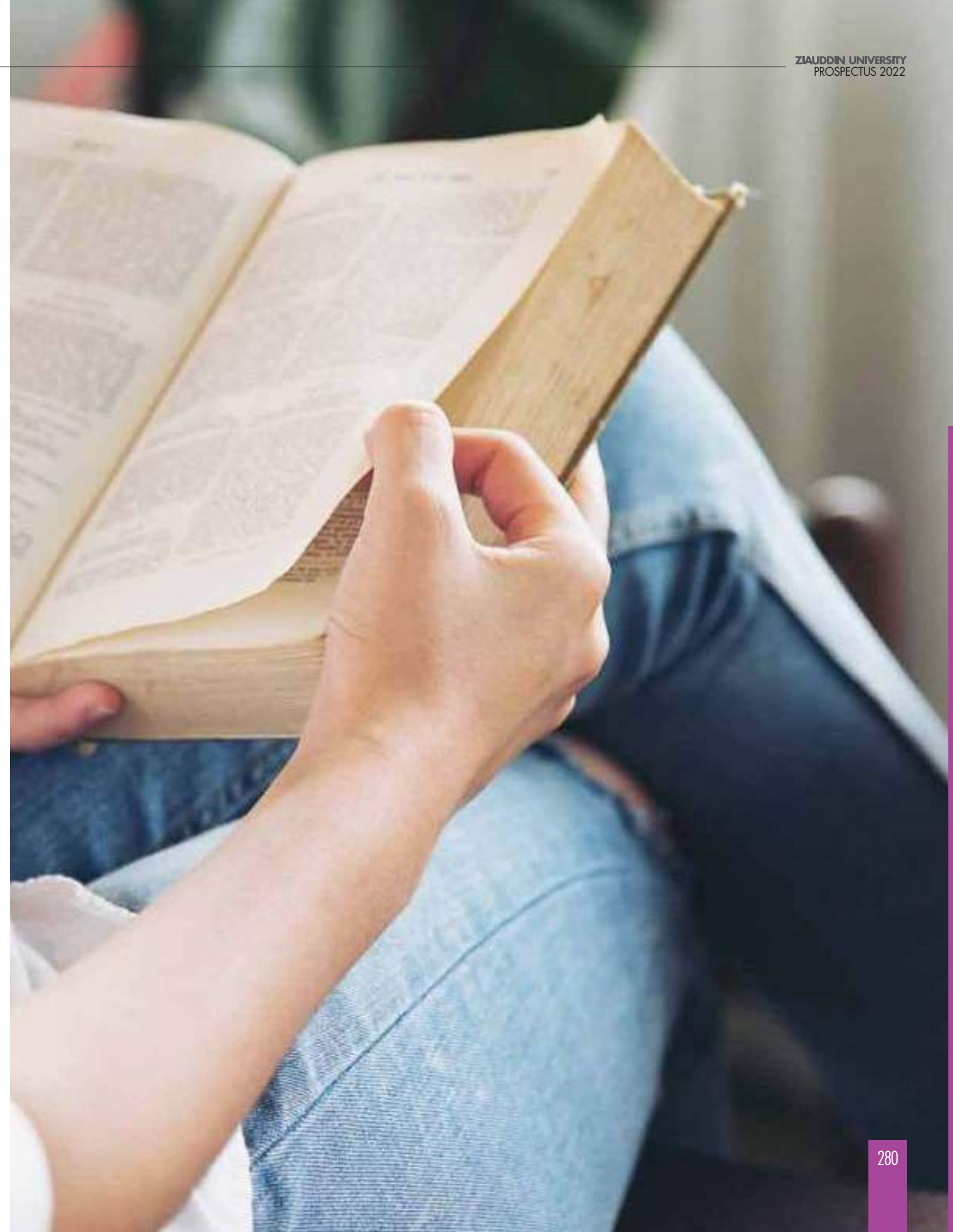
REHMAT EBRAHIM
MA ENGLISH, TRAINING OF TRAINERS, TESOL INTERNA-
TIONAL USA

NADINE AHMED
MA ELT, UK

BOARD OF STUDIES (EXTERNAL MEMBERS)

DR. FAISAL NAZIR
ASSISTANT PROFESSOR
DEPARTMENT OF ENGLISH
UNIVERSITY OF KARACHI

DR. MEHVISH SALEEM
ASSISTANT PROFESSOR
HEAD DEPARTMENT OF COMMUNICATION
INSTITUTE OF BUSINESS MANAGEMENT



COLLEGE OF EDUCATION

KEY INFORMATION

PRINCIPAL

Ms. Rana Hussain

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Locate Us:

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Karachi



AND THIS IS HOW IT IS
 we go home
 and we shut our doors
 we don't sleep with doors open
 for fear the world sees in
 many ways us
 sees our pain
 sees our men
 sees the things we can't breath into place
 we our broken hearts
 we don't open our doors wide
 turn the spotlight on
 and say, "I haven't done laundry in a week. My girlfriend
 left me. I'm not sleeping."
 we run about the whole day
 with a blue handle
 be in bed
 at the reading all night

I don't buy much anymore
 I used to walk in circles
 Around department stores
 And the curved edges of
 Baskets
 Searching
 For it's all seemed to dissolve
 Into a more filling hunger
 One that reaches
 For the familiar black cotton dress
 And the food that's been sitting in the pantry
 Because I've stopped preparing for winter
 Stopped wondering endless circles
 Trying to fill my empty spaces
 With things

But this is what happens when survival is a given
 And status becomes our new obsession
 We compare our needs and wants
 No wonder we are all so anxious
 Inevitable believing you need so much

VISION

The vision of Ziauddin College of Education is to build human capital by utilising human potential and capabilities for building the society and the nation at large.

MISSION

The Ziauddin College of Education will be a national leader in:

- Improving scholarship of teaching and learning, and;
- Providing leadership in service and outreach, through engaging schools to organize communities of practice for teachers and strengthening school development programmes.

PROGRAMMES/COURSES

1. Pre-service Degree Programmes

(As per HEC New Scheme of Studies (2013) & Road Map (2015) for B.Ed. (Hons) Admissions).

- After Graduation - 2 & 1/2 years = (14 + 2 1/2) first 6 month Zero/bridging semester, then 2 years B.Ed. study
- After Masters - 1 & 1/2 years = (16+ 1 1/2) 1.5 year B.Ed. study (qualify for Secondary and Higher Secondary schools)
- After Inter 4 years (12 + 4) = 4 year B.Ed. (Hons) Elementary study

2. In-service Degree Programme (as approved by HEC)

- In-service Associate Degree programme in Education (Elementary) for undergraduate teachers (2 years).
- In-service B.Ed. (Hons) 2.5 Years Degree programme in Education for Graduate teachers as an Alternate Pathway

Please note: Graduate students opting for alternate pathway to complete B.Ed. Hons degree will take an additional semester (18 credits).

3. Certificate Courses: Credit bearing/Non-credit

Continuous Professional Education (CPE) for partner school teachers

ASSESSMENT

Assessment will be done through class-room-based tasks (40%) and mid-term/final exam (60%).

ATTENDANCE

Attendance in classes is mandatory. You will need a minimum of 80 % attendance in a course to sit for the final exam.

FEE STRUCTURE

B.Ed. (Hons) Elementary 4 years

Admission Fee:	Rs. 5,000/-
Tuition Fee:	Rs. 30,000/- per semester
Examination Fee:	Rs. 10,000/- per Sem
Security Deposit:	Rs. 5,000/- Refundable
Student activity fund:	Rs.10,000/- per year

B.Ed (Hons) Elementary 2.5 years

Admission Fee:	Rs. 5,000/-
Tuition Fee:	Rs. 30,000/- per semester
Examination Fee:	Rs. 10,000/- per Sem
Security Deposit:	Rs. 5,000/- Refundable
Student activity fund:	Rs.10,000/- per year

B.Ed (Hons) Secondary 1.5 years

Admission Fee:	Rs. 5,000/-
Tuition Fee:	Rs. 30,000/- per semester
Examination Fee:	Rs. 10,000/- per Sem
Security Deposit:	Rs. 5,000/- Refundable
Student activity fund:	Rs.10,000/- per year

ADE Elementary 2 years

Admission Fee:	Rs. 5,000/-
Tuition Fee:	Rs. 30,000/- per semester
Examination Fee:	Rs. 10,000/- per Sem
Security Deposit:	Rs. 5,000/- Refundable
Student activity fund:	Rs.10,000/- per year

Certificate Courses: Credit bearing/Non-credit Up to 40 Hours

Tuition Fee:	
For Ziauddin and Partner School teachers:	PKR 350 per hour
For others:	PKR 500 per hour

Please note:

- An application processing fee of Rs 2,000 will be charged at the time of initial registration.
- No student will be admitted without taking the Placement Test/Interview.
- 80% attendance is required to sit for the semester exam.
- A minimum score of 60% is needed to become eligible for the degree programme.
- The University reserves the right to increase the fee, if required, according to the recommendation of the governing body.

FINANCIAL ASSISTANCE

- Merit scholarships/stipend available for In-Service Courses. *
 - Fee for Pre-service Programme Courses can be paid in uniform monthly installments. *
- *Terms and conditions apply.

FACULTY MEMBERS

PRINCIPAL

MS. RANA HUSSAIN
M.ED, UNIVERSITY OF TORONTO, CANADA

VISITING FACULTY

AS REQUIRED.

BOARD OF STUDIES

DR. NASREEN HUSSAIN
HEAD DEPARTMENT OF EDUCATION
INSTITUTE OF BUSINESS MANAGEMENT

DR. NUSRAT RIZVI
ASSISTANT PROFESSOR AND COORDINATOR
MASTER'S PROGRAM
AGA KHAN UNIVERSITY, INSTITUTE OF EDUCATIONAL
DEVELOPMENT



THE LANGUAGE CENTRE

KEY INFORMATION

DEAN, FLAHS

Prof. Dr Fauzia Shamim

ACADEMIC COORDINATOR

Ms. Adeeba Ahmad

CONTACT INFORMATION

Website:

<https://lahs.zu.edu.pk/centers-and-institutes/the-language-center/>

Telephone:

(9221)35862937-9

Email:

info@zu.edu.pk

Locate Us:

The Language Centre, D-24, Clifton Block-1, Karachi.

PROGRAMS OFFERED

- English for Academic Purposes (EAP)
- Exam Preparation Courses (IELTS, SAT, GRE)
- Specially Designed Courses for the Corporate Sector
- English for Specific Purposes (ESP)
- English for Employees Program (Workshops/Courses)

VISION

To become the language centre of choice in Pakistan.

MISSION

To provide world class language learning opportunities and enriching environment to Ziauddin University students and to the wider community for academic success and improved life chances. To contribute to the development of the English language teaching profession, and professionals, in Pakistan.

PROGRAMMES/COURSES

1. English for Academic Purposes (EAP):

If you are a current student at ZU or any other higher education institution, you have this unique opportunity to join one or more courses according to your identified needs and specific goals for academic study and for life beyond the university.

2. Exam preparation courses (IELTS, SAT, GRE):

4 weeks intensive or 50 hours spread over a period of one semester.

All students at ZU or at other educational institutions who are looking for high quality learning opportunities to improve their proficiency in language for international exams.

3. Specially Designed Courses for the Corporate Sector:

3-4 hour workshops, 10-15 hour short courses, and up to 50 hours longer courses- as per need, for example, Writing Emails and Memos, and Report Writing.

For various levels of staff in the corporate sector.

4. English for Specific Purposes (ESP):

These courses will be tailor-made for teachers, students and coordinators etc. based on needs analysis, and will focus on identified areas for improvements, for example, English for Medical Professionals.

5. English for Employees Program

These workshops and courses are tailor-made for ZU and outside ZU employees at the Junior or Middle Manager level, who wish to enhance their service English skills and learn effective strategies to promote the use of the target language in their work context.

5 (a). Workshops:

These are 4 hour workshops for employees, offered on Saturdays only.

Employers/employees can choose any of the courses offered as per need.

5 (b). Courses (Different Duration):

These are longer courses (up to 50 hours) with classes held on Saturdays only (4 hours per week).

Employers/employees can choose any of the courses offered as per need.

ADDITIONAL SERVICES

In addition, the Centre offers support services to all departments/colleges at Ziauddin University for improved teaching-learning of English. This includes needs analysis, curriculum development and review, selection of learning materials and resources, developing assessment procedures and tools, monitoring and evaluation of programs and faculty including faculty appraisal, recruitment of faculty, and faculty development.

TLC TIMETABLE

MONDAY:	4:00 – 6:00 pm, 6:00 – 8:00 pm
TUESDAY:	4:00 – 6:00 pm, 6:00 – 8:00 pm
WEDNESDAY:	4:00 – 6:00 pm, 6:00 – 8:00 pm
THURSDAY:	4:00 – 6:00 pm, 6:00 – 8:00 pm
FRIDAY:	4:00 – 6:00 pm, 6:00 – 8:00 pm
SATURDAY:	9:00 – 11:00 am, 11:30 – 1:00 pm

AWARD OF CERTIFICATES

After the completion of The Language Centre course(s)/workshop(s), the candidates will be given certificates of completion/participation.

FEE STRUCTURE

English for Academic Purposes (EAP)

Duration: 50 hours over a period of one term
Fee: Rs 15,000/-

Exam preparation courses (IELTS, SAT, GRE)

Duration: 50 hours over a period of one term
Fee: Rs 15,000/-

Specially Designed Courses for Corporate Sector

Duration: 50 hours over a period of one term
Fee: Rs 25,000/-

English for Specific Purposes (ESP)

Duration: Needs Based
Fee: • ZU Clients: Rs 350/hr.
• Outside Clients: Rs 500/hr.

English for Specific Purposes (ESP) Workshops for Employees

Duration: 4 hour workshops
Fee: • ZU Employees: Rs 1500 per workshop
• Outside ZU Employees: Rs 2200 per workshop

English for Specific Purposes (ESP) Courses for Employees

Duration: 4 hours per week (Different duration)
Fee: • ZU Employees: Rs 350/hr.
• Outside ZU Employees: Rs 500/hr.

Note: Any additional taxes imposed by the government will be the liability of the students/parents/guardian. The University reserves the right to increase the fees if required according to the recommendation of the Governing Body.

FACULTY MEMBERS

ACADEMIC COORDINATOR

ADEEBA AHMAD

MPHIL EDUCATION IOBM KARACHI.

MA ENGLISH KARACHI UNIVERSITY.

TEACHING ENGLISH FOR ACADEMIC PURPOSES (TEAP), SCHOOL OF ORIENTAL AND AFRICAN STUDIES (SOAS), UNIVERSITY OF LONDON, UK.

VISITING TEACHERS

AS REQUIRED.

ADVISORY BOARD INTERNAL MEMBERS

ZU DEANS AND PRINCIPALS

ADVISORY BOARD (EXTERNAL MEMBERS)

DR. FATIMA DAR

DIRECTOR, CURRICULUM AND PROFESSIONAL DEVELOPMENT & CENTRE FOR ENGLISH LANGUAGE.

IQRA UNIVERSITY, KARACHI

DR. BUSHRA KHURRAM

ASSISTANT PROFESSOR, DEPARTMENT OF ENGLISH, UNIVERSITY OF KARACHI



DEPARTMENT OF CONTINUING PROFESSIONAL EDUCATION

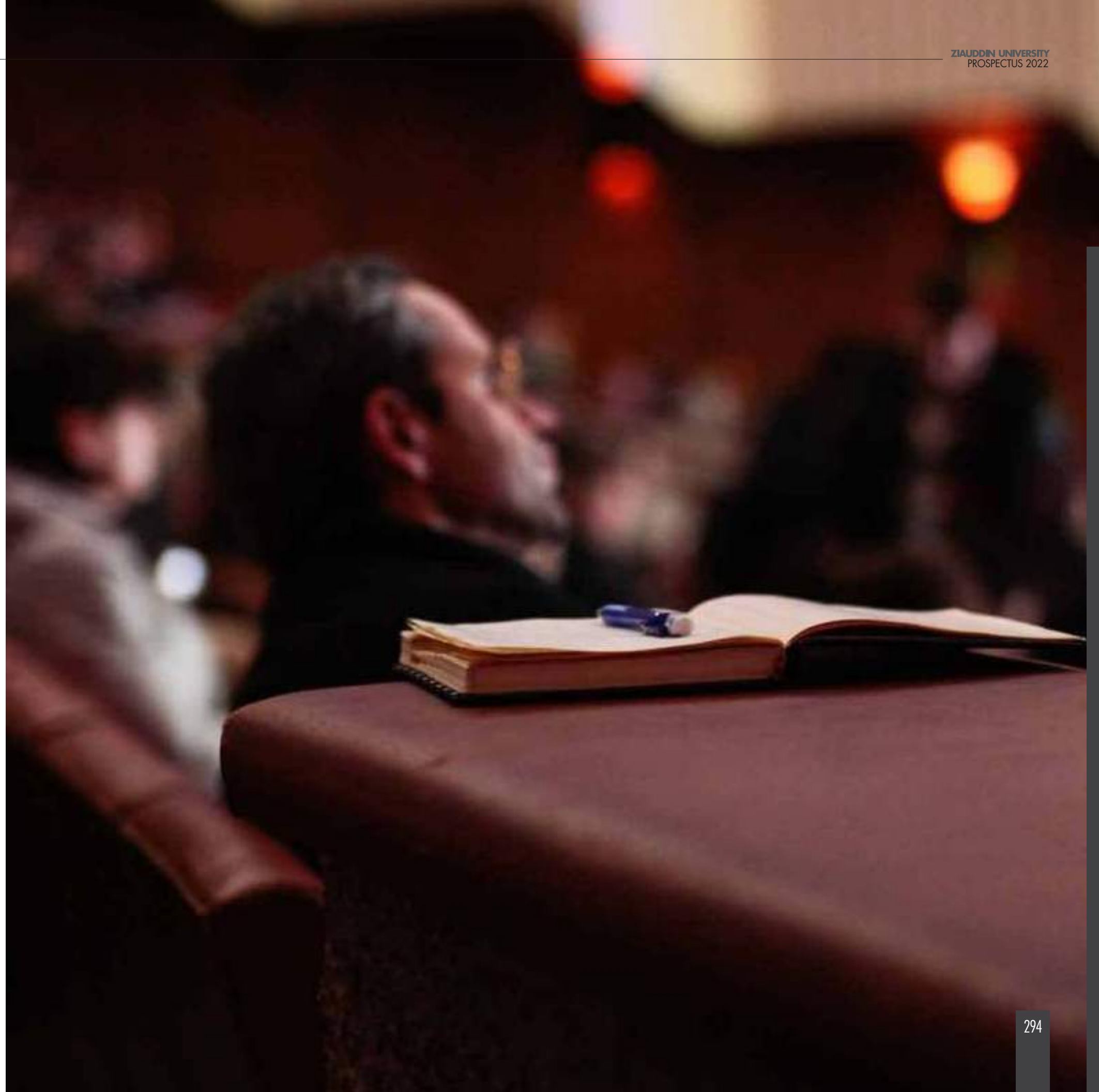
The Ziauddin University department of Continuing Professional Education is committed to serving through programmes of excellence in education, patient care, research and other public service initiatives, which advance the health of the general public. Continuing professional education provides opportunities for the healthcare professionals to continue learning, utilising adult learning principles and available technology.

Major responsibilities of the Programme are:

- To identify the educational needs and interests of professionals.
- To provide learning opportunities for new knowledge and skills.
- To partner with other healthcare facilities and educational institutions to promote public health.
- To strive to heighten the health professional's awareness of the need for compassion in patient care and the dignity of human life.

The DCPE provides assistance in planning, developing and providing activities to physicians, nurses and other allied health care personnel in ZU. The courses would be offered to healthcare providers at the local, national and regional levels in full compliance with University policies.

To maximise learning opportunities, a wide range of activities are offered which include, formal courses, seminars, workshops, video conferences/distance learning, journal clubs, grand rounds and teaching conferences, and innovative technologies such as web-based learning activities for personal skill development in medical procedures and teaching competence. All activities are conducted in compliance with the essentials of the PMDC and Accreditation Council for Continuing Medical Education and the rules and regulations of the Ziauddin University.



DEPARTMENT OF EDUCATION DEVELOPMENT

The Department of Educational Development (DED) aims to enhance quality in academic activities of all healthcare disciplines of ZU with vision to bring recognition both at national & international level through Innovations, Leadership & Research.

The scope of its activities includes:

- Undergraduate and postgraduate education based on adult learning principles.
- Capacity building of the faculty in innovative methods of teaching, learning and assessment.
- Consultations to all faculties and disciplines including healthcare to address educational issues related to respective programmes.

Range of these services encompasses review of curricula, teaching & assessment. To accomplish these tasks; DED works in collaboration with respective Deans, Principals, Associate Deans, Department Chairs, Programme Directors, and various committees on curriculum and assessment. Our main focus is on student centered learning by providing quality education in a conducive learning environment. To stay at par with international standards, DED has incorporated themes of Patient Safety and Ethics in their curricula. To ensure the quality standards, DED is working on self-assessment of undergraduate medical programme according to the basic & quality standards of World Federation of Medical Education (WFME).

DED promotes Continuous Professional Development in educational methodologies as a mainstay of its mission by organizing and conducting educational workshops at inter-professional level as a regular activity across institution. To promote role of healthcare teachers, from this year, a six months blended learning certificate course in Health Professions Education (CHPE) has been initiated for all healthcare disciplines at local as well as at national level.



DEPARTMENT OF RESEARCH

VISION

To be recognised as the icon of innovative cutting edge basic applied and translational research.

MISSION

Advancing research and developing the University's reputation as the most renowned private sector academic research based institution. Cutting edge clinical and translational research- bringing medical innovation to patient care and industry. Resident's and fellows independent research projects for the acquisition of degrees with a drive for lifelong learning through research and creation of new knowledge. Ensuring that research meets the highest ethical and quality standards through open transparent processes.

INTRODUCTION

Research excellence in all fields of study is central to the mission of Ziauddin University and a pinnacle priority, as the key element to the success of the University's academic profile that needs to be preserved. Education at ZU would not be complete without its vital research community. The Health Sciences Research Programme encompasses several faculties and departments across ZU campuses that contributes to a rich atmosphere. A wide range of research and clinical facilities for student learning and innovation are present in different campuses with extensive interaction between the basic science and clinical faculty. The Faculty of Health Sciences including the College of Medicine, Dentistry, Nursing, Rehabilitation, Speech language & hearing sciences offer unparalleled opportunities for interdisciplinary cooperation in health sciences education and research. The expertise of many Health Sciences faculty covers a broad spectrum of disciplines that includes both basic science wet-lab research and clinical research in human health and disease, with a provision of expanding graduate programme to be offered in Medicine, Pharmacy and Allied Health Disciplines. All are in the continued pursuit of ever greater accomplishments in research through our commitment to innovation, excellence, and quality. We share new knowledge for educating and inspiring tomorrow's leaders as university education is all about the generation of new knowledge through research. Furthermore, ZU faculties maintains active research laboratories that are exploring existing questions, spanning from the most basic to the most translational aspects of health sciences

research represented by the national and international publications in reputed journals.

The Faculty of Health Sciences organises all research Ph.D tracks within the Ziauddin University that are:

- College of Medicine
- College of Dentistry
- College of Speech, Language and Hearing Sciences
- College of Physical Therapy
- College of Nursing
- College of Medical Technology

CORE FACILITIES

The ZU faculty maintains active research laboratories that are exploring existing questions, spanning from the most basic to the most translational aspects of health sciences research. State of the art research and diagnostic facility (MDRL 1, 2 and 3) is available at Ziauddin University and Hospital with the provision of advanced instrumentation and provision of following facilities:

- DNA and RNA extraction, cDNA synthesis, conventional and real time PCR, agarose gel electrophoresis
- Tissue and cell culture facility
- Tissue processing and sectioning facility
- Imaging facility with high resolution microscopy
- Immunohistochemistry and immunocytochemistry facility
- Power lab
- Proteomics lab
- HPLC lab
- Bioinformatics lab
- Animal House facility

Services are available along with training on all equipment, guidance on experimental design and assistance in all equipment's operation. The postgraduate students avail the services at Clifton Campus and also visit North site in the various sub specialties through coordinators mentioned below:

- Director (Clinical Laboratories, HOD Clinical Pathology)
- HOD (Diagnostic Molecular Genetics)
- HOD (Histopathology)
- HOD (Microbiology)
- HOD (Hematology)

The Pharmacy Laboratory and Animal House of Ziauddin University also provide research support as required in the projects.

RESEARCH TRAINING AND PROMOTION

Department of Research has the responsibility for the conduct of FHS Ph.D programme in Health Sciences along with the research monitoring of Ph.D programmes in various disciplines at ZU. Certificate Courses and workshops

on various topics are designed to facilitate physicians, junior faculty and mid-career clinicians, graduate & undergraduate students:

- Research Methodology Courses & Workshops
- Research Ethics Course Work
- EndNote application and organizing research
- Manuscript writing skills
- Plagiarism software hands on workshop
- Workshops on Clinical Trial
- Sample size calculation and data analysis, SPSS
- Guidelines for preparing effective Oral/Poster Presentations
- Developing Research Question and Hypothesis Testing
- Hands on workshops on Molecular Biology techniques
- Hands-on workshops on Cell Biology techniques
- Hands-on workshops on Tissue and Cell Culture techniques
- Research Methodology workshops
- National and International Health Sciences Thematic Conferences
- Distinguished Lecture Series

PUBLICATIONS OFFICE

The Research Department facilitates and promotes the research publications to provide access to the faculty, graduate and undergraduate students of Ziauddin University and other National Universities through the following PMDC/HEC recognised journal.

- The Pakistan Journal of Medicine and Dentistry (PJMD)

RESEARCH METHODOLOGY COURSES & WORKSHOPS AT NORTH CAMPUS

The track offering extended research methodology courses and workshops at North site has been initiated by the Research Department in collaboration with the Department of Community Health Sciences (CHS).

SUMMER INTERNSHIP/TRAINING PROGRAMME

Intensive training courses are designed to expose students to state of art techniques in

molecular biology and genetics. It is meant to develop skills and building tools for conducting independent research in Health Sciences. This programme helps in mentoring the career development, awareness and interests of university undergraduates/Faculty in Health Sciences Research.

NEW INITIATIVES

International and National Collaboration

The Research Department's overarching aim in supporting international research collaboration is to maximise ZU's contribution to and benefits from international and national research collaborations, partnerships.

- University College of London and King's College, London, UK
- Karolinska Institute, Sweden University of Wisconsin School of Medicine and Public Health, Milwaukee, USA
- State University of New York at Stony Brook
- Suny Upstate Medical Center, Syracuse, NY, USA
- Department of Pathology and Lab medicine, University of Ottawa, Canada
- Sheffield University, UK
- University of Karachi
- Aga Khan University
- Baqai University
- Dow University of Health Sciences

CORE FACILITY SERVICES

Ziauddin University is offering core lab services at an affordable cost to the researchers. This include such as RNA isolation, DNA isolation, reverse transcription, primer designing, PCR, RFLP, gel electrophoresis, gel imaging, nucleic acid sequence analysis, ELISA, HPLC, routine and specialised histological techniques along with high resolution microscopy and advanced imaging technology.

Core personnel continue to stay abreast of technological advances. It is encouraged to contact research scientists to arrange for consultation or to provide feedback. Faculty is available to develop projects of all caliber, standard or custom assay design, and any other specialised application needs.

Following URL can be visited to avail the core facility services:

<https://zu.edu.pk/research/multidisciplinary-research-laboratories/>

M.PHIL MOLECULAR MEDICINE

INTRODUCTION

Research Department has taken an initiative to launch a new MPhil programme at Ziauddin University in the field of Molecular Medicine. It is a rapidly changing field which requires interdisciplinary insight and deals with the understanding of the molecular basis of diseases diagnosis and management. It has applications in both research and practical clinical work, and will contribute to an increased understanding of processes, diagnosis, and treatment of diseases. This programme with its multipronged approach would provide a wide coverage for development of knowledge based, skills & research to the trainees with medical, dental and background of science in general.

OBJECTIVES OF THE PROGRAMME:

- To produce teachers and research scholars with in-depth knowledge of molecular genetic mechanisms of disease processes and diagnostics in molecular medicine.

- To provide training to the research scholars with skills in laboratory techniques pertaining to recent advances in molecular biology and genetics.

- To provide an open scientist and physician nurturing environment for understanding the basic molecular mechanisms involved in the investigation of clinical problems.

- To conduct and publish high quality research in scientific journals.

ELIGIBILITY CRITERIA

Sixteen years of education in Biological Sciences (Biochemistry, Genetics, Microbiology, Biotechnology, Medical Technology, Physiology etc.), M.B.B.S., B.D.S., D.V.M., Eastern Medicine and Pharm.D. or equivalent degree from HEC recognised institutions with minimum CGPA of 2.5 on a scale of 4.00 in B.S./M.Sc. in

semester system or 60% marks in annual system. Admission in M.Phil will be confirmed only after passing ZU M.Phil entry test and interview conducted by ZU.

This year there would be the launching of the Ph.D in Molecular Medicine Programme for clinicians and basic scientists.

RESEARCH DEPARTMENT FACULTY AND RESOURCE PERSON

- Prof. Talat Mirza, MBBS, PhD (Executive Director Research)
- Prof. Dr. Saeeda Baig, PhD (Director MDRL, HOD Biochemistry)
- Dr. Shamim Mushtaq, PhD (Director PG ,BHS)
- Dr. Rehan Ahmed Siddiqui, PhD (Asst. Professor)
- Dr. Shumaila Usman, PhD (Asst. Professor)
- Dr. Rehan Imad (Asst. Professor)
- Dr. Ambrina Khatoon (Asst. Professor)
- Mr. Moazzam A. Shahid, MSc, MPhil, PhD Research Fellow (Research Officer)
- Ms. Ambreen Wasim (Biostatistician)
- Ms. Saba Farooq (Senior Administrative Officer)
- Ms. Sadia Farrukh (Managing Editor, PJMD)
- Ms. Memuna Syed Bukhari (Assistant Editor, PJMD)

ZU-FHS-PHD FACULTY

- Prof. Dr. Pirzada Qasim Raza Siddiqui
- Prof. Talat Mirza
- Prof. Dr. Zahida Memon
- Prof. Dr. Saeeda Baig
- Prof. Dr. Qamar Jamal
- Prof. Dr. Bushra Wasim
- Prof. Dr. Fauzia Shaikh
- Prof. Dr. Qudsia Hassan
- Prof. Dr. Arif Hussain
- Dr. Shamim Mushtaq
- Dr. Rizma Khan
- Dr. Zil-e-Rubab
- Dr. Rehan Ahmed Siddiqui
- Dr. Shumaila Usman
- Dr. Ambrina Khatoon
- Dr. Rehan Imad
- Dr. Sumaira Imran Farooqui
- Dr. Amna Amir Khan
- Dr. Syed Abid Ali Kazmi
- Dr. Pamela Marshall
- Dr. Yasmin Anarsi
- Ms. Amina A. Siddiqui

CONTACT INFORMATION

Office of the Executive Director Research,
Ziauddin University
Karachi 75600, Pakistan
Tel: +92 21 35862397-9, Ext. 2365 & 2366
Fax: +92 21 35862940
Email: deanresearch@zu.edu.pk
URL: www.zu.edu.pk

QUALITY ENHANCEMENT CELL

Ziauddin University has always played a leadership role in accepting and adapting best practices in the field of Education. Quality Enhancement Cell (QEC) of Ziauddin University has the commitment to ensure that educational provision of all the constituent institutions of the university are operating with appropriate academic standards as provided by the respective accrediting bodies and are taking deliberate steps to bring about continual improvement in learning experiences of the students.

The mission of QEC of Ziauddin University is to bring advancement in the community of learning by assuring incessant improvement in the quality of academic programmes through accountability, review of design and policies, systematic documentation and analysis of curriculum, aiming to identify and support best practices in the field of education.

At Ziauddin University, quality assurance is built on the principles of continuous improvement with the involvement of all the stakeholders. QEC has developed a culture, which recognises the importance of quality and quality assurance in approval, monitoring and periodic review of academic programmes. Review of academic programmes is carried out by adopting HEC guidelines for self-assessment. Online facility is available for Student course evaluation, teacher's evaluation survey and faculty course review report. Graduating student survey, alumni survey and employer's survey are also employed as important tools in this regard.

An explicit follow-up procedure is in place to review the actions taken by each programme subsequent to the Self Assessment process.

Internal audit of the university's academic and administrative departments is also carried out for ensuring compliance with the Quality Assurance Framework set by the various accrediting bodies.

QEC spearheads Institutional Performance Evaluation of Ziauddin University by HEC and is responsible for meeting the requirements of HEC with regard to quality assurance and providing them with the required data.

QEC provides services to Ziauddin University graduates by coordinating and managing data entry of all the degree programmes of the University at Pakistan Qualification Register (PQR). PQR is an online service from HEC which helps to



ensure quality of degrees/qualifications to all the stakeholders, international recognition of the degrees/qualifications, recognition of credit transfer process, online attestation of the degrees and national and international scholarships.

In order to keep abreast with the advancement in Higher Education sector and for continuous quality improvement, QEC staff actively participates in the national events organised by HEC and other higher educational institutions of Pakistan.

NATIONAL AND INTERNATIONAL LINKAGES

Ziauddin University fosters long-term partnerships with various educational institutions/universities/organisations at national as well as international levels. These partnerships provide bilateral opportunities for scholarly collaboration, curricular reform, faculty development and faculty and student exchanges, video conferencing; and person-to-person interactions to improve the quality of teaching, learning and education.

Ziauddin University has developed linkages with the following:

1. Agreement on collaboration between Ziauddin Medical University and Qaiser Siraj Memorial Trust, Islamabad Pakistan. (4th Aug, 2003)
2. Memorandum of Understanding between Sobhraj Maternity Home and Ziauddin Medical University. (16th Sep, 1995)
3. Department of family medicine, Ziauddin Medical University with HO and Sindh TB Control Programme to assist implementation of DOTS. (25th Aug, 2004)
4. MOU between Ziauddin University and Speech and Hearing association of Pakistan (SHAP). (22nd Sep, 2004)
5. MOU between Department of Family Medicine and Community Health Sciences, ZU and Rana Liaquat Ali Khan Craftsman Colony Welfare Trust. (14th March 2007)
6. MOU between National Institute of Blood Diseases and Bone Marrow Transplant (NIBD) and Ziauddin University. (21 Aug, 2008)
7. MOU between Ziauddin University and InSource Advisors, Inc. Houston, USA. (28 July, 2009).
8. MOU between Ziauddin University and University of Bedfordshire. (27th July, 2009)
9. MOU between Ziauddin University and Peoples Medical College for Girls (PMCG), Nawabshah. (20, Feb, 2010)
10. MOU between Ziauddin University and Karwan-e-Hayat. (25th May, 2010)
11. MOU between Ziauddin University and the International Adjunct Physical Therapy Faculty (IAPTE). (15th Sep, 2015)
12. MOU between Ziauddin University and Fatima Jinnah Dental College. (19th June, 2015)
13. MOU between Ziauddin University and Liaquat College of Medicine and Dentistry. (31st July, 2015)
14. MOU between Ziauddin University and INJAZ Pakistan. (18th Aug, 2015)
15. MOU between Ziauddin University and Pakistan Microfinance Network (PMN). (20th Aug, 2015)

16. MOU between Ziauddin University and European Society for Translational Medicine (EUSTM). (1st Feb, 2016)
17. MOU between Ziauddin University and Valparaiso University. (4th May, 2016)
18. MOU between Ziauddin University and I am Karachi (IAK). (9th Aug, 2016).
19. MOU for Clinical Affiliation between Ziauddin College of Speech Language & Hearing Sciences, Ziauddin University and Karachi Down Syndrome Programme. (1st June 2017).
20. MOU for Clinical Collaboration between Ziauddin College of Speech Language & Hearing Sciences, Ziauddin University and ACELP, Institute of Child Development. (15th March 2018).

Memberships:

Ziauddin University is a growing university and endeavors to make its existence felt at international forums of higher educational bodies. Learning by sharing experiences with international higher education bodies is used to improve the quality of learning experience of our students.

Ziauddin University is enjoying the membership of:

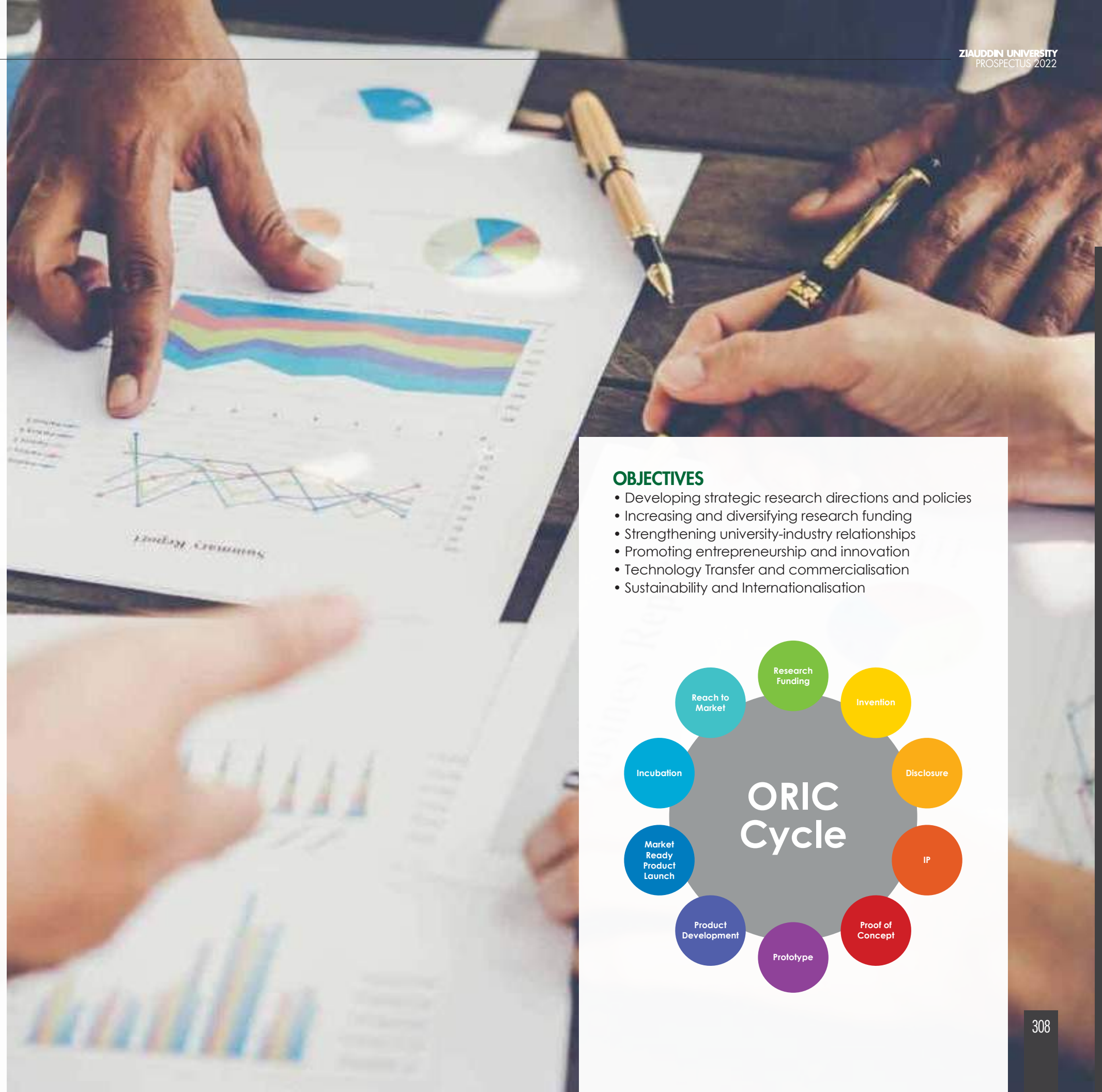
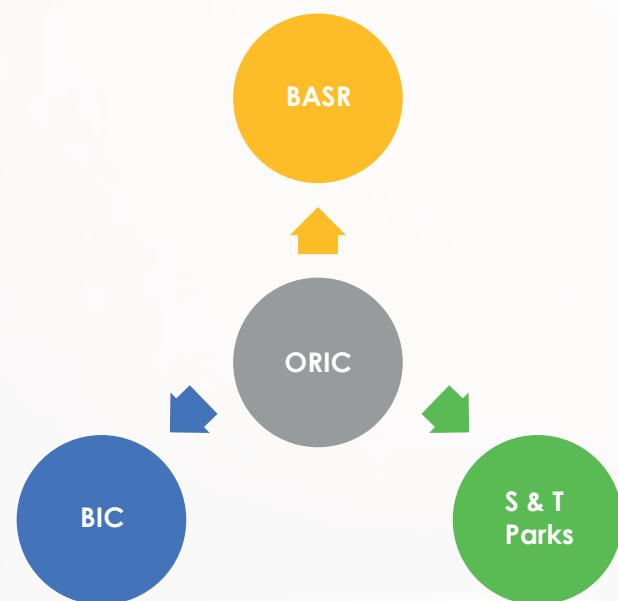
- Association of Commonwealth Universities
- Asia Pacific Quality Network
- International Association Of Universities
- The Talloires Network

OFFICE OF RESEARCH, INNOVATION & COMMERCIALISATION

Office of Research, Innovation and Commercialisation (ORIC) at Ziauddin University, is the centralised umbrella Directorate for research, innovation, commercialization and external collaborations. It strives to support high-quality applied research by developing linkages between Industry, Academia, Government and the Community. ORIC oversees activities related to research, publication conferences, workshops, international collaborations, industry affiliations and sustainability initiatives operational at the Ziauddin University, Karachi.

ORIC was established at the University in 2015 based on proposed guidelines of the Higher Education Commission (HEC), Islamabad for all Universities/DAIs of Pakistan, and is fully recognised and registered with HEC. The ORIC was officially notified by the HEC in October 2020. ORIC at Ziauddin University was established with an aim to provide strategic vision and operational support to the University's innovation & entrepreneurship ecosystem.

ORIC also aims to act as a catalyst for the transformation of knowledge towards innovation and its subsequent commercialisation leading to a positive impact on the welfare and well-being of our nation. In this regard it provides end to end services for all matters about research & development, innovation,



OBJECTIVES

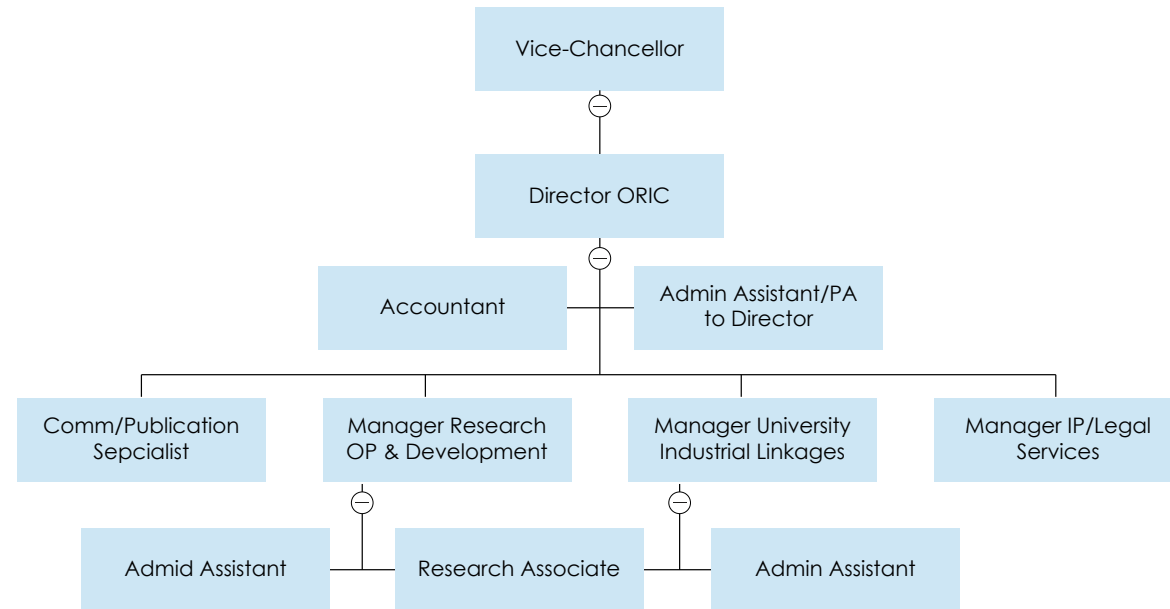
- Developing strategic research directions and policies
- Increasing and diversifying research funding
- Strengthening university-industry relationships
- Promoting entrepreneurship and innovation
- Technology Transfer and commercialisation
- Sustainability and Internationalisation



ORGANISATIONAL STRUCTURE

TAs an umbrella which covers all aspects of research and innovation, ORIC works closely with the faculty and students of university to develop on campus Business Incubators & S&T

Park. ORIC also serves as a conduit to local, regional and federal partners to ensure achievements in research and innovation leading to growth in university and its international standings.



ORIC activities are planned and successfully executed for sustaining and improving research, innovation and commercialisation. It also impact for the improvement of areas

concerning economic, industrial and academic development and their accelerated advancements for achieving national objectives.

ENTREPRENEURIAL SUPPORT SERVICES

TAs an umbrella which covers all aspects of research and innovation, ORIC works closely with the faculty and students of the university to develop on campus Business Incubators & S&T Park. ORIC also serves as a conduit to local, regional and federal partners to ensure achievements in research and innovation leading to growth in university and its international standings.

Ziauddin Entrepreneurship Society is operating under the umbrella of ORIC as a student wing that is dedicated to discover, engage and foster creativity and to bring up true entrepreneurial leaders from the university. Startup competitions for students across, for all students of all universities across Sindh is one of the key attributes of this society.

ORIC has organised on the themes of capacity building of young innovators and entrepreneurs and several workshops and trainings organised within the same lines for the entrepreneurial Development. The outcomes of these workshops has resulted in enhanced awareness and interest in entrepreneurship at all levels of student body. ORIC is also encouraging faculty and researchers to step up and engage with existing start up or launch new start up based on the its innovations and new product ideas.

As commercialisation of applied academic research along with technology transfer and industry collaborations would bring the required outcomes for economic and scientific achievement of the country. ORIC has developed mechanisms for research commercialisation and has set up a Business Incubator and IPO office support both researchers and budding startups.



INTERNATIONAL OFFICE



The Association
of Commonwealth
Universities



The ORIC at ZU has also established the International Office for propagating Global presence of ZU brand. Our most recent projects are:

- Monash University, Australia University for Pakistan wide Study, for clinical data research on Covid 19 Patients.
- Stem Cells, Australia, - We are joint research partner with Stem Cells Australia for exploring treatments at genetic level
- Oxfam GB, UK, for Gender Mainstreaming through Edutainment

Our other collaborating partners include University of Bedfordshire, Valparaiso University and European Society for Translational Medicine (EUSTM), National Institute of Blood Diseases and Bone Marrow Transplant (NIBD) and InSource Advisors, Inc. Houston, USA.

We are also member of multiple international organizations promoting academia and research. We are members of the Association

of Common Wealth Universities, Talloires Network, Association of University Leaders for a Sustainable Future (ULSF) and International Association for Universities.

SUSTAINABILITY OFFICE

As sustainability is one of the major issues facing the global community, ORIC has established the Sustainability Office to work towards the achievement of United Nation's Sustainable Development Goals. In this regard, it promotes research and activities for all the 17 SDGs.

ORIC has developed a dedicated office to manage all activities which are in line with meeting sustainability priorities of United Nations. Sustainability Office oversees the universities progress towards sustainable development, including Green Initiatives. The office also ensures that university is meeting all SDGs compliance requirements as part of its Social responsibility. The office holds awareness sessions regarding UN SDGs both to internal and external audience. The office, alongside other divisions, manages and promotes the research leading to innovations that will help to advance the SDGs.

UNIVERSITY POLICIES

REFUND POLICIES

Refund of fee will be according to the following rules.

Condition:

*Withdraw before commencement of classes
Refund of full tuition fee

*Within 45 days of commencement of classes
Refund of Half tuition fee

*After 45 days of commencement of classes
No refund.

STUDENT COUNSELLING

Counselling is provided by a professional counselor and staff member. This counseling is designed to assist student in resolving personal problems that are interfering with their academic progress and success. Such problems might include difficulty in adjusting to college, family concerns and/or low self-esteem

CODE OF CONDUCT

Student are expected to observe generally accepted standard of conduct the University reserve the right to exclude any student whose conduct is injurious to the University.

FINANCIAL POLICY

Student seeking admissions to Ziauddin University are expected to pay the fees approved by the Governing body of the University. Admission fee is submitted only once at the time of

admission to the first year. For subsequent year, students are required to pay only the tuition fee. For local student, all fees are paid in Pakistani currency, and for overseas student all fees are paid in US dollars. Parents/guardian are advised to ensure that fee for each academic year is paid within the due date. The University reserves the right to cancel admission if the fee is not paid within the due date. Students who repeat the year due to failure or otherwise are required to pay the tuition fee for the year/s being repeated.

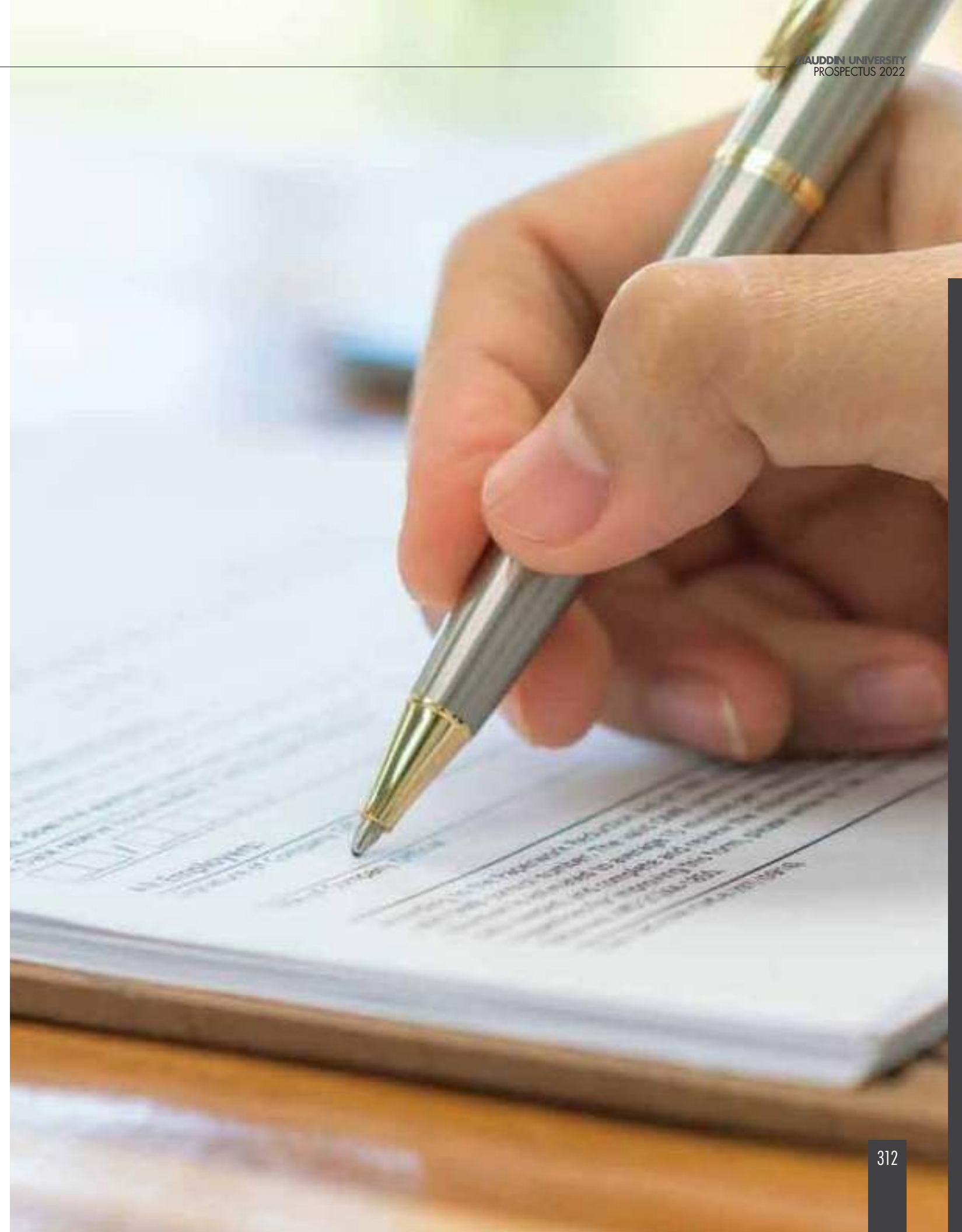
The University does not handle cash or personal cheques. Fees must be paid in the form of pay order payable to Ziauddin University. Late fee charges will be levied as per university policy after due date

FINANCIAL AID

The University provides this facility to limited number of candidates based on merit and individual needs. Each case is treated on individual basis and decisions are made by the financial aid Committee.

*ALL dues needs to be paid within 2 weeks of commencement of the academic year

*2% surcharge per month will be levied on outstanding fees after the due date.



EXTRA CURRICULAR ACTIVITIES



DEPARTMENT OF STUDENT AFFAIRS

INTRODUCTION

At a higher education institution, academics, mental growth and physical training of the students are the responsibilities of the institution. Hence, universities are obliged to have a Student Affairs department that organises and manages student activities. The Student Affairs department is a division that plans events and workshops which are effective for the students and prepares them to face challenges of the practical world. For instance, public speaking and critical thinking are required in most of the jobs today. These could be developed easily by participating in co-curricular and extracurricular activities.

At Ziauddin University a wide range of extracurricular activities, professional workshops for students, and seminars have been conducted for student's capacity building, grooming and confidence building. Students are also provided career guidance and mentoring sessions for their professional development.

Regards
Dr. Almas Farhan



OBJECTIVES

- Facilitating student societies of Ziauddin University to conduct events that are according to their constitution and society objectives.
- Actively seek out student opinions on matters of concern.
- Advising the administration on any matters of concern to the student body.
- Maintaining communication and establishing strong relations between the students and the administration.
- Provide feedback and suggest amendments in university policies to create a better atmosphere for the students.
- Assisting students of Ziauddin in their queries, problems, etc.
- Promoting and ensuring accountability within the student societies.
- Arranging frequent extracurricular activities for the students.

STUDENT LIFE

INTRODUCTION

The Department of Student Life is granted both the responsibility and the latitude to ensure that daily interactions between all students are peaceful and productive. They craft and administer student councils, possess oversight for judging infractions, organise individual department activities, negotiate and interact with various institutes, plan extra and intramural sporting activities, and much more. Maintaining an active, harmonious, and beneficial learning and living environment for students is one of their primary functions.

We at ZU feel campus involvement plays a crucial role in every student's personal growth. Whether it is being a part of extracurricular or literary societies, the positive results are explicitly seen during their education years, as well as in their life ahead. With more than eight student societies on campus, finding a place in one or even more of them is easy for the students.

STUDENT SOCIETIES AT ZIAUDDIN UNIVERSITY



WELFARE AID FOR ILL AND DEPRIVED

The welfare association for the ill and deprived is a student based non-profit organisation founded on the observation that patients were declining medical care due to affordability issues.

The goal is to provide financial support for underprivileged patients present at the KDLB campus of Ziauddin Hospital. However, the society has expanded its services to needy patients in Civil Hospital, JPMC, and Ziauddin North Campus. The activities held under this society were:

1. BIKEATHON

Welfare AID joined forces with Critical Mass Karachi for a 25km cycling marathon. The cyclists all wore red ribbons to highlight the importance of heart health.

2. BASIC LIFE SUPPORT WORKSHOP FIRST AID WORKSHOP

Welfare AID conducted a two day Basic Life Support and First Aid workshops with Red Crescent Pakistan that spanned over 2 weeks.



Each participant was taught about different emergency scenarios and was given hands on training in applying bandages, performing CPR & more. All the participants are now certified first-aid responders. An amount of Rs. 56,825 was also generated and used for the treatment of underprivileged patients.

3. ANNUAL BLOOD DRIVE

216 lives were potentially saved as 72 pints of blood were donated by students and staff of Ziauddin University.

4. SURGICAL SKILLS WORKSHOP

Welfare Aid successfully conducted surgical skills workshop in June. The workshop was in collaboration with Neurosurgeon Dr. Tariq Mohammed and General surgeon Dr Zubia Masood. Each participant was taught multiple suturing techniques.

5. ANNUAL BAKE SALE

A net profit of Rs.102,103, was generated from the bake sale! The processings were used to support the treatment of patients at Ziauddin University Hospital, Kemari.

6. RAMZAN DRIVE 2019

Welfare Aid distributed a month's worth of ration to 80 deserving families in Karachi. On the 7th of June, students also gathered under the banner of Welfare Aid, in the premises of Ziauddin Hospital, Kemari to distribute Iftar boxes to 150 staff members.

7. RATION DRIVE 2019

Welfare Aid collected Rs. 240,000 for their annual Ration Drive and supplied a month's worth of ration to 116 families in Kemari, Gulshan-e-Sikanderabad, Baldia Town and Baba Bit to help them in the month of Ramadan.

8. EID-UL-FITR PROJECT 2019

Team Welfare Aid distributed gifts to 32 deserving individuals, including the hard-working staff members of Ziauddin Kemari Campus.

ZIAUDDIN UNIVERSITY ATLAS



An atlas is a collection of maps – a 2-D representation of reality. It serves as a lodestar, a guide for the weary traveller through dark nights and unfamiliar waters. The Ziauddin Atlas hopes to achieve the aim of mappers of yore. The society hopes to take the complex thoughts and dreams that characterise the student body of Ziauddin University and chart them on a magazine; an atlas that can be held in your hands and perused at leisure.

1. ZU Atlas have published 2 student magazines till 2019.

ZIAUDDIN LITERARY & CULTURAL SOCIETY



University life is not all about hitting the books. ZLCS keeps the student body active and entertained through extracurricular activities such as theatre, bake sales, musical events, and scavenger hunts amongst a multitude of other activities.

1. EXTRACURRICULAR WEEK AT ZMC (FEBRUARY 2019)

SCAVENGER HUNT: The extracurricular week started with a Scavenger Hunt. 24 teams were registered.

STAGE PLAY: Ziauddin Medical Students presented an urdu play "Jinnay Lahore nai Vekhiya", directed by the Ziauddin students Preet Roshan and Fayez Mallick.

BEACH TRIP: The beach trip, is the most anticipated event of the year organised by ZLCS. It included adventure and entertainment with music, water sports and delicious live BBQ.

TALENT HUNT AT ZU: The talent show included approximately 30 performances presented by the students of Ziauddin University.

2. COMEDY NIGHT 2019

Famous stand-up comedian Mr. Akber Chaudhery was called to grace the event. Student leaders also presented their acts.



3. BONFIRE (DECEMBER 2019)

The last Saturday of January marked a momentous occasion for the students of Ziauddin University. Two of the university's largest student run societies, Welfare Aid and Ziauddin Literary and Cultural Society (ZLCS), joined forces to host a Bonfire Movie night.

4. IFTAR DRIVE AT DARUL SAKUN

The annual Ziauddin Literary and Cultural Society Iftar festival was held on the 2nd of June at Dar-ul-Sukoon's home for senior citizens. Many of the university students volunteered and helped with the distribution of iftar.

ZIAUDDIN UNIVERSITY DEBATING CHAMPIONSHIP



The tournament honours individual speakers and takes pride in having produced several polished speakers that have represented Pakistan at WSDC, WUDC, and ESDC.

ZIAUDDIN UNIVERSITY DEBATING CHAMPIONSHIP WAS HELD IN FEBRUARY 2019

The programme includes intense parliamentary debating and is open to schools (O-levels and A-levels) and universities. Teams compete with topics ranging from politics, community, economy and other wide variety of themes.

Ziauddin University Debating Championship, one of the most prestigious parliamentary debating championships of the country is hosted annually. Initiated in 2010, ZUDC has gradually evolved into the main event for parliamentary debate in Karachi, giving students an opportunity to articulate their thoughts through reasonable evidence. This year, the tenth edition was hosted over the course of three days, from 8th of February till 10th of February 2019. Over 100 participants representing institutions from all over Karachi came under one roof to participate in the most competitive edition of ZUDC till date. The exceptionally adept host team had their hands full with 24 teams which included institutions like Karachi Grammar School, The Lyceum School, Nixor College, Cedar College, St. Patricks' High School, Haque Academy, Habib University, Jinnah Sindh Medical University, Institute of Business Administration, Dow Medical College, Szabist, and Beaconhouse Jubilee, as well as two private teams including one from Hyderabad and one comprising of seasoned debaters. A team from Ziauddin University also participated.

After a thrilling debate watched by many, Nixor Red was crowned as the winners while Pink Frued was declared the runner-ups. The most promising team award was given to Nixor O'levels for their tremendous performance while the best speaker award went to Humza Jami.



ZIAUDDIN ADVENTURE SOCIETY

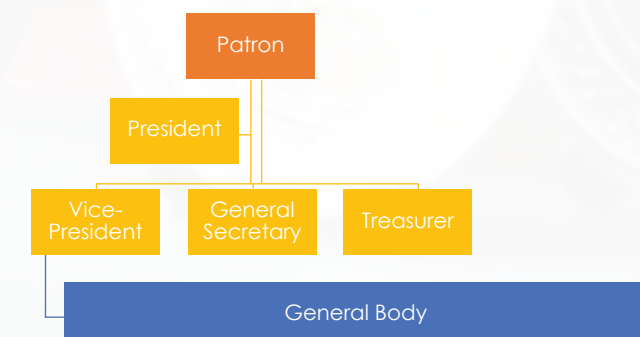


ZAS strives to embolden students to take part in outdoor activities by arranging numerous exploratory excursions that stimulate the mind, and provide an escape from the monotonous university life.

1. Trip to Gorakh Hills (February 2019)
2. Upnorth trip to Hunza (October 2019)
3. Upnorth trip to Kumrat (November 2019)

COUNCILS AT ZIAUDDIN UNIVERSITY

Ziauddin Student Affairs took the initiative of forming individual student councils irrespective of vicinities and student population of individual colleges, back in 2018. Since then, multiple student councils have been functioning and carrying out their extracurricular and co-curricular activities with the collaboration of respective college administration and Student Affairs Department. A universal hierarchy system is also followed in all councils so that it is easy for the student leaders to communicate and manage tasks accordingly.



STUDENT COUNCIL AT ZUFEST

- Patron Engr. Ashfaq Baloch
- President Nimra Mehmood

1. "ALOHA NOVATO"

On March 9, 2019, ZUFEST Student Council organised Aloha Novato, a welcome-cum-farewell party for the freshmen and graduating batch, respectively. It was arranged at Janus Banquet, Gulberg Town, Karachi. The objective of organising Aloha Novato for the students, management, and faculty of ZUFEST was to give the freshies a momentous beginning, and to bid Batch 6 a hearty goodbye.

2. "ZCL (ZIAUDDIN CRICKET LEAGUE)1.0"

On March 23, 2019, ZUFEST Student Council organised a cricket tournament. The purpose of the event was to instill discipline and build the concept of working in teams.

3. EXTRACURRICULAR WEEK 2019

From Oct 9th to Oct 11th 2019, ZUFEST Student Council organised EC Week. The first day included sports such as futsal and a badminton tournament.

On October 10th, 2019 Thursday, ZUFEST Student council dressed up as their favourite characters. The variety of themes included culture, horror, medieval era, super heroes and some villains. Friday 11th Oct, 2019, was spent on the beach.

STUDENT COUNCIL AT ZIAUDDIN COLLEGE OF REHABILITATION SCIENCES

Patron: Mr. Usman Khan
President : Mr. Rehan Raza (North) and Ms. Unaiza Masood (Clifton)

1. STUDENT COUNCIL OATH TAKING CEREMONY ZCRS

A groundbreaking ceremony took place for the first time in the history of ZCRS, where the Student Council (2018-19) of the department pledged to execute their duties with candor and commitment, to follow the fundamental values of the University, and to abide by all rules and regulations.

2. BEACH TRIP 2019

The Beach Party was held on Saturday, 6th April, 2019 at Turtle Beach, Karachi. This event was distinctive for two reasons; it was the first



event that the Student Council processed without substantial supervision. Secondly, it was the first democratic event in the history of ZCRS, which further strengthened the ties of the student body with the council.

3. CULTURE DAY 2019

4. EXTRACURRICULAR WEEK 2019

ZCRS ECA Week 2019 included a Movie Night, a Spring Carnival and two Sports Days. The Sports Days included cricket, futsal, throwball, badminton and table tennis. The Movie Night at Ziauddin University's auditorium showcased the classic comedy, "Phir Hera Pheri", followed by a musical performance by Ziauddin's own Osaid Tabrez.

5. ANNUAL DINNER 2019

The Annual Dinner 2019 was the 'big finish' of the ECA Week. Scheduled at the Movenpick Hotel, on the 15th of July, 2019, AD proved to be a success with the presence of students and teachers.

STUDENT COUNCIL AT ZIAUDDIN COLLEGE OF NURSING

Patron: Ms. Mehtab
President: Mr. Niamatullah

ZUCON EXTRACURRICULAR WEEK 2019

The EC Week started with the 'Cultural Day'. Organised by the students of BSN year III, the event was a didactic journey that showed the exquisite cultures of Pakistan.

Day two and three beckoned to the athletes of ZUCON. With cricket and throwball being the major events taking place, the intense competition magnetised the crowd. The winners, ZUCON Zalmi and BSN Year II, for cricket, and the combined team of BSN year I and RN year I, for throwball.

The fourth day was a result of incredible compassion of the Nurses of ZUCON. The Health and Fun Mela was attended by Dr. Inayat Ali Khan (Expert from Neurosurgery department) and Dr. Tazeen Saeed from Aga Khan University Hospital (Assistant Dean, Research and Assistant Professor AKUSON). The fair provided basic health screenings such as blood pressure checks, glucose and cholesterol blood tests, body composition, vision and hearing tests for little to no cost.

The Grand Tambola event took place on the fifth day of ECA Week, the busiest day of the week, since it incorporated research seminars and the closing ceremony.

Finally, the week ended with a tranquilising annual picnic held at the Countryside Chalet Resort, with students swimming, boating, and horse-riding into the sunset.

ZIAUDDIN COLLEGE OF MEDICAL TECHNOLOGY

Patron: Ms. Humera Rashid
President: Mr. Shahrukh Warsi

1. ANNUAL DINNER 2019

The College of Medical Technology in collaboration with the Department of Student Affairs welcomed its new batch and bade farewell to the outgoing batch.

2. CLEAN-UP CHALLENGE

The students of Ziauddin College of Medical



Technology conducted "The Clean-up Challenge" on 14th September 2019. This was a cleaning activity targeting the vicinity of Ziauddin Hospital (North).

3. ANNUAL PICNIC

In December 2019, the students of Ziauddin University College of Medical Technology, Faculty of Law and Faculty of Eastern Medicine and Natural Sciences headed to turtle beach where the Annual Picnic was held.

ZIAUDDIN FACULTY OF LAW

1. OATH TAKING CEREMONY

Oath taking ceremony for Ziauddin Student Bar Association/Student Council took place in Dec – 2019. As the newly formed student representative body for the faculty of Law, students were much excited and conducted multiple rehearsals to perfect their oath taking decorum. The ceremony was hosted by Coordinator Student Affairs and the respective oaths from the newly elected council was taken by Dean Law, Shahista Sarki.

DEPARTMENT OF SPORTS

OVERVIEW

The vision of the Ziauddin University sports department is to have a positive impact on the students through programmes that endorse sports leadership, wellness, teamwork and ethics.

These activities have a profound effect on the physical fitness and mental health of the students. In this regard ZU Sports Department provides full encouragement and a conducive environment for sports activities and programmes intended to teach the youth how to communicate, coordinate and maintain discipline.

OBJECTIVES

- Prepares annual sports budget.
- Manages facilities (ZU Mini Sports Complex and ZU Health and Fitness Centre), its costs, renovation, hiring, equipment, etc. And ensures a productive work environment, maintaining an inventory of all equipment and supplies.
- Makes sure every ZU Department receives an adequate supply of sports equipment.
- Manages uniform ordering, issuing of equipment and stock.
- Prepares and maintains an annual sports calendar of all departments.
- Enforces sports-related policies and procedures, and follows sports formats linked to major competitions.
- Provides and manages all sports facilities in the Clifton and North Nazimabad departments.



ACTIVITIES HELD UNDER SPORTS DEPARTMENT

Participation at a National and Regional level

1. LUMS Sports Fest 2019 (Jan 4-9 2019).
2. 4th Baharia Intercollegiate hard ball cricket tournament (19-28 Feb 2019).
3. NUST PNEC Olympiad 2019 (21-24 Feb 2019) (Participated in Cricket, throwball and futsal)
4. Aku Olympiad 2019 (12-19 April 2019). (Participated in Cricket, throwball and futsal).
5. Futsal Tournament at Rayden College (26-28 July 2019).
6. 10th Culligan Throwball Championship (17-21 September 2019).
7. Red Bull Cricket tournament (12 September 2019)
8. 13th AKU Basketball Tournament (21 September 2019).

INTER BATCH AND INTERCOLLEGE ACTIVITIES

1. Ramadan futsal friendly matches.
2. Inter batch cricket matches throughout the year (ZMC).
3. Azadi cup tournament, College of pharmacy (17 August 2019).
4. Inter batch Cricket tournament Ziauddin College Of Dentistry (1 October 2019).
5. Futsal Trials (all colleges of ZU) 25 September 2019.
6. Intercollegiate Cricket tournament 2019 (23 November 2019).
7. Intercollegiate Futsal tournament 2019 (12 October 2019).
8. Friendly matches of cricket, futsal and throwball.
9. Training sessions for cricket, futsal and throwball held in December.