



2026

PROSPECTUS



Postgraduate Admissions - 2026

**MPhil, ME, MS, LLM, PhD, MS (Surgery), MD (Medicine)
& MDS (Master of Dental Surgery)**

**Advanced Studies & Research Board
UNIVERSITY OF KARACHI**



PROSPECTUS

Postgraduate Admissions-2026

**MPhil, ME, MS, LLM, PhD,
MS (Surgery), MD (Medicine) &
MDS (Master of Dental Surgery)**

**ADVANCED STUDIES & RESEARCH BOARD
University of Karachi**

Message



Prof. Dr. Khalid M. Iraqi
Vice Chancellor

Dear Prospective Postgraduate Research Students!

I extend a very warm welcome to all of you for your decision to join the University of Karachi for your postgraduate research journey. Your decision to pursue research studies from one of the leading public sector universities of Pakistan will prove to be a journey of transformation in the real sense.

The University of Karachi offers a vibrant research culture, where innovation, creativity, and critical thinking culminate. Being a multidisciplinary university that offers postgraduate degree programmes in a variety of disciplines, research scholars are encouraged to share their unique perspective and set of skills, contributing to the rich tapestry of research. We are committed to provide you with an environment where you can learn to question, accept challenges, find solutions to problems, and make impactful contributions to your field of study.

With a focus on collaborative approach to research, we promote interdisciplinary projects that allow our research students to explore new horizons and address complex global challenges from a multitude of perspectives. In order to encourage our research scholars to collaborate with others, we organize workshops, seminars, and conferences to provide them the required exposure and multiple opportunities for collaboration.

Since embarking on a postgraduate research program is a journey of discovery, perseverance, and growth, it requires dedication, curiosity, and a passion for learning. As the Vice Chancellor of the University of Karachi, I assure you that our institution is dedicated to providing the support and resources you need to succeed.

We look forward to welcoming you to our university with the hope that you will produce groundbreaking research in your specific field of inquiry. Wish you all the best!

Message



Prof. Dr. Anila Amber Malik
Director
Postgraduate Admission Committee

I welcome all the potential research scholars to the postgraduate programmes offered in different disciplines at the University of Karachi. A university with a rich history of research tradition has produced eminent research scholars and renowned scientists in diverse fields and the legacy continues, as the university is committed to facilitate your research potential as prospective researchers at postgraduate level.

With a focus on contemporary trends in research, the postgraduate programmes offered at the University of Karachi provide rigorous exposure to research that is required for successful completion of the specific postgraduate degree programmes. I assure you that being part of the research community of the University of Karachi will prove to be an intellectually stimulating experience for you, as the interactions with the academicians and research scholars will enrich your experience and broaden your comprehension as a researcher.

Being one of the largest public sector universities of the country, the postgraduate programmes offered at the University of Karachi are diverse and multidisciplinary in nature. The courses designed for postgraduate programmes across various disciplines aim to enhance your research skills. Besides this, our highly qualified faculty, with extensive research experience, is available to provide the supervision needed to produce quality research. If you want to excel in the research field of your interest, then the University of Karachi is the right place to join.

**ADVANCED STUDIES & RESEARCH BOARD
UNIVERSITY OF KARACHI**

Members of the Advanced Studies and Research Board

Chairman

Prof. Dr. Khalid M. Iraqi

Vice-Chancellor

Director

Prof. Dr. Anila Amber Malik

Postgraduate Admission Committee

DEANS OF THE FACULTIES:

Prof. Dr. Samina Saeed	Dean, Faculty of Arts & Social Sciences Dean (Look-After) Faculty of Education
Prof. Dr. Zaeema Asrar Mohiuddin	Dean, Faculty of Management & Administrative Sciences
Prof. Dr. Harris Shoaib	Dean, Faculty of Pharmacy & Pharmaceutical Sciences
Prof. Dr. Zahid Ali Zahidi	Dean (Look-after), Faculty of Islamic Studies
Prof. Dr. Farida Islam	Dean, Faculty of Medicine
Prof. Dr. Bilqees Gul	Dean, Faculty of Science & Faculty of Engineering
Barrister Muahmmad Sarfaraz Ali Metlo	Dean, Faculty of Law

NOMINEES OF THE SYNDICATE

Prof. Dr. Anila Amber Malik	Department of Psychology
Prof. Dr. Asma Manzoor	Centre of Excellence for Women's Studies
Prof. Dr. Syed Shabib ul Hasan	Department of Public Administration

NOMINEES OF THE ACADEMIC COUNCIL

Prof. Dr. Basit Ansari	Department of Health, Physical Education & Sports Sciences
Prof. Dr. Uzma Ashiq	Department of Chemistry
Prof. Dr. Taseer Ahmed Khan	Department of Physiology

PROFESSORS EMERITUS

Prof. Dr. Atta-ur-Rahman, FRS	International Centre for Chemical & Biological Sciences (ICCBS)
Prof. Dr. Muhammad Qaiser	Former Professor, Department of Botany
Prof. Dr. Zafar Saeed Saify	Former Professor, Department of Pharmaceutical Chemistry

Prof. Dr. Imran Siddiqui	Registrar
---------------------------------	-----------

INTRODUCTION

University of Karachi established in 1951, is one of the oldest institutions of higher education of Pakistan. It offers rigorous and vibrant graduate and post-graduate degree programs in the faculties i.e. Arts & Social Sciences, Education, Engineering, Islamic Studies, Law, Management & Administrative Sciences, Medicine, Pharmacy & Pharmaceutical Sciences, and Science. The research and the teaching programs are supervised by about 400 qualified faculty members. These postgraduate programs are offered in 56 teaching departments and 21 research institutes and centers.

University of Karachi offers its graduate and post-graduate students well equipped laboratories, digital libraries and video-conferencing facilities in a multi-disciplinary environment. It is committed to uphold its tradition of producing top-quality graduates in cutting-edge areas of Business and Management Sciences, Bio-Medical & Engineering Sciences, Technologies, Social and Natural Sciences. The programs are designed to match the emerging needs of industries and research and development organizations, both in the public and private sectors.

During the last five years, University of Karachi has awarded approximately 2800 MS (Surgery), MD (Medicine), MPhil, ME, LL.M and PhD degrees. Presently, approximately 5000 students are enrolled in MS (Surgery), MD (Medicine), MPhil, ME, LL.M. and Ph.D, programs. Faculty members at the University of Karachi are engaged in pursuing research in various disciplines and publish extensively in journals of international repute.

University of Karachi provides excellent opportunities to its postgraduate students and faculty members for scholarships, linkages, training and collaboration with the world's top universities in research projects with the universities/institutions/centers in the technologically advanced countries.

FACULTIES

- 1. Faculty of Arts & Social Sciences**
- 2. Faculty of Education**
- 3. Faculty of Engineering**
- 4. Faculty of Islamic Studies**
- 5. Faculty of Law**
- 6. Faculty of Management & Administrative Sciences**
- 7. Faculty of Pharmacy & Pharmaceutical Sciences**
- 8. Faculty of Science**
- 9. Faculty of Medicine**

DEPARTMENTS / INSTITUTES / CENTRES

FACULTY OF ARTS & SOCIAL SCIENCES	
1.	Arabic
2.	Economics
3.	English (Literature), (ELT and Applied Linguistics)
4.	History
5.	International Relations
6.	Islamic History
7.	Library & Information Science
8.	Mass Communication
9.	Persian
10.	Philosophy
11.	Political Science
12.	Psychology
13.	Sindhi
14.	Social Work
15.	Sociology
16.	Urdu

FACULTY OF EDUCATION	
1.	Education
2.	Teacher Education
3.	Special Education

FACULTY OF ENGINEERING	
1.	Chemical Engineering

FACULTY OF ISLAMIC STUDIES	
1.	Islamic Learning
2.	Quran-O-Sunnah
3.	Usool-Ud-Din

FACULTY OF LAW	
1.	School of Law

FACULTY OF MANAGEMENT & ADMINISTRATIVE SCIENCES	
1.	Public Administration
2.	Business Administration
3.	Commerce

FACULTY OF MEDICINE	
MS (Surgery) / MD (Medicine) / MDS (Master of Dental Surgery)	

FACULTY OF PHARMACY & PHARMACEUTICAL SCIENCES	
1.	Pharmacognosy
2.	Pharmacology
3.	Pharmaceutics
4.	Pharmaceutical Chemistry
5.	Pharmacy Practice

FACULTY OF SCIENCE	
1.	Agriculture & Agribusiness Management
2.	Applied Chemistry & Chemical Technology
3.	Applied Physics
4.	Biochemistry
5.	Biotechnology
6.	Botany
7.	Chemistry
8.	Computer Science
9.	Food Science & Technology
10.	Genetics
11.	Geography
12.	Geology
13.	Health, Physical Education & Sports Sciences (Physical Therapy)
14.	Mathematics
15.	Microbiology
16.	Physics
17.	Physiology
18.	Statistics
19.	Zoology

INSTITUTES / CENTRES	
1.	Dr. A. Q. Khan Institute of Biotechnology & Genetic Engineering (Biotechnology) (KIBGE)
2.	Dr. Panjwani Centre for Molecular Medicine & Drug Research (Molecular Medicine) (PMDC)
3.	HEJ Research Institute of Chemistry (Chemistry)
4.	Dr. M. Ajmal Khan Institute of Sustainable Halophyte Utilization (Botany)
5.	Marine Reference Collection and Resource Centre Zoology (MPhil Only)
6.	Dr. Zafar H. Zaidi Centre for Proteomics (Biochemistry)
7.	Institute of Space Science & Technology (ISST)
8.	Centre of Excellence for Women's Studies
9.	Institute of Environmental Studies
10.	Pakistan Study Centre (MPhil Only)
11.	Institute of Marine Science
12.	Centre for Plant Conservation
13.	National Nematological Research Centre (NNRC)
14.	Area Study Centre for Europe
15.	Shaikh Zayed Islamic Centre (ISCT)

DEPARTMENT OF ARABIC

INTRODUCTION

The Department of Arabic at the University of Karachi is renowned for its rich academic environment, strategically located in front of the magnificent Jamia Masjid Ibrahim. Department prides itself on its dedication to the study and promotion of the Arabic language and literature.

The Department of Arabic, University of Karachi, was established in 1955. Since its inception, the Department is enjoying the patronage of renowned scholars of international repute. From the outset, the Department started functioning under the auspicious headship of the renowned scholar Professor Allama Abdul Aziz Memon. Highly qualified faculty members having vast experience enjoying good reputation are taking part in dispersal education.

The cautiously chosen syllabus considering the demands of the student and the existing period, offers excellent study of the ancient times and the contemporary era. It is indeed a confluence of ancient and modern Arabic Literature, Language and Linguistics. Besides academic activities, curricular and co-curricular activities are also stressed like extension lectures, debates, study tours, picnics and other functions to reveal, enhance and polish the abilities and talent of the students.

POSTGRADUATE PROGRAMS AVAILABLE

1. MPhil in Arabic
2. PhD in Arabic

PROGRAM OBJECTIVES

- To provide in-depth knowledge & research opportunities in Arabic language & literature.
- To develop critical and analytical skills in classical and contemporary Arabic texts.
- To promote the understanding of Islamic literature & its relevance to modern contexts.
- To prepare students for academic & professional careers in Arabic & related fields.

AIMS AND SCOPE OF THE PROGRAM

- **MPhil in Arabic:** Aimed at developing advanced research skills and comprehensive knowledge in various aspects of Arabic studies, including linguistics, literature, and Islamic texts.
- **PhD in Arabic:** Focuses on original research and contribution to the field of Arabic studies, encouraging scholarly excellence and innovation.

SCOPE

The MPhil and PhD programs in Arabic Language and Literature at the University of Karachi are designed to provide advanced academic and research training in the fields of Arabic linguistics, literature, and culture. Graduates from these programs will acquire in-depth knowledge and expertise that open doors to a wide array of professional opportunities.

KEY AREAS OF OPPORTUNITY

- a) **Teaching:**
 - Graduates can pursue academic careers as professors, lecturers, and researchers in universities and colleges worldwide.
 - There is a growing demand for Arabic language educators in primary and secondary education, both within the country and internationally.
- b) **Translation:**
 - Expertise in Arabic opens up opportunities in translation services across various sectors, including academic, diplomatic, and commercial fields.
 - Graduates can work as translators and interpreters for government agencies, multinational corporations, and non-governmental organizations.

- c) **Electronic Media:**
 - With the rise of global media, there is an increasing need for professionals proficient in Arabic for roles in broadcasting, journalism, and content creation.
 - Graduates can contribute to Arabic-language news outlets, online platforms, and social media channels.
- d) **Diplomacy and International Relations:**
 - Proficiency in Arabic is highly valued in diplomatic services, where graduates can serve as cultural advisors, language experts, and policy analysts.
 - Opportunities exist in international organizations, embassies, and consulates.
- e) **Research and Publishing:**
 - Graduates can engage in scholarly research, contributing to the academic community through publications, conferences, and seminars.
 - There is potential for authoring books, articles, and research papers in Arabic language and literature.
- f) **Cultural and Heritage Organizations:**
 - Employment opportunities are available in museums, cultural centers, and heritage sites that require expertise in Arabic language and literature.
 - Graduates can work as cultural consultants, curators, and archivists.

By pursuing an MPhil or PhD in Arabic Language and Literature at the University of Karachi, students will be equipped with the skills and knowledge necessary to excel in these diverse and rewarding fields, thereby significantly enhancing their career prospects and contributions to the global community.

RESEARCH FACILITIES AVAILABLE

Department of Arabic boasts a state-of-the-art library equipped with a vast collection of books on Arabic language and literature, Islamic literature, classical and modern texts, Arabic poetry, Quran and Hadith studies. Additionally, we have a fully equipped computer lab with multimedia projectors, computers, laptops, internet access, printing and scanning facilities to support research and academic activities.

Regular Faculty Members with their Areas of Specialization/Expertise:

- **Dr. Asif Saleem:** PhD in Arabic Language & Literature, specializing in Arabic Language & Literature.
- **Dr. Muhammad Imran Latif:** PhD in Arabic Language & Literature, specializing in classical literature, Morphology, Syntax, Semantics and Rhetorics.
- **Dr. Muhammad Abdul Hameed Nabeel:** PhD in Language & Literature, specializing in modern Arabic Literature.
- **Dr. Muhammad Faezul Ebrar:** PhD in Quranic Arabic Literature, Arabic grammar specializing in Arabic and Western Literary Relations..
- **Prof. Dr. Aziz-ur-Rehman Saiffee:** PhD in Arabic Language & Literature, specializing in Arabic Manuscript in Science of Hadith. Academic visitor as Research fellow at University of Edinburgh, UK, specializing in Arabic Manuscripts and Palaeography.

INFRASTRUCTURE

- **Library:** A comprehensive collection of Arabic and Islamic literature.
- **Computer Lab:** Equipped with modern technology and facilities.
- **Classrooms:** Well-furnished with multimedia projectors.
- **Faculty Offices:** Spacious and well-equipped to facilitate academic work.

AVENUES FOR RESEARCH

Dept. actively encourages research in various areas of Arabic, including but not limited to:

- Arabic Linguistics
- Classical and Modern Arabic Literature
- Comparative Literature
- Islamic Literature
- Manuscript Studies
- Morphology

- Philology
- Poetic Devices / Poetic Meter
- Rhetorics / Rhyme
- Semantics / Syntax / Syntactics
- Translation Studies

RESEARCH PUBLICATIONS

- The department publishes a bi-annual, research journal recognized by HEC in the Y category, titled "Journal of Arabic, University of Karachi."
- The department also produces a quarterly research journal for students, titled "Al-Nakhla."

ADDITIONAL INFORMATION

The Department of Arabic provides a vibrant academic atmosphere that fosters intellectual growth and scholarly excellence. We regularly organize seminars, workshops, and conferences to enhance the academic experience of our students and faculty. Faculty members are engaged in cutting-edge research and have published extensively in reputable National and International Research Journals.

DEPARTMENT OF ECONOMICS

INTRODUCTION OF THE DEPARTMENT

The Department of Economics, established in 1950-51, stands as one of the oldest and largest departments within the Faculty of Arts & Social Sciences, holding a prominent position in Pakistan's academic landscape. The department's pedagogical approach embodies a holistic integration of theory and practice, blending lectures, case studies, oral presentations, written reports, theses, and field visits. Faculty members are dedicated to bridging the gap between theoretical concepts and real-world applications, often inviting distinguished guest speakers from different institutions to enrich the learning environment. Continuous assessment methods, including quizzes, examinations, and presentations, ensure students thoroughly grasp and apply the knowledge imparted to them. The alumni of the Department of Economics have embarked on flourishing career paths across various sectors including banking, civil services, research, teaching, and business, both domestically and internationally. This widespread success underscores the department's key role in encouraging adaptable and proficient professionals who excel in a range of endeavors.

POSTGRADUATE PROGRAMS AVAILABLE

M.Phil. & Ph.D.

PROGRAMS' OBJECTIVE

Programs' Objective: M.Phil. (Economics)

The objectives of the M.Phil. (Economics) include:

- i) **Advanced Knowledge:** To provide students with a deep and advanced understanding of economic theories, concepts, and methodologies, enabling them to analyze complex economic issues critically.
- ii) **Research Skills:** To develop research skills and methodologies necessary for conducting original research in economics, including data analysis, econometrics, and quantitative research techniques.
- iii) **Critical Thinking:** To foster critical thinking and problem-solving abilities in the context of economics, allowing students to evaluate economic policies, trends, and real-world problems rigorously.
- iv) **Specialization:** To allow students to specialize in specific areas of economics, such as macroeconomics, microeconomics, development economics, international economics, or financial economics, according to their interests and career goals.

Programs' Objective: Ph.D. (Economics)

The objectives of the Ph.D. (Economics) include:

- i) **Research Excellence:** Foster a culture of research excellence by providing students with the necessary tools, resources, and mentorship to conduct innovative and impactful research in various fields of economics.
- ii) **Interdisciplinary Collaboration:** Encourage interdisciplinary collaboration by promoting engagement with other academic disciplines and research centers, enabling students to tackle complex economic issues from diverse perspectives.
- iii) **Policy-Relevant Expertise:** Equip students with analytical skills and theoretical knowledge to analyze and contribute to relevant economic policy debates, ensuring that graduates can make meaningful contributions to public and private sector decision-making.
- iv) **Professional Development:** Support students in their professional development by offering opportunities for teaching experience, conference participation, and networking, preparing them for successful careers in academia, government, industry, and international organizations.

AIMS AND SCOPE OF THE PROGRAM

Aims and Scope of the Program: M.Phil. (Economics)

The M.Phil. (Economics) aims to cultivate a deep understanding of economic principles and enhance students' analytical and research capabilities. The program covers a broad scope, including advanced economic theories, quantitative methods, and applied economics. It prepares students for independent research, policy analysis, and further academic pursuits, providing a strong foundation for those considering a Ph.D. or careers in economic research and consultancy.

Aims and Scope of the Program: Ph.D. (Economics)

The Ph.D. (Economics) is designed to develop leading economists who can contribute original research to the field. The program aims to produce scholars with expertise in economic theory, econometrics, and applied economics, capable of addressing complex economic issues. The scope encompasses rigorous training in research methodologies, academic writing, and teaching, preparing graduates for influential roles in academia, policy-making, and international organizations.

REGULAR FACULTY MEMBERS WITH THEIR AREAS OF SPECIALIZATION / EXPERTISE

The Department of Economics boasts a diverse and highly qualified faculty, each contributing extensive knowledge and expertise to their respective fields. The faculty members possess advanced degrees from prestigious institutions and have significant research accomplishments, including numerous publications in national and international journals, presentations at esteemed conferences, and contributions to academic literature through books and monographs. They specialize in a wide array of areas, including quantitative development analyses, international economics, development issues, macroeconomics, financial market analysis, environmental economics, and more. This depth of expertise ensures a rich learning environment for M.Phil. and Ph.D. students, fostering rigorous academic inquiry and robust research outputs.

Below is a compilation of faculty members' names along with their qualifications, designations, and areas of specialization or expertise.

S. No.	Name of Faculty Member	Qualifications	Designation	Areas of Specialization / Expertise
1	Prof. Dr. Abdul Waheed	Ph.D., and Post Doc., Nagoya University, Japan	Professor	Development Economics, International Economics, Economic Modelling
2	Prof. Dr. Roohi Ahmed	Ph.D. (Economics), University of Karachi	Professor	International Economics, Development Economics, Econometrics
3	Prof. Dr. Rumana Zaheer	Ph.D. (Economics), University of Karachi	Professor	International Economics, Monetary Economics, Macroeconomics
4	Dr. Nooreen Mujahid (FSL)	Ph.D. (Economics), University of Karachi	Associate Professor	Human Resource Management, Development Economics, Health Economics
5	Dr. Zeeshan Atiq	Ph.D. (Economics), The University of Manchester, UK	Associate Professor	Financial Market Analysis, Macroeconomics, International Economics
6	Dr. Syed Tehseen Jawaid	Ph.D. (Economics), University of Karachi	Associate Professor	International Economics, Development Economics, Econometrics
7	Dr. Safia Minhaj	Ph.D. (Economics), University of Karachi	Assistant Professor	Microeconomics, Macroeconomics, Transport Economics, Tourism Economics, Environmental Economics, International Economics
8	Mr. Mirza Muhammad Shehzad	M.Phil. (Economics), Quaid-i-Azam University	Assistant Professor	International Economics, Stabilization, Macroeconomics, Monetary Economics, Poverty and Inequality
9	Mr. Muhammad Haseeb	M.A.S. (Applied Economics), AERC, University of Karachi	Assistant Professor	Macroeconomics, Mathematical Economics

10	Dr. Muhammad Umair	Ph.D. (Economics), University of Karachi	Assistant Professor (T)	Environmental Economics, Labor Economics, International Economics, Development Economics, Data Analytics
11	Dr. Rabia Shakir	Ph.D. (Economics), University of Karachi; M.Phil. (Economics), University of Karachi	Lecturer	Money and Banking, Migration Economics, Statistics and Project Management

RESEARCH FACILITIES AVAILABLE (LIBRARY AND COMPUTER LAB)

The Department of Economics is an ideal place for study and research, offering a range of excellent facilities to support academic and research activities. The department has its own library, which boasts a comprehensive collection of around 2000 books and periodicals related to economics and related fields. For materials not found within the library, students and faculty can utilize inter-library loan facilities and access other major libraries, including the main library and the research library of AERC at the University of Karachi. The department's library is well-equipped to provide course materials as well as reference literature essential for students throughout their studies. Additionally, the department has a research lab for M.Phil. and Ph.D. students, featuring 20 computers to facilitate research. These resources create a supportive environment that enhances learning and research capabilities for all students.

INFRASTRUCTURE

The Department of Economics provides a good infrastructure tailored to the needs of M.Phil. and Ph.D. students, ensuring a conducive environment for advanced learning and research. Renovated classrooms equipped with projectors facilitate interactive and dynamic teaching methods, enhancing the educational experience for students. Additionally, the department offers dedicated support staff to assist with various activities, including administrative tasks and academic support. Further enriching the academic infrastructure, the department has recently inaugurated the **Raffat Sultana Azfar Smart Academic Hall**—a modern facility designed to support interactive learning, seminars, and academic discourse. This comprehensive infrastructure aims to foster a stimulating academic environment where students can engage deeply with their studies, collaborate with peers and faculty, and pursue innovative research endeavors.

AVENUES FOR RESEARCH

In the M.Phil. and Ph.D. programs, students are provided with a wide range of research opportunities guided by the distinguished faculty members. The faculty members, who have obtained qualifications from prestigious institutions worldwide such as Nagoya University, Japan, and The University of Manchester, UK, bring extensive expertise and experience to support students in their research endeavors. Specialized areas of focus include quantitative development analyses, international economics, financial market analysis, environmental economics, among others. Through collaborative mentorship, students are encouraged to explore innovative research pathways, thereby contributing to the advancement of knowledge in economics and related fields. With access to state-of-the-art resources such as dedicated research labs and partnerships with industry leaders, the aim is to uncover fresh perspectives and solutions to complex global challenges. By embracing new research avenues, we endeavor not only to enrich academic dialogue but also to generate meaningful impacts on society and the economy.

ELIGIBILITY CRITERIA

Eligibility Criteria: M.Phil. (Economics)

Students who have completed their BS in the following fields are eligible to apply for M.Phil. admission: Economics, Economics and Finance, Commerce, Business Administration, Public Administration, Mathematics, Statistics, and Physics.

Eligibility Criteria: Ph.D. (Economics)

Students who have completed their M.Phil. (Economics) are eligible to apply for Ph.D. admission.

DEPARTMENT OF ENGLISH

INTRODUCTION

The Department of English was established in 1955. It was located in Shivjee Muraji building in Nanakwara. Later in January 1960 when the university moved to its present location, the Department was housed on the first floor of the Old Block in the Faculty of Arts, now called the Faculty Arts and Social Sciences. Professor Dr. Ahsan Farooqui was the first head of the Department. The Department pursues excellence in English studies by creating and maintaining a culture of teaching and research based on values of creativity, academic honesty, and collaboration among its faculty and students. It offers a wide range of courses in Literary Studies and Applied Linguistics with a curriculum aligned with international standards. The courses have been carefully designed to facilitate the students in firmly grounding themselves in the discipline both theoretically and practically. From a rigorous exposure to the English literary canon to the pragmatic necessities of language planning and policy making, the Department seeks to equip its scholars with a simultaneous awareness of English language in its aesthetic, cultural, scientific and pragmatic dimensions.

FACILITIES

- Department Seminar Library
- Conference Room with Audio-Visual facilities
- Computer Room with Research Resources

SPECIFIC RESEARCH AREAS

- Early Modern English Literature
- American Literature
- Literary Theory
- Romanticism
- Comparative and Postcolonial Literature
- English Syntax
- World Englishes
- Sociolinguistics
- Discourse Analysis
- Postcolonial Literature and Criticism
- T E S L

CAREER OPPORTUNITIES

Students of the Department of English have entered a variety of vocational fields. Some of these fields are: CSS, Advertising, Media, (TV, Radio, Newspaper, Magazines, etc.) Banking, Business, Teaching, Educational Administration, Research, Translation, to mention only a few. Excellent job opportunities are available for the students of English Department in the country and abroad.

FACULTY MEMBERS

Associate Professor

- Dr. Iftikhar Shafi (**Chairman**)

Assistant Professors

- Ms. Lubna Shaheen
- Mr. Tayyab Zaidi
- Dr. Shumaila Shafkat ali
- Dr. Faisal Nazir
- Ms Ibtesam Afreen
- Dr. Bushara Khurram
- Mr. Wajdan Raza

Lecturers

- Ms. Lubna Hassan
- Mr .Muhammad Babur Khan Suri
- Mr. Muhammad Moonis Azad
- Mr. Syed Farhan Shoukat
- Mr. Abdul Basit

Programmes Available

- B.A. (Hons)
- M.A.
- M. Phil.
- Ph .D.

DEPARTMENT OF HISTORY

INTRODUCTION TO THE DEPARTMENT

Department of History, established in 1953, is one of the oldest departments in Karachi University which is proud of having world renowned scholars such as Dr. Mahmood Hussain, Dr. Riazul Islam, Dr. I.H. Qureshi, Dr. M. H. Siddiqui and many more as its faculty members in the past.

POST GRADUATE PROGRAMS OFFERED:

The Department offers MPhil degree in its Post-Graduate Program.

Specific Research Areas include Historiography, Philosophy of History, Ancient and Medieval History, Modern/Contemporary History, Archeology, History of Religions, History of Sindh, Regional and Urban History (focused on Karachi), Socio-Economic and Cultural History, Historical evolution of civil society and social movements, History of Conflict and Conflict Management, Public Policy, Demographic Transitions etc. All courses offered at the Department emphasize upon the latest relevant theoretical and empirical developments.

OBJECTIVES OF THE PROGRAM

The Post-Graduate Program of the University of Karachi is aimed at providing the facilities to all sections of graduate students to pursue higher studies and quality research in various fields of knowledge. The Department of History staunchly follows this aim with its own specific objectives as follows:

1. To promote quality research in all fields of History and its auxiliary sciences such as Archaeology, numismatics, epigraphy, archival studies etc.
2. To foster learning in modern trends, discourse and techniques in ancient, medieval and contemporary history and historiography.
3. To develop research skills in regional, class and socio-cultural, political and economic history and policy studies.
4. To train students in ciphering primary and secondary sources and writing unbiased and intellectually sound texts.
5. To encourage research and intellectual interaction between various universities and institutes pursuing historical research across the world.

AIMS AND SCOPE OF THE PROGRAM

The Program aims at making the students as well as the policy makers and stake-holders in the country understand the significance of historical research and history itself not only in widening the knowledge of human past and in turn, the socio-political and economic issues of the present, but also to provide necessary data to formulate public policy for the future.

History provides multi-dimensional answer to the question: “Why we are what we are and how we can improve?” In the twentieth century, historical studies across the world have been an essential part of various research and policy projects including those exploring and investigating geo-political and geo-economic issues, ethnic conflicts, terrorism, democratic development, human rights violations and civil society dynamics only to name a few. In this context, the students with post graduate degrees in History are likely to develop strong positive attitudes and skills to get employed in teaching and research jobs in higher education institutions, think tanks, civil society organizations and media houses both at national and international levels.

AVAILABLE FACULTY

Departmental Research Committee:

1. Dr. Moiz Khan (In-charge)– Specialization in Political History of Pakistan and its roots from Colonial Era; Demographic changes and Urbanization with special reference to Karachi
2. Dr. Farah Deeba Khan – Specialization in Socio-economic History of Handicraft Industry in Sindh; Modern Islamic trends in South Asia, Middle East and Central Asia
3. Dr. Humera Naz – Specialization in Medieval History of South Asia and Sindh; Gender History of South Asia and Historiography
4. Dr. Abdul Jabbar Khan (On FSL) – Specialization in Anthropology, Archaeology and History of Pakistan

RESEARCH FACILITIES AVAILABLE

1. **Dr. I.H. Qureshi Memorial Library** with about 10,000 books, journals, encyclopedia, the newspaper Dawn (regular) and a computer lab with internet facility and soft copies of a large number of valuable books.
2. **Dr. Riaz ul Islam Audiovisual Centre** with a capacity of seventy people and internet and multimedia facilities for seminars, extension lectures and workshops etc.
3. **Teaching Museum** with a collection of genuine and replica artifacts to facilitate the students of Ancient and Medieval History and Archaeology

INFRASTRUCTURE

The Department has two lecture halls, a teaching museum and an audio-visual room for classes. However, the teachers also take classes in their own offices. Some of rooms are equipped with air-conditions and multi-media facilities.

AVENUES FOR RESEARCH

Completely dispelling the misconception that history is only a study of past kings and leaders, the Department offers twenty-first century research avenues focused on contemporary discourse on modernity and post-modernism; oriental and post-colonial interpretations of history; subaltern and class history; feminist and gender history; post-cold war concepts of the ‘end of history’ and clash of civilizations; history of public policy and civil society initiatives; religions and religious philosophies; constitutionalism and constitutional history, socio-economic and demographic history; environmental history; democracy and authoritarianism; state-society dynamics; conflict and conflict resolution; physical and cultural anthropology; regional and urban history; archaeological and historiographical studies focusing various time periods and region across the world.

DEPARTMENT OF INTERNATIONAL RELATIONS

INTRODUCTION OF THE DEPARTMENT

The Department of International Relations at the University of Karachi was established in 1958. It is the oldest department of International Relations in Pakistan, and the third oldest one in South Asia after the Department of IR at the Dhaka University and Dept. of IR at the Jadavpur University, Kolkata, India. Prior to its formation, the Department was under General History Department and Professor Dr. Mahmud Hussain was its founding Chairman. Prof. Dr. Muhammed Ahsen Chaudhry succeeded Prof. Hussain as the Chairman of the Department. He was followed by Prof. Dr. Ahmed Abdul Kadeer, Prof. Dr. Mujtaba Razvi, Prof. Shameem Akhtar, Prof. Dr. Talat A. Wizarat, Prof. Syed Sikander Mehdi, Prof. Dr. Khalida Ghous, Prof. Dr. Moonis Ahmar, Prof. Dr. Shaista Tabassum and Prof. Dr. Mutahir Ahmed. Presently, Dr. Naeem Ahmed is the Chairperson of the Department. The Department has a faculty of five full-time, one adjunct professor and four teaching associate teachers.

Around 1000 students are studying at the undergraduate, graduate and post-graduate levels, both in the Morning and Evening programs, as well as in M.Phil and Ph.D. programs. The same number of students also opt International Relations as Minor subject in their undergraduate studies.

Since its inception, the Department of International Relations has been active in organizing seminars, conferences and workshops. A number of books have also been published under the Department and several Research Projects funded by national and international think-tanks, policy institutes, and foundations have been completed. The syllabus of the Department has been revised in 2022 and new courses focusing on the conceptual and regional studies have been introduced at the undergraduate, graduate and post-graduate levels.

POSTGRADUATE PROGRAMS

The Department offers M.Phil programs.

OBJECTIVES

We are imparting the knowledge of I.R. with our core objectives:

To provide extensive theoretical knowledge and conducting in-depth quality research, become trend-setter and top-tier school of international relations in the region;

- To establish a link between the world of academia, practitioners, and policy makers by providing an input on key local, regional, and global foreign policy, security, environment, sustainable development, conflict, and peace issues;
- To provide training and nurture critical thinking among students in order to train them for future's challenging leadership.

MISSION

Today's world requires quality human capital to amend relations among nations and help global development, the Department of International Relations trains the students by connecting the quality academic literature with modern I.R. practices and industry; exposing them to the complex global politics, interdependent economic ties, and ever-changing international order.

VISION

The Department embarks upon promoting professional excellence and knowledge as well as train future scholarship, representing Pakistan and the University of Karachi at national and international level.

REGULAR FACULTY MEMBERS WITH AREAS OF SPECIALIZATION**1. Dr. Naeem Ahmed (Chairman):**

Dr. Naeem Ahmed is Chairman & Associate Professor at the Department. He did his Ph.D. in 2007 and his dissertation topic was: “State, Society and Terrorism: A Case Study of Pakistan after September 11”. He is also the Senior Research Council (SRC) member of the Sindh Chapter in the SDPI-sponsored project on ‘Countering Violent Extremism and Community Resilience.’ Dr. Ahmed is the recipient of various international fellowships. These include: The SUSI (Study of US Institutes) Fellowship 2021; Fernand Braudel IFER-Incoming post-doc fellowship at the Foundation Maison des Sciences de l'Homme (FMSH), Paris, in 2013; and Fulbright Pre-Doc scholarship at the University of Cincinnati, Ohio, USA, in the year 2004. He has several research publications on his credit both in national and international research journals. His field of research is religious extremism and terrorism with particular reference to Pakistan; Pakistan-US relations, Nuclearization of South Asia; and Kashmir issue.

2. Dr. Nausheen Wasi:

Dr. Nausheen Wasi is Assistant Professor and Director, Program on South Asia Studies. She has vast experience in research and teaching and is on several advisory and review boards of academic and research institutes. Her research interests include theoretical aspects of international relations, issues of regional cooperation and integration with particular reference to South Asia, and Pakistan politics and foreign policy. She is co-editor of two books: Making Sense of Post Covid-19 Politics (2020); and Pakistan-Afghanistan Relations: Pitfalls and the Way Forward (2021). Her research specialization is regional cooperation and regional connectivity in South Asia.

3. Mr. Fahimuddin:

Mr. Fahimuddin is Assistant Professor at the Department. His major areas of interests are Principle of I.R., Science and Technology, Theories of International Relations and Introduction of International Relations.

4. Dr. Muhammad Faisal Awan:

Graduated from Yonsei GSIS, M. Faisal Awan is currently associated as an Assistant Professor at the Department. His major areas of interests are Political Islam, Human Rights Discourse and Development Discourse.

5. Dr. Amjad Ali:

Mr. Amjad Ali is a lecturer at the Department. His research interests include non-traditional security threats, climate change, and theories of IR.

Research Facilities:

The Department has a Seminar Library which contains more than 5000 books on different topics related to international relations.

Infrastructure:

The Department has a well-equipped Conference Room with Multimedia and Internet facilities.

Avenues of Research:

There are several avenues of research, ranging from conceptual and issue-based themes related to the international, regional and domestic politics.

Other Information:

Memorandum of Understanding (MoU):

1. The Department signed an MoU with National Institute of Maritime Affairs (NIMA) on March 03, 2022. Under the MoU, both the institutions agreed to undertake common research projects, organize conferences, and exchange experts and researchers.
2. The Department has signed two MoUs with the Hanns Seidel Foundation. Under the MoU, the Department organized each year one international conference, one national conference and two training workshops on Research Methodology and Communication Skills.

Sheikh Mutahir Ahmed Memorial Lecture Series:

The Department launched Sheikh Mutahir Ahmed Memorial Lecture Series in 2018 in the memory of our beloved teacher Prof. Dr. Mutahir Ahmed, who passed away on October 5, 2017. Under it, the Department regularly organizes a lecture every year.

Graduate Studies Discussion Group (GSDG):

The GSDG is the main feature of the Department. Under the Group, the Department invites various experts in their field to present their thoughts and research before the students.

DEPARTMENT OF ISLAMIC HISTORY

INTRODUCTION

The Department of Islamic History is one of the oldest departments in Karachi University. Established in 1953, it has a distinguished tradition of fostering advanced studies and original research in the field of Islamic History. Professor Dr. Amir Hassan Siddiqui, the department's founder and first Head, laid the groundwork for this enduring tradition.

The Department of Islamic History offers a curriculum that explores the religious, political, cultural, and educational journey of Islam from its beginnings to the present day through rigorous academic and specialized review. Specially designed courses unravel Islamic History across distinct regions, including the Middle East, Central Asia, North Africa, Spain, Sindh, and Hind (the Indian Subcontinent), and other parts of the world. These courses span pivotal periods such as the Prophetic Era, the Era of the Rightly Guided Caliphs, the Umayyad, Abbasid, and the Ottoman Caliphates. In addition, the department offers specific courses on Muslim jurisprudence, Sufism, Muslim political thought, Art and architecture, as well as Modern trends and Muslim revivalist movements.

POSTGRADUATE PROGRAMS AVAILABLE AT ISLAMIC HISTORY

1. M.Phil
2. MS
3. PhD

PROGRAM OBJECTIVE

1. Our M.Phil./ MS and PhD. program equips you with advanced training in historical research methods, analysis, and interpretation.
2. Through focused coursework and independent research, students will gain in-depth knowledge of a specific historical period or topic within Islamic History.
3. Students will also culminate their studies with a substantial thesis, making a unique contribution to the field of Islamic History.

AIMS AND SCOPE OF THE PROGRAM

1. To cultivate the next generation of distinguished researchers in Islamic History, equipped to not only illuminate the past but also illuminate its ongoing influence on the present world.
2. To equip students with advanced historical research skills, enabling them to critically analyze and interpret the past, and leverage those insights to address contemporary challenges and inform future decision-making.
3. To promote the development of original research that contributes fresh insights and advances the understanding of Islamic History, with the goal of enriching public discourse and promoting intercultural understanding.
4. Students of Islamic History have a wide range of opportunities in various social science fields. They have a very bright future in the profession of teaching, research and media.

RESEARCH FACILITIES AVAILABLE

The Seminar Library possesses a collection of about 3000 books. It provides reading and research facilities to the students of Islamic History. By utilizing top research journals and Islamic software alongside departmental computers, students can reap significant benefits in education and research.

FACULTY MEMBERS WITH THEIR AREAS OF SPECIALIZATION / EXPERTISE

Professor

1. Dr. Muhammad Zubair (Chairman)
Middle East, Historiography
2. Dr. Muhammad Sohail Shafiq
Muslim Political Thought, Modern Trends in South Asia

Associate Professor

1. Dr. Farzana Jabeen
Muslim Jurisprudence, Ottoman Caliphate, Muslim Revivalist Movements
2. Dr. Uzma Perveen
Seerah Studies, Rightly Guided Caliphate, Indian subcontinent
3. Dr. Humaira Naz
Ottoman Caliphate, Muslim Art & architecture

Assistant Professor

1. Dr. Farah Naz Sohail
Umayyad Caliphate, Culture and Civilization
2. Ms. Suraiya Tariq\
Middle East, Modern Muslim world
3. Dr. Muhammad Faisal Hasan
Abbasid Caliphate, Muslim Political Thought

DEPARTMENT OF LIBRARY & INFORMATION SCIENCE

INTRODUCTION

The Department of Library and Information Science at the University of Karachi has played a leading role in establishing library education in Pakistan. It was the first ever to offer a professional degree in Pakistan. It was established in 1956.

POSTGRADUATE PROGRAMS AVAILABLE

- MS
- M.Phil.
- PhD

PROGRAMS OBJECTIVES

To create leaders and innovators who possess the courage, confidence, and conviction to make appropriate decisions in all kinds of circumstances using the knowledge base and skills for systematic analysis.

AIMS AND SCOPE OF THE PROGRAM

MPhil:

To provide research experiences for students, and enable them to become adept in developing and applying research techniques and in the interpretation of information derived from research and creative activities.

PhD:

To develop substantive knowledge and research skills.

To be able to design and conduct original research in the area of specialization.

To contribute to academic discourse and prepare the researchers for further leadership roles.

REGULAR FACULTY MEMBERS WITH THEIR AREAS OF SPECIALIZATION/ EXPERTISE

1. Dr. Rafat Parveen Siddiqui
Associate Prof. (Chairperson)
Planning for LIS, School & Children librarianship, Publishing, Reference sources & services, International librarianship are her main areas of interest.
2. Dr. Naweed e Sahar
Assistant Prof.
Public Library, Bibliography, Indexing Management of Libraries
3. Dr. Muhammad Waseem Zia
Assistant Prof.
Expertise in digitization, automation of libraries and technological advancement in the field of library & Information Sciences.

Besides the above DRC members, two lectures with MPhil degree are also part of the department's faculty **Research Facilities available for researchers (Library Laboratory computer lab)** The Department of Library and Information Science has a well-stocked seminar library, a practical lab for cataloging and classification, and a well-equipped computer lab with 34 PCs with the facilities of networking and the Internet. The department has a digital library with more than 2000 digital books for researchers. Multimedia, slide projectors, sound systems, and other equipment are available for research activities.

INFRASTRUCTURE

At present Department is located in the third block of the Faculty of Arts & Social Sciences. The department. The department has two classrooms and two labs at ground level, along with a seminar library. Computer Lab. The Digital Library and three rooms for teachers are located on the first floor.

AVENUE FOR RESEARCH

The Department of LIS seeks to train its research postgraduates to develop sound research skills, to acquire the latest theoretical knowledge and become critical thinkers in the fields of study, and to conduct Research in their areas of specialization in a professional, expert and ethical manner.

The Master of Philosophy (MPhil) and the Doctor of Philosophy (PhD) degrees involve the completion of coursework in addition to the preparation of research theses.

MPhil graduates will have attained advanced knowledge in their chosen fields of study, as well as training in research techniques for dealing with complex issues. They will also be prepared to pursue research degrees at the doctoral level.

PhD degree holders will leave the University with up-to-date expertise in their specialist areas, and superior understanding of research techniques for resolving scholarly and practical problems. They will also be prepared to embark on academic or professional careers, and to teach university-level courses in their areas of specialization.

ANY OTHER RELEVANT INFORMATION

- The department was the first ever to offer Professional degree in Pakistan
- The department has established the first computer lab of cataloguing in Pakistan; this was also the first computer lab of the Faculty of Arts, University of Karachi
- The former Chairperson of the department Professor Dr. Anis Khurshid was honored with the **President’s Award for Pride of Performance**

DEPARTMENT OF MASS

COMMUNICATION

ABOUT THE DEPARTMENT OF MASS COMMUNICATION

The Department of Mass Communication at the University of Karachi, established in 1955, has a rich history of excellence and a commitment to nurturing talented individuals with a passion for communication and media. With a diverse and accomplished faculty, we offer comprehensive programs that cover various aspects of Mass Communication, including Journalism, Development Support Communication, Public Relations, Advertising, Digital Media Marketing, and Film Production.

Our department prides itself on promoting critical thinking, creativity, and ethical practices in the media industry. We believe that effective communication is the cornerstone of societal progress, and we are dedicated to producing graduates who can effectively shape public discourse and positively impact the world.

POST GRADUATE PROGRAMS AVAILABLE

1. M.S. / M.Phil
2. Ph.D.

AIMS AND SCOPE

The Department of Mass Communication offers M.Phil. and Ph.D. programs in Mass Communication that explore social scientific and humanistic approaches to human communication research. The programs aim to create knowledge in both the broad area of human communication and specialty research areas.

The M.Phil. program emphasizes comprehensive training in research methodologies, ethical considerations, and practical skills for effective media practice, with courses such as Development Support Communication, Advertising and Marketing, Political Communication, Content Analysis Research, and Approaches to Mass Communication Theories and Effects. The Ph.D. program advances scholarly research and theoretical contributions, preparing students for leadership roles in academia and the media industry, with an in-depth exploration of topics like Information Communication Technology, International Communication and Globalization, Media Debates, and interdisciplinary integration. These programs collectively ensure a deep understanding of global and cultural perspectives, multidisciplinary integration, and ethical scholarship in mass communication.

The programs also offer a broad scope of market, social, and employment perspectives, including delivering quality education through coursework, research, and experiential learning for scholars aiming for careers in Media, Communications Management, Journalism, and Research. Upon completing a Degree, Scholars will find numerous opportunities in various fields, including TV channels, research and educational institutions, FM radio, media marketing companies, websites, film industries, news and magazine publishers, colleges, universities, digital media industries, telecommunication industries, NGOs, and public sector organizations.

OBJECTIVES

1. Understand and critique the major paradigms and theories that have shaped the communication field, considering their historical evolution and contemporary relevance.
2. Communicate ethically and responsibly across various social contexts, recognizing and respecting cultural differences and ensuring fairness and transparency.
3. Analyze and evaluate existing research, and design and conduct communication studies using quantitative, interpretive, critical, rhetorical, and performative methodologies.
4. Assess and critique the research methods used in published communication studies.
5. Design, facilitate, and assess applied communication activities in professional settings, grounded in conceptual frameworks and research methods.
6. Collaborate with research teams to develop and implement research projects.
7. Produce innovative research that contributes new insights to the communication field.

REGULAR FACULTY MEMBERS WITH THEIR SPECIALIZATION

S#	Faculty Member	Designation	Area of Specialization
1.	Prof. Dr. Asmat Ara	Professor	Research Methodology, Research Theories, Research Communication, Historical Research & Development Support Communication.
2.	Prof. Dr. Fouzia Naz	Professor	Advertising, Public Relations, Development Support Communication, Print and Electronic Media.
3.	Dr. Sadia Mahmood	Chairperson & Associate Professor	Research Communication, Research Methodology, Gender & Media, Media Discourse.
4.	Dr. Raana Afzal	Associate Professor	Political Communication, Public Relations, Advertising, Media Research, Media Theories, Journalism, Gender Studies, Digital Media Marketing.
5.	Dr. Naveed Iqbal	Assistant Professor	Research & Electronic Media.
6.	Dr. Syed Azfar Ali	Assistant Professor	Electronic Media, Advertising, Pakistan Affairs.

RESEARCH FACILITIES

The department has a computer lab furnished with hi-tech computers and multimedia. It provides students access to the most current technological resources essential for their research and academic endeavors. Our students are trained to use and have access to the upgraded labs for collecting various types of data, including continuous and asynchronous audience response, content analysis, experiments, and focused focus groups. The department publishes a bi-annual bilingual research journal recognized by HEC in the Y-category, titled 'Journal of Mass Communication,' which promotes research and theoretical implications within the field of Mass Communication.

INFRASTRUCTURE

The Department of Mass Communication has TV and Radio Studios, which are fully equipped and recently upgraded to adhere to the highest standards and technological devices. The department also features three well-maintained Audio-Visual, News and Advertising labs, and a seminar hall, all equipped with multimedia amenities to offer substantial technical support during classes. Additionally, a portable multimedia setup is available to facilitate interactive learning sessions and classes. The department's seminar library is comprehensively stocked with up-to-date books, research journals, magazines, newspapers, and periodicals.

RESEARCH AVENUES

1. Journalism
2. Advertising
3. Public Relations
4. Development Support Communication
5. Political Communication
6. Gender Studies
7. Health Communication
8. Communication History
9. Information Communication Systems
10. Visual Communication Studies
11. Philosophy, Theory, critique
12. Communication, Law, and Policy

DEPARTMENT OF PERSIAN

INTRODUCTION

The inception of the Department of Persian dates to 1955, driven by a vision to facilitate advanced studies and research in Persian language and literature, particularly focusing on works originating from the Indo-Pak subcontinent. Central to our mission is acquainting the younger generation with Iran's history, language, and literary contributions. Persian has historically served as the secondary language of the Islamic World, renowned in Europe for its unparalleled literary tradition, boasting some of the most esteemed epic, narrative, and lyrical poems in global literature. Moreover, it served as the lingua franca among the cultural and political elite of the early modern Indian Subcontinent.

Beyond its historical significance, Persian holds contemporary relevance as a vital modern language. Evolving since the mid-nineteenth century, Modern Persian stands as a dynamic, adaptable language, serving as the national language of Iran and spoken across neighboring nations such as Afghanistan (where it is known as Dari) and Tajikistan (where it is known as Tajiki), in addition to Bahrain, Uzbekistan, and Turkmenistan. Pakistan shares a profound connection with Persian, boasting a rich heritage deeply intertwined with the language. Thus, fostering an understanding of Persian language and literature is imperative to preserving our cultural and literary legacy.

POSTGRADUATE PROGRAMS AVAILABLE:

- M.Phil
- PhD

MISSION OF THE DEPARTMENTS:

Our department is dedicated to facilitating advanced studies and research in Persian Language and Literature worldwide, with a strong focus on works from Iran, Afghanistan, Tajikistan, and the Subcontinent (Pakistan and India).

MISSION STATEMENT OF THE PROGRAMS

M.Phil. Program:

Our mission is to equip students with a robust understanding of Research Methodology, Literary Criticism, and the Art of Rhetoric and Prosody. By deepening their knowledge of Persian Language and Literature, we aim to foster the production of high-quality research, particularly focusing on the context of Sindh and Pakistan.

Ph.D. Program:

Our mission is to acquaint students with the evolving trends and advancements in Persian Language and Literature. We strive to prepare them for independent research and scholarly pursuits, enabling them to produce exceptional research in the fields of Persian Language, Literature, and History, with a special emphasis on Iran, Pakistan, Afghanistan, and Tajikistan.

OBJECTIVES AND SCOPE

M.Phil. Program:

Objectives:

1. Develop a thorough understanding of literary research methods, criticism, rhetoric, prosody, and communication skills to enhance collaborative research efforts.
2. Conduct critical studies of Persian poets and prose writers from Iran and the Indian subcontinent.
3. Encourage and motivate students to undertake research related to Persian Studies, with a particular focus on Pakistan, especially Sindh.
4. Produce high-quality research that highlights the role and contributions of Persian Language and Literature in the civilization, history, and literary development of Pakistan.

Scope:

1. Increase students' confidence and sharpen their memory.
2. Provide a broader perspective on the world, a valuable tool in today's interconnected society.

3. Prepare graduates to work as translators, interpreters, and instructors of Persian Language, allowing them to teach the language and literature in various educational institutions.
4. Equip graduates with skills to edit old Persian manuscripts, preserving cultural heritage.
5. Enable graduates to join government and non-government organizations, particularly in the Foreign Ministry, Archaeology, Museums, Tourism, Media, News, and Advertisement agencies.

Ph.D. Program:

Objectives:

1. Enable students to comprehend and analyze various styles of Persian poetry and prose.
2. Encourage students to present their research findings in public forums and publish them in academic journals.
3. Produce high-quality research in Persian Studies globally, contributing to the preservation of the subcontinent's cultural heritage.
4. Explore new dimensions and theories in language and literature to advance the field of Persian Studies.

Scope:

1. Enhance students’ performance in other academic areas and increase their IQ levels, fostering innovation through continued immersion.
2. Prepare graduates to work as translators, interpreters, and instructors of Persian Language, enabling them to teach and conduct research in universities and research institutions.
3. Equip graduates with skills to edit old Persian manuscripts, preserving cultural heritage.
4. Enable graduates to join government and non-government organizations, particularly in the Foreign Ministry, Archaeology, Museums, Tourism, Media, News, and Advertisement agencies.
5. Empower graduates to protect and sustain cultural, ethical, and spiritual values, as well as contribute to the historiography of their country.

FACULTY MEMBERS:

S. NO.	Name	Designation	Area of Specialization and Expertise
1.	Dr. Ramazan Bamari	Professor	Classical Persian Prose, Cross Cultural Studies, History of Persian Literature
2.	Dr. Faizeh Zehra Mirza	Associate Prof.	Classical and Modern Persian Poetry, Iqbal Studies, Cross Cultural Studies,
3.	Dr. Muhmmad Nazir	Assistant Prof.	Rhetoric, Prosody, Stylistics, Literary Criticism, Grammar, Classical and Modern Persian Poetry
4.	Dr. Faiza Khatoon	Lecturer	History of Classical Persian Poetry, Allama Iqbal, Molana Rumi

AVAILABLE RESEARCH FACILITIES AT THE DEPARTMENT

Departmental Library:

Our department boasts a comprehensive library housing over 8,000 books and journals dedicated to Persian language, literature, history, and culture. The library accommodates up to 100 students simultaneously, providing ample space for extensive research and study. In addition to the vast collection of books, the library also holds numerous research theses from M.Phil. and Ph.D. graduates, offering valuable resources for current students.

Council Room:

The department features a well-equipped council room with modern furnishings and an efficient cooling system. This facility can comfortably host up to 20 individuals, making it ideal for research activities, seminars, and academic conferences. It serves as a collaborative space where students and faculty can engage in meaningful discussions and presentations.

INFRASTRUCTURE OVERVIEW

The Department of Persian is located on the first floor of the Arts and Social Sciences building, occupying a portion of the floor space. Here's a brief overview of our infrastructure:

1. **Classroom:** Equipped to accommodate up to 50 students, our classroom provides a conducive environment for lectures, discussions, and interactive sessions.
2. **Council Room:** A dedicated space for student-teacher interactions, fostering collaborative learning and mentorship opportunities for postgraduate students.
3. **Library:** Our departmental library caters to the academic needs of up to 50 students simultaneously, offering a wide range of resources in Persian language, literature, history, and culture.
4. **Departmental Office:** The central hub for administrative activities, including student inquiries, faculty coordination, and departmental management.
5. **Faculty Rooms:** Five rooms are allocated for faculty members, providing individual spaces for teaching preparation, research activities, and consultations with students.
6. **Washrooms:** Separate restroom facilities are available for male and female students.

Our infrastructure is designed to support a vibrant academic environment, facilitating teaching, learning, and research endeavors within the Department of Persian.

KEY RESEARCH AVENUES FOR POSTGRADUATE PROGRAMS

1. **Literary Research Methods and Criticism:**
 - Advanced methodologies in Persian literary research.
 - Critical analysis of Persian literary works from Iran and the Indian subcontinent.
 - Development of new literary criticism frameworks.
2. **Persian Poetry and Prose:**
 - In-depth study of various styles and forms.
 - Comparative analysis of prominent Persian literary figures.
 - Examination of thematic and stylistic evolutions.
3. **Historical and Cultural Studies:**
 - Research on the historical development of Persian language and literature.
 - Study of Persian literature's impact on the cultural history of Pakistan and the subcontinent.
 - Preservation and interpretation of historical Persian manuscripts.
4. **Translation and Interpretation:**
 - Techniques for translating Persian texts.
 - Professional training for translators and interpreters.
 - Contemporary and historical roles of interpreters.
5. **Manuscript Editing and Preservation:**
 - Methods for editing and preserving ancient Persian manuscripts.
 - Research on the significance of historical documents.
 - Development of digital preservation tools.
6. **Contemporary Applications:**
 - Applying Persian language skills in media, tourism, and international relations.
 - Roles in government and non-government organizations.
 - Cultural preservation efforts.
7. **Interdisciplinary Connections:**
 - Linking Persian studies with history, archaeology, and cultural studies.
 - Exploring Persian literature's influence on other traditions.
 - Collaborative research with other academic fields.

These research avenues aim to deepen understanding and foster innovation in Persian language and literature, preparing graduates for impactful careers.

DEPARTMENT OF PHILOSOPHY

INTRODUCTION

The Department of Philosophy was founded in 1952. It was the first department established in the Faculty of Arts, (now the Faculty of Arts and Social Sciences) at the University of Karachi. Dr. M.M. Ahmed was the founding Chairman of the department. From the very beginning, the department has been committed to fostering a wide variety of philosophical approaches and has gradually evolved towards developing links between philosophy and other disciplines. The members of its teaching staff include professors and lecturers. All teachers are strongly committed to teaching and research and have significantly contributed through their publications to the advancement of learning. Moreover, its senior faculty members have also served in important positions of responsibility in other areas. Dr. Zulfiqar Ali is the current Chairman of the department.

POSTGRADUATE PROGRAMS

The Department of Philosophy has been offering the following two postgraduate programs: Master of Studies (MS) with course work or /Master of Philosophy (MPhil) (with course and research work) and Doctor of Philosophy (Ph.D.).

OBJECTIVES OF PROGRAMS

The MPhil and MS programs aim to provide students with foundational research skills in philosophy, preparing them for advanced research and specialization in specific fields. The Ph.D. program further aims to develop students' ability to contribute to advanced research, complete comprehensive training, and perform independent research, thereby opening new career opportunities.

AIMS AND SCOPE OF PROGRAMS

The MS and MPhil programs, lasting two to four years with eight to ten courses, aim to prepare students for further academic research in philosophy, providing a foundation for advanced studies like Ph.D. and postdoctoral research, with the MS accommodating those not pursuing research. The Ph.D. program, spanning three to seven years and 18 credit hours of coursework, seeks to advance philosophical study and train students for independent research.

REGULAR FACULTY

S.No	Name with Designation	Area of Expertise
1.	Professor Dr. Abdul Wahab Suri (Chairman)	Political Theory, Rawls
2.	Professor Dr. Zulfiqar Ali	Postmodernism, Political Theory, Postcolonialism
3.	Professor Dr. Abdul Rahim Afaki	Islamic Philosophy, Hermeneutics
4.	Assistant Professor Dr. Muhammad Ateeq	Modernity, Analytical Philosophy, Karl Popper
5.	Assistant Professor Dr. Abdul Khaliq Aboya	Modernism, Educational Philosophy
6.	Assistant Professor Dr. Muhammad Irfan	Political Theory, Human Rights, Habermas
7.	Assistant Professor Dr. Mahboob ul Hassan Bukhari	Islamic Philosophy, Deleuze, Postmodernism
8.	Assistant Professor Dr. Amjad Ali	Political Theory, Marxism, Deleuze
9.	Lecturer Safia Bano	Philosophy Of Science, Greek Philosophy

RESEARCH FACILITIES

The Department of Philosophy has a separate library with over 2,000 books, equipped with Wi-Fi, providing access to the HEC central library and other global resources on philosophy.

DEPARTMENT OF POLITICAL SCIENCE

INTRODUCTION

The Department of Political Science at the University of Karachi is a leading institution for the study of politics, governance, and public policy in Pakistan. Established in 1952 the department has a rich legacy of academic excellence, research, and community engagement. and has been offering BS ,MS and Ph.D programs in Political Science and its allied fields

AIMS AND SCOPE

This mission of the department is to foster a deeper understanding of political phenomena, promote critical thinking, and prepare students for careers in public service, research, and leadership. The primary focus is on achieving excellence in research that is of both strategic and practical importance. To achieve these objectives, the department arranges tutorials, seminars and academic conferences along with regular classes.

CAREER OPPORTUNITIES

In addition to teaching and research positions in academic settings, Political Science degree holders are prepared for careers at all levels of government - Civil Service (CSS, PCS, etc.)

- Diplomatic Service
- International Organizations (UN, World Bank, etc.)
- Non-Governmental Organizations (NGOs)
- Research Institutes and Think Tanks
- Public Policy and Administration
- Journalism and Media
- Law and Advocacy
- Political Consulting and Campaign Management

By joining the Political Science department, students can gain a deeper understanding of the world and prepare for a meaningful career in the public sphere.

CURRICULUM DESIGN AND ORGANIZATION

The 4-year Integrated Program for BS in Political Science seeks to achieve the aforesaid objectives. It is designed to streamline the education of Political Science in Pakistan and bring it in line with the international standard.

PROGRAM OFFERS:

1. BS Political Science Four Year (2025) Moring Evening
2. Associate Degree In Political Science Moring Evening
3. BS Political Science (Two Year Programme) Moring Evening
4. Ms/Mphil In Political Science Moring
5. Doctor Of Philosophy (Phd) Moring Evening
6. BS Public Policy Four Year Programme (Evening)
7. Associate Degree In Public Policy (Evening)
8. BS Public Policy (Two Year Programme) (Evening)

FACULTY

The Department has recruited faculty of diverse academic backgrounds such as Politics, International Relations, defense and Strategic Studies, Government and Public Policy, and European Studies.

	Professor	Area of Research/ Files of Expertise
1.	Dr. Muhammad Ali Chair	Comparative Constitutions , Diplomacy and Foreign Policy Analysis
2.	Dr. Samina Saeed	Western Political Thoughts , Comparative Politics

	Assistant Professor	
3.	Dr. Muhammad Kamran Khan	Government and Politics of Pakistan , International Organizations
4.	Dr. Syed Shameel A. Qadri	Public Administration and Management , Muslim Political Thought
5.	Mr. Mehboob Hasan Muqaddam	Public Policy , Local Government
6.	Dr. Suwaibah Qadri (T)	Organizational Theory and Behavior
7.	Dr. Shahla Tehseen	Pakistan Movement , Human Rights

FACILITIES

The department has a fully functional Seminar Library with over 2000 books. Most of the books are recent publications in the subject in both English and Urdu. The library also offers dailies, periodicals and research journals for reading to its students. Moreover, there is a well-equipped specialized Library with latest books and periodicals in all the areas relevant to Public Policy.

COMPUTER LAB

The Computer Lab is equipped with high speed computers, printers and scanner facilities. These computers are networked with a server and a stand by server. Audio/Visual aids including multimedia option are used during presentations/ lectures. Internet access is also available to the students.

Research

Research work for M.Phil. / Ph.D. students is regularly conducted by the Faculty Members. Special interest and aptitude of the student as well as velocity of the topic is kept in mind. Topics being completed are political culture in Pakistan, Military and politics in Pakistan, Economic Human rights & their impact on contemporary constitutions, Islamization in Pakistan , problems of good governance, importance of International Law.

DEPARTMENT OF PSYCHOLOGY

INTRODUCTION

Psychology is one of the leading departments of faculty of arts and social sciences. The Department of Psychology came into existence in 1954 under the Chairmanship of Professor Dr. Qazi Aslam. Eminent psychologists like Dr. Haseen Uddin Zuberi, Dr. S. M. Hafeez Zaid, Dr. Farrukh Z. Ahmed, Dr. Afzal Imam and Dr. M. Wasim led the department to its present academic heights. It has now become one of the leading departments of the Faculty of Arts and Social Sciences. The Department of psychology has a good strength of Qualified Faculty who contributing meaningfully for the Department's academics. The Department is proud of its graduate and post-graduate students who have completed their studies and research successfully and are now actively serving in prestigious public and private, teaching and research institutes, colleges, and Universities, corporate organizations and arm forces throughout Pakistan. Teaching is based on interactive class participation: group discussions, class presentations by students, assignments, research work etc. to maintain interest and make learning more effective. The use of audio visual aids brings out the creativity of teachers and students, and helps in improving their presentation skills. Faculty Members and Students both are engaged in continuing their Research Publications.

POST-GRADUATE PROGRAMS

The Department offers:

- 1. MPhil in Psychology**
- 2. PhD in Psychology**

Our Programs are of International standards and as per Higher Education Policy.

POST-GRADUATE PROGRAM OBJECTIVES

Psychology, as it teaches about human behavior, is one of the most important disciplines of our times. Speciation in this course will help our students understand the impact of individual, cultural and societal factors on our functioning. These Programs facilitate Research based understanding for what makes people take extreme actions against themselves and society in general, with improvised measures and culturally relevant research for our people.

This course aims to develop students aware of the latest scientific measures available in psychology. The major focus of MPhil and PhD programs is to build students' knowledge about current advances in psychology and equip them with critical thinking and research techniques. To develop sound research skills, to acquire the knowledge and become critical thinkers and to conduct enquiries in their areas of research in a professional, expert and ethical manner.

AIM AND SCOPE OF THE PROGRAM

The postgraduate program in psychology offers a broad and enriching scope for students. Graduates can work in Academics, Research, Armed forces, Security departments, Law enforcement, Clinical and therapeutic services, Rehabilitation, and Industrial and organizational settings. The program develops critical thinking, research skills, and practical expertise for addressing complex psychological concepts in the research.

REGULAR FACULTY MEMBERS WITH THEIR AREAS OF SPECIALIZATIONS

Professor:

1. Prof. Dr. Anila Amber Malik, PhD in Psychology, (Mental Health, Psychometrics, Wellbeing, Interpersonal Relations, Extremism, Political Psychology)
2. Prof. Dr. Farah Iqbal, PhD in Psychology, (Psychology of Management, Education, Crime, Marketing and Social Development)
3. Prof. Dr. Qudsia Tariq, PhD in Psychology, Certified Client centered Therapist(Clinical Interventions, Terrorism and Violence, Community Challenges and Mental Health)
4. Prof. Dr. Amena Zehra Ali, PhD in Clinical Psychology, (Marital Issues, Child and Adolescent, Psychometrics, Emotional issues and Interventions)
5. Prof. Dr. Zi Asma Haneef Khan, PhD in Clinical Psychology, (Psychology of Religion, Clinical Assessment and treatment, Intervention based Research)

Associate Professor

1. Dr. Bushra Khan, PhD in Psychology, (Mental Health, Life Span Development, Psychometrics)

Assistant Professor

1. Dr. Anila Mukhtar , PhD in Psychology,(Parent Child/Adolescents Relationship, Conflict and Mental Health Issues, Gender Psychology, Market Research)
2. Dr. Saima Masoom, PhD in Psychology, Post doctorate in Childhood and Adolescents, Leicester University (Childhood and Adolescents, Applied Research, Test Construction, Teaching Methodologies)
3. Dr. Farhan Kamrani, PhD in Psychology, (Psychological assessment, Psychotherapy, Scale Development/ adaptation).
4. Dr. Rabia Riaz, PhD in Clinical Psychology, (Action Research with Marginalized Communities, Development of Culture, Specific Therapeutic Interventions).
5. Dr. Mahwish Mursaleen, PhD in Clinical Psychology, (Clinical Psychology, Mental Health).

Lecturer

1. Dr. Amreen Rao, PhD in Psychology, (Clinical Psychology, Child and Adolescent Psychology, Health Psychology).
2. Dr. Aasma Ashraf, PhD in Clinical Psychology, (Attachment Psychology, Adolescent Wellbeing, Childhood mental and developmental disorders).
3. Ms. Saba Abid, MPhil in Psychology, (Counseling, Educational Psychology, Psychosocial Issues).
4. Ms. Aelia Zaidi MPhil in Clinical Psychology, (Trauma Psychology, Substance Use disorders Developmental Psychology).

RESEARCH FACILITIES AVAILABLE

The research facilities in the Psychology Department are integral to fostering academic and scientific advancement. The seminar library is a cornerstone, offering extensive collections of latest books, journals, and edatabase resources that cover a wide range of psychological titles. It provides access to the latest research articles, databases, and e-books, supporting in-depth literature reviews, research methodology and relevant scholarly work.

1. Department has laboratories which are equipped with cutting-edge tools for conducting experiments in various areas of psychology.
2. The computer lab is another resource. High performance computers with access to e-databases particularly HEC digital library that has enormous collections of online journals and books. These facilities create a conducive environment for comprehensive research in psychology.
3. Department has Psychological Testing laboratory that has variety of Updated Internationally Standardized Psychological tests and Batteries and Inventories. Students are facilitated for their training under control Conditions.
4. Department also have Research Labs which is well-equipped with Standardized tools and instruments through which students can facilitate their learning in control environment.

INFRASTRUCTURE

The infrastructure of a psychology department is designed to support advanced learning and, research. It typically includes well-equipped lecture halls for interactive learning and discussions. Multimedia facilities are available for Classes. Department research labs facilitate psychological experiments. The department also have a comprehensive library with more than 3000 books, with an access to the latest journals and databases. Department has 03 communal spaces designed to foster collaboration and a sense of community among students and faculty. Additionally, these spaces often host departmental events, and social gatherings, enhancing the overall academic and social experience within the psychology department.

AVENUES FOR RESEARCH

Avenues for research in psychology are vast and diverse, reflecting the field's complexity and breadth. Key areas include: clinical psychology, social and cultural diversity, cognitive sciences, forensic aspect in psychology, educational and organizational psychology, mental health and wellbeing, terrorism and violence, community and health. Clinical Interventions, psychometrics, child and adolescent issues, and Political Psychology.

DEPARTMENT OF SINDHI

INTRODUCTION

The Department of Sindhi was established in 1972. The department was started with a master's program only, but the **MPhil and PhD Programs** were started in 1974. Later on Honors program, certificate and diploma were also introduced. The Department also offers Sindhi as a compulsory subject in lieu of Urdu in B.A./B.Sc. and B.Com. (Honors) 1st and 2nd year. In 2007 like other Departments of University of Karachi, Sindhi Department also started **BS four years program (120 Cr Hrs) MS/Ph.D.** While the Balochi Language certificate course is also administrated by Sindhi Department. The curriculum is regularly revised and updated by introducing the latest literature being produced by authors so that students can be kept well aware. Regular literary lectures are arranged to inspire the students and to make them aware of practical criticism, and develop skills of expressing their opinion. For the same purpose, scholars and critics are invited regularly for extension lectures. Interaction with literary figures is a regular feature of the department's activities.

Moreover, the department also organizes excursions for students to various historical places for their close first hand interaction with history thus giving students a chance to triangulate their knowledge from books, observations and their own interpretations.

PROGRAMS OFFERED BY THE DEPARTMENT

- BS Honors
- Masters
- M.S./M.Phil
- Certificate/Diploma in Sindhi
- Certificate in Balochi

PROGRAM OBJECTIVES

1. To promote the Language, Literature, Art and Culture.
2. To play active role for the betterment and mental positivity of the society.
3. To convey the message of Humanism, harmony and tolerance through research.
4. To represent the department as a center of communication, awareness and literature.
5. To make efforts for the character building of the students

AIMS AND SCOPE OF THE PROGRAM

1. To promote the Art, Culture, language and literature, which are the main sources of social awareness and stability to build the positive society.
2. To create enthusiastic young scholars, they may be very beneficial for the society.
3. To create and enhance the soft image of the society.
4. To conduct the research over the remaining aspects of the language and literature.
5. To enhance the research interest of the scholars

REGULAR FACULTY MEMBERS

Professors

1. Dr. Naheed Parveen (Chairperson) She is expert in classical Literature, Research Methodology and Prose.

Assistant Professors

1. Dr. Sher Muhammad: He is Expert in the study of Shah latif, Modern Poetry and Contemporary Literature. (FSL)
2. Dr. Sajida Parveen: She is expert in Criticism, Syntax, Linguistic

FACILITIES

1. Well- stocked seminar library
2. Projectors for Presentations
3. Spacious and well equipped class rooms

INFRASTRUCTURE

1. The Department of Sindhi is consisting over Well- stocked seminar library, Two Spacious and well equipped class rooms; including one air conditioned room and separate spacious offices for each faculty member.

AVENUES FOR RESEARCH

The Department of Sindhi has wide range of research areas including,

1. Classical literature including Classical poetry and folk literature
2. History of literature
3. Philosophical back ground of the language and literature.
4. Modern literature
5. Contemporary literature
6. Linguistic and syntax
7. Comparative literature

OTHER RELEVANT INFORMATION:

Career opportunities for the graduates and post graduates:

The graduates and post graduates of the department find various openings of their career including teaching at Secondary, Higher Secondary, colleges and Higher Educational Institutions i.e universities, with a boom in media industry, now they also join various electronic and print media outlets. They also compete in competitive examinations. After passing out no student remains unemployed.

DEPARTMENT OF SOCIAL WORK

INTRODUCTION

The Department of Social Work was established in 1961 and since then it has responded to the societal and corporate needs by developing trained professional social workers. The department is proud to have very successful alumni. The department strives to strike the right balance by creating a strong base of theoretical input combined with a rigorous Industrial /NGO exposure of nearly 12 credit hour, through the fieldwork training which is an important part of the curriculum. Through this training. Students are provided opportunities to integrate their theoretical knowledge with the practical world and get hands-on experience to deal with the variety of complex societal problem as challenges. The students are placed in government and non-government organizations for obtaining Knowledge in the fields of community development, school social work, and medical social work The students of BS 1 Year are bound to work on research Projects (Theses) to be submitted at the end of the year.

FACILITIES

The Department of Social Work has a well-stocked Library with more than 1000 books, thesis, journals, reports and periodicals. The department is also equipped with Audio-Visual Lab named as "Abdul Sattar Edhi Research Lab."

SPECIFIC RESEARCH AREAS

The research activities are related to all the social problems at large. Community development, public health issues as well as intuitional studies allied area

CAREER OPPORTUNITIES

Job placements for social work graduates are:

1. Ministry of Social Welfare and special Education
2. Women Development
3. Bat-al-Mal Department
4. Medical Social Service Project, CDGK, RCD project, Jails, etc.
5. Ministry of Population Welfare
6. Ministry of Labour Welfare
7. Educational Institutions
8. Research Organization
9. Child Protection. Drugs Rehabilitations
10. Health Care Organization and NGOs working in development Sectors
11. Administrative positions in National and International NGOs
12. Planning and Development organization
13. Urban and Rural Community Development Projects\
14. Family & Child Welfare
15. Criminology and Correctional Administration
16. School Social Work

Programmes Offered

1. M.Phil & Ph.D

FACULTY MEMBERS

Professor

1. Dr. Muhammad Nadeemullah (Chairman)
2. Dr. Sakina Riaz

Assistant Professors

1. Dr. Samina Rauf
2. Dr. Sumaira Ishrat
3. Dr. Muhammad Arshad
4. Dr. Sabir Micheal
5. Dr. Muhammad Faisal Zia

DEPARTMENT OF SOCIOLOGY

INTRODUCTION

The Department of Sociology at the University of Karachi one of the most distinguished academic units within the institution, with a legacy that dates back to its establishment in 1960. Over the decades, the Department has cultivated a strong intellectual tradition, playing a pivotal role in the advancement of sociological inquiry in Pakistan and globally.

Sociology, as a core discipline within the social sciences, constitutes a rigorous, empirical, and theoretical examination of society and human behavior. It seeks not only to interpret social patterns and behavioral dynamics but also to critically assess their structural foundations and evolving trajectories. The discipline offers essential tools for understanding the complexities of social life, encompassing both micro-level interactions and macro-level institutions.

The academic scope of Sociology is profoundly interdisciplinary, engaging with diverse thematic areas such as community development, social organization, human resource dynamics, medical and health sociology, industrial and agricultural transformation, rural and urban studies, demographic analysis, human rights, social psychology, criminology, anthropology, and the sociology of economic development. Through these domains, students and scholars are equipped to interrogate contemporary social issues, analyze long-term societal trends, and contribute to policy-relevant knowledge that shapes equitable and sustainable futures. We look forward to an active participation in this vibrant academic journey and encourage our students to critically engage with the theoretical frameworks and methodological approaches that define our discipline.

POSTGRADUATE PROGRAMS AVAILABLE

- i) M. Phil
- ii) Ph.D.

OBJECTIVES OF M.PHIL IN SOCIOLOGY

The main objective of an M.Phil. in Sociology (Master of Philosophy in Sociology) is to prepare students for advanced research, teaching, and academic or policy-oriented careers in the field of sociology. Below is a structured overview of the main objectives:

- Deepen knowledge of classical and contemporary sociological theories. Foster Critically evaluate and apply sociological perspectives to real-world issues.
- Train students in qualitative and quantitative research methodologies and enable them to design, conduct, and analyze independent sociological research.
- Serve as a foundation for pursuing a Ph.D. by building research experience and academic depth.
- Critical Thinking and Analysis and foster the ability to critically assess social phenomena and policies.
- Allow students to focus on specialized areas such as gender, caste, urbanization, development, education, or globalization.
- Equip students with skills for roles in NGOs, policy-making, government, and international organizations and prepare students for academic careers in teaching and research.

Objectives of PhD in Sociology

The main objective of a Ph.D. in Sociology is to develop advanced theoretical knowledge and research skills that enable scholars to critically analyze, interpret, and contribute to the understanding of complex social structures, processes, and issues. Through original research, Ph.D. candidates aim to expand the sociological body of knowledge and offer insights that can inform public policy, academic discourse, and social change.

- To critically engage with and contribute to the development of sociological theory by challenging existing paradigms or proposing new conceptual frameworks.
- Developing a hybrid theoretical model that integrates intersectionality with global political economy.

- Methodological Advancement to refine or innovate sociological research methods, including qualitative, quantitative, or mixed-methods approaches. Designing a novel ethnographic method for studying digital communities in with social change.
- Interdisciplinary Integration to analyze complex social issues like Combining environmental sociology with climate science to study the socio-political impacts of climate-induced migration.
- Policy-Oriented Research to produce actionable knowledge that can inform public policy, governance, and institutional reforms based on sociological insights by conducting a longitudinal study on the effectiveness of universal basic income on reducing structural inequality in marginalized populations.
- Global and Comparative Analysis to examine sociological phenomena in a global or transnational context using comparative frameworks that transcend local or national boundaries.
- Social Justice and Advocacy to advance equity and inclusion by analyzing systemic oppression and contributing to transformative social change like empower indigenous communities and influence land reform policies.

AIMS AND SCOPE OF M. PHIL IN SOCIOLOGY

The scope of an M.Phil (. in Sociology varies depending on the country, academic system, and personal goals (academia, research, development sector, public policy, etc.).

- M.Phil. is often a stepping-stone to a Ph.D. in Sociology or related. HEC recognizes M.Phil. for eligibility to teach in universities at lecturer or assistant professor
- Think tanks, academic institutes, and international organizations seek M.Phil. graduates for social research roles.
- Professional & Applied Scope of M. Phil at Social Welfare Departments, Policy Research Units, Planning Commissions and Civil services
- This program enable students to work in NGOs / INGOs / Development Sectoras Community Development Officer, Gender Specialist, Human Rights Researcher
- Corporate Market and Social Research agencies (e.g., Gallup)
- HR and diversity roles Media & Journalism, International development agencies (e.g., UNDP, World Bank, UNESCO) value social science researchers for field assessments, reports, and community engagement.
- Policy analysis, Report writing & publishing
- Public speaking and academic communication

THE AIMS AND SCOPE OF A PH.D IN SOCIOLOGY

- Ph.D. scholars become more advanced and progresses from coursework to dissertation. Following are the major aims in Sociology
- Cultivate skills in academic leadership, interdisciplinary collaboration, and mentoring future researchers.
- Ph.D. in sociology creates theoretical Innovation to critique, expand, or construct new theoretical paradigms.
- Integrate interdisciplinary frameworks (e.g., political science, anthropology, philosophy) to enrich sociological thought.
- Ph.D. scholars enables to apply methodological advancement in Developing or refine innovative qualitative, quantitative, or mixed-methods approaches to push the boundaries of methodological practices, such as using computational sociology, big data analytics, or ethnographic immersion in hard-to-reach communities.
- Ph.D. work enable its scholars to have critical engagement with social issues through deep understanding and specialization in systemic structures of power, inequality, and resistance.
- It address urgent social problems (e.g., climate justice, racial capitalism, global migration) through a critical sociological lens.
- Ph.D. work produces knowledge that reflects on the epistemology and ethics of knowledge production, especially regarding marginalized communities, feminist, and indigenous sociologies.
- Public Sociology and Policy in collaborate with NGOs, governments, or community organizations to foster research-driven social change.

REGULAR FACULTY MEMBERS WITH THEIR AREAS OF SPECIALIZATION EXPERTISE

Prof. Dr.Nabeel Ahmad Zubairi (Chairperson)	Quantitative Social Research, Qualitative Research, Social Statistics, Demography, Anthropology, Criminology, Social Problems
Dr. Munnaza Madani	Qualitative research methods, Most modern Feminism, Sociology of Development, Urban Sociology, Urban Development, Fundamentals of Sociology, Social Problems of Pakistan
Dr. Kaneez Fatima	Research Methodology, Statistics, Theory Construction & Model Building, Human Resource Management, Computer Application and Software’s in Social Science, Applied Sociology, Social Problems of Pakistan, Community Development
Dr.Nosheen Raza	Fundamentals of Sociology, Social Problems Sociological Theories, Demography ,Industrial Sociology, Medical Sociology

RESEARCH FACILITIES AVAILABLE (LIBRARY, LABORATORY, COMPUTER LAB.)

1. The seminar library houses an extensive collection of over 1000 books, journals, magazines, and various national and international periodicals.
2. The Ethnological Museum plays a pivotal role in the study of art and culture, boasting a rich repository of over 500 precious artifacts. It functions as a cultural laboratory, facilitating in-depth exploration and research in this field.

INFRASTRUCTURE

1. Ethnological Museum, Class Rooms, Seminar Library, Faculty office, Common Room for Girls and Separate Prayer Area for Female Students.

SOCIAL INFRASTRUCTURE

1. Two female Student’s Advisor in the Department of Sociology,
2. (1) Dr. MunazzaMadani (2) Dr. Kaneez Fatima.

Their role is;

- They help students in explaining degree requirements, electives, and departmental offerings.
- Help students understand changes in curriculum or program updates.
- Offer advice on internships, research opportunities, and career paths within the field.
- They help students in providing a first point of contact for personal or emotional issues affecting academic performance.
- They help students in keeping students informed about deadlines, departmental events, and opportunities.
- Facilitate communication between students and faculty/staff.

AVENUES FOR RESEARCH

Avenues for Research in Sociology: Sociology is a broad and evolving field, and its avenues of research span many aspects of human behavior, institutions, and social structures. Few key avenues of research in sociology are given below:

- **Social Institutions:** like Family and Marriage: Changing family structures, parenting roles, divorce,
- **Education, Social Mobility, Religion:** Secularization, interfaith relations, religious extremism,
- **Politics and the State:** Power dynamics, political participation, democracy, social movements.
- **Economy and Work:** Labor markets, gig economy, workplace inequality, globalization, Social Stratification and Inequality
- **Class and Economic Inequality:** Wealth distribution, poverty, social mobility, class consciousness.
- **Race and Ethnicity:** Racism, discrimination, integration, identity, systemic inequality.
- **Gender and Sexuality:** Gender roles, feminism, L studies, patriarchy, intersectionality.
- **Disability Studies:** Social construction of disability, accessibility, stigma, policy impacts.

CULTURE AND IDENTITY

- **Cultural Sociology:** Symbols, rituals, media influence, subcultures, popular culture.
- **Identity Formation:** Ethnic identity, gender identity, national identity, digital 8. identities.
- **Consumption and Lifestyle:** Consumer behavior, lifestyle politics, branding culture.

SOCIAL CHANGE AND DEVELOPMENT

- **Modernization and Globalization:** Cultural homogenization, resistance movements, transnationalism.
- **Urbanization and Migration:** Urban poverty, gentrification, refugee studies, diaspora.
- **Technology and Society:** Social media, AI ethics, surveillance, digital inequality.
- **Environmental Sociology:** Climate justice, eco-socialism, environmental movements.

DEVIANCE AND SOCIAL CONTROL

- **Crime and Punishment:** Criminology, prisons, restorative justice, policing.
- **Mental Health and Deviance:** Medicalization of deviance, stigma, institutionalization.
- **Social Norms:** Creation, enforcement, and resistance to social norms.

METHODS AND EPISTEMOLOGY

- **Quantitative Methods:** Surveys, statistical modeling, big data analysis.
- **Qualitative Methods:** Ethnography, interviews, discourse analysis, case studies.
- **Critical and Postmodern Approaches:** Feminist epistemology, postcolonial critique, standpoint theory.

SPECIALIZED AND EMERGING FIELDS

- **Digital Sociology:** Online behavior, cyber communities, digital surveillance.
- **Medical Sociology:** Health disparities, doctor-patient dynamics, public health.
- **Environmental and Disaster Sociology:** Risk perception, disaster response, sustainability.
- **Aging and Life Course:** Gerontology, generational studies, social policy for the elderly.

CAREER OPPORTUNITIES

Sociologists find employment in a wide range of fields, including Academia, Government sector, Nonprofit Organizations (national & International, both), Healthcare, Criminal Justice, Market Research, Social Services, Human Resources, Media and Journalism, Environmental Organizations, International Development, Market Analysis and Consulting, Social Research Firms, Public Relations, Technology and Data Analysis, Education Administration, Urban & rural Planning. These are just a few examples, and the versatility of a sociology degree allows professionals to apply their knowledge and skills in various settings and industries.

DEPARTMENT OF URDU

INTRODUCTION

The Department of Urdu officially came into existence in 1955 when the University of Karachi decided to organize postgraduate classes in Urdu under its own management instead of through the colleges.

At the time of its establishment, Moulvi Abdul Haq, ‘Baba-e-Urdu’, was made honorary Professor and the Chairman of the Department. Teaching responsibilities were carried out by the teachers of local colleges. Later, Dr. Ghulam Mustafa Khan, a prominent scholar and Professor at Urdu College Karachi, was appointed both as a cooperative teacher and as the Chairman of the department. In the same year, Dr. Abul Lais Siddiqui was appointed as a Reader and Chairman and Dr. Abdul Qayyum, Dr. Syed Shah Ali, and Qudratullah Fatimi joined as lecturers.

With the valuable efforts and abilities of these teachers as well as the scholars and teachers who joined the department later on, the department has kept making progress. The following famous academics have been associated with the Urdu department: Dr. Syed Abul Khair Kashfi, Dr. Farman Fatehpuri, Dr. Aslam Farrukhi, Prof. Jameel Akhtar Khan, Dr. Haneef Fauq, Dr. Younus Hasni, Shamim Ahmed, Prof. Sahar Ansari, Dr. Vaqar Ahmed Rizvi, Dr. Siddiqa Arman, Dr. Moinuddin Aqeel and Dr. Zafar Iqbal.

The Department of Urdu has a prominent position in the University of Karachi for research. Over 100 scholars have completed their Ph.D. research program and more than forty projects are in progress. In addition to regular teaching and lectures, co-curricular, literary and academic activities and gatherings are also organized frequently.

AIMS & SCOPE

- To gain advance knowledge & expertise
- To produce original and substantial research
- Professional development for and other related academia, publishing, writing skills
- To promote literary traditions and culture

TEACHING AND ASSESSMENT

Teaching at the Department combines lectures, group Discussions and class presentations. Students are also Given writing assignments.

PROGRAMS

- M.Phil
- PhD

FACULTY MEMBERS

Professors

Dr. Uzma Farman Farooqui (Chairperson)

Assistant Professors

Dr. Safia Aftab
 Dr. Uzma Hassan
 Dr. Shama Afroz
 Dr. Muhammad Sajid Khan
 Dr. Sadaf Fatima
 Dr. Tahmina Abbas
 Dr. Sadaf Tabassum
 Dr. Ansar Ahmed
 Dr. Zakia Rani
 Dr. Khalid Ameen
 Dr. Ayesha Naz

LECTURER

Dr. Muhammad Shakir
 Mr. Muhammad Salman
 Mr. Muhammad Rashid Ali Khan
 Ms. Atiya Huma Siddiqui

OBJECTIVES:

1. Conduct research to make a contribution the field of literary studies
2. Engage with wide range of texts & critical perspective
3. Explore how literature is connected with other academic fields
4. Enhance skills in scholarly writing and publish research in reputed journals
5. Provide professional development opportunities
6. Encourage development of interdepartmental thoughts & perspectives.

AVENUEUS

1. Academic careers
2. Research
3. Publishing Editing
4. Translation
5. Media and journalism
6. Cultural Institutions
7. NGOs
8. Literary Language Institutions
9. Online Communities
10. Archiving & preservation

OUR MISSION

To attain excellence in education and research on a global level and to produce highly skilled human resources with a view to promote human values through disseminating knowledge and wisdom.

OUR VISION

To become a globally recognized centre of excellence in Higher Education and Research.

AVAILABLE RESEARCH FACILITIES

Departmental Library:

Library has capacity of hundred students may be avail at the same time. Library entertains more than 100 books in addition to hundreds of research theses of M.Phil & PhDs passed out students.

Council Room for Research Student & Teacher interaction is also available in the department for only post graduate students.

PROGRAMS
Eligibility& Allocated Seats in Urdu Department
POST GRADUATES

Degree	Eligibility	Seats
M.Phil	B.S Urdu (Four Years) M.A (Urdu)	35
PhD	M.Phil Urdu	25

SR.	Name& Designation	BPS / TTS / Adjunct / Visiting	Basic Degree	PhD Degree Status	Research Area (based on key words given in published articles & books) [annex scatter plot of most frequently occurring key words]	No. of Students being Supervised		
			Title& Subject Area [provide transcripts]	Title& Subject Area [provide transcripts]		Teaching	Ph.D.	M.Phil./ MS
	Dr. Tanzim ul Firdous	21	PhD	اردو نعتیہ شاعری کی تاریخ میں مولانا احمد رضا خان کی انفرادیت اور اہمیت Degree Awarded	Urdu	30+	10	10
	Dr. Uzma Farman	21	PhD	اردو کی ادبی و تحقیق و تنقید میں قوانین کا حصہ Degree Awarded	Urdu	30+	5	5
	Dr. Safia Aftab	19	PhD	اردو شاعری میں قرانی تلمیحات Degree Awarded	Urdu	+20	2	5
	Dr. Uzma Hassan	19	PhD	جدید اردو شاعری میں تہذیبی شعور Degree Awarded	Urdu	20+	2	5
	Dr. Tahmina Abbas	19	PhD	ادب میں روحانیت اور مادیت کی کشمکش Degree Awarded	Urdu	10+	1	5
	Dr. Sadaf Fatima	19	PhD	خواتین کے اردو سفر ناموں کا تحقیقی و تنقیدی مطالعہ Degree Awarded	Urdu	10+	1	0
	Dr. Shama Afroz	19	PhD	جدید اردو نظم میں ہیئت کے تجربے Degree Awarded	Urdu	10+	1	2
	Dr. Khalid Amin	19	PhD	Literature & Criticism	Literature & Criticism	10+	01	02
	Dr. Ansar Ahmed	19	PhD	سعادت حسن منٹو اور سماجی حقیقت نگاری Degree Awarded	Urdu	10+	1	2

Dr. Sadaf Tabassum	19	PhD	امیر مینائی بحیثیت قصیدہ گو Degree Awarded	Urdu	10+	1	2
Dr. M. Sajid Khan	19	PhD	اردو میں سوانح نگاری میں خاکہ نگاری کے نقوش Degree Awarded	Urdu	10+	1	
Dr. Zakia Rani	19	PhD	اردو تنقید آغاز تا سن 2000 Degree Awarded	Urdu	10+	1	2
Dr. Ayesha Naz	19	PhD	اردو میں نعتیہ تفطیات کا تحقیقی و تنقیدی مطالعہ ہ Degree Awarded	Urdu	10+	0	0
Dr. M. Shakir	18	PhD	محمد علی صدیقی کی علمی و ادبی خدمات کا تحقیقی مطالعہ Degree Awarded	Urdu	10+	0	0

Degree Program Title:								
SR.	Name& Designation	BPS / TTS / Adjunct / Visiting	Basic Degree	MS/MPhil or Equivalent Degree	Research Area (based on key words given in published articles & books) [annex scatter plot of most frequently occurring key words]	No. of Students being Supervised		
			Title& Subject Area [annex transcript]	Title& Subject Area [annex transcript]		Teaching	Ph.D.	M.Phil./ MS
	Ms. Atiya Huma Siddiqui	18	M.Phil	M.Phil	Urdu	10+	0	1
	M. Salman	18	M.Phil Enroll	M.Phil	Urdu	10+	0	0
	M. Rashid Ali Khan	18	M.Phil Enroll	M.Phil	Urdu	10+	0	0

DEPARTMENT OF EDUCATION

INTRODUCTION

The Department of Education was established in 1984. The main goal of the Department is to prepare human capital in the field of Education as Teachers Educators Educational leaders and researchers. Innovative methods of teaching and learning emerging techniques of research and material development in the field of education have made this department paralled with the international standards of Education.

FACILITIES

The Department of Education has a seminar library as its primary resource containing contemporary books related to the discipline of Education Moreover the library also contains extensive resource material for research at all levels of higher education. The Department also offers hands-on training regarding equipment's and software to present research findings to a large segment of academic.

SPECIFIC RESEARCH AREAS

1. Research Methods in Education
2. Educational Psychology
3. Teaching Strategies
4. Behavioral Management
5. Curriculum Development
6. Trends and Issues in Education
7. Comparative Education
8. Classroom Assessment Test Development and Evaluation
9. Guidance and Counseling
10. Foundations of Education
11. School Management and Community Development
12. SPSS

CAREER OPPORTUNITIES

Education is an important discipline in Social Science and Humanities. Therefore graduate students of Education have ample opportunities in the competitive job market at both national and international levels. Research Industry Media Career Counseling, Schools, Teacher Training Institute, Human Resource Development Centers, Professional Institutes, UNICEF, UNESCO and NGO based organizations can be the potential job market for the graduate of education department.

POSTGRADUATE PROGRAMS AVAILABLE

1. Ph.D.
2. M.Phil.
3. M.S.

PROGRAMS OBJECTIVE

1. Define research; explain and apply research terms; describe the research process and the principle activities, skills and ethics associated with the research process.
2. Explain the relationship between theory and research.
3. Propose a research study and justify the theory as well as the methodological decisions. Including sampling and measurement.
4. Use appropriate online databases of research evidence and reference management software.
5. Know the innovative programmes, Monitoring and evaluation system.
6. To obtain the tools both technical and intellectual to perform statistical analyses and critiques of your own.
7. Control the operation of SPSS and manage your files and output
8. Structure information effectively.
9. Perform role as curriculum planners and developers to meet the challenges and demands of the 21st century.
10. To gain competency in the critical evaluation of empirical analysis of the social world.

REGULAR FACULTY MEMBERS WITH THEIR AREAS OF SPECIALIZATION/ EXPERTISE

- | | |
|-----------------------------------|-----------|
| 1. Dr. Aziz un Nisa (Chairperson) | Education |
| 2. Dr. Naila Siddiqua | Education |
| 3. Dr. Maroof Bin Rauf | Education |

DEPARTMENT OF TEACHER EDUCATION

INTRODUCTION

The Department of Teacher Education was established in 2012. The department aims at providing high quality teachers in line with National Professional Standards for Teachers in Pakistan for developing teachers for 21 century as reflective practitioners.

POSTGRADUATE PROGRAM AVAILABLE

Offers

M.Phil

Ph.D

PROGRAMS' OBJECTIVES

1. To promote research culture
2. To promote research oriented activities
3. To enhance the research skills

AIMS & SCOPE OF THE PROGRAM

- To build research society regarding faculty and learners
- Its beneficial for educational industry

REGULAR FACULTY MEMBERS

Associate Professor & Chairperson

1. Dr. Safia Urooj (Ph.D. Education & Post Doctorate in Education)

Assistant Professor

1. Dr. Imtiaz Ahmed (Ph.D. Education & Post Doctorate in Education)
2. Dr. Muhammad Asim (Ph.D. Education)
3. Dr. Syeda Nazish Hasan (Ph.D. Education)
4. Dr. Intizar Hussain (Ph.D. Education)

RESEARCH FACILITIES AVAILABLE (LIBRARY, LABORATORY, COMPUTER LAB)

Available regarding research oriented activities

INFRASTRUCTURE

Department of Teacher Education has rich and comprehensive infrastructure for research activities for the researchers.

AVENUES FOR RESEARCH

1. Educational Planning and Supervision
2. Curriculum Planning and Development
3. Teaching Strategies
4. Leadership and Management
5. Educational Psychology
6. Educational Philosophy
7. Information and Communication Technology (ICT) in the field of Education
8. Teachers Training
9. Critical Thinking and Reflective Practices
10. Practicum and Micro-teaching
11. Child Development
12. General Method of Teaching
13. Classroom Management
14. Classroom Assessment
15. School Community and Teacher
16. Foundation of Education
17. Guidance and Counseling
18. Trends and Contemporary Issues in Education
19. Comparative Education

DEPARTMENT OF SPECIAL EDUCATION

INTRODUCTION

The Department of Special Education at the University of Karachi was established in 1988 and provides graduate and postgraduate degrees for individuals interested in serving the special needs population. The Department strives to provide a vibrant, high-quality academic environment for future special education professionals. The faculty comprises experienced teachers with Ph.D. degrees who focus on developing autonomous and critical thinking skills among students.

POSTGRADUATE PROGRAMS AVAILABLE

The Department offers the following postgraduate degree programs:

1. MS/M.Phil in Special Education
2. PhD in Special Education

PROGRAM OBJECTIVES

Focusing on departmental mission, the objectives of the programs are to:

1. Train qualified professionals and activists to help persons with disabilities and their families.
2. Allow academics to seek the most recent knowledge via research in the field of special education with implications for individuals with disabilities.
3. Conduct research to help shape special education policies and practices at the university, provincial, and national levels.
4. To share current and relevant information through professional conferences, training programs, publications, and other media.
5. To increase awareness and advocate for children and adults with special needs from diverse backgrounds, while also encouraging collaborative partnership between families and professionals.

CAREER OPPORTUNITIES

Department of Special Education students continue pursuing various educational, vocational, and rehabilitative opportunities. Many graduates work as speech pathologists, audiologists, and instructors in special education facilities, while others find employment in schools, hospitals, institutions, and rehabilitation centers. To summarize, the passing graduates have a career in the following fields:

1. School teachers for Special Education
2. Itinerant Teachers for inclusive education
3. Administrators in Special Education Institution
4. Teaching jobs with attractive salaries abroad
5. Instructional supervisors
6. Subject specialists in education departments
7. Research Officers in different research organizations

FACILITIES

The Department of Special Education employs a lecture approach with an emphasis on classroom discussion and feedback, as well as audiovisual tools and professional assistance from resource individuals. The Department features a lecture, seminar, and audiovisual room, as well as a well-stocked seminar library with the most recent publications. Organize field trips for on-site observation of special persons. The Department offer adaptations during examinations; training in wheelchair and sign language; and accessible tools such as JAWS and DUXBurry, white canes, Perkin's Brailers, Braille Frames, and Braille Stylus to those with visual impairments. In future, the department intends to grow as a research center for the teaching and learning requirements of students with disabilities. Students can ask the department for remote learning support.

FACULTY MEMBERS

Full Name	Qualification	Designation	Area of Specialization
Dr. Humera Aziz (Chairperson)	Ph.D. (Special Education)	Associate Professor	<ul style="list-style-type: none"> • Learning Disability • Intellectual Disability Disorder
Dr. Afshan Rahat	Ph.D. (Special Education)	Assistant Professor	<ul style="list-style-type: none"> • Hearing impairment
Dr. Saira Saleem	Ph.D. (Special Education)	Assistant Professor	<ul style="list-style-type: none"> • Visual impairment
Dr. Shaista Naz	Ph.D. (Special Education)	Assistant Professor (T)	<ul style="list-style-type: none"> • Communication Disorders • Qualitative Research
Ms. Saba Suleman	M.A (Special Education)	Lecturer	<ul style="list-style-type: none"> • Physical Handicap

DEPARTMENT OF CHEMICAL **ENGINEERING**

INTRODUCTION OF THE DEPARTMENT

The Department of Chemical Engineering at the University of Karachi has a distinguished legacy of academic excellence and cutting-edge research since its establishment. It has been instrumental in producing skilled professionals who have significantly contributed to various industries, academia, and research institutions globally. Our department is committed to fostering a stimulating academic environment that encourages innovation, critical thinking, and practical application of chemical engineering principles to solve real-world problems.

POSTGRADUATE PROGRAMS AVAILABLE

The Department of Chemical Engineering offers a variety of postgraduate programs designed to advance knowledge and professional skills in specialized areas of chemical engineering. The available programs include:

1. Master of Engineering (M.E.) in Chemical Engineering
2. Doctor of Philosophy (Ph.D.) in Chemical Engineering

These programs are structured to provide students with comprehensive knowledge and research skills that prepare them for leadership roles in academia, industry, and research.

PROGRAM OBJECTIVES

The objectives of M.E. (Chemical Engineering) programme are;

PEO 1:

Graduates will demonstrate the ability to effectively solve complex engineering problems and tasks using engineering, science, and statistical principles. They will be able to justify their recommendations through thorough analysis and evaluation of data.

PEO 2:

Graduates will be able to assess the societal impact of their work, considering ethical, economic, global, and environmental factors. They will analyze the implications of their engineering solutions on various stakeholders and propose ethically sound and sustainable solutions.

PEO 3:

Graduates will develop lifelong learning skills to stay updated with advancements in the field of chemical engineering. They will exhibit the capacity to analyze new technologies and systems critically, applying their engineering knowledge to adapt to evolving challenges and opportunities.

PEO 4:

Graduates will emerge as effective leaders capable of working in diverse environments. They will demonstrate strong leadership qualities, interpersonal skills, and the ability to collaborate with multidisciplinary teams to achieve common goals.

PEO 5:

The program will foster a culture of creative thinking, encourage a competitive environment, and promote active participation in professional activities. Graduates will uphold moral and ethical values, demonstrating integrity and professionalism in their professional endeavors.

The objectives of Ph.D. (Chemical Engineering) programme are:

PEO 1:

Graduates will be able to conduct original, high-impact research in specialized areas of chemical engineering, fostering a deep understanding of theoretical frameworks, experimental methodologies, and computational techniques.

PEO 2:

Graduates will be able to critically analyze complex engineering problems, develop innovative solutions, and apply advanced concepts across interdisciplinary domains, positioning graduates as leaders in addressing contemporary challenges in chemical engineering and related fields.

PEO 3:

Graduates will be able to communicate effectively the research findings through scholarly publications, presentations, and collaborations with peers, industry partners, and the broader scientific community, enhancing the impact and visibility of their research contributions.

PEO 4:

Graduates will be able to practice leadership roles in academia, industry, and government sectors by providing opportunities for mentorship, teaching experience, project management, and ethical decision-making, ensuring their readiness to drive positive change and contribute to the advancement of society through their expertise in chemical engineering.

AIMS AND SCOPE OF THE PROGRAM

The postgraduate programs in the Department of Chemical Engineering are designed to:

1. Provide a rigorous curriculum that integrates theoretical knowledge with practical applications.
2. Encourage research that contributes to advancements in chemical engineering, addressing global challenges such as energy sustainability, environmental protection, and industrial process optimization.
3. Develop technical expertise in areas such as process engineering, materials science, biochemical engineering, and energy systems.
4. Prepare graduates for careers in academia, research, and industry, with a focus on innovation and problem-solving.

REGULAR FACULTY MEMBERS WITH THEIR AREA OF SPECIALIZATION

The Department of Chemical Engineering boasts a diverse team of experienced and dedicated faculty members who are experts in various fields of chemical engineering. Some of our esteemed faculty members include:

- Dr. Muhammad Yasir Khan (Chairperson)
Specialization: Material Science, Environmental Engineering, Renewable Energy
- Dr. Muhammad Furqan Ali
Specialization: Computational Fluid Dynamics, Process Optimization, CO₂ Capture, Global Warming
- Dr. Adeel Ur Rehman
Specialization: Gas Hydrates, Wastewater Treatment, CO₂ Capture, Flow Assurance
- Dr. Ahsan Abdul Ghani
Specialization: Environmental Engineering, Energy Systems, Waste Management, Material Science, Advanced Oxidation Processes
- Dr. Obaid Ur Rehman
Specialization: Computation Fluid Dynamics, Crude Oil Processing, Numerical Modelling, Heat Transfer
- Dr. Muhammad Shoaib
PhD (Chemical Engineering) Specialization: Fuel Cell Electrocatalysis and Sustainable Energy Materials

RESEARCH FACILITIES AVAILABLE

The department is equipped with state-of-the-art research facilities that support a wide range of academic and industrial research activities:

- Library: The department's library houses an extensive collection of books, journals, and digital resources in chemical engineering and related fields.
- Laboratories: We have well-equipped laboratories for research in areas such as reaction engineering, materials science, environmental engineering, and fuel and energy engineering. These include pilot-scale reactors, analytical instruments, and specialized equipment for material characterization.
- Computer Lab: The computer lab provides access to advanced simulation software and computational tools essential for process modeling, simulation, and data analysis.

INFRASTRUCTURE

The Department of Chemical Engineering is located in a modern facility designed to support both teaching and research. The infrastructure includes:

1. Lecture Halls: Equipped with multimedia facilities for effective teaching and presentations.
2. Research Labs: Dedicated spaces for conducting experimental research and project work.
3. Seminar Rooms: Used for workshops, conferences, and collaborative research activities.
4. Faculty Offices: Designed to facilitate interactions between students and faculty for academic guidance and research discussions.
5. Student Common Areas: Spaces for students to collaborate, study, and relax.

The Department has the infrastructure to support new trends in learning. All lecture rooms, labs, and classrooms provide support for e-learning, and faculty members frequently use these facilities.

The infrastructure and facilities that support new trends in learning, along with their adequacy are given below:

1. Modern computer Labs with latest technologies are available in the department,
2. Latest Overhead Projectors,
3. Visual Aids,
4. Video CD's with latest software packages,
5. PA systems are available,
6. White Boards

The University has a Video Conferencing facility that departmental faculty and students use frequently.

- Libraries
- Central Library

The University of Karachi has one Central Library with over two thousand engineering books. It has two sections, i.e., reference and circulation with textbooks, reference books, and research journals of all disciplines of Science, Engineering, Arts, Management, and Pharmacy.

- Departmental Library
- Seminar Library

Department of Chemical Engineering has a separate Seminar library accommodating 50 students. A qualified Seminar Librarian maintains it, and it contains around 3500 books.

List of Journals and Magazines Available in Seminar Library

S.No.	Title	Publisher
1	Build A Team Drilling Contractor	Management Institute International Association of Drilling Contractors
2	Catalysis	Rene G Gonzalez
3	Chemical Engineering Progress (CEP)	An-AIChE Publication
4	Engineering Design and Project Management Consultant	-
5	Engineering & Industrial Review	MECATECH Pvt Ltd
6	Exploration & Production (E&P)	-
7	Hydrocarbon Engineering	Palladian Publication Ltd
8	Hydrocarbon Processing	Gulf Publishing
9	Journal Of Basic & Applied Sciences	Educational Form, University of Karachi
10	Karachi University Journal Of Science	University Of Karachi
11	LNG Industry: A Supplement to Hydrocarbon Engg.	United Kingdom
12	Mehran University Research Journal of Engineering & Technology Quarterly	Mehran University
13	News & Views	A Higher Education Commission
14	Nuclear Engineering And Technology	Korean Nuclear Society
15	Petroleum Technology Quarterly Catalysis (PTQ)	Rene G GONALEZ

16	Power Engineering International (PEI)	PENNENERGY Group
17	Ptq: Petroleum Technology Quarterly	Rene G GONALEZ
18	Quaid-E-Awam University	Quaid-E-Awam University
19	The Chemical Engineer	Institution Of Chemical Engineer
20	Pakistan Textile Journal	Archroma Pvt Ltd -
21	BioTechniques	
22	In Tech	ISA Service Incharge
23	Offshore Engineering	
24	Pakistan And International Journal	

List of International Journals Available in Seminar Library

S.No.	Title	Publisher
1	The Canadian Journal of Chemical Engineering	Online Library.Wily.com
2	Journal of Chemical Engineering Data	Pubs.acs.org
3	AICHE Journal American Institute of Chemical Engineering	Online Library.Wily.com
4	Chemical Engineering Journal	Elsevier
5	Chemical Engineering Science	Elsevier
6	Bio-Chemical Engineering Journal	Elsevier
7	Computer and Chemical Engineering	Elsevier
8	Dynamic Programming in Chemical Engineering & Process Control	Ieeeexplore.ieee.org
9	International Journal of Chemical Engineering	Hindwai.com
10	International Journal of Chemical Engineering & Application	Ijcea.org
11	International Journal of Chemical Engineering Research	Ternationaljournalsrsg.org
12	Current Opinion in Chemical Engineering	Elsevier

BOOK BANK/CIRCULATION SECTION

The total number of textbooks available in the Book Bank and circulation section of the Department of Chemical Engineering is 3167.

COMPUTER LABORATORY

This is a general-purpose computing facility where students can perform general activities concerning their coursework. The lab is equipped with twenty workstations. The lab is also used for conducting practical work in various courses like Computer Programming, drafting, etc.

LIST OF SOFTWARE AVAILABLE

The Department has a High-Performance Computing Facility, which Faculty and students can access. The list of currently available software is mentioned in Table 7.3:

LIST OF SOFTWARE

S. No.	Software	Application Area
1	Auto CAD	Computer-Aided Design & Drafting Software
2	Korf Hydraulics	Chemical Engineering
3	Aspen Hysys	
4	Aspen Plus	
5	MATLAB & Simulink	
6	Aspen EDR/HTRI	

DIGITAL LIBRARY

Students have access to the following digital library:

1. HEC Digital Library (see Table 7.4 for available resources of HEC Digital Library)
2. HEC Ebrary (ProQuest Ebook Central)
3. SAGE Journals Online
4. IEEE Xplore

AVAILABLE RESOURCES OF HEC DIGITAL LIBRARY

S.No.	HEC Available Resources	Description
1	ProQuest Dissertation & Theses	ProQuest Dissertations & Theses Global is the world's most comprehensive collection of dissertations and theses from around the world, spanning from 1743 to the present day and offering full text for graduate works added since 1997, along with selected full text for works written before 1997. It contains many new international dissertations and theses in citations and full text.
2	ASTM	The ASTM Standards & Engineering Digital Library is a vast industry-leading standards and technical engineering information collection. It covers various engineering disciplines, including aerospace, biomedical, chemical, civil, environmental, geological, health and safety, industrial, materials science, mechanical, nuclear, petroleum, soil science and solar engineering.
3	AMERICAN CHEMICAL SOCIETY	ACS provides access to over 30 peer-reviewed journals and magazines in all fields of chemistry. Subject Strengths include Core, Applied, Organic Chemistry, Bio-Chemistry, Pharmaceuticals, Polymers and Materials Science.
4	AMERICAN INSTITUTE OF PHYSICS	Provides access to the entire collection of highly-rated 11 Journals and conference proceedings. Covers developments in Physics, Industrial Applications (Applied Physics), and advances in Scientific Computing.
5	ASSOCIATION OF COMPUTING MACHINERY	The ACM contains full text from 28 ACM Journals and Transactions, 10 ACM Magazines, over 40 ACM Special Interest Newsletters, 15 non-ACM journals and publications, and over 100 annual conference proceedings. Content strengths include all areas of Information Technology, with full archival content for all ACM publications.
6	EBRARY	ebrary offers a wide variety of multidisciplinary content. It acquired a large number of titles from leading academic publishers. The University of Karachi can access Freedom Subject Collection from ebrary.
7	ELSEVIER (Science Direct)	Science Direct is the world's leading electronic collection of scientific journals. Renowned for the high quality of its content in all branches of science, technology, and medicine. Freedom Subject Collection All the subject categories of Elsevier (Science Direct) are accessible.
8	EMERALD	Emerald is a dynamic database comprising over one hundred and fifty titles in " Management, Information Science, and Engineering. The Emerald full-text collection features over fifty-eight thousand articles from titles published by Emerald. Flagship titles such as Management Decision, European Journal of Marketing, Journal of Documentation, Leadership & Organization Development Journal, The TQM Magazine, and Industrial Robot.
9	INSTITUTE OF PHYSICS	The Institute of Physics is a leading international professional body and learned society established to promote the advancement and dissemination of physics. The Institute has a worldwide membership. Subject Strength: Applied Mathematics and Mathematical Physics; Applied Physics; Computer Science; Condensed Matter and Materials Science; High Energy and Nuclear Physics; Measurement Science and Sensors; Medical and Biological Physics; Optical, Atomic and Molecular Physics; Plasma Physics, Physics Education.

10	JSTOR	Content in JSTOR spans many disciplines, with over five hundred high-quality publications available in the archive. JSTOR provides the ability to retrieve high-resolution, scanned images of journal issues and pages as they were initially designed, printed, and illustrated.
11	SPRINGERLINK	SpringerLink provides access to five hundred and three full-text Springer-Verlag Journals and seven hundred and thirty-eight full-text journals formerly published by Kluwer Academic Publishing. One of the world's leading information services for Science, Technical, and Medical journals.
12	TAYLOR & FRANCIS JOURNALS	Taylor & Francis has grown rapidly over the last two decades to become a leading international academic publisher. More than a thousand journal titles in a full range of disciplines.
13	WILEY-BLACKWELL JOURNALS	Since the Blackwell-Synergy merger with Wiley-Interscience, all the journals available to the HEC consortium are now available through Wiley-Interscience. Online database containing over one thousand two hundred and thirty-four journals in science, technology, medicine, humanities, and social sciences.

CLASS –ROOMS, LABS AND OFFICE FACILITIES

Items	Available
Class Rooms	04
Labs	15
Faculty Offices	06
Office Equipment	Latest PC's/Xerox machine / PA system/ Multimedia Projector/Overhead projector
Seminar Library	01
Conference room	01
Girls common room	01
Industrial Liaison Office	01

Avenues for Research

Our department actively engages in various research initiatives and projects, offering numerous opportunities for postgraduate students to contribute to the field. Some key research avenues include:

- Environmental Engineering: Projects addressing pollution control, waste management, and environmental impact assessment.
- Advanced Materials: Studies on the development and application of novel materials, including polymers, nanomaterials, and composites.
- Polymer Engineering: Studies on the development of biodegradable polymer films for food packing applications.
- Interdisciplinary Research: Collaborations with other departments and industries to address complex, multifaceted engineering challenges.

These research activities are supported by national and international collaborations, providing students with the opportunity to work on impactful projects and gain valuable experience. This prospectus information provides a comprehensive overview of the Department of Chemical Engineering at the University of Karachi, highlighting our commitment to excellence in education, research, and professional development. We invite prospective students to join our vibrant academic community and contribute to the future of chemical engineering.

DEPARTMENT OF QURAN & SUNNAH

INTRODUCTION

Located in Karachi's vibrant educational district, the Department of Qur'an and Sunnah offers an engaging environment for students and researchers of Islamic studies. It hosts a seminar room and accessible classrooms for academic activities. The department has been publishing its biannual research journal, IHYA AL ULUM, since 2000 in three languages: English, Urdu, and Arabic. Recognized by HEC and indexed internationally, the journal reflects the department's commitment to quality research. The dedicated faculty and cooperative staff ensure a nurturing academic atmosphere. The department prides itself on a qualified teaching staff and a collaborative administrative team, dedicated to fostering excellence in Qur'anic and Sunnah studies.

PROGRAMS OFFERED

MS, M.Phil, and PhD

The programs in Qur'an and Sunnah are designed to nurture scholars with a solid foundation in the Qur'anic sciences and prophetic traditions. By integrating classical Islamic knowledge with contemporary academic research methods, the program aims to develop researchers who can address modern-day challenges through the lens of authentic Islamic teachings. Graduates will be equipped to contribute meaningfully to academic research, community leadership and the promotion of a balanced, informed understanding of Islam.

FACULTY MEMBERS

Dr Zeenat Haroon (Chairperson)

Dr Mufti Imran Ul Haque (Assistant prof)

Dr Syed Ghazanfar Ahmed (Assistant prof) Islamic Studies with Computer Technology.

The Department of Qur'an and Sunnah offers a diverse range of research opportunities aimed at addressing classical and contemporary issues in Islamic thought. Research at the Department of Qur'an and Sunnah encompasses a broad spectrum, including Qur'anic Exegesis, Sciences of the Qur'an, Hadith Studies, the Role of Sunnah in Islamic Law, Comparative Religious Studies, and Contemporary Issues in the light of the Qur'an and Sunnah. It also extends to Islamic Thought and Civilization, as well as modern fields such as Digital and Technological Approaches, including the use of AI in Hadith verification and the impact of online databases on Qur'anic research.

DEPARTMENT OF USOOLUDDIN

INTRODUCTION

Department of Usool-ud-Din was established in 2000 to fulfill the need of scholars of Islamic Studies in various institute of Islamic Republic of Pakistan. Islamic Sciences like Tafseer, Hadith, Seerah, History of Islamic Jurisprudence, Comparative Study of Religions, Addawa & Its Method, Aqidah & Kalam, Al Ghaz wu Fikri, Islamic Psychology & Sociology, and Arabic are some of the courses that are being taught at the Department.

FACILITIES

The students of the department use seminar library facilities of the faculty of Islamic studies where a good collection of books and journals on Islamic Studies is available. The faculty of Islamic studies has also a computer lab for teaching and research activities.

RESEARCH ACTIVITIES

Thesis in M.A. & MS/PhD. Programs is available for the research fellows.

PROGRAM AVAILABLE

1. MS / M.Phil.
2. Ph.D.

AIMS AND SCOPE (CAREER OPPORTUNITIES)

Students passing out from this department are providing their services in educational institutions, research institutes, religious institutions and armed forces. Master or B.S. Degree holders can apply for any post of Grade – 17.

FACULTY MEMBERS

Assistant Professor

1. Dr. Hafiz Muhammad Ismail (**Incharge**)
Teaching Experience in main subjects of Islamic Studies, specialization in Comparative study of Religion.
2. Dr. Muhammad Ishaq (Ph.D in Al- Fiqh Al- Islami.)
3. Dr. Muhammad Imran (Ph. D in Fiqh Al-Mu'amalat.)

DEPARTMENT OF ISLAMIC LEARNING

INTRODUCTION

The Department of Islamic Learning is one of the oldest departments of the University of Karachi and was founded in 1954. Its primary goal is to fulfill the academic needs of scholars in Islamic studies within Pakistan and abroad. The department promotes the study and research of Islamic thought at the MS/M. Phil. and Ph.D. levels and provides opportunities to study Islam at both graduate and postgraduate levels. The department is situated in the Islamic Studies building near Masjid-i-Ibrahim and aims to produce scholars for educational, religious, and social institutions both nationally and internationally.

POSTGRADUATE PROGRAMS AVAILABLE

1. MS/M.Phil. in Islamic Learning
2. Ph.D. in Islamic Learning

PROGRAMS OFFERED

1. M.Phil. & Ph.D.

PROGRAM(S) OBJECTIVES

The objectives of the MS/M. Phil. and Ph.D. programs in the Department of Islamic Learning are to:

1. Promote advanced study and research in Islamic thought.
2. Address modern and contemporary issues in Islamic studies.
3. Develop expertise in areas such as Islamic Economics, Comparative Religion, Islamic Sociology, and Muslim Political Thought.
4. Provide comprehensive knowledge in Islamic Sciences like Tafseer, Hadith, Seerah, Islamic History, Islamic Jurisprudence, Principles of Islamic Jurisprudence, Tasawwuf, Ethics, Philosophy, and Arabic.
5. Produce qualified scholars for academic, religious, and social institutions.

AIMS AND SCOPE OF THE PROGRAM

The aims of the program are to:

1. Develop a deep understanding of Islamic teachings and their application to contemporary issues.
2. Foster critical thinking and research skills in Islamic studies.
3. Prepare graduates for careers in academia, religious institutions, and other sectors requiring expertise in Islamic knowledge.
4. Contribute to the body of knowledge in Islamic studies through original research.

REGULAR FACULTY MEMBERS WITH THEIR AREAS OF SPECIALIZATION / EXPERTISE

Professor

Dr. Zahid Ali Zahidi (Dean, (Look-After) Faculty of Islamic Studies)

Associate Professor

Dr. M. Arif Khan Saqi (Chairman)

Assistant Professors

1. Dr. Taj Muhammad
2. Dr. Muhammad Atif Aslam
3. Dr. Jawad Haider
4. Dr. Umair Mehmood Siddiqi

Areas of specialization include Islamic thought, Tafseer, Hadith, Seerah, Islamic History, Islamic Jurisprudence, Principles of Islamic Jurisprudence, Tasawwuf, Ethics, Philosophy, Arabic, Islamic Economics, Comparative Religion, Islamic Sociology, etc.

RESEARCH FACILITIES AVAILABLE (LIBRARY)

The department's research facilities include the **Professor Iftikhar Ahmed Balkhi Memorial Library**, which offers a valuable collection of bibliographical and reference works, news sources, and current periodicals related to Islam and the Muslim world. The library also provides unique and primary reference books and Makhtootat essential for advanced research. Additionally, researchers have access to an extensive range of scholarly articles and journals through www.jstor.org, enhancing the research capabilities of students and faculty members.

INFRASTRUCTURE

The Department of Islamic Learning is in the Islamic Studies building near Masjid-i-Ibrahim. The infrastructure includes well-equipped classrooms, seminar rooms, and a specialized library that caters to the academic needs of students and faculty members.

AVENUES FOR RESEARCH

Faculty members are engaged in various research projects funded by the university and through individual initiatives. They have numerous publications and actively participate in debates, discussions, and talk shows on television, addressing national and international issues concerning Islam and the Muslim Ummah.

SCHOOL OF LAW

INTRODUCTION

Established in 2014 under the Faculty of Law, the School of Law at University of Karachi aims to produce graduates who can navigate a rapidly changing legal landscape. The LL.M program combines rigorous legal theory with extensive research and practical perspectives — empowering graduates to pursue rewarding roles in academia, policy, practice, and international organizations. The School's curriculum is prescribed and approved by the Pakistan Bar Council and the Higher Education Commission of Pakistan (HEC). Currently, the Faculty of Law offers BA LL.B. Hons (5 Years) and LL.M. (2 Years) programs.

POSTGRADUATE PROGRAM

LL.M. 2 Years (equivalent to M.Phil.)

TITLE OF COURSES

Compulsory: Research Methodology

Optional:

1. Administrative Law.
2. Alternate Dispute Resolution
3. Banking Laws
4. Commercial / Business Laws
5. Company / Corporate Law
6. Comparative Constitutional Law
7. Comparative Environmental Law
8. Comparative Human Rights Law
9. Comparative Study of Islamic and Western Jurisprudence
10. Constitutional Law of Pakistan
11. Criminology
12. Intellectual Property Laws
13. International Economic Law
14. International Trade Law
15. Islamic Laws
16. Labour Laws
17. Law and Politics
18. Law and Society in South Asia
19. Law of Evidence
20. Law of International Institutions
21. Law of Taxation
22. Legal History of Pakistan and India
23. Shipping Law
24. Western Jurisprudence and Legal Theory

OBJECTIVES

- Provide advanced legal education, equivalent to M.Phil., that deepens knowledge and expertise.
- Foster legal innovation through extensive research and inquiry.
- Prepare graduates for distinguished legal careers in academia, policy, practice, and international organizations.
- Develop expertise and skills to contribute positively to the legal profession and society at large

AIMS

- Develop mastery of specialized legal fields
- Prepare graduates to pursue sophisticated legal research
- Foster professional excellence and ethical practice

SCOPE

- Diverse specializations reflecting both classical and contemporary legal perspectives
- An interdisciplinary approach to tackle complex legal issues
- Global orientation to equip graduates for international roles
- Experiential training through moot courts, legal clinics, and internships

REGULAR FACULTY MEMBERS**Barrister Muahmmad Sarfaraz Ali Metlo**

Dean, Faculty of Law

Barrister of Lincoln's Inn London; Advocate Supreme Court of Pakistan;

Elected member of the Bar Representation Committee of Lincoln's Inn, London.

Dr. Sonia A. Syed

In-Charge, School of Law

PhD (University of Karachi), M.Phil./LLM, LLB, BBA

Specialization: Research methods and Business Law

Research: Dr. Sonia's PhD research focused on white-collar crime and public corruption. Her current research explores financial investigations, technology-assisted fraud, and international economic legal regimes. She is active in developing research initiatives at the School of Law, mentoring LLM students and guiding their theses and policy-oriented research projects.

Experience: Dr. Sonia Syed has been teaching at University of Karachi's School of Law since 2014. She has extensive legal practice experience dating back to 2003, having started her career in litigation and later predominantly transitioned into transactional legal practice. Dr. Sonia is an active faculty member who teaches Research Methods, Corporate Law, and Contract Law. Her rich blend of academia and practice brings valuable, real-world perspectives into her classroom, helping students connect legal theory to practice.

Mr. Tauheed Ullah Siddiqui (In Charge)

Assistant Professor

LLM (University of Karachi), LLB Internation Islamic University Islamabad (IIUI)

Specialization: Islamic Finance, Commercial Regulations, Islamic Jurisprudence, Family Law

Research: Conflict between Islamic banking and financial laws; alternative financial solutions; riba elimination policy

Experience: Teaching in UAE, Saudi Arabia, and Pakistan; visiting faculty at SZABIST, Hamdard University, and Dadabhoy

Ms. Erum Iftikhar

Lecturer, Advocate High Court, Student Adviser

LLM/M.Phil., LLB, MA (Political Science)

Specialization: Constitutional Law, Protection of Fundamental Rights, Interpretation of Statutes, Property Law, Legal Activism

Research: Her research focuses on judicial activism, the protection of fundamental rights, and strengthening democracy in Pakistan. She has contributed numerous articles to reputable legal journals at both the national and international level.

Experience: With 18 years of teaching and legal practice, Ms. Erum Iftikhar is a recognized legal scholar and practitioner. She is a certified Master Trainer for the ADR (Street Law) program for law colleges, and a focal person for the University of Karachi's Law Incubator program. She has previously acted as a legal adviser for Brand Makers and Dee & Zee Web Developers and was an associate at the renowned law firm of Abrar Hassan & Co and Umer Qureshi.

Ms. Sana Khan

Lecturer

LLM (Vrije University Brussels), LLB (IIUI), Diploma in Global Development (Fontys University)

Specialization: Human Rights, Islamic Law, European Union Law, International Law

Research: Her PhD research focuses on Pakistan's international human rights obligations under the International Covenant on Civil and Political Rights (ICCPR). She has published two articles in reputable legal journals and presented her work at two international conferences.

Experience: Ms. Sana Khan is an active faculty member at University of Karachi, teaching human rights and international law. She also delivers guest lectures at national legal forums, adding a valuable practitioners' view to her teaching and research

RESEARCH FACILITIES

Library: Comprehensive collection of legal reports, textbooks, and journals — a rich repository for legal research.

Computer Lab: Equipped with modern computing and multimedia resources to aid legal education and research.

Clinical Legal Education: Provides hands-on experience through legal clinics, workshops, and interactive sessions with practitioners.

Infrastructure: The School of Law is situated in H.H. Dr. Syedna Mufaddil Building — a contemporary, environmentally friendly space designed to foster an ideal academic atmosphere. Features include:

- Spacious classrooms
- Large seminar and committee rooms
- Two well-equipped auditoriums
- Separate male and female lounge spaces with designated prayer areas

The School of Law at University of Karachi prepares graduates to become proficient lawyers, policy makers, judges, and legal innovators. Our LLM graduates emerge from the program equipped with specialized knowledge, strong analytical skills, and a deep understanding of both theory and practice — ready to make a meaningful contribution to the legal profession and society at large.

DEPARTMENT OF PUBLIC ADMINISTRATION

INTRODUCTION

The Department of Public Administration (DPA) prepares students to become exceptional and productive members of the society by serving in government, business and corporate sectors. With its scholarly and integrated programmes emphasizing academic excellence and pragmatic approach, this department has gained a distinctive status in the University of Karachi since its inception in 1995.

POST GRADUATE PROGRAMMES AVAILABLE

- *MS* in Public Administration with Course work
- *MPhil* in Public Administration with Thesis (Terminating Degree)
- *Ph.D* in Public Administration

Areas of specialization:

- ***Human Resource Management***
- ***Marketing***
- ***Financial Management***
- ***Development Studies***

RESEARCH OBJECTIVE of DPA

The objective of DPA is to study, identify and resolve the issues related to the stewardship of common goods with an interdisciplinary approach. It works at the intersection of multiple constituents of social and management sciences including economics, business, law, political sciences and technology with local and global prospective along with contemporary practices.

OBJECTIVES POST GRADUATE PROGRAMMES at DPA

- i. To train students in conducting independent, original research that contributes new knowledge, theories, or methodologies to their field of study.
- ii. To provide in-depth knowledge and critical understanding of the foundational and emerging literature, debates, and practices within the discipline.
- iii. To equip students with advanced research design, analytical, and methodological skills necessary for rigorous investigation and academic scholarship.
- iv. To develop the ability to effectively communicate complex ideas and research findings through scholarly writing, presentations, and publications.
- v. To prepare graduates for careers in academia, research, industry, policy, or other sectors by fostering intellectual independence, ethical research practices, and leadership capabilities.

PERMANENT FACULTY MEMBERS with Area of Expertise

Prof. Dr. Syed Shabib UI Hassan

Dr. Saima Akhtar

Professor and Chairperson

PhD Thesis Title: Strategies and Policies for High Performance Culture in Airlines: A Comparative Studies of PIA, Emirates and Singapore Airlines (1998 - 2006)

Areas of expertise: Communication Skills, Management, Marketing, Life Coaching

Dr. Ghazal Khawaja Hummayun

Associate Professor

PhD Thesis Title: Local Government And Devolution Plan 2000 In Pakistan: A Study Of Ideas And Realities

Areas of expertise: HRM, Public Policy, Local Government

Dr. Faraz Wajidi
Associate Professor

PhD Thesis Title: Evolution and Development of Human Resource Management: A study of Functional Role of HRM in Public and Private Banking Sector in Pakistan

Areas of expertise: Human Resource Management & Development

Dr. Mustafa Hyder
Associate Professor

PhD Thesis Title: The Role of Judiciary in Good Governance of Pakistan

Areas of expertise: Organizational Behaviour, Leadership and Change Management, Civic Engagement, Sustainable Development Goals

Dr. Syed Shahid Zaheer Zaidi
Assistant Professor

PhD Thesis Title: Local Governments Under Military Rule in Pakistan: Challenges and Prospects (A Case Study)

Areas of expertise: Local Government, Statistics, Research Methods

Dr. Tehmina Faisal
Assistant Professor

PhD Thesis Title: Social Entrepreneurship, They Pathway to Social Change: A Case of Pakistan

Areas of expertise: HRM, Entrepreneurship, Civic Engagement, Sustainable Development Goals

RESEARCH FACILITIES AVAILABLE

The research philosophy of the faculty and research scholars at DPA is to bridge the gap between academia and practitioners. The faculty of DPA is actively engaged in national and international research projects and has won many research projects / grants. DPA also publishes HEC recognized bi-annual research journal **“Global Journal for Management and Administrative Sciences”**.

INFRASTRUCTURE FACILITIES

The state of the art building of DPA encompasses multiple 15 Class Rooms for Lectures, well-equipped Computer Lab, online Resource Room, Conference Hall, and an exclusive Research Lab for M. Phil. / Ph.D. students, APS Seminar Library housing relevant books, theses, journals, periodicals and other academic literature in soft and hard form, and flexible space for students’ activities. Specific Research Areas

AVENUES OF RESEARCH

The Department of Public Administration has always remained keen on encouraging research that provides feasible solutions to critical management issues of market/industry. For this purpose research scholars are motivated to put forward their research through various showcasing platforms including but not limited to:

- i. Research conferences, seminars and poster exhibitions - DPA regularly organizes these events along with frequent collaborations with leading academic institutes to express multidisciplinary research narratives.
- ii. Research Projects - The faculty of DPA is actively engaged in national and international research projects and has won many research projects / grants. Therefore, research projects are an integral part of the learning process at DPA, where research scholars are provided with opportunities to assist faculty in conduction and organization of integral research functions.
- iii. Publications – Besides facilitating its researchers to publish their work in different journals at local as well as international levels, DPA also publishes its own HEC recognized bi-annual research journal **“Global Journal for Management and Administrative Sciences”**.

KARACHI UNIVERSITY BUSINESS SCHOOL **(BUSINESS ADMINISTRATION)**

INTRODUCTION

Karachi University Business School (KUBS) is one of the leading institutions in the country, disseminating the quality education and knowledge in the field of business and management very effectively. With the mission of catering the current needs of business and industry, the KUBS has been focusing on developing highly competent, professional and confident personnel, well equipped with latest technology and practices to manage and control all business functions successfully.

Considering the high contribution and involvement of research in business and industry, KUBS has special emphasis on business research activities, both for faculty and students. Almost all regular faculty members have doctorate degree and have been supervising M.Phil. and Ph.D. scholars for many years. Further, all Teaching Associates & Assistants are either Ph.D. or near to submit their doctorate thesis. Additionally, all students of BBA/BS and MBA are required to conduct an actual, practical research on current business issues, as part of their degree program (project/assignment) in one semester.

The KUBS has been serving as an important nursery for developing business scholars for academia and industry. Most of our Ph.D. students are faculty members of different business institutions of the city.

GOALS AND OBJECTIVES

The overall goal of KUBS is to produce qualified, professional and well competent business graduates and research scholars to highly competitive business and academic markets. Key specific objectives include:

- 1 To equip students with latest practices, procedures and technology exploited in business and industry
- 2 To enhance the personality traits of students to compete in the market effectively
- 3 To develop a research culture in all students in general, M.Phil. and Ph.D. scholars in particular.
- 4 To enable all students to face the challenges of business and industry successfully
- 5 To build the right image and reputation of KUBS and the University of Karachi among business, industry and markets worldwide.

PROGRAMS OFFERED

Currently, KUBS has been conducting following degree programs in the morning, evening and weekend shifts:

1. Post Graduate in Business Administration
2. Ph.D. in Business Administration
3. M.Phil. in Business Administration
4. MBA — Finance & Investment, Marketing, HRM, Supply Chain Management,
5. Project & Industrial Management and Islamic Banking & Finance
6. BBA / BS — Finance, Marketing, HRM
7. MBA Executive

AVENUES FOR RESEARCH

Postdoctoral fellowship research deepening expertise, gaining new skills, working with advanced resources, and making connections with others in the field of business administration. Fellowships often serve as a bridge between graduate studies and a full-time professional career, providing opportunities to develop research skills, pursue specific research interests, and build a strong network.

AIMS AND SCOPE OF THE PROGRAM

Rooted in the glorious years of history, we aspire for a new dimension of progress based on social equality, sustainability and security. We tend to develop our students into the embodiment of excellence and to be recognized as a progressive and renowned institution for leadership and innovation.

Developing effective and responsible leaders by creating insightful knowledge and inspiring minds in dialogue with the world around us. We focus on providing competency-driven education, leveraging our resources to provide experiential learning, committing to continuous improvement and linking our research and outreach efforts to the driving forces of our economy.

VALUE STATEMENT

- Our vision, mission and values guide our teaching, service and administration. We value: Equity in equal opportunities and affordable access
- Ethical conduct in a meaningful environment Excellence in teaching and intellectual growth
- Respect for diversity and a collaborative community

REGULAR FACULTY MEMBERS

S.No.	Name	Designation	Qualification	Field of Expertise
1	Dr. Danish Ahmed Siddiqui	Associate	Ph.D.	Economics and Finance
2	Dr. Muhammad Asim	Associate	Ph.D.	Marketing & Quantitative methods
3	Dr. Sheikh Muhammad Fakhir e Alam Siddiqui	Assistant Professor	Ph.D	Marketing and Management
4	Dr. Sohaib uz Zaman	Assistant Professor	Ph.D.	Accounting and Finance
5	Dr. Sarah Anjum	Assistant Professor	Ph.D.	Marketing & Management
6	Dr. Syeda Nazneen Waseem	Assistant Professor	Ph.D.	HRM and Quantitative Methods
7	Dr. Omer Ahmed Sheikh	Assistant Professor	Ph.D.	Economics and Finance
8	Dr. Muhammad Muzammil	Assistant Professor	Ph.D.	Finance and Accounting
9	Mr. Hammad Zafar	Lecturer	Ph.D. in Process	Accounting and Finance

INFRASTRUCTURE AND RESEARCH FACILITIES

KUBS is well equipped with adequate infrastructure. Suitable classrooms, with necessary fixture and furniture along with technological support are available. Computer Labs with internet and digital library facilities are present to cater the needs of all students in general, research scholars in particular.

DEPARTMENT OF COMMERCE

INTRODUCTION

The Department of Commerce University of Karachi has been imparting quality research oriented business education since 1974. In order to keep pace with the dynamic world of business and business education, the department of Commerce has brought a change in this curriculum which is in compliance with the courses which are demanded in the business world. The students are capable of acquiring good jobs both at national and international level.

CAREER OPPORTUNITIES

The mission of the department of Commerce is to equip students with analytical tools required for business management in the contemporary competitive world and to provide students with opportunities to explore new business vistas.

POSTGRADUATE PROGRAMS AVAILABLE

1. MS/M.Phil
2. Ph.D.

PROGRAM'S OBJECTIVE

MS/M.Phil:

1. To develop advanced research skills and expertise in a specific field.
2. To contribute original knowledge to the field through research.
3. To develop critical thinking, analytical, and problem-solving skills.
4. To enhance intellectual and scholarly abilities.
5. To prepare for careers in academia, research, or industry.

Ph.D:

1. To create original and significant contributions to knowledge in the field.
2. To develop expertise in research design, methodology, and implementation.
3. To demonstrate intellectual leadership and innovation.
4. To develop communication and presentation skills for disseminating research findings.
5. To prepare for careers in academia, research, industry, or leadership positions.

AIMS AND SCOPE OF THE PROGRAM

Aims of MS/M.Phil

1. To provide advanced research training and education in a specific field.
2. To develop critical thinking, analytical, and problem-solving skills.
3. To foster intellectual curiosity and creativity.
4. To prepare students for careers in academia, research, or industry.

Aims of Ph.D

1. To create original and significant contributions to knowledge in the field.
2. To develop expertise in research design, methodology, and implementation.
3. To demonstrate intellectual leadership and innovation.
4. To prepare students for careers in academia, research, or leadership positions.

Scope of MS/M.Phil

1. Advanced research training.
2. Specialized coursework.
3. Original research project.
4. Contribution to the field.

Scope of Ph.D

1. Original and significant research contributions.
2. Advanced research methodology and design.
3. Expertise in the field.
4. Leadership and innovation.

REGULAR FACULTY MEMBERS WITH THEIR AREAS OF SPECIALIZATION/EXPERTISE:

Professor

Prof.Dr. Zaeema Asrar Mohiuddin Marketing
 Department of Commerce,
 University of Karachi.

Associate Professor

Dr. Sadaf Mustafa Finance

Assistant Professor

Dr. Hasan Raza Finance
 Mr. Arfeen Ahmed Siddiqui Finance
 (In charge)

Lecturer

Ms. Ayesha Fareed Finance
 Mr. M.Farrukh Aslam Finance
 Dr. Rukhshinda Begum Finance
 Ms.Kanza Nisar Finance

RESEARCH FACILITIES AVAILABLE

- Library
- Computer Lab.(Not Working)
- Auditorium

INFRASTRUCTURE

- Seven (07) Classrooms

Avenues for Research

S. No.	Course No.	Course Title of MS/M. Phil. 1 st Semester
01	711	Advanced Research Methodology
02	741	Advance Strategic Management
03	752	Investment and Security Analysis
04	782	International Finance

S. No.	Course No.	Course Title of MS/M. Phil. 2 nd Semester
01	721	Econometrics
02	731	Communication Skills
03	762	Advance Marketing Research
04	772	Advance Corporate Finance
05	782	Brand Equity Management
06	792	Financial Risk Management

S. No.	Course No.	Course Title of M. Ph.D. 1st Semester
01	802	Seminars on Current Advances in The Discipline
02	803	Thesis and Manuscript Writing Skills -I

S. No.	Course No.	Course Title of M. Ph.D. 2nd Semester
01	801	Research Seminars
02	804	Development of Research Proposal for Funding Agencies-II

FACULTY OF MEDICINE

MS (SURGERY) / MD (MEDICINE)/MDS (MASTER OF DENTAL SURGERY)

INTRODUCTION

The Faculty of Medicine, University of Karachi is a prestigious and well known in the country offering the major and well known postgraduate programs to the young medical fraternity to fulfill the current need of specialist and academicians in both basic and clinical sciences areas of medical and dentistry sections. Hence the Faculty of Medicine is contributing towards the national and international demands of the specialist medical professionals.

Looking at the statistics of the available medical professionals in the country, it is evident that it is 1.084 Physicians per 1,000 people in Pakistan (with almost 1:1 male female ratio) which is a bit lesser than the W.H.O recommendations. Adding to this, only 65% of the females come out for practicing the profession resulting in the scarcity of health care work force, further to add this the high cost of post-graduation program in private sector, the public sector universities remain as the only hope for the masses of medical professionals to materialize their dreams and to contribute towards the high national and international demands of the profession.

The faculty of medicine is primarily offering the postgraduate degree programs in the disciplines of Basic Medical Sciences, Clinical sciences and Dental Sciences and thus contributing in the national demands of specialists and academicians to serve the ailing community and teaching to medical and dental graduates. Besides this, faculty of medicine is also offering the different diploma courses of shorter duration in the same disciplines. In this context the major teaching institutions and tertiary care hospitals of repute have been affiliated to this faculty and hence to the University of Karachi.

POSTGRADUATE PROGRAMS

The MS (Surgery) / MD (Medicine) / MDS (Master of Dental Surgery) programs at the Faculty of Medicine, University of Karachi, are structured degree programs. They involve a semester-based examination system and include rigorous clinical training at hospital sites. **Faculty of Medicine, University of Karachi offers admission in MS / MD /MDS program in the following Specialties**

Doctor of Medicine (MD)

- *Anesthesiology*
- *Community Medicine*
- *General Medicine*
- *Nephrology*
- *Neurology*
- *Chest Medicine (Pulmonology)*
- *Cardiology*
- *Psychiatry*
- *Gastroenterology*
- *Dermatology*
- *Pediatric Cardiology*
- *Emergency medicine*

Master of Surgery (MS)

- *General Surgery*
- *Gynecology & Obstetrics*
- *Ophthalmology*
- *Orthopedic Surgery*
- *Otorhinolaryngology*
- *Urology*
- *Oral & Maxillofacial Surgery*
- *Oral Surgery*
- *Thoracic Surgery*
- *Plastic Surgery*

Master of Dental Surgery (MDS)

- *Prosthodontics*
- *Orthodontics*
- *Operative Dentistry*
- *Oral and Maxillofacial surgery*
- *Periodontology*
- *Sciences of Dental materials*
- *Oral Pathology*
- *Community Dentistry*
- *Oral Biology and Tooth Morphology*

PROGRAMS' OBJECTIVES

Mission of the Postgraduate Program

“To prepare the health care professionals in accordance with the international medical standards & valuable research thus to produce the quality academicians, researchers and clinicians in their specialties in the course of their specialized and patient centered training”.

Objectives

The four years MD/MS/MDS training program yields the capability of the students transformed into being the expert in their relevant specialty so that they become good teachers, researchers and clinicians after completion of their successful training.

MD/MS/MDS training make possible a resident to equip with the **formal** as well as **advanced** techniques of learning. The formal training in their relevant specialties includes the history and Physical Examination, Case Presentations, Core Concepts of the subject, Test Interpretation, Diagnostic & Therapeutic Decision Making. Besides the formal training, the students are specially focused to be trained for their Communication Skills and Bioethics Learning of Patient Care, Self-directed Learning, Epitome of Preventive Medicine and Research & Scientific Knowledge pertaining to their discipline through comprehensive training.

AIM & SCOPE

Pursuing an MS or MD or MDS degree leads to significant career growth, offering numerous opportunities in healthcare and medical research.

Graduates of MD programs are recognized as specialists in their respective fields. MD graduates have career prospects in various domains, including medicine, and pathology, with potential roles as cardiologists, gastroenterologist, psychiatrists, anaesthetists, hospital administrators, general surgeons, physicians, and nephrologists. The average annual salary for an MD graduate ranges between PKR 2,400,000 and PKR 3,500,000.

The Master of Surgery MS degree is in high demand and provides excellent job opportunities in both the private and government sectors. Opportunities are particularly abundant in the Middle East, where the annual salary ranges from PKR 4,800,000 to PKR 9,600,000. Graduates can be appointed as researchers, consultants, medical coders, cardiac surgeons, paediatric surgeons, general surgeons, ENT surgeons, orthopaedic surgeons, and trauma surgeons.

The Master of Dental Surgery (MDS) degree is highly sought after and offers excellent career opportunities in both the private and public healthcare sectors. Graduates are in demand nationally and internationally, particularly in the Middle East, where annual salaries typically range from PKR 4,500,000 to PKR 9,000,000, depending on specialization and experience. MDS degree holders can work as dental specialists, consultants, researchers, academicians, and healthcare administrators. They may specialize in fields such as orthodontics, oral and maxillofacial surgery, prosthodontics, periodontics, endodontics, paediatric dentistry, and oral pathology, contributing to advanced dental care and oral health services.

LIST OF FACULTY OF MEDICINE & DENTISTRY:

S.NO	NAME	DESIGNATION	DEPARTMENT	QUALIFICATION
1.	Dr. Fareeda Islam	Professor	Pharmacology	MBBS, M.PHIL, Ph.D
2.	Dr. Nadeem Baig	Professor	Anatomy	MBBS, M.PHIL, PhD
3.	Dr Shazia Fehmi	Assistant Professor	Anatomy	MBBS, M.PHIL
4.	Dr. Syeda Asiya Parveen	Associate Professor	Bio-Chemistry	MBBS, M.PHIL
5.	Dr. Akbar Mughal	Associate Professor	Physiology	MBBS. M.PHIL PhD
6.	Dr. Gul Afshan	Professor	Physiology	MBBS, M.PHIL
7.	Dr. Uzma Tasneem	Associate Professor	Physiology	MBBS M.PHIL
8.	Dr. Roohi Ehsan	Associate Professor	Forensic Medicine	MBBS.DMJ
9.	Dr.Raffat Rasool	Assistant Professor	Forensic Medicine	MBBS, DMJ.

10.	Dr.Wasiq Ahmed	Assistant Professor	Forensic Medicine	MBBS, DMJ
11.	Dr.Rana Mehmood	Associate Professor	Pharmacology	MBBS. M.PHIL P.HD
12.	Dr. Asia Rehman	Professor	Pharmacology	MBBS. M.PHIL
13.	Dr. Naila Zaheer	Professor	Pathology	MBBS, MCPS, FCPS
14.	Dr. Muhammad Sabir	Professor	Pathology	MBBS, M.PHIL
15.	Dr. Sheikh Sajjad Ahmed	Professor	Pathology	MBBS, MCPS, M.PHIL
16.	Dr.Rafia Anwar Us Salam	Associate Professor	Pathology	MBBS. M.PHIL
17.	Dr Shahid Zafar	Associate Professor	Pathology	MBBS. M.PHIL
18.	Dr. Farhat Ali Jafri	Professor	Community Medicine/ Research Methodology	MBBS, MPH, C- Clinical Trails (UK)
19.	Dr Khalid Shafi	Associate Professor	Community Medicine/ Research Methodology	MBBS, MPH, FCPS
20.	Dr Gaiti Ara	Assistant Professor	Community Medicine/ Research Methodology	MBBS, FCPS
21.	Dr Zohra Jabeen	Assistant Professor	Community Medicine/ Research Methodology	MBBS , MSPH
22.	Dr.Sarwat Sultana	Assistant Professor	Community Medicine/ Research Methodology	MBBS,MCPS
23.	Dr. Qaiser Jamal	Professor	Medicine	MBBS,FCPS
24.	Dr.Aneela Altaf Kudwai	Professor	Medicine	MBBS, FCPS
25.	Dr.Shaista Ahmed	Associate Professo	Medicine	MBBS, MCPS,FCPS
26.	Dr.Mahnoor Khalil	Assistant Professor	Medicine	MBBS.FCPS
27.	Dr.Firasat Waqar Khanzada	Assistant Professor	Medicine	MBBS.FCPS
28.	Dr.Muhammad Adil Ramzan	Assistant Professor	Medicine	MBBS.FCPS
29.	Dr.Jamal Ara	Assistant Professor	Medicine	MBBS.FCPS
30.	Dr. Ayesha Javed	Assistant Professor	Medicine	MBBS,FCPS
31.	Dr. Shabnum Shamim	Professor	Gynecology & Obstetric	MBBS, FCPS
32.	Dr.Fouzia Ali	Assistant Professor	Gynecology & Obstetric	MBBS.FCPS
33.	Dr.Sonia Rashid	Assistant Professor	Gynecology & Obstetric	MBBS.FCPS
34.	Dr.Amna Begum	Assistant Professor	Gynecology & Obstetric	MBBS,FCPS
35.	Dr.Shabnam Nadeem	Assistant Professor	Gynecology & Obstetric	MBBS,FCPS
36.	Dr.Rahila Imtiaz	Assistant Professor	Gynecology & Obstetric	MBBS.FCPS

37.	DR. Zubaida Masood	Associate Professor	Gynecology & Obstetric	MBBS.FCPS
38.	Dr.Sarwat Sajjad Sethi	Assistant Professor	Gynecology & Obstetric	MBBS,FCPS
39.	Dr.Shaista Rashid	Associate Professor	Gynecology & Obstetric	MBBS,FCPS
40.	Dr. Asma Iqbal Ansari	Assistant Professor	Gynecology & Obstetric	MBBS, FCPS
41.	Dr. Muhammad Jamaluddin	Professor	Surgery	MBBS, FCPS
42.	Dr. Rahil Mehmood Ur Rehman	Professor	Surgery	MBBS, FCPS
43.	Dr.Muhammad Aurangzeb	Associate Professor	Surgery	MBBS,FCPS
44.	Dr.Rizwan Ahmed Khan	Associate Professor	Surgery	MBBS,FCPS
45.	Dr.Bushra Tasneem	Assistant Professor	Surgery	MBBS.FCPS
46.	Dr. Shakeel Ahmed	Assistant Professor	Surgery	MBBS, FCPS
47.	Dr. Bushra Tasneem	Associate Professor	Surgery	MBBS, FCPS
48.	Dr. Khalid Ashrafi	Professor	E.N.T	MBBS, FCPS
49.	Dr. Ayub Musani	Professor	E.N.T	MBBS, FCPS
50.	Dr. Faheem Ahmed Khan	Assistant Professor	E.N.T	MBBS
51.	Prof. Dr M. Razzaq Dogar	Professor	ENT	MBBS, FCPS, MCPS, DLO
52.	Dr. Amir Jalil	Professor	Orthopedics	MBBS, FCPS
53.	Dr.Muhammad Naseem	Associate Professor	Orthopedics	MBBS,FRCS
54.	Prof. Akhtar Baig	Professor	Orthopedics	MBBS, FCPS
55.	Dr. Sultan Mustafa	Professor	Pediatrics	MBBS, FCPS, MCPS
56.	Dr.Ibrahim Shakoor	Associate Professor	Pediatrics	MBBS,FCPS
57.	Dr. Shaheen Masood	Assistant Professor	Pediatrics	MBBS, FCPS
58.	Dr.Riffat Ghazala	Assistant Professor	Pediatrics	MBBS.FCPS
59.	Dr.Atiya Rahman	Assistant Professor	Ophthalmology	MBBS,FCPS
60.	Dr.Muhammad Raees	Assistant Professor	Ophthalmology	MBBS.FCPS
61.	Dr. Erum Shahid Najeeb	Assistant Professor	Ophthalmology	MBBS, MCPS, FCPS
62.	Prof. Dr. Muhammad Iqbal Afridi	Professor BPS	Behavioral Science /Psychiatry	MCPS, FCPS(Pak), FRCP(Ireland), FRCP(Edinburgh), FRCP (London).
63.	Prof Imran Bashir Chaudry	Professor	Behavioral Science /Psychiatry	MBBS,MD
64.	Dr.Nadeem Iqbal	Assistant Professor	Behavioral Science /Psychiatry	MBBS,FCPS

65.	Prof Rozina Karmaliani	Professor	Medical ethics	BSN, PhD
66.	Prof Tahira Ayuob	Professor	Medical ethics	BDS, FCPS
67.	Dr. Nadia Yonus	Associate Professor	Medical ethics	MBBS, MBE, MPHIL
68.	Dr. Mubarak Ali	Professor	Radiology	MBBS, FCPS
69.	Dr. Khurram Daniyal	Associate Professor	Nephrology	MBBS,FRCP
70.	Dr. Nazish Butt	Associate Professor	Gastroenterology	MBBS, FCPS, MD
71.	Dr Kamran Khan	Professor	Pulmonology	MBBS,MCPS
72.	Prof. Dr. Navid Rashid Qureshi	Professor	Oral and Maxillofacial Surgery	BDS, FDSRCS(UK) / MSc. (Dental Radiology)
73.	Prof. Dr. Syed Mehmood Haider	Professor	Oral & Maxillofacial Surgery	BDS, MSc. FFDRCSI, FDCRCS, FCPS, FDSRCPS
74.	Dr.Sufyan Ahmed	Associate Professor	Oral & Maxillofacial Surgery	BDS,FCPS
75.	Dr.Mehwish Kashif	Associate Professor	Oral Pathology	BDS,FCPS
76.	Dr Zahid Khan	Professor	Oral & Maxillofacial Surgery	BDS FCPS
77.	Prof. Dr. Tahera Ayub	Professor	Oral & Maxillofacial Surgery	BDS, FCPS
78.	Prof. Dr. Uzma Zareef	Professor	Oral Pathology	BDS, MCPS/MDS
79.	Dr Sheeraz Hussain	Professor	Orthodontic	BDS, FCPS
80.	Dr.Samia Siraj	Assistant Professor	Orthodontic	BDS,MCPS
81.	Dr.Sana Adeeba Islam	Associate Professor	Community Dentistry	BDS, MCPS
82.	Dr Muhammad Nasir	Associate Professor	Oral Biology	BDS, MCPS
83.	Prof.Dr.Syed Yawar Ali Abidi	Professor	Operative Dentistry	BDS, FCPS
84.	Dr Rehan Uddin Qureshi	Associate Professor	Operative Dentistry	BDS,MSC
85.	Dr. Tazeen Zehra ,	Assistant Professor	Operative Dentistry/Periodontology	BDS FCPS
86.	Dr. Asad Farooq	Associate Professor	Dental Materials	BDS, MDS
87.	Dr.Affan Ahmed	Assistant Professor	Dental Material	BDS, MDS
88.	Dr Nazish Butt	Associate Professor	Gastroenterology	MBBS, FCPS

RESEARCH FACILITIES

The students have been trained for principles and practices of research methods in special conjunction with Biostatistics & epidemiology through an academic board of experts under the name of DRC (Departmental Research Committee) whereby the students are not only evaluated but provided with guidance of conducting the research for preparing their synopsis and thesis of their chosen topic.

Institutional Review Board (IRB) is constituted by the Office of the Dean, Faculty of Medicine. The IRB's role is to facilitate student research is pivotal in fostering a culture of ethical research practices from the early stages of a researcher's career. By providing education, guidance, streamlined processes, and supportive feedback, IRB helps students navigate the complexities of ethical research, ensuring their projects are conducted responsibly and in compliance with applicable standards and regulations. This support not only protects research participants but also empowers students to become conscientious and skilled researchers.

INFRASTRUCTURE

The postgraduate degree program of MS/MD/MDS in various specialties and subspecialties at the Faculty of Medicine, University of Karachi, is a structured program that includes both Basic Medical Sciences education and Clinical training components. The clinical training is conducted at the university's affiliated institutions and clinical facilities.

In addition to the clinical and dental departments and faculties of Karachi Medical and Dental College (KMDC) / Abbasi Shaheed Hospital (ASH) and Liaquat College of Medicine and Dentistry (LCMD), these institutions also provide their resources to the Faculty of Medicine, University of Karachi. The affiliated institutions include:

1. Liaquat National Hospital, Karachi
2. National Institute of Child Health, Karachi
3. Sindh Institute of Urology & Transplantation, Karachi
4. Liaquat College of Medicine and Dentistry/ Dar ul Sehat hospital, Karachi.
5. Jinnah Postgraduate Medical Center (JPMC) Karachi
6. Civil Hospital Karachi
7. Dr. A. Q Khan Institute of Behavioural Science, Karachi
8. National Institute of Cardiovascular Disease, Karachi

These affiliations enhance the training and resources available to postgraduate students, ensuring a comprehensive education and practical experience in their chosen medical fields.

AVENUES FOR RESEARCH

The Faculty of Medicine at the University of Karachi offers a broad array of research avenues encompassing Basic Medical Sciences, Clinical Sciences, Public Health, Medical Education, Medical Humanities, Infectious Diseases, Non-Communicable Diseases, Maternal and Child Health, and Health Care. Each area focuses on advancing understanding and treatment of various medical conditions, improving public health, and enhancing the education and ethical considerations of healthcare professionals. Key disciplines include Anatomy, Physiology, Cardiology, Epidemiology, Molecular Medicine, Virology, Diabetes, Obstetrics, Medicine, highlighting the faculty's commitment to comprehensive medical research and innovation.

Renowned for its research excellence, the Faculty of Medicine at the University of Karachi consistently produces significant contributions to medical science and healthcare. By continually expanding its research focus, the faculty addresses critical health challenges and leverages emerging technologies to revolutionize healthcare delivery and improve patient outcomes.

ANY OTHER RELEVANT INFORMATION

The students have also been facilitated for their capacity building and increasing their understanding of the subject especially in context of Research Methodology, Epidemiology and Biostatistics, communication skills and medical writing through conducting the workshops by inviting the expert and external faculty of these areas.

DEPARTMENT OF PHARMACOGNOSY

INTRODUCTION

The Department of Pharmacognosy was founded in 1973 as one of the four innovative departments within the Faculty of Pharmacy, established in 1964. Initially, department began with limited resources and a small number of faculty members. Over the years, however, it has transformed into a robust and well-respected department that plays a crucial role in pharmacy education within the Faculty of Pharmacy and Pharmaceutical Sciences. Today, it stands as a pillar of knowledge and innovation, contributing significantly by producing 72 M. Pharm, 88 M. Phil. and 78 Ph.D. till date to the advancement of the field and the training of future pharmacists.

The Department of Pharmacognosy at the University of Karachi is dedicated to the study of natural products and their medicinal properties. Established with the aim of advancing knowledge in the field of Pharmacognosy. The department offers a comprehensive curriculum that integrates theoretical knowledge with practical applications, preparing students for careers in research, quality control, and the natural product wing of pharmaceutical industry. Emphasizing the importance of traditional medicine and its relevance in modern healthcare, the department also explores the latest advancements in molecular Pharmacognosy, nutraceuticals and nutraceuticals including the use of nanotechnology, biotechnology and molecular biology techniques. Research is a keystone of the department, with qualified faculty and students engaged in various projects aimed at discovering new therapeutic agents and understanding the mechanisms of action of natural products. The department collaborates with other institutions and industries to promote innovation and contribute to the development of safe and effective herbal medicines. Through its commitment to education, research, and community service, the Department of Pharmacognosy at the University of Karachi plays a vital role in promoting the use of natural products in healthcare and enhancing the understanding of their therapeutic potential.

POST GRADUATE PROGRAM AVAILABLE

1. Master of Philosophy (M.Phil.)
2. Doctor of Philosophy (Ph.D.)

PROGRAMS OBJECTIVES FOR M.PHIL

The objectives of an MPhil program in Pharmacognosy typically focus on advancing knowledge and research skills in the field of natural products and their medicinal applications.

Advanced knowledge acquisition

To provide students with a comprehensive understanding of the principles and practices of Pharmacognosy, including the identification, characterization, and standardization of herbal medicines and natural products.

Research skills development

To equip students with the necessary research methodologies and techniques to conduct independent research in Pharmacognosy, including the use of modern technologies such as molecular biology, genomics, and metabolomics.

Interdisciplinary approach

To promote an interdisciplinary approach by integrating knowledge from pharmacology, chemistry, botany, and molecular biology to enhance the understanding of natural products and their therapeutic potential.

Professional development

To prepare graduates for careers in academia, research, quality control and the herbal wing of pharmaceutical industry, fostering skills that are essential for professional success in the field of Pharmacognosy.

Community engagement

To promote awareness of the importance of herbal medicine and natural products in traditional and modern

healthcare systems, encouraging students to engage with communities and contribute to public health initiatives.

PROGRAMS OBJECTIVES FOR PH.D

The objectives of a PhD program in Pharmacognosy are designed to cultivate advanced research skills, critical thinking, and expertise in the field of natural products and their medicinal applications.

Independent research capability:

To develop the ability to conduct independent, original research that contributes to the field of Pharmacognosy, addressing current challenges and advancing knowledge in natural product discovery and development.

Critical thinking and problem solving

To foster critical thinking and problem-solving skills, enabling students to analyze complex scientific problems, interpret data, and draw meaningful conclusions from their research findings.

Ethical research practices

To instill a strong understanding of ethical considerations in research, including issues related to the use of natural resources, intellectual property, and the safety and efficacy of herbal medicines.

Contribution to scientific knowledge

To prepare graduates to make significant contributions to the scientific community through publications in peer-reviewed journals, presentations at conferences, and participation in collaborative research projects.

Professional Development and Leadership

To develop leadership and professional skills that prepare graduates for careers in academia, research institutions, the natural product wing of pharmaceutical industry, and regulatory agencies, fostering their ability to mentor and guide future researchers.

Communities and global impact

To promote awareness of the role of Pharmacognosy in addressing global health challenges, encouraging students to engage with communities and contribute to the development of sustainable and effective natural products.

AIMS AND SCOPE

The aims and scope of Pharmacognosy encompass a wide range of activities related to the study of natural products, their properties, development, and their applications in medicine where the subject is integrated the traditional and modern medicine. In summary, Pharmacognosy aims to advance the understanding and application of natural products in medicine while ensuring their development, safety, efficacy, and sustainability. Its scope encompasses a diverse range of disciplines, including phytochemistry, nutraceuticals, cosmeceuticals, ethanopharmacology, phytopharmaceuticals, quality control and assurance, regulatory affairs, and biotechnology that making it a vital field in the development of new therapeutic agents and the promotion of traditional medicine. The field is dissemination of knowledge through education and training programs in Pharmacognosy, preparing the next generation of researchers and practitioners in the field.

FACULTY MEMBERS WITH THEIR AREA OF EXPERTISE

S. No.	Faculty members	Designation	Area of expertise
1	Dr. Muhammad Mohtasheem ul Hasan	Professor and Chairpman	Pharmacognosy, Pharmaceutical Biology, Chemical and Pharmacological evaluation of medicinal plants
2	Dr. Huma Shareef	Professor	Pharmacognosy, Phytochemistry, ethanopharmacology, standardization of herbal raw material phytopharmaceutical, Nutraceutical, Cosmeceuticals phytonanomedicine with targeted drug delivery

3	Dr. Maryam Ahmed	Associate Professor	Phytochemicals, nutraceuticals, cosmeceuticals and herbal contributions in the clinical management of diseases.
4.	Ms. Farah Mazhar	Assistant Professor	Pharmacognosy, Terrestrial and Marine Natural Products, Evaluation, Quality Control and Standardization of Herbal Drugs, Powder Microscopy and Bioassays
4	Dr. Salman Ahmed	Assistant Professor	Pharmacognosy, Phytopharmacology, Phytomedicine and Medicinal plants,
5	Dr. Safia Abidi	Assistant Professor	Natural Products, Ethnopharmacognosy of Natural Biomarkers. Formulation and Development of Medicines from Natural sources, Nutraceutical, Cosmeceuticals

RESEARCH FACILITIES

The department has advanced and equipped laboratories for its research students housed in the Research Institute of Pharmaceutical Sciences.

Lab-I Phytochemical extraction and analysis research Lab

Lab-II Pharmacological /biological research lab

Lab-III- Herbal Quality Control and Standardization Lab

INFRASTRUCTURE

The department of Pharmacognosy is under the umbrella of Faculty of Pharmacy and Pharmaceutical Sciences operational with old and modern frame of two buildings. It has separate classrooms equipped with HD enable multimedia and audio system for the graduate and postgraduate study. The facility of seminar library at the faculty and central library at the university are house with text and references books and journals for the knowledge. The Research Institute Pharmaceutical sciences (RIPS) provide the art and science facility of modern research to the researcher.

AVENUES FOR RESEARCH

Research in Pharmacognosy encompasses a diverse range of opportunities that explore the properties, applications, and potential of natural products which includes:

- **Phytochemistry:** Investigating the chemical constituents of plants, including the isolation, characterization, and analysis of bioactive compounds.
- **Ethnopharmacology:** This research seeks to validate the therapeutic claims of herbal remedies and explore their potential applications in modern medicine. Evaluating the pharmacological effects of natural products through *in vitro* and *in vivo* studies
- **Molecular Pharmacognosy:** Utilizing molecular biology techniques to study the biosynthesis of natural products, gene expression, and metabolic pathways. Exploring biotechnological methods, such as tissue culture and genetic modification, to enhance the production of secondary metabolites in plants.
- **Quality Control and Standardization:** Developing methods for the quality assurance of herbal medicines, including the establishment of standards for identification, purity, and potency.
- **Toxicology and Safety Assessment:** Investigating the safety and potential toxicity of natural products.
- **Formulation Development:** Investigating the formulation of herbal medicines and natural products into effective dosage forms. This research focuses on improving bioavailability, stability, and patient compliance.
- **Natural Product Drug Discovery:** Conducting research to identify and develop new drugs from natural sources. This includes screening plant extracts for biological activity, optimizing extraction methods, and evaluating the pharmacological effects of isolated compounds.

DEPARTMENT OF PHARMACOLOGY

INTRODUCTION

The Department of Pharmacology is one of the important Departments of the Faculty of Pharmacy since 1973 not only sharing a major load at the undergraduate level but also preparing students to fill the gap by suitably qualified manpower in the field of Pharmacy at Post graduate levels. Department of Pharmacology has so far produced the highest number of PhDs in the faculty of Pharmacy and a large number of M. Phil and M. Pharm. The Department is composed of highly competent primary faculty, research faculty and technical support staff.

POSTGRADUATE PROGRAM AVAILABLE

- M.Phil (Morning Program)
- Ph.D (Morning Program)

PROGRAMS' OBJECTIVES

The major academic objectives of the Department are to facilitate Basic and Applied Research, educate under graduate, graduate and professional students in various disciplines and provide academic excellence.

AIMS AND SCOPE OF THE PROGRAM

After completion of M.Phil/Ph.D in the field of Pharmacology successful, candidates will be able to perform duties in following areas.

- Research
- Education
- Hospital Pharmacist
- Clinical Pharmacist
- Pharmaceutical Industry
- Drug testing laboratories

REGULAR FACULTY MEMBERS WITH THEIR AREAS OF SPECIALIZATION / EXPERTISE

Dr. Azra Riaz (Chairperson)

B. Pharm., M. Phil., Ph.D (Kar)

Associate Professor

Year of association, 2012

Expertise: Biochemical and hematological parameters coagulation, inflammation and Neurpharmacology

Dr. Afshan Siddiq

B. Pharm., M. Phil. PhD (Kar)

Professor

Year of association, 2006

Expertise: Biochemical Pharmacology, Systemic Pharmacology, Biochemistry, Toxicology

Dr. Syeda Afroz

B. Pharm., M. Phil., PhD (Kar)

Professor

Year of association, 2006

Expertise: General Pharmacology, Neuropharmacology

Dr. Sadia Ghousia Baig

B. Pharm., M. Phil., Ph.D (Kar)

Assistant Professor

Year of association, 2006

Expertise: Biochemistry, Neuropharmacology, Biochemical Pharmacology

Dr. Nuzhat Sultana

B. Pharm., M. Phil., Ph.D (Kar)

Assistant Professor

Year of association, 2012

Expertise: Toxicology, Neurobehavioral Pharmacology, Biochemical, hematological and toxicological screening

Dr. Saira Saeed Khan (On FSL)

B. Pharm., M. Phil. Ph.D (Kar)

Associate Professor

Year of association, 2012

Expertise: Neurpharmacology, Biochemical and hematological studies.

Dr. Shadab Ahmed

B. Pharm., M. Phil. Ph.D (Kar)

Associate Professor

Year of association, 2012

Expertise: Neuropharmacology, Physiology, Pathology, Biochemistry, Pharmacology

Dr. Humera Khatoon

Associate Professor

Appointed: January 2026

Dr. Sana Sarfaraz

B. Pharm., M. Phil. Ph.D (Kar)

Assistant Professor

Year of association, 2019

Expertise: Clinical pharmacology, toxicology

Dr. Adnan Iqbal

B. Pharm., M. Phil. Ph.D (Kar)

Lecturer.

Year of association, 2019

Expertise: Pharmacology and neurosciences

RESEARCH FACILITIES AVAILABLE (LIBRARY, LABORATORY, COMPUTER LAB)

- Two Separate Research lab have been assigned in Research Institute of Pharmaceutical Sciences (RIPS) Faculty of Pharmacy & Pharmaceutical Sciences, University of Karachi for students which has basic advanced equipment and instruments required for research work.
- A Seminar Library in Faculty of Pharmacy & Pharmaceutical Sciences, University of Karachi is well equipped. Latest pharmacology books and also computer facility.

INFRASTRUCTURE (OLD & NEW BUILDING)

Buildings		No. of Class Rooms		Seminar Library
-		2		-
No. of Office Room		No. of Staff Room		No. of Store Rooms
2		9		1
Laboratories				
No. of Computer Lab	No. of (RIPS) Research Lab.	No. Electric Lab.	No. of Microprocessor Lab.	Any other
Nil	2	Nil	Nil	Undergraduate Lab-03

AVENUE FOR RESEARCH

- Neuropharmacology
- Toxicology
- Biochemical Pharmacology
- Cardiac vascular pharmacology
- Psychopharmacology

PROMINENT ALUMNI OF THE DEPARTMENT (names only):

- Prof. Dr. Asif Bin Rehman (Retd.)
- Prof. Dr. Rahela Ikram (Retd.)
- Prof. Dr. Shahida P. Ahmed (Late)
- Prof. Dr. S. I. Ahmed (Late)
- Meritorious Prof. Dr. Rafeeq Alam Khan (Late)
- Prof. Dr. Shahid Rashid (Late)

DEPARTMENT OF PHARMACEUTICS

INTRODUCTION

The Department of Pharmaceutics is one of the five constituent departments of the Faculty of Pharmacy and Pharmaceutical Sciences. Pharmaceutics is a multidisciplinary branch of pharmaceutical science that focuses on the development, design, formulation, and delivery of safe and effective pharmaceutical products. It encompasses a wide range of scientific and technological principles to create medications and dosage forms that optimize the delivery of active pharmaceutical ingredients (APIs) to patients. The Department of Pharmaceutics at the University of Karachi is comprised of a diverse and dedicated team of individuals who contribute to the academic and operational excellence of the department. With a total of 13 esteemed faculty members and 13 non-teaching staff, including five Professors, one Associate Professor, two Assistant Professors, three Assistant Professors (T) and two lectures. The department embodies a collaborative and vibrant environment that fosters innovation, research, and education. The department offers postgraduate course-work based MS, and research intensive M. Phil. and Ph.D. programs. To date, the department has produced over 188 M.Pharm, 105 M.Phil and 98 PhD and M.Phil/ Ph.D. graduates in different disciplines of pharmaceutics.

CAREER OPPORTUNITIES

The scope of pharmacists is vast and dynamic, encompassing a wide array of roles that have a profound impact on healthcare and the pharmaceutical industry. As integral members of the healthcare team, pharmacists play a pivotal role in ensuring patient safety, accurate medication management, and optimal treatment outcomes. In community settings, pharmacists serve as frontline healthcare providers, offering expert guidance on medication usage, potential side effects, and drug interactions. In hospitals and clinics, they collaborate closely with medical professionals to devise personalized medication regimens, monitor patient responses, and mitigate potential risks. Beyond patient care, pharmacists occupy crucial positions within the pharmaceutical industry. They contribute significantly to drug and product research, development, and testing, striving to innovate and enhance therapeutic options. Pharmacists also engage in quality control, regulatory compliance, and pharmaceutical marketing, ensuring that medications meet the highest standards of safety and efficacy. Moreover, pharmacists excel in academia and research, driving scientific exploration, mentoring aspiring professionals, and advancing pharmaceutical knowledge. With their profound expertise, they also navigate the realms of informatics and technology, optimizing pharmacy information systems and healthcare technologies for improved patient care. The Department of Pharmaceutics at the University of Karachi not only imparts comprehensive pharmaceutical education but also nurtures the skills necessary for diverse roles. Graduates are well-equipped to excel as pharmacists, shaping healthcare delivery, pioneering research, and driving innovation within the pharmaceutical landscape, both locally and globally.

POST GRADUATE PROGRAM AVAILABLE

Master of Philosophy (MPhil)

The Department of Pharmaceutics is one of constituent and oldest department of the Faculty of Pharmacy and Pharmaceutical Sciences at the University of Karachi. The post graduate program is considered as one of the most dynamic programs of the university. Historically, the program is being run for more than 40 years. So far, the department has produced over 105 MPhil graduates with specializations in different sub-specialties of the subject.

The MPhil program comprises of minimum of 1.5 years with over 24 credit hours of course work and sufficient research work that is subject to approved from the Board of Advanced studies (BASR), University of Karachi and upon submission of research dissertation, the degrees are awarded by the BASR. The M.Phil dissertation is examined and evaluated by external examiners from any national University.

The courses offered at the department comprises of research design and methodology, physical pharmacy and formulation science to applied courses in the areas of microbiology, biopharmaceutics and pharmacokinetics and innovative aspects of pharmaceutical technology. The courses cover aspects of theory, problem-analysis (laboratories courses), and solution design with varying compositions with particular focus on hands-on experience for the graduate candidates.

The faculty's department research committee, that runs the program, is currently comprised of 13 academic staff, including five Professors, one Associate Professor, two Assistant Professors, three Assistant Professors (T) and two lectures. The department embodies a collaborative and vibrant environment that fosters innovation, research, and education. The ratio of faculty to students usually varies in the range of 1:4 to 1:3.

DOCTOR OF PHILOSOPHY (PhD)

The Department of Pharmaceutics is one of constituent and oldest department of the Faculty of Pharmacy and Pharmaceutical Sciences at the University of Karachi. The PhD program is of the department is considered one of the most dynamic and sought-after postgraduate programs of the university. Historically, the program is being run for more than 40 years and the first PhD graduate was produced in the year 1984. So far, the department has produced over 98 PhD and M.Phil/ Ph.D. graduates in different sub-specialties of the subject.

The PhD program comprises of minimum of 3 years with over 18 credit hours of course work and sufficient research work that may be considered suitable for scholarly enough for the award of the PhD degree by international standards such as JCR listed publications and international review of the thesis.

The courses offered at the department comprises of research methodology, physical pharmacy and formulation science to applied courses in the areas of microbiology, biopharmaceutics and pharmacokinetics and innovative aspects of pharmaceutical technology. The courses cover aspects of theory, problem-analysis (laboratories courses), and solution design with varying compositions with particular focus on hands-on experience for the graduates candidates. The ratio of faculty to students usually varies in the range of 1:3 to 1:2.

PROGRAM'S OBJECTIVES

1. To provide conceptual theoretical and practical knowledge in their area of specialization.
2. To develop cognitive skills related to his chosen field of research and other interdisciplinary fields.
3. To develop cultural, scientific and ethical values and to implement, execute and assess findings with professional ethics and academic integrity.
4. To develop skills in students to apply knowledge in the interdisciplinary subjects and work independently.

AIMS AND SCOPE OF THE PROGRAM

The post graduate program is aligned with the institutional vision of providing high quality, ethical, innovative and affordable education to the professional postgraduate students who may then use their acquired wisdom to solve various challenges to the pharmaceutical industry and consequently contribute to healthcare and pharmaceutical industry as highly skilled researchers and professionals. The graduates from the institute aspire to lead the pharmaceutical industry with the growing demands and challenges. The program offers a problem-solving attitude and competency for individuals to work independently as well as in teams to solve oncoming challenges in the industry. Since the program offers research areas in a wide variety of sub-disciplines with wide array of instrumentations available, it is considered one of most sought-after graduate MPhil and PhD programs in the country

The general feedback of the employers is very positive, and the institute invites the industry professional through various platforms to provide constructive feedback for the program for constant improvement. The pharmaceutical industry is continuously growing at a pace greater than 10 % -15 % per year and the faculty of pharmacy and pharmaceutical sciences takes pride of being the largest contributor to this industry with consequent significant contribution to the national GDP. Beside the industry, the program provides graduates to the academia and most of the pharmacy schools are being run by the faculty who have graduated from the program in the city and country.

The students have good satisfaction level with the courses and research that are being offered at the department and students opt for academia and research in large numbers beside the pharmaceutical industry.

REGULAR FACULTY MEMBERS WITH THEIR AREAS OF SPECIALIZATION / EXPERTISE:

Name : **Dr. Muhammad Harris Shoaib**
Designation : Professor and Dean
Qualification : Ph.D., M.Phil., B.Pharm. (University of Karachi)
Area of Specialization : Clinical Pharmacokinetics, Formulations Development, Biopharmaceutics, Dosage Form Design

Name : **Dr. S. M. Farid Hassan**
Designation : Professor and Chairperson
Qualification : Ph.D., M.Phil., B.Pharm. (University of Karachi)
Area of Specialization : Bioavailability, Bioequivalence, Pharmacokinetics, Formulation, Product Development, Optimization with Emphasis on Solubility Enhancement of Poorly Soluble Drugs and Novel Drug Delivery System

Name : **Dr. Rabia Ismail Yousuf**
Designation : Professor
Qualification : Ph.D., M.Phil., B.Pharm.(University of Karachi)
Area of Specialization : Pharmacokinetics, Formulations Development and Optimization, Biopharmaceutics, Clinical Pharmacy

Name : **Dr. Iyad Naeem Muhammad**
Designation : Professor
Qualification : Ph.D., M.Phil., B.Pharm. (University of Karachi)
Area of Specialization : Pharmacokinetics, Formulation Development, Pharmaceutical Biotechnology, Pharmaceutical Microbiology

Name : **Dr Rabia Bushra**
Designation : Professor
Qualification : Ph.D., M.Phil., Pharm. D., B. Pharm. (University of Karachi)
Area of Specialization : Formulation development & optimization, Biowaiver studies, Stability testing, In vitro drug release kinetics, Quality control testing, Pharmacokinetics

Name : **Dr Farya Zafar**
Designation : Associate Professor
Qualification : Ph.D., M.Phil., B.Pharm. (University of Karachi)
Area of Specialization : Formulation Development, Pharmacokinetics, Bio-Pharmaceutics and Novel Drug Delivery System

Name : **Dr. Sabahat Jabeen.**
Designation : Assistant Professor
Qualification : Ph.D., M. Phil., B. Pharm. (University of Karachi)
Area of Specialization : Formulation Development, Physical pharmacy, Pharmacokinetics and Drug Stability

Name : **Rehana Saeed**
Designation : Assistant Professor
Qualification : M.Phil., B.Pharm. (University of Karachi)
Area of Specialization : Pharmacokinetics, Formulation Development, Hospital Pharmacy and Clinical Pharmacy

Name : **Dr. Faaiza Qazi**
Designation : Assistant Professor (T)
Qualification : Ph.D., M.Phil., B.Pharm. (University of Karachi)
Area of Specialization : Formulation Development, Clinical Pharmacy, Pharmacokinetics, Pharmacy Practice, Drug Stability

Name : **Dr. Farrukh Rafiq Ahmed**
Designation : Assistant Professor (T)
Qualification : Ph.D., M.Phil., B.Pharm. (University of Karachi)
Area of Specialization : Formulation Designing, Nanomedicine, Population Pharmacokinetics

Name : **Dr. Kamran Ahmed**
Designation : Assistant Professor (T)
Qualification : Ph.D., M.Phil., B.Pharm. (University of Karachi)
Area of Specialization: Formulation and Development of Drug Delivery System

Name : **Dr. Sadaf Farooqi**
Designation : Lecturer
Qualification : Ph.D., M.Phil., B.Pharm. (University of Karachi)
Area of Specialization : Novel Drug Delivery system, Drug Delivery Disposition and Dynamics, Pharmaceutical Microbiology, Quality Use of Medicine.

Name : **Dr. Tazeen Husain**
Designation : Lecturer
Qualification : Ph.D., M.Phil., B.Pharm.(University of Karachi)
Area of Specialization : Formulation Development, Novel Drug Delivery System, Pharmaceutical Microbiology, Pharmacy Practice

RESEARCH FACILITIES AVAILABLE

Laboratory and Classroom Facilities

All the laboratories are well equipped with advanced and sophisticated industrial and analytical equipment. The classrooms are also furnished with modern facilities such HD enabled multimedia and audio systems. Following, are the laboratories with specialized facilities at the Department of Pharmaceutics.

- Natoli® tableting and industrial laboratory
- Formulation development laboratory
- Pharmaceutical technology laboratory
- Industrial pharmacy laboratory
- Pharmaceutical analysis/bioanalysis laboratory
- Physical pharmacy and biopharmaceutics laboratory
- Pharmaceutical microbiology laboratory
- Simulation laboratory (under development)
- Moreover, the Bioavailability and Bioequivalence Research Facility also provides state-of-the art analytical support to the research program of the department.

Library

In the faculty of pharmacy we are having a capacious and equipped library staffed with qualified personnel to cater with the need of a educational resources and material. The seminar library is subscribed with many international scientific journals and magazines. Most of the references books are made available for this purpose. The net facility is also available at the library.

Computer Laboratory

As per the needs and requirements of current educational scenario, the post graduate students are acquainted with sufficient knowledge of computer sciences, hence there is a provision of a computer laboratory equipped with new and updated computer systems where the Ph.D students practices and enhances their computer skills. The department offers free Wi-Fi based internet access to all the research students in addition to 10 computer systems installed in the computer laboratory.

INFRASTRUCTURE

The institution must have the infrastructure to support new trends in learning such as e-learning. There are sufficient facilities available in the Department of Pharmaceutics.

Departmental library and Internet Facility

Internet is available in the computer laboratory of the department while there is no departmental library rather the faculty library is there to cater with the books requirements.

Main Library

There is one main library in the faculty fulfilling the books requirements of the students and the faculty members. The library is also equipped with digital library facility along with internet facility

Offices

Every faculty member is provided an office for facilitation

Class Rooms

Class rooms are adequate in number sufficiently capacious

Technically aided Teaching

To cope with the advancements in the teaching skills there are availability of Multimedia projectors, overhead projectors and a special seminar room is separately dedicated in the research institute.

Seminar Library

In the faculty of pharmacy we are having a capacious and equipped library staffed with qualified personnel to cater with the need of a educational resources and material. The seminar library is subscribed with many international scientific journals and magazines. Most of the references books are made available for this purpose.

AVENUES FOR RESEARCH

The Department of Pharmaceutics is actively involved in the following research areas:

- Solid-state pharmaceutics
- Pharmaceutical microbiology
- Microneedles and transdermal drug delivery systems
- Conventional and innovative modified-release oral formulations
- (osmotic-controlled, pellets and gastro-retentive tablets etc.) and immediate release drug delivery system (oral films, mouth dissolving tablets, orally disintegrating tablets, mouth dissolving pellets etc.)
- Intranasal drug delivery systems
- Biopharmaceutics and pharmacokinetics (bioavailability and bioequivalence studies)
- Population and clinical pharmacokinetics, and physiologic-based pharmacokinetics (PBPK)

DEPARTMENT OF PHARMACEUTICAL CHEMISTRY

INTRODUCTION

Department of Pharmaceutical Chemistry is one of the most important academic units of the Faculty of Pharmacy and Pharmaceutical Sciences. Department is dedicated to provide sound education in the field of Pharmaceutical Chemistry and deals with the physical and chemical aspects of Pharmaceuticals. Courses offer by the Department are based on organic chemistry, physical chemistry, analytical, instrumental and medicinal chemistry, with a focus on drug discovery and development. Currently, the department has six Professors, and three Assistant Professors. All are Ph.D. holders and actively engaged in teaching and research. The department aims to promote learning environment and training of students in the advanced specialized areas of the field.

FACILITIES

The department is comprised of two large buildings having spacious classrooms and laboratories. The curriculum focuses on practical experience supported by highly qualified and experienced professionals with well-equipped labs. Presently, four working labs are dealing with synthesis, analytical, instrumental and experimental work for postgraduate students. Three full-fledged research labs are operating in the Department and Research Institute of Pharmaceutical Sciences (RIPS) providing facilities regarding drug designing, drug development, drug stability, and analysis & method development.

SPECIFIC RESEARCH AREAS

The department has a rich history of excellence in research. Experienced and actively growing research groups are working in the disciplines of drug designing and development, product and process development of drug, analytical aspects of drug, nanotechnology, kinetic studies and drug stability. Researchers are working with different research institutes, industries and organizations which promote many areas of collaborative research studies. The department has the honor of producing the first M. Pharm, the first M. Phil., first Ph.D. of this Faculty and up till now 60 Ph. Ds and more than 170 M. Pharms and M. Phils have been produced by the Department.

CAREER OPPORTUNITIES

Graduate program of the department is dedicated to educate and train the students to produce active, skilled and responsible future pharmacist for academia, industry, hospitals and government setups. They can go in production, quality control, marketing and drugs regulatory department of different pharmaceutical industries. They can also work as part of a healthcare team comprising doctors, pharmacists and paramedical staff. They can play an effective role as drug experts, able to select best treatments for managing patient care. Apart from these, there is a number of opportunities available in administrative and general management sites in government health department. Pharmacists with M. Phil. and or Ph.D. degree can also join teaching and research organizations.

FACULTY MEMBERS

Professors

1. Dr. Nousheen Mushtaq
2. Dr. Sohail Hassan
3. Dr. Asia Naz (Chairperson)
4. Dr. Safila Sharif

Assistant Professors

1. Dr. Shazia Haider (T)
2. Dr. Rubina Siddiqui (T)
3. Dr. Urooj Nazim (T)

PROGRAMS OFFERED

1. M. Phil.
2. Ph.D.

DEPARTMENT OF PHARMACY PRACTICE

INTRODUCTION

The Department of Pharmacy Practice is a newly launched department of the Faculty of Pharmacy & Pharmaceutical Sciences, University of Karachi with a vision of strengthening the applied aspects of Pharmacy in order to meet the requirements of developing Pharmaceutical care plans to monitor patient's drug therapy, educate patients and health care professionals service of Pharmaceutical care, medication therapy management, community Pharmacy service, and certain specialized service in pediatrics, oncology, infectious diseases, cardiology, drug information service, etc. by providing trained health- care system pharmacists maintain drug distribution system total Parenteral Nutrition and to solve drug related issues, etc.

Under the guidance of esteemed and seasoned faculty, the Department of Pharmacy Practice is dedicated to producing skilled pharmacists and advancing the field through innovative research in various aspects of pharmacy practice. Our vision includes offering specialized programs that foster professional growth and excellence in the future.

Department of Pharmacy Practice executes and certifies 200 hours clinical clerkship program in different renowned tertiary care general and specialist hospitals to meet the Pharm-D. Curriculum and post graduate research requirements. In addition to this, one month training in a community pharmacy and Drug Information Centre under the supervision of a registered pharmacist, is also part of the professional curricula.

DEGREE PROGRAM OFFERED

The Department of Pharmacy Practice is proud to offer a postgraduate degree program, M. Phil. in Pharmacy Practice, which has received approval from the Higher Education Commission (HEC) and meets all the required standards and criteria, ensuring a high-quality education and research experience for our students.

PROGRAMS' OBJECTIVES

The M.Phil. program in Pharmacy Practice is designed to pioneer innovative research in Clinical Pharmacy, Hospital Pharmacy, Community Pharmacy, Pharmaceutical Marketing, and Public Health. The department cores to develop and integrate educational and service models in pharmacy practice, bridging academia and real-world settings to cultivate leadership and expertise, providing visionary guidance to the profession and community.

AIMS AND SCOPE OF THE PROGRAM

M.Phil. in Pharmacy Practice at Faculty of Pharmacy and Pharmaceutical Sciences, University of Karachi is aimed to produce leaders for integrating education, research and practice by virtue of innovative and collaborative ventures within a diversified community and clinical health care systems across the country.

Pharmacy Practice is the demand of the current era in healthcare system. In hospitals, pharmacist take care of the patients by clinical interventions and rationalizing therapy, monitoring the outcomes and strategizing the clinical input to reduce adverse effects and report those adverse effects. Furthermore, via patient education and counseling, the pharmacist practitioner provides the social and behavioral contingency to the patients and general public.

The scope of M.Phil. Pharmacy practice is extending from Healthcare system, through Academia, and Regulatory Affairs of pharmacy practice to pharmaceutical research in Pharmacovigilance and Pharmacoepidemiology. These healthcare services as regarded as a pillar in healthcare system, hence, services to the society. In every sphere of healthcare system, these pharmacists are employed, and their services are procured.

Internationally, the widened scope of the pharmacy practice has made the post graduate studies in pharmacy practice a demand, MPhil in pharmacy practice are procured in several countries and regions like in Middle East and USA etc.

REGULAR FACULTY MEMBERS WITH THEIR AREAS OF SPECIALIZATION

1. **Prof. Dr. Harris Shoaib,**
Dean Faculty of Pharmacy and Pharmaceutical Sciences, being the In-charge of the Department.
mhshoaib@uok.edu.pk
Area of specialization are: Pharmaceutical care, Pharamcoeconomics, Clinical Pharmacokinetics, Pharmaceutical microbiology, Clinical Pharmacy
2. **Dr. Iyad Naeem Muhammad,**
Associate Professor and Coordinator
iyadnaeem@uok.edu.pk
Area of Specialization are: Pharmaceutical Care, Antimicrobial resistance, Nosocomial infections, Hospital Pharmacy Practices, Community Pharmacy
3. **Dr. Rabia Ismail Yousuf,**
Associate Professor
riyousuf@uok.edu.pk
Area of specialization are: Pharamceutical care, Adverse Drug Reactions, Therapeutic Drug Monitoring, Clinical Pharmacy

RESEARCH FACILITIES

1. **Library:** The department boasts state-of-the-art facilities, complemented by a well-stocked faculty seminar library, featuring an extensive collection of up-to-date subject relevant books and journals. This resourceful library ensures that the academic and research requirements of the students and faculty are duly met, providing a conducive environment for learning and scholarly pursuits.
2. **Computer Facilities:** Sufficient computer facilities are available with a stable internet facility for the students.
3. **Alignment with Hospitals for post graduate research:** The department is aligned with renowned hospitals of the city for post graduate research projects. This is in collaboration with renowned health care providers, physicians and consultants onboard.

AVENUES FOR RESEARCH

For M.Phil Pharmacy practice following are some of the vast avenues to explore:

1. Medication safety and efficacy: Investigating optimal medication use, adverse drug reactions, and drug interactions.
2. Pharmacoeconomics and outcomes research: Evaluating the cost-effectiveness and health outcomes of medications and pharmacy services.
3. Pharmacy practice models and innovation: Exploring new models of care, such as community pharmacy-based services and innovative dispensing technologies.
4. Patient-centered care and counseling: Investigating effective communication strategies and patient education methods.
5. Disease state management: Developing and evaluating pharmacy-based interventions for chronic diseases, such as diabetes and hypertension.
6. Public health and health promotion: Examining pharmacists' roles in preventive care, health promotion, and disease prevention and its effects on Health related quality of life.
7. Pharmacy education and assessment: Investigating innovative teaching methods and assessment tools for pharmacy students.
8. Health services research: Analyzing healthcare systems, access, and equity, including pharmacists' contributions.
9. Digital health and technology: Exploring the impact of digital tools, such as telepharmacy and artificial intelligence, on pharmacy practice.
10. Policy and advocacy: Investigating the impact of policy changes and advocacy efforts on pharmacy practice and patient care.

DEPARTMENT OF AGRICULTURE & AGRIBUSINESS MANAGEMENT

INTRODUCTION

The Department of Agriculture and Agribusiness Management was established to offer comprehensive education and research opportunities in agriculture. It began with BS program in Agriculture in 2004, became a full-fledged department in 2006, and was renamed as Department of Agriculture and Agribusiness Management in 2008. The department offers specializations in **Agribusiness Management, Plant Protection, and Plant Pathology**.

Agribusiness is a growing field in Pakistan, combining agricultural science with business management. This program helps students understand the economic principles of agribusiness, developing skills for managing agricultural enterprises. Specializations in plant protection and plant pathology teach students about managing pests and diseases in crops, promoting eco-friendly methods.

The department is dedicated to preparing students for careers in agriculture, providing them with the knowledge and skills needed to enhance crop yields and support the agricultural economy.

DEGREE PROGRAMS AVAILABLE

• **BS, M.Phil. & Ph.D.**, with specialization in Agribusiness Management, Plant Protection and Plant Pathology

ELIGIBILITY CRITERIA- M.PHIL & PH.D

Degree	Pre-requisites
M.Phil. in Agriculture (Agribusiness Management, Plant Protection and Plant Pathology)	Sixteen years of studies or equivalent qualification with at least second division in the agriculture. Subjective test /NTS subjective test followed by interview.
Ph.D. in Agriculture (Agribusiness Management, Plant Protection and Plant Pathology)	M.Phil. M.Sc. (Hons.) or equivalent qualification in Agriculture from an HEC recognized university/institution with at least 3.0 CGPA in course work. Subjective test /NTS subjective test followed by interview.

PROGRAM OBJECTIVES (M.PHIL. IN AGRICULTURE)

1. Enhance students' knowledge in **Agribusiness Management, Plant Protection and Plant Pathology**.
2. Develop research skills to solve agricultural issues.
3. Encourage innovative thinking for sustainable agriculture.
4. Prepare graduates for leadership roles in academia, industry, and public sector.

Program Aim

To provide advanced understanding and skills in agriculture, enabling students to contribute to research and development in sustainable agriculture and agribusiness.

Program Scope

1. Advanced courses in agribusiness management, plant protection, and plant pathology.
2. Research projects addressing real agricultural problems.
3. Training in modern research methods and techniques.
4. Opportunities for interdisciplinary collaboration.
5. Development of communication and leadership skills for career advancement.

PROGRAM OBJECTIVES (PH.D. IN AGRICULTURE)

1. Provide in depth knowledge and research skills in **Agribusiness Management, Plant Protection and Plant Pathology**.
2. Encourage innovative research for agricultural advancement.
3. Develop independent researchers capable of high-quality studies.
4. Prepare graduates for leadership roles in academia, industry, and government.

Program Aim

To produce skilled researchers and experts who can advance agricultural science, develop sustainable solutions, and lead in agricultural technology and policy.

Program Scope

1. Advanced courses/course work and seminars in agriculture and related fields.
2. Original research leading to a significant dissertation.
3. Training in advanced research methods and data analysis.
4. Opportunities to publish research and present at conferences/seminars etc.
5. Collaboration with academia and industry experts.
6. Development of teaching and mentoring skills for academic careers.

FACULTY MEMBERS

S.No.	Name	Designation	Specialization
1.	Dr. Saboohi Raza	Professor & Chairperson	Agriculture Biotechnology & Molecular Plant Pathology
2.	Dr. Saleem Shahzad	Adjunct Professor (Meritorious)	Plant Pathology
3.	Dr. Rana Mazhar Abbas	Associate Professor	Horticulture
4.	Dr. Amjad Sultan	Assistant Professor	Pest Management & Biological Control
5.	Dr. Shagufta Sehar	Assistant Professor	Plant Protection & Agriculture Biotechnology
6.	Dr. Muhammad Shahid	Assistant Professor	Agriculture Entomology
7.	Dr. Abdul Qayoom Rajput	Assistant Professor	Plant Pathology
8.	Mr. Shahan Aziz	Assistant Professor	Agribusiness Management
9.	Mr. Talha Azeem	Assistant Professor	Agribusiness Management

RESEARCH FACILITIES

The Department of Agriculture and Agribusiness Management offers a range of specialized laboratories:

1. **Molecular Plant Pathology Lab**
Studies plant diseases at the molecular level.
2. **Pest and Disease Research Lab**
Focuses on pests and crop diseases research.
3. **Pesticides Toxicology Lab**
Pesticide residue analysis and Bioassays.
4. **Biological Control Lab**
Research on natural pest control methods.
5. **Entomology Post Graduate Research Lab**
Advanced research on beneficial insects.
6. **Seed Testing Lab**
Tests seed quality and viability.
7. **Plant Tissue Culture Lab**
Cultivates plant tissues for genetic research.
8. **Post-Harvest Management Lab**
Post-harvest (produce) preservation and value addition.

INFRASTRUCTURE

The Department of Agriculture and Agribusiness Management has excellent infrastructure to support education and research:

1. **Classrooms:** state-of-the-art classrooms, each equipped with multimedia sound systems
2. **Undergraduate lab:** for BS students
3. **Seminar Library:** for text and reference books
4. **Conference Room:** for meetings and trainings
5. **Computer Laboratory with Digital Library:** access to online resources
6. **Specialized Laboratories:** well-equipped specialized post-graduate labs for advanced research.
7. **Agriculture Experimental Facilities:**
 - 18.18-acres agricultural field for research and trainings.
 - 0.5-acre apiculture field dedicated to beekeeping studies.
 - Green house for Plant Nursery Management.
 - Green House for acclimatization of tissue culture produced Banana Plants.

These facilities provide a robust environment for both learning and research in agriculture.

AVENUES OF RESEARCH

The Department of Agriculture and Agribusiness Management offers diverse research opportunities. In Plant Protection, researchers study insects affecting crops and develop pest management strategies, while plant pathology investigates plant diseases, both aiming to create eco-friendly control methods. Agribusiness research explores the economic and business aspects of agriculture to enhance farm management and agribusiness practices. These research avenues address critical agricultural challenges and promote sustainable agriculture.

DEPARTMENT OF APPLIED CHEMISTRY & CHEMICAL TECHNOLOGY

INTRODUCTION

The department of Applied Chemistry and Chemical Technology was established in 1971. The courses were designed keeping in view the need of the chemical industries of Pakistan and with due consideration from courses of foreign and local Universities offering similar program. With passage of time significant advancements in syllabus with special emphasis on important chemical industries of Pakistan has been incorporated. Namely, fertilizers, refineries, cement, sugar, polymers, pharmaceuticals, textiles, etc. Due consideration has been given to important aspects of advance materials, chemical engineering, quality control, instrumentation, thermodynamics, reaction engineering, materials engineering, maintenance and environmental aspects in research. Hence it is hoped that the program provides the knowledge, skills and resources for continued learning and professional development. Studies inculcates ability to identify, formulate, and solve industrial problems producing original and substantial research.

POST GRADUATE DEGREE PROGRAMS

1. M.Phil.
2. Ph.D

TEACHING AND RESEARCH ASSESSMENT

Teaching and research is supported by lectures, colloquiums, seminars and group discussions. Online sources and webinars are also arranged to cultivate expertise and collaboration at international forum.

AIMS AND SCOPE

Research graduates of this department will meet the needs of the chemical industries and institutes of Pakistan.

OUR MISSION

To attain quality in academics and research in turn formulating latest chemical technologies. We undertake to train and teach highly skilled manpower with an entrepreneurial sight. In turn support our university in becoming a globally recognized centre of excellence in Higher Education and Research.

OUR VISION

Advance education and research for scientific application in most recent fields of chemical science and technology. Thus producing diversity of chemical substances and process technologies fostering industrial growth. In turn enriching lives in our society and to integrate with other economic stability measures.

OBJECTIVES:

1. Studying chemical properties for conducting research producing new materials and processes.
2. Engage with wide range of industrial perspective to make a contribution the field of chemical sciences.
3. Discover how literature is integrated with other emerging fields like chemical engineering
4. Encouraging professional development technical writing and publish research in reputed journals.
5. To answer a specific question or solve a real-world problem finally to commercialization.

AVENUEUS & PROSPECTS:

1. Academic careers in universities and institutes
2. Industrial and Scientific Research
3. Industrial Research and Development.
4. Chemical consultation and advisory
5. Entrepreneurship and commercial start-ups

AVAILABLE RESEARCH FACILITIES

- Infrastructure includes specialized research laboratories, analytical equipment and workshop facilities.
- Departmental Seminar Library and digital library provided by HEC which contains most of the latest text and reference books on the related subjects.
- Faculty believes in applied research in close co-ordination with the industries at their premises.

**ELIGIBILITY & ALLOCATED SEATS IN DEPARTMENT OF APPLIED
CHEMISTRY AND CHEMICAL TECHNOLOGY**

DEGREE	ELIGIBILITY	SEATS
M. Phil	BS / M. Sc in Applied Chemistry & Chemical Technology / Chemical Engineering and allied subjects	12
PhD	M.Phil. MS in Applied Chemistry & Chemical Technology, Chemical Engineering and allied subjects.	14

DEPARTMENTAL RESEARCH COMMITTEE MEMBERS

Name	Designation	BPS / TTS/ Adjunct	Subject Area	Ph.D. Degree Status
Dr. Mohib Reza Kazimi	Professor (<i>Chairman</i>)	BPS 21	Technical textiles, Conducting Polymers, Nanotechnology.	Ph.D. 2014 Chemical Engineering Universiti Malaysia Pahang Sultan Abdullah
Dr. Sadia Khan	Professor	BPS 21	Food Science, Natural Products and Organic chemistry	Ph.D. 2014 Applied Chemistry & Chemical Technology, University of Karachi
Dr. Syed Imran Ali	Professor	BPS 21	Polymers, nanoparticles nanocomposites, drug release & encapsulation	Ph.D. 2010 Polymer chemistry Eindhoven University of Technology, Netherlands
Dr. S. Mumtaz Danish Naqvi	Associate Professor	BPS 20	Chemical kinetics, Reaction Engineering, Chemo metrics.	Ph.D. 2010 Applied Chemistry & Chemical Technology, University of Karachi
Dr. Syed Adnan Hasan	Associate Professor	BPS 20	Analytical chemistry Environmental Sciences Chemical biotechnology	Ph.D. 2010 Biodegradation of Fluorinated Environmental Pollutants University of Groningen.
Dr. Farah Inamullah	Assistant Professor	BPS 19	Petroleum Technology Organic Industries and Natural Products.	Ph.D. 2018 Applied Chemistry & Chemical Technology. University of Karachi
Dr. Zeeshan Akhter	Assistant Professor	BPS 19	Textile chemistry, dyes synthesis, technical textile and nanoparticles	Ph.D. 2015 Applied Chemistry & Chemical Technology, University of Karachi
Dr. Maryam Mudassir	Assistant Professor	BPS 19	Polymers Rheology, nanocomposites, Electrocoagulation and Fibre composites.	Ph.D. 2018 Applied Chemistry & Chemical Technology. University of Karachi.
Dr. Sadia Amber	Assistant Professor	BPS 19	Biofuels, Catalysis, Analytical chemistry	Ph.D. 2019 Applied Chemistry & Chemical Technology. University of Karachi

Dr. Mehwish Mobeen	Assistant Professor	BPS 19	Physical Chemistry, Chemical Kinetics and Environmental Studies	Ph.D. 2022 Applied Chemistry & Chemical Technology. University of Karachi
Dr.Kashif Riaz	Lecturer	BPS 18	Material Chemistry, Ionic liquids and nanocomposites	Ph.D. 2025 Applied Chemistry & Chemical Technology. University of Karachi
Dr. Mehdi Kazmi	Adjunct Professor		Analytical chemistry, Natural Compounds.	Ph.D. 2011 Applied Chemistry & Chemical Technology. University of Karachi

DEPARTMENT OF APPLIED PHYSICS

INTRODUCTION

The Department of Applied Physics was established in 1971 with the objective to teach and train students to meet the growing technological needs of the industries of Pakistan in the area of Applied Physics. Over the years emphasis has shifted toward electronics and semiconductor technology because of the growing demand of technologically-advanced industries in Pakistan. The syllabus is updated from time to time to keep abreast with the development in technology. Our objective is to prepare students to meet challenges of the fast growing technologies in the field of Electronics and Semiconductors.

The department of Applied Physics also offers thesis-based degree admission in its M.Phil. and Ph.D. programs with an aim to produce research expertise which can help to solve indigenous problems related to applied physics.

POSTGRADUATE PROGRAMS AVAILABLE

The Department of Applied Physics offers the following postgraduate programs in the specialized areas of Applied Physics including Renewable Energy Technologies, Nanotechnology, Thermal Optics, etc.:

1. M.Phil. in Applied Physics.
2. Ph.D. in Applied Physics.

PROGRAM OBJECTIVES

- The program aims to cultivate intellectual independence among MPhil and PhD students. This involves encouraging students to explore their research interests, develop their own research questions, and pursue innovative approaches to problem-solving. By fostering intellectual independence, the program seeks to produce scholars who can make original contributions to knowledge.
- A key objective of the MPhil and PhD program is to deepen students' subject matter expertise. Through rigorous coursework, seminars, and engagement with leading scholars in the field, students will develop a comprehensive understanding of the theoretical frameworks, methodologies, and key debates relevant to their research area. This objective ensures that students become authorities in their chosen fields.
- The program emphasizes the development of strong communication skills among MPhil and PhD students. This includes both written and oral communication, as students are expected to present and defend their research findings to academic audiences. Additionally, students will be encouraged to disseminate their research through publications and conference presentations, ensuring that their work reaches a wider scholarly community.
- The MPhil and PhD program places a strong emphasis on ethical research practices. Students will be guided to adhere to ethical principles and guidelines while conducting their research, including obtaining informed consent, ensuring data privacy and confidentiality, and maintaining integrity in reporting research findings. This objective ensures that students become responsible researchers who contribute to the advancement of knowledge while upholding ethical standards.

AIMS AND SCOPE OF THE PROGRAMS

Aim: The MPhil and PhD programs aim to advance knowledge and innovation in Applied Physics through high-quality research in specialized fields such as renewable energy, nanotechnology, and thermal optics by developing expertise in theoretical, computational, and experimental techniques to address current challenges in the fields of energy, materials science, and photonics. The postgraduate programs also intend to foster interdisciplinary research by integrating physics with engineering, environmental science, and materials technology for sustainable solutions, which prepare the graduates for leadership roles in academia, research institutions, and industry by enhancing analytical, problem-solving, and technical communication skills.

Scope: The programs focus on specialized research areas within Applied Physics, including Renewable Energy (Wind Energy, Solar Energy, Tidal Energy & Waste-to-Energy), Nanotechnology & Advanced

Materials, Thermal Optics, etc. The research students will engage in advanced coursework, computational modeling, and experimental research, collaborating with industry and research centers. The programs emphasize innovation, sustainability, and real-world applications, preparing graduates to drive scientific and technological progress in their fields.

By combining fundamental physics with cutting-edge research, graduates will contribute to next-generation energy solutions, nanomaterials, and optical technologies, addressing global challenges in energy, environment, and advanced manufacturing.

FACULTY MEMBERS AND THERE ARE OF SPECIALIZATION

1.	Dr. Zeeshan Alam Nayyar In-Charge & Assistant Professor	Renewable Energy (Wind Energy)
2.	Dr. Zia Ur Rehman Assistant Professor	Nanotechnology
3.	Dr. Faisal Rafique Assistant Professor	Electro-Optical & Electro-Mechanical
4.	Dr. Ambreen Insaf Assistant Professor	Renewable Energy (Tidal Energy)

RESEARCH FACILITIES AVAILABLE

The department of Applied Physics owns two research laboratories that are Renewable Energy Research Lab (RERL) and Nanoscale Synthesis & Research Laboratory (NSRL).

1. Renewable Energy Research Lab (RERL):

The Renewable Energy Research Lab (RERL), formerly known as the Renewable Energy Research Group, was founded in 2012. From the very beginning, RERL has been committed to addressing the pressing global challenges of climate change, energy security, and environmental sustainability.

Our lab is a hub for innovation, focusing on research areas like wind, solar, tidal, waste-to-energy and smart grids. We're not just about theory—we're on a mission to develop practical, cost-effective solutions that benefit the planet and make renewable energy accessible to all.

At RERL, we provide an inspiring space for undergraduate and postgraduate students to explore and solve real-world energy problems. Whether they're working with cutting-edge software or experimenting with advanced hardware, students are deeply involved in shaping the future of energy.

Finally, RERL is backed with high impacts research publications in prestigious journals and conference participations covering different aspects of wind, solar, smart grid, and related energy resources.

2. Nanoscale Synthesis & Research Laboratory (NSRL):

This lab consists of two sub sections:

i. KM Aleem Nanotech Laboratory

This laboratory is named after KM Aleem (late), one of the alumni of this department. It was established with the generous funding and efforts of the family and friends (Alumni 1982) of late KM Aleem. This section caters the synthesis of nano materials in general and 2D materials in particular. Synthesis of 2D materials is done using Chemical Vapor Technique (CVT), Chemical Vapor Deposition (CVD) as well as hydrothermal method. Moreover, facility is also available to synthesize nanomaterials using wet chemical method. Synthesized materials can be used in electronics, optoelectronics, sensors, energy applications etc.

We are actively working on the synthesis of TMDs, Mxenes, and other 2D materials in this laboratory.

ii. Ansari & Zaidi Thin Film Laboratory

This lab is named after two of pioneer professors of this department to pay homage for their services to the department. This lab aims at growth of thin films for electronic, optoelectronics, sensor, and photovoltaic applications. Thin film growth is carried out by thermal evaporation method using a vacuum coating unit. The lab is equipped with the facilities to study electrical transport and dielectric properties of thin films. Moreover, we also use spin coater and ultrasonic bath for the fabrication of thin films. We are planning to use these facilities to synthesis composite materials as well.

These labs are supported by extensive publication track record in basic physics, applied physics and material physics journals of high repute.

AVENUES FOR RESEARCH

Some of the research avenues (not limited to) are listed below:

- Wind Energy
- Smart Grid
- Waste-to-Energy
- Tidal Energy
- 2D materials
- Topological Materials
- Composite Materials
- Thin Films
- Electro-Optical & Electro-Mechanical
- Thermal Optics

DEPARTMENT OF BIOCHEMISTRY

INTRODUCTION

The Department of Biochemistry, established in 1962, is the pioneer independent department of our country. Since its inception, the department has shared the University of Karachi's goals of excellence in research and education. The faculty members are not only conducting research and producing postgraduates in diverse areas of Biochemistry including Biotechnology, Bioinformatics, Cell biology, Clinical Biochemistry, Enzymology, Genetics, Genomics, Hematology, Immunochemistry, Molecular Biology, Molecular Biophysics, Neurochemistry Neuropharmacology, Nutrition and Proteomics but also publishing number of national and international research papers and won research projects from renowned funding agencies.

POSTGRADUATE PROGRAM AVAILABLE

- B.S. 4 Year
- B.S. 3rd Year
- M.Phil / MS
- Ph.D

M.Phil / Ph.D. PROGRAM OBJECTIVES

The Objective of M.Phil./Ph.D. program is to produce ethically and professionally sound researchers who can perform their responsibilities in a creative way. The program puts a lot of emphasis on developing communication skills and upgrading knowledge regarding with new advancements in biochemistry by enforcing students to attend research-oriented seminars, group meetings and manuscript writing. To make students capable to carry out independent research to achieve globally accepted sustainable development goals of awareness, health, medicine, drug discovery, development and design.

SCOPE OF THE PROGRAM

The graduates and post graduates of Biochemistry department are successfully applying their knowledge in different professions in country and abroad by working in public and private sector multinational industries, teaching and research organizations, Pharmaceutical industries, biomedical industries, Forensic science laboratories, hospitals, clinical laboratories and universities of basic and medical sciences.

FACULTY MEMBERS WITH THEIR AREAS OF SPECIALIZATION/EXPERTISE

Professors

- Dr. Farhat Batool: Neuroscience and Neuroendocrinology
- Dr. Shamim A. Qureshi (Chairperson): Phytopharmacology, Clinical Chemistry, Public Health
- Dr. Hajra Naz: Neurotoxicology
- Dr. Sadaf Naeem: Bioinformatics, Computational Drug Design, Biophysics
- Dr. Sadia Saleem: Neuropharmacology and Neurochemistry,

Associate Professors

- Dr. Huma Ikram: Neuroscience
- Dr. Muhammad Farhan: Neuroscience
- Dr. Tooba Lateef : Natural products pharmacology, Clinical Biochemistry, Computational Biology

Assistant Professors

- Dr. Faizan Hassan Naqvi: Molecular Biology
- Dr. Yasmeen Rashid: Protein Bioinformatics and Molecular Docking
- Dr. Beena Hassan : Neuroproteomics
- Dr. Fizza Hassan Naqvi : Neuropharmacology and Neurochemistry
- Dr. Ayesha Khan : Neurochemistry, Proteomics, Molecular Biology
- Dr. Uzma Urooj : Protein Chemistry, Proteomics
- Dr. Khwaja Ali Hasan: Molecular biology, Genomics, Metagenomics, Molecular epidemiology

RESEARCH FACILITIES AVAILABLE

- **Seminar Library**
Dr. Zain Memorial Seminar Library of the department has the latest collection of Reference Books on Biochemistry with over 100 Biochemistry related journals in print and / or with on-line access.
- **Computer Facilities**
A well-established computer lab is available for graduates and post-graduate students / researchers with 24 hours internet facility for their research need, course work and link to national and international virtual conferences/ symposiums/ seminars.
- **Research Laboratories**
The research labs of the department is equipped with cutting-edge techniques utilized in research like Real-time / Reverse transcriptase Polymerase Reaction (RT-PCR/ RT-qPCR), High Performance Liquid Chromatography (HPLC), Column Chromatography, Enzyme-linked immunosorbent Assay (ELISA), Spectrophotometer, Electrophoresis, Flame Photometry, Freeze Drying (Lyophilizer), Fluorimetry, Atomic Absorption, and Ultra centrifugation etc.

AVENUES OF RESEARCH

- Bioinformatics
- Biophysics
- Biotechnology
- Clinical Biochemistry
- Drug discovery and development
- Enzymology
- Molecular Biology and Genetic Engineering
- Molecular Neurochemistry
- Neuropharmacology
- Nutritional Science
- Phytopharmacology / Phytotherapeutics
- Proteomics and Genomics
- Psychopharmacology
- Toxicology

DEPARTMENT OF BIOTECHNOLOGY

INTRODUCTION

The Department of Biotechnology at the University of Karachi is known for its excellent education and innovative research. Equipped with modern facilities and a seasoned faculty, the department specializes in vital biotechnological fields. Our programs prepare students to confront real-world issues, fostering progress in industry and society through collaborative efforts and scientific expertise. With rigorous academic training and research opportunities in our MPhil and PhD programs, students are primed for leadership roles across academia, industry, and research institutions guided by esteemed faculty and empowered by state-of-the-art resources, students engage in interdisciplinary research, driving biotechnological advancements and addressing global challenges. Currently many of the graduates hold key positions in various national and multinational organizations as well as serving abroad and are making significant contributions in their field of specialization.

POSTGRADUATE PROGRAMS AVAILABLE

1. MPhil
2. PhD

OBJECTIVES OF THE MPhil PROGRAM

1. To conduct scholarly activities in a professional and ethical manner.
2. To analyze case studies representatives of key areas of biotechnology.
3. To make student proficient in applying scientific principles and methods at an advanced level to diagnose and solve problems.
4. To produce a researcher who has in-depth knowledge in specialized areas of biotechnology and the skills to carry out original research.

AIMS OF THE MPhil PROGRAM

The M.Phil Program aims to cultivate ethical and professional scholarly conduct, enhance students' analytical and problem-solving skills through advanced scientific principles, and develop in-depth knowledge and research capabilities in specialized areas of biotechnology.

SCOPE OF THE MPhil PROGRAM

The program covers advanced coursework, ethical training, and case study analysis, providing training in research methodologies and offering specialization through thesis research. It also emphasizes professional development, industry collaboration, and networking opportunities to prepare students for careers in biotechnology.

OBJECTIVES OF THE PhD PROGRAM

1. To develop skills required to conduct independent research.
2. To prepare graduates for writing national & international projects aiming to solve challenges facing industry and society.
3. To make students able to communicate effectively, scientifically and professionally
4. To educate students so that they can exploit discoveries and can develop, design and synthesize safe and sustainable processes & products.

AIMS OF THE PhD PROGRAM

The Ph. Program aims to develop students' skills for conducting independent research, preparing them to write impactful national and international projects addressing industry and societal challenges, and ensuring they can communicate effectively and professionally

SCOPE OF THE PhD PROGRAM

The program encompasses advanced research training, project proposal writing, and effective scientific communication. It also focuses on educating students to leverage discoveries for the development, design, and synthesis of safe and sustainable biotechnological processes and products.

REGULAR FACULTY MEMBERS AND AREAS OF SPECIALIZATION

Highly qualified and experienced faculty are dedicated to providing quality education and conducting research in key areas of biotechnology.

Faculty	Designation	Expertise Area
<i>Dr. Raheela Rahmat Zohra</i>	Associate Professor and Chairperson	Industrial Biotechnology (enzymes, metabolites & biopolymer production)
<i>Dr. Saifullah</i>	Associate Professor	Biotransformation. Metabolomics. Plant Tissue Culture. Natural Product.
<i>Dr. Shafaq Aiyaz Hassan</i>	Assistant Professor	Bioinformatics and Molecular biology
<i>Dr. Mahnaz Ahmad</i>	Assistant Professor	Industrial and Environmental Biotechnology
<i>Dr. Erum Hanif</i>	Assistant Professor	Immunology and Medical Biotechnology

INFRASTRUCTURE AND RESEARCH FACILITIES AVAILABLE

Classrooms are adequately equipped and have facility of multimedia projectors. Departmental seminar library has stock of about 500 books related to various fields of biotechnology and is updated periodically. The Department of Biotechnology has 09 research laboratories a part from four students laboratories. These laboratories are equipped with modern and fashionable equipment like RT-PCR, Enzyme Linked Immunosorbent Assay (ELISA), Nano-drop, High Performance Liquid Chromatography (HPLC) Unit, Thermocycler, Electrophoresis units, Vacuum Concentrator, Freeze Dryer, Rotary Evaporator, Spectrophotometer, Aspirators, Centrifuges, Shaker incubators, various kinds of Microscopes with cameras. Clean Bench and BSL-2 Cabinets etc.

AVENUES FOR RESEARCH

Industrial biotechnology research aimed at developing sustainable processes for the production of chemicals, materials, or energy. Nanotechnology applications in various fields. Biotransformation of natural compounds for pharmaceutical or industrial purposes. Metabolomics studies to understand metabolic pathways in plants or microbial systems. Plant tissue culture techniques for the production of valuable secondary metabolites. Investigation of natural products for their therapeutic or industrial potential. Bioinformatics analysis of genomic or Proteomic data related to diseases or biotechnological processes. Molecular biology studies focusing on gene expression, regulation, or genetic engineering of microorganisms. Environmental biotechnology projects focusing on waste treatment, bioremediation, or pollution control using biological systems. Immunological research on vaccine development, immune responses to pathogens, or autoimmune diseases. Medical biotechnology studies focusing on diagnostic tools, therapeutic agents, or personalized medicine approaches. The Department is facilitated with dedicated faculty labs aiming towards the sustainable future prospects in the field of Biotechnology through producing well-trained postgraduate MPhil and PhD students.

DEPARTMENT OF BOTANY

INTRODUCTION

The Department of Botany, University of Karachi was established in 1953 at the University of Karachi provides a diverse array of over ninety undergraduate and postgraduate courses aimed at offering valuable knowledge applicable to various sectors including education, agriculture, environmental NGOs, pharmaceuticals, and other industries. The department boasts a seminar library housing a vast collection of educational resources, guiding prospective students, alongside a computer lab equipped with internet facilities to aid students in honing their skills and staying abreast of the latest research trends of the twenty-first century. During the initial two years of study, students focus on botany as their major subject along with two subsidiary subjects from other university departments. In their final year, students have the opportunity to specialize in one of several branches of Botany, including Applied Botany, Mycology & Plant Pathology, Plant Ecology, Phycology & Marine Botany, Plant Physiology, and Plant Taxonomy.

The Department offers specialization in various branches of plant sciences, which proves beneficial for securing employment in agriculture-based organizations, teaching positions across colleges and universities, and contributing significantly to the country's education system. Graduates also find opportunities in non-governmental organizations like the World Wildlife Fund (WWF) and the International Union for Conservation of Nature (IUCN). Alumni from the Department are employed both nationally and internationally, reflecting the quality of education and training provided. With a strong emphasis on research and teaching, the Department has cultivated a large and productive group dedicated to advancing plant sciences. Faculty members are actively engaged in specialized fields, having successfully completed over fifty research projects supported by national and international funding agencies. The Department has an impressive publication record, with over two thousand research papers published in renowned journals, both nationally and internationally recognized by the Higher Education Commission (HEC) and with a notable impact factor. Presently, numerous research projects and publications are underway, showcasing the ongoing commitment to scientific advancement and knowledge dissemination.

THE DEPARTMENT OFFERS THE FOLLOWING POSTGRADUATES PROGRAMS:

The Department offers a range of Postgraduate programs catering to the diverse academic and research interests of its students.

- M.Phil. / MS
- Ph.D

M.PHIL / MS AND PH.D. PROGRAM OBJECTIVES

The following objectives collectively aim to prepare graduate students to become proficient researchers and leaders in the field of Botany, capable of addressing the complex challenges facing the global environment and contributing to sustainable solutions for the benefit of society.

1. **Advanced Research:** To cultivate a culture of advanced botanical research among graduate students, fostering innovation and discovery in various sub fields of Botany.
2. **Knowledge Enhancement:** To deepen students' understanding of botanical principles, theories, methodologies, and applications through rigorous coursework, seminars, and workshops.
3. **Specialization:** To allow students to specialize in specific areas of botany such as plant physiology, taxonomy, ecology, genetics, or biotechnology, depending on their interests and career goals.
4. **Critical Thinking:** To develop students' critical thinking and analytical skills, enabling them to evaluate and solve complex botanical problems and contribute to the advancement of the field.
5. **Collaboration:** To promote interdisciplinary collaboration among students and faculty members within the department and across other departments or institutions, fostering a holistic approach to botanical research and applications.
6. **Publication:** To encourage students to publish their research findings in peer-reviewed journals and present them at national and international conferences, thereby contributing to the dissemination of knowledge and the advancement of the field.

7. Professional Development: To provide students with opportunities for professional development, including teaching experience, mentorship, and training in scientific writing, presentation skills, and grant writing, preparing them for successful careers in academia, industry, government, or non-profit organizations.
8. Ethical Conduct: To instill ethical values and principles in research practices, ensuring integrity, transparency, and responsibility in all aspects of botanical research and scholarship.

AIMS AND SCOPE OF M.PHIL/MS AND PH.D. PROGRAM

The Scope of M.Phil. / MS and Ph.D. programs in the field of Botany typically encompass a wide range of objectives designed to equip students with advanced knowledge, skills, and expertise in various aspects of plant science. Here are some common aims and the scope of such programs:

The M.Phil./MS and Ph.D. programs in the Department of Botany at the University of Karachi offer an extensive scope for advanced study and research in various facets of plant science. With a rich tradition of academic excellence and a commitment to fostering innovative botanical research, these programs provide students with the opportunity to delve into diverse areas such as plant physiology, ecology, genetics, taxonomy, biotechnology, and conservation biology. Through rigorous coursework, hands-on laboratory experiences, and mentorship from esteemed faculty members, students gain a deep understanding of fundamental botanical principles and cutting-edge research methodologies. They are encouraged to pursue original research projects that address pressing challenges in agriculture, biodiversity conservation, environmental sustainability, and biotechnological innovation. Additionally, the programs emphasize interdisciplinary collaboration, ethical conduct, and professional development, preparing graduates for successful careers as researchers, educators, policymakers, and leaders in the field of Botany, both nationally and internationally.

FACULTY MEMBERS AND THEIR FIELD OF SPECIALIZATIONS

Professor Emeritus

Dr. Muhammad Qaiser (Plant Systematics, Biodiversity, Ethnobotany, Phytogeography)

Professors

Dr. Zamin Shaheed Siddiqui (Chairman) (Plant-Physiology, Biochemistry)

Dr. Sadaf Gul (Phycology, seaweed ecology and physiology, Mangrove ecosystem)

Dr. Laila Shahnaz (Phycology, Seaweed Biology, Phycochemistry)

Dr. M. Faheem Siddiqui (Ecology and Dendrochronology)

Associate Professors

Dr. M. Waseem Abbasi (Plant Pathology)

Assistant Professors

Dr. Amna Ahmed (Plant Anatomy)

Dr. Maria Hamid (Plant Pathology)

Dr. Muhammad Azeem (Plant Physiology)

Dr. Naeem Ahmed (Plant Physiology)

Dr. Afshan Rahman (Plant Physiology)

Dr. Hafiza Asma (Plant Pathology, Plant molecular biology)

Dr. M. Yousuf Adnan (Plant Ecophysiology)

Dr. Asma Hanif (Plant Pathology)

Dr. Sana (Plant Systematics, Biodiversity, Ethnobotany)

Lecturer

Mrs. Hira Ejaz (Plant Pathology)

AVAILABLE RESEARCH FACILITIES

The Department boasts well-equipped laboratories catering to the needs of undergraduate, graduate, postgraduate, and PhD studies alongside an extensive collection of books and research papers housed in the Seminar library. Additionally, it has established a computer lab facilitating rapid access to study materials, thus enabling students to delve into various aspects of plant sciences research. Moreover, the Department has inaugurated the Shameel Memorial Library, the Stress Physiology and Phenomics Center (funded by South Korea), and the Biosaline Research Lab and Experimental Field, all aimed at advancing research and productivity. At the forefront of these facilities is the state-of-the-art Central Lab, equipped with cutting-edge instruments including HPLC, PCR, and high-resolution microscopes, which form the cornerstone for conducting high-quality research endeavors.

INFRASTRUCTURE

1. The Department has spacious lecture hall and audio-visual rooms. Further, an auditorium is present to conduct seminars and other program.
2. To deal with the queries and to facilitate students an administrative desk is also available besides Chairperson room.
3. All faculty members have offices alongside their own research laboratories providing a conducive environment for M.Phil. and Ph.D. research students.
4. Centralized laboratory is functioning along with the state of the art and sophisticated Scientific Equipment and Instrument for post graduate students.
5. Girls Common is also available in the Department.
6. The department is surrounded by beautiful and well maintained lawns having wide variety of ornamental, medicinal and fruit plants.
7. The parking area is equipped with CCTV cameras to ensure security.

AVENUES FOR RESEARCH

Research in Botany encompasses a diverse range of avenues, reflecting the broad scope of plant science and its interdisciplinary connections with other fields. Here are some key avenues of research in botany:

1. **Plant Taxonomy / Systematics:** Classifying, identifying, and naming plants based on their evolutionary relationships and morphological, anatomical, and molecular characteristics, contributing to our understanding of plant diversity and investigating the evolutionary history, adaptation, speciation, and diversification of plants, using phylogenetic analyses, comparative genomics, and experimental approaches to unravel the patterns and processes of plant evolution.
2. **Plant Physiology:** Investigating the physiological processes that govern plant growth, development, metabolism, and responses to environmental stimuli such as light, temperature, water, and nutrients. Studying plant-environment interactions, plant responses to biotic and abiotic stresses, and mechanisms of stress tolerance and adaptation, with implications for agricultural productivity, ecosystem resilience, and environmental sustainability.
3. **Plant Ecology:** Studying the interactions between plants and their biotic and abiotic environments, including topics such as community ecology, ecosystem dynamics, biodiversity, conservation biology, and the impacts of human activities on natural ecosystems. **Dendrochronology:** Scientific method of dating tree rings to determine the age of a tree or the timing of events in the environment. By examining the pattern of rings formed in the trunk of a tree, scientists can infer information about past climates, environmental conditions, and ecological changes. **Plant-Soil Interactions:** Exploring the role of plants in soil formation, nutrient cycling, and ecosystem functioning, as well as the effects of soil properties and microbial communities on plant growth and health.
4. **Plant Genetics and Genomics:** Exploring the genetic basis of plant traits, genetic diversity, gene expression, and genome organization, using molecular techniques and genomic tools to improve crop traits, develop genetically modified organisms, and conserve endangered species.
5. **Plant Molecular Biology and Biotechnology:** Investigating the molecular mechanisms underlying plant processes such as gene regulation, signal transduction, and stress responses, and applying biotechnological approaches to improve crop productivity, disease resistance, and tolerance to environmental stresses.
6. **Plant-Pathogen Interactions:** Understanding the mechanisms of plant-pathogen interactions, including plant defense mechanisms, pathogen virulence factors, host-pathogen co-evolution, and the development of sustainable strategies for plant disease management.

7. **Plant Developmental Biology:** Studying the molecular and cellular mechanisms that control plant development, including embryogenesis, organogenesis, pattern formation, and senescence, to understand how plants achieve their diverse forms and functions.
8. **Ethnobotany and Plant Conservation:** Documenting the traditional knowledge and uses of plants by indigenous peoples, studying the medicinal, cultural, and ecological significance of plant species, and developing conservation strategies to protect endangered plants and their habitats.
9. **Plant Biogeography and Climate Change:** Investigating the distribution patterns of plant species across geographic regions and their responses to climate change, including shifts in species ranges, phenology, and ecosystem dynamics.

DEPARTMENT OF CHEMISTRY

INTRODUCTION

Chemistry is a novel discipline of science. It helps to understand the origin of life and also suggests ways to use non-living things for giving comfort to life. To train the young generation to enable them to meet this task easier it is necessary to make the students understand the principles underlying the composition, structure and properties of substances alongwith the transformation that they undergo. It is therefore; obvious that chemical orientation cannot be imparted in isolation and that it has to be developed through a cocktail of physics, biology on one hand and engineering and applied sciences on the other hand. The Department of Chemistry, University of Karachi is well equipped for pursuing this goal. It has a competent faculty, well-equipped laboratories and other infrastructure.

The Postgraduate Program in Chemistry is intended to meet the growing needs of competent manpower of Pakistan and that of the international community. Department of Chemistry imparts professional and academic excellence to young people of Pakistan. It caters for all the disciplines of chemistry i.e. inorganic, organic, physical and analytical chemistry. In recent years many candidates have completed M.Phil. and Ph.D. work. Every year the researchers of the department publish several research papers in the Journals and chapters in books. Many patients are also registered.

All of the department faculty is highly qualified holding Ph.D. degree Many of our teachers have presented their research in international conferences/seminars. Most of the teachers are pursuing a vigorous research program within the limited resources. The department also hosted a number of national and international conferences and published articles in pre reviewed international journals. Sindh HEC grant is also secured by our teachers which proves their competency.

POSTGRADUATE PROGRAMS AVAILABLE

The Department of Chemistry offers MS/M.Phil/ and Ph.D. Programs

PROGRAMS OBJECTIVES / AIMS AND SCOPE OF THE PROGRAM

At the Post graduate level, the department offers Master of Science degree program (MS/M.Phil) which is Academic and research program to become professional chemists teachers or further pursue chemistry Doctoral program. In addition, the department offers Chemistry Doctoral Program (Ph.D.) to highly motivated chemistry majors, interested in conducting a faculty with a wide variety of professional interests representing all areas of chemistry. This supports classes and research opportunities, which span the entire chemical spectrum. The department seeks to remain equipped with modern chemical instrumentation, so that students learn to use the tools of the chemist's trade.

LIBRARY

The Department of Chemistry has Digital Library facility with large number of recent and classic text and reference books of chemistry as well as subscription to leading journals. The library has a stock of more than 10,000 books and research journals on various fields of Chemistry, Membership to this library entitles students to borrow books for a specified period of time. The department library has local area network facility from which most scientific journals can be accessed.

LABORATORY AND RESEARCH RESOURCES

The Department of Chemistry is equipped with many modern instruments for training of students for challenging careers and research. These include, pH/Ion meters, conductometers, polarimeters, refractometers, potentiometers, electrochemical analyzers, HPLC, atomic absorption spectrometers, UV-Visible spectrophotometers, FTIR Spectrometers, Guoy Balance for magnetic susceptibility measurements, flame photometers, gas chromatograph-mass spectrometer nuclear magnetic resonance spectrometer as well as some other modern instruments. The Department of Chemistry is constantly trying to upgrade its laboratory and research resources so that its scholars can maintain a competitive edge in the research and job market.

AVENUES FOR RESEARCH

Chemistry Scholar has not only gain a vast research experience but also a wide choice of employment opportunities in many industries and research institutions that are emerging in the country such as Textile industry, Pharmaceutical Industry, Clinical laboratories, Oil refineries, Chemical industry, Paint industry, Cement industry, Beverages & Food Product Industry, Analytical & Instrumental Services Agencies, Polymer Industry

Regular Faculty Members with Areas of Specialization

Teacher's Name	Designation	Areas of Specialization
Dr. Nasreen Fatima	Professor & Chairperson	Inorganic Chemistry
Dr. Firdous Imran Ali	Professor	Organic Chemistry
Dr. Itrat Anis	Professor	Organic Chemistry
Dr. Uzma Ashiq	Professor	Inorganic Chemistry
Dr. Sheikh Mohiuddin	Professor	Analytical Chemistry
Dr. Erum Zahir	Professor	Physical Chemistry
Dr. Imran Ali Hashmi	Professor	Organic Chemistry
Dr. Rifat Ara Jamal	Associate Professor	Inorganic Chemistry
Dr. Shazia Nisar	Associate Professor	Inorganic Chemistry
Dr. Raheela Naz	Associate Professor	Inorganic Chemistry
Dr. Zahid Hussain	Associate Professor	Organic Chemistry
Dr. Syed Tariq Ali	Associate Professor	Organic Chemistry
Dr. Syed Kashif Ali (FSL)	Associate Professor	Organic Chemistry
Dr. Agha Arslan Wasim	Associate Professor	Analytical Chemistry
Dr. Mohsin Ali	Associate Professor	Analytical Chemistry
Dr. Saba Arslan Wasim	Associate Professor	Analytical Chemistry
Dr. Humaira Bano	Assistant Professor	Inorganic Chemistry
Dr. Naushaba Zafar	Assistant Professor	Inorganic Chemistry
Dr. Tehseen Ahmed	Assistant Professor	Physical Chemistry
Dr. Summyia Masood	Assistant Professor	Physical Chemistry
Dr. Syed Nawazish Ali	Assistant Professor	Organic Chemistry
Dr. Qurat-ul-Ain	Assistant Professor	Inorganic Chemistry
Dr. M. Asad Khan Tanoli	Assistant Professor	Inorganic Chemistry
Dr. Perveen Fazil	Assistant Professor	Organic Chemistry
Dr. Nizam Uddin	Assistant Professor	Organic Chemistry
Dr. Syed Muhammad Saad	Assistant Professor	Organic Chemistry
Dr. Maria Ashfaq Lodhi	Assistant Professor	Inorganic Chemistry
Dr. Noshab Qamar	Assistant Professor	Inorganic Chemistry
Dr. Sadaf Iqbal	Assistant Professor	Inorganic Chemistry
Dr. Nida Ali	Assistant Professor	Inorganic Chemistry
Dr. Fakhrun Nisa	Assistant Professor	Analytical Chemistry
Dr. Muhammad Balal	Assistant Professor	Analytical Chemistry
Dr. Muhammad Saad	Assistant Professor	Analytical Chemistry

DEPARTMENT OF COMPUTER SCIENCE

INTRODUCTION

University of Karachi's illustrious Department of Computer Science was inaugurated in 1984 and instigated its scholarly pursuits in the academic year of 1985-86, and stands as a beacon of academic excellence and innovation among the academia and the industry.

The Department of Computer Science offers a magnanimous assortment of courses across multiple tiers, punctiliously designed to endow prospects for advanced studies and innovative research in the realms of Computer Science and Software Engineering. The Department of Computer Science is dedicated to nurturing substantially proficient computer professionals, adept in addressing the evolving demands of the industry both domestically and internationally.

The mission is to foster a comprehensive educational environment that supports the advancement of computer science, software engineering and IT. The vision is to be a leading department in research and education, contributing to the IT industry and academic community through innovation and excellence in education and research

POST GRADUATE PROGRAMS

A considerate assortment of distinguished postgraduate programs are offered at the Department of Computer Science, encompassing MS, M.Phil, and Ph.D. Degrees. These esteemed programs have been pedantically engendered with the deep-seated aim of imparting exceptional education and fostering ground-breaking research in the fields of Computer Science, Software Engineering and Information Technology.

OBJECTIVES OF THE POST GRADUATE PROGRAMS

The primary objectives of the postgraduate programs at the Computer Science Department include the development of advanced knowledge and skills in computer science, preparation of students for research and professional careers, and contribution to the technological advancement of society. These programs aim to advance knowledge through original research, preparing students for careers in national and international academia/industry and research institutions, while fostering a solid foundation in various computing fields.

The scope of the postgraduate research programs encompasses deep research in areas such as theoretical computer science, data science, artificial intelligence, and beyond.

PRIMARY GOALS

1. To provide advanced knowledge and expertise in computer science.
2. To prepare Students for careers in academia, industry, and research.
3. To foster Innovation and research in cutting-edge technologies.

INTENDED OUTCOMES

1. Mastery of advanced topics in computer science.
2. Development of research and analytical skills.
3. The ability to design and implement complex software systems.
4. Evolve the research culture to facilitate the tech industry.

INFRASTRUCTURE

The Department of Computer Science is currently housed in UBIT building, the UBIT building by itself is a modern architectural marvel comprising two blocks. These blocks encompass state-of-the-art lecture rooms, discussion rooms, computer laboratories, and faculty offices. The infrastructure is further enhanced with facilities for teleconferencing, a well-stocked library, administrative offices, separate prayer area, and common rooms. This complex has been continually upgraded to support the academic and research endeavors of the Computer Science Department.

Classrooms and Lecture Halls

1. The classrooms are equipped with modern technology, including projectors, smartboards, and high-speed internet, facilitating an advanced learning environment.
2. The lecture halls boast the capacity to host guest lectures and accommodate large classes, ensuring ample space for intellectual discourse.

Libraries

1. The libraries house extensive collections of computer science textbooks, research journals, and digital resources, providing a comprehensive repository of knowledge.
2. Access to online databases and digital libraries is provided, ensuring students and faculty have the latest information at their fingertips.

OTHER FACILITIES

1. Collaborative Workspaces: Designated areas for students to engage in group projects and collaborative work, fostering a spirit of teamwork and innovation.
2. Seminar Rooms: Specifically designed for hosting workshops, seminars, and academic discussions, these rooms are equipped to facilitate high-level intellectual engagement.
3. Student Lounges and Common Areas: Comfortable spaces for informal study and relaxation, offering a balanced environment for academic pursuits and leisure.

The infrastructure at Computer Science Department stands as a testament to the commitment to excellence, providing an environment conducive to both scholarly achievements and groundbreaking research.

RESEARCH FACILITIES AVAILABLE AT THE DEPARTMENT OF COMPUTER SCIENCE**Specialized Labs**

1. **Artificial Intelligence and Machine Learning Lab:** This lab is furnished with high-performance computing systems and advanced software, enabling extensive research in the fields of artificial intelligence and machine learning.
2. **Cybersecurity Lab:** Secure environments are provided for the testing and development of cutting-edge security protocols and systems, fostering advancements in cybersecurity.
3. **Robotics Lab:** This lab features state-of-the-art equipment, including robotic arms, drones, and other hardware essential for pioneering research in robotics and automation.

Equipment and Resources

1. **High-Performance Computing Clusters:** These clusters are available for undertaking large-scale data analysis and complex computational tasks, facilitating high-level research activities.
2. **Virtual Reality/Augmented Reality Facilities:** Advanced facilities are provided for research in immersive technologies, supporting explorations in virtual and augmented reality.
3. **Data Centers:** Equipped to support big data research and cloud computing experiments, these centers are integral to conducting expansive and innovative research projects.

The research facilities at the Department of Computer Science are meticulously designed to support and enhance the scholarly and investigative pursuits of its faculty and students, ensuring a conducive environment for groundbreaking discoveries and technological advancements.

AVENUES OF RESEARCH

The dynamic landscape of Computer Science and technology presents numerous trending avenues of research, each contributing to the continual advancement of the field. The Computer Science Department's primary focus lies in the development of human research in the field of Computational Sciences. The department is dedicated to exploring several pivotal research areas. Research endeavors are methodically designed to encompass a wide array of domains, some of which are as follows,

Quantum Computing,

Edge Computing, Blockchain and Distributed Ledger Technologies, Autonomous Systems and Robotics Cyber-Physical Systems (CPS), Explainable AI (XAI), Augmented Reality (AR) and Virtual Reality (VR) Natural Language Processing (NLP) and Speech Recognition, Smart Agriculture, and Smart Cities and Urban Computing, Big Data Analytics, Data Communication, Network security, Software defined network.

Professional Linkages

1. Close links are maintained with professional organizations like IEEE and the ACM at both national and international levels to elevate the professional and academic standards of the faculty and students.

Events and Seminars

1. International conferences, symposiums, and workshops on emerging technologies are frequently organized by the department.
2. Regular seminars conducted by industry experts and visiting scholars contribute to the intellectual enrichment of students and faculty alike.
3. Hackathons, coding competitions, and tech fairs are hosted, providing platforms for innovation and skill development.

Additional Opportunities

1. Internship programs with leading technology companies are facilitated, offering students invaluable industry experience.
2. Collaborations with industry for applied research projects ensure that students engage in practical, real-world problem-solving.

These initiatives reflect the department's unwavering commitment to fostering an environment of continuous learning, professional growth, and international collaboration, thereby ensuring that its members remain at the forefront of technological advancements and academic excellence.

REGULAR FACULTY MEMBERS

Dr. M. Sadiq Ali Khan; (Chairman) PhD (KU), MS (SSUET), BS (SSUET)

Associate Professor (msakhan@uok.edu.pk)

Areas of Interest : Network security; Cyber Security; Adhoc Vehicular Networks; SDN; Data Communication, Network security, Software defined network.

Dr. Nadeem Mahmood; Post. Doc. (IIU Malaysia), PhD (KU), MCS (KU)

Associate Professor (nmahmood@uok.edu.pk)

Areas of Interest : Temporal and Spatial Systems, Artificial Intelligence, Health Information Systems, Software Engineering

Dr. S. M. Khalid Jamal; Ph.D, M.Phil(C/Fi), M.B.A (KU), BS (KU)

Assistant Professor (s.m.khalid@uok.edu.pk)

Areas of Interest : Data Science, Database & Data-warehouse Systems, Grid/Cloud Computing, Data / Text / Web Mining & Knowledge Discovery, MIS, Information Extraction / Integration, Big Data Analytics, Social Media / Network Analysis

Dr. Muhammad Saeed; PhD (KU), MS (LUMS), BS (KU)

Assistant Professor (saeed@uok.edu.pk)

Areas of Interest : Operating Systems, Networking, Parallel Computing

Dr. Syed Asim Ali; PhD (KU), M.A. (KU), BS (KU)

Assistant Professor (asim@uok.edu.pk)

Areas of Interest : Human Computer Interaction, Multimedia Communication

Dr. Farhan Ahmed Siddiqui; PhD (Comp. Sc.), MBA(KU), BS (SSUET), MCP, MPEC, MIEEE

Assistant Professor (farhan@uok.edu.pk)

Areas of Interest : Computer Networks & Communication, WSN, Programming & OOP, Financial Accounting / Management

Dr. Humera Bashir

Assistant Professor (humera.azam@uok.edu.pk)

Computer Graphics, Image Processing, Software Engineering, Artificial Intelligence, Health Information Systems

Dr. Humera Tariq; Postdoc (UoM-USA), MCS-MS/PhD (UoK-Pakistan), B.E (NED-Pakistan)

Assistant Professor (humera@uok.edu.pk)

Areas of Interest: Deep Learning, Machine Learning, Bio-Medical Image Processing, Computer Vision, Computer Graphics, Simulation

Dr. Shaista Rais

Lecturer

shaista.rais@uok.edu.pk

Modeling And Simulation, Artificial Intelligence, Health Information Systems, Software Engineering.

DEPARTMENT OF FOOD SCIENCE & TECHNOLOGY

INTRODUCTION

The department of Food Science & Technology was established in 1994 to cater the needs of the fast growing food industries in the country and also to meet the ever growing demand for food scientists and technologists in government, research and educational establishments. Its mission is to provide high-quality education and training to students and prepare them for careers in the food industry, academia, or government, to conduct basic and applied research for the ultimate benefit of the food industry and consumers and to provide assistance and services to the food industry. Over the years, the department has developed strong links with the industry. Recently the department has established an Industrial Advisory Board comprising members from reputed Food industries to help us shape our curriculum from an industrial perspective to keep it relevant and to ensure that our curriculum reflect current developments and industry skills requirements. The department has always been actively engaged in providing advisory services and consultancy to food industries and also organizing seminars, conferences and training courses in collaboration with industries. In addition to food industries, the department also works in collaboration with government organizations such as PSQCA, PCSIR, PARC, SFA and different NGOs. Realizing the importance of human nutrition in daily life and emergencies like earthquake, drought, famine and man-made disasters, department offered another Four year BS Program entitled Human Nutrition & Dietetics from 2023. The Curriculum for the program has been developed in view of local as well as global health needs.

POSTGRADUATE PROGRAMS AVAILABLE

The Department of Food Science and Technology offers a variety of postgraduate programs designed to advance knowledge and professional skills in specialized areas of Food Science and Technology. The available programs include:

1. M.Phil in Food Science and Technology
2. Ph.D. in Food Science and Technology

PROGRAMS' OBJECTIVE

1. **To Develop Advanced Expertise in Food Science and Technology:** Equip students with advanced knowledge and specialized skills necessary for addressing complex challenges in food science, enabling them to become leaders and innovators in the food industry, academia, and research institutions.
2. **To Foster Cutting-Edge Research and Innovation:** Encourage and support postgraduate students in conducting pioneering research that contributes to scientific advancements in food technology, food safety, and nutrition, leading to peer-reviewed publications and patents.
3. **To Enhance Interdisciplinary Collaboration:** Promote interdisciplinary research and collaboration among various departments, institutions, and industries, facilitating a holistic approach to solving global food-related issues and advancing sustainable food systems.
4. **To Address Global Food Security and Sustainability:** Develop strategies and technologies aimed at improving food security, minimizing post-harvest losses, and enhancing the sustainability of food production and processing systems.
5. **To Advance Food Safety and Quality Management Systems:** Train students in advanced methodologies and technologies for ensuring food safety, quality assurance, and compliance with international standards and regulations.
6. **To Develop Innovative and Nutrient-Rich Food Products:** Engage in the development and commercialization of novel, health-promoting food products with enhanced nutritional profiles and functional benefits for diverse consumer needs.
7. **To Promote Sustainable Utilization of Food Industry By-Products:** Investigate and implement sustainable practices for recycling and repurposing food industry by-products and waste into valuable new products, contributing to a circular economy.

8. **To Provide Expert Consultancy and Advanced Analytical Services:** Offer high-level consultancy and advisory services to the food industry, utilizing state-of-the-art analytical techniques for the assessment, improvement, and development of food products.
9. **To Foster International Collaboration and Exchange:** Establish and maintain strategic partnerships with leading international food science departments, research centers, and industries to facilitate the exchange of knowledge, students, and staff, and to participate in global research initiatives.
10. **To Promote Public Awareness and Education on Food Safety and Nutrition:** Organize advanced educational programs, seminars, and workshops aimed at raising awareness among professionals and the public about the importance of safe, nutritious, and sustainable food practices.

AIMS AND SCOPE OF PROGRAMS

Aim

The aim of the postgraduate program in Food Science and Technology is to develop highly skilled professionals and researchers who are equipped with advanced knowledge and practical expertise to drive innovation, enhance food safety and quality, and address global food challenges. The program aims to prepare graduates for leadership roles in academia, industry, and research institutions, fostering a deep understanding of food systems and their impact on health, sustainability, and the economy.

Scope

The postgraduate program in Food Science and Technology encompasses a comprehensive and interdisciplinary curriculum designed to integrate advanced theoretical concepts with practical applications in the field. The scope of the program includes:

1. **Advanced Food Science and Technology**
 - In-depth study of the chemical, physical, microbiological, and nutritional aspects of food.
 - Exploration of advanced food processing and preservation techniques to enhance food quality and safety.
2. **Research and Innovation**
 - Encouragement of cutting-edge research that addresses critical issues such as food security, post-harvest losses, and sustainable food systems.
 - Development of innovative food products with improved nutritional profiles and functional benefits.
3. **Sustainable Practices and Environmental Impact**
 - Examination of sustainable practices in food production, processing, and distribution.
 - Strategies for minimizing the environmental impact of food industry operations and reducing food waste.
4. **Food Safety and Quality Assurance**
 - Advanced training in food safety protocols, quality control measures, and compliance with international food standards and regulations.
 - Utilization of state-of-the-art analytical techniques for food product diagnostics and improvement.
5. **Interdisciplinary Collaboration**
 - Promotion of interdisciplinary projects and partnerships with other academic departments, research institutions, and industry stakeholders.
 - Facilitation of international collaborations and exchange programs to broaden the scope and impact of research and education.
6. **Professional Development and Career Preparation**
 - Preparation of graduates for diverse career opportunities in academia, research, industry, and government sectors.
 - Emphasis on leadership, innovation, and problem-solving skills to address complex food-related challenges.
7. **Public Health and Nutrition**
 - Focus on the development and promotion of safe, nutritious, and health-promoting food products.
 - Public education initiatives to raise awareness about the importance of food safety, nutrition, and sustainable consumption practices.

The program is designed to produce research scholars who are not only knowledgeable and skilled but also innovative thinkers and leaders capable of making significant contributions to the field of food science and technology on a global scale.

REGULAR FACULTY MEMBERS AND THEIR AREA OF EXPERTISE

The Department of Food Science and Technology boasts a diverse team of experienced and dedicated faculty members who are experts in various fields of food sciences and advanced technologies.

S. No.	Faculty members	Area of expertise
1	Dr. Abdul Haq Associate Professor & Chairman	Food Science, Biopolymer, Green Chemistry
2	Dr. S. M. Ghufran Saeed Associate Professor	Oils and Fats, Nutraceuticals
3	Dr. Tahira Mohsin Associate Professor	Starch Technology, Cereal Technology, Biodegradable films and composite flour
4	Dr. Feroz Alam Assistant Professor	Biodegradable film, Complex carbohydrates, Bioactive compounds
5	Dr. Zubala Lutfi Assistant Professor	Waste, Cereals, Hydrocolloid, Nutrition
6	Dr. Anjum Nawab Assistant Professor	Biodegradable packaging film, Modified starch
7	Dr. Lubna Mobin Assistant Professor	Bioactive components, encapsulation, micronutrients fortification
8	Dr. Marium Sheikh Assistant Professor	Biodegradable and active food packaging, chemical modification of starch, cereal based product development
9	Dr. Abeera Moin Assistant Professor	Food Waste valorization, Biopolymers, Biodegradable packaging, Consumer acceptance

RESEARCH FACILITIES AVAILABLE

The department is equipped with state-of-the-art research facilities that support a wide range of academic and industrial research activities:

- I. **Seminar and Digital Library:** The department's library houses an extensive collection of books, journals, and digital resources in chemical engineering and related fields. The digital library provides access to recent research publications.
- II. **Laboratories:** We have well-equipped laboratories for research in areas such as edible lipids, food processing, food engineering, food Waste valorization, biopolymers, biodegradable packaging. These include pilot-scale reactors, analytical instruments, and specialized equipment for characterization and product development.

INFRASTRUCTURE

The Department of Food Science and Technology is a modern facility designed to support both teaching and research. The infrastructure includes:

1. **Air conditioned Lecture Halls:** Equipped with multimedia facilities for effective teaching and presentations. Along with regular classes these halls are also used for workshops, conferences, and collaborative research activities.
2. **Research Labs:** Dedicated spaces for conducting experimental research and project work.
3. **Faculty Offices:** Designed to facilitate interactions between students and faculty for academic guidance and research discussions.
4. **Student Clubs and Leisure activities:** Basketball court, Sports society, Rotract Club, Competitions and Industrial visits.

The Department has the infrastructure to support new trends in learning. All lecture rooms, labs, and classrooms provide support for e-learning, and faculty members frequently use these facilities.

The infrastructure and facilities that support new trends in learning, along with their adequacy are given below:

1. Modern computer Labs with latest technologies are available in the department
2. Advanced Visual Aids and tools.

AVENUES FOR RESEARCH

These research avenues offer diverse opportunities for advancing knowledge and innovation in the field of food science and technology, addressing critical challenges, and contributing to the development of sustainable and healthy food systems. Some of the research avenues (not limited to) are enlisted below;

1. Food Safety and Microbiology
2. Food Processing and Preservation
3. Nutritional Science and Functional Foods
4. Sustainable Food Systems
5. Food Chemistry and Biochemistry
6. Food Engineering and Technology
7. Food Policy and Economics
8. Sensory Science and Consumer Behavior
9. Food Allergies and Intolerances
10. Food Industry By-Products and Waste Utilization
11. Advanced Analytical Techniques
12. Food-Environment Interactions
13. Biodegradable packaging

DEPARTMENT OF GENETICS

INTRODUCTION

The Department of Genetics was established in 1969 at the University of Karachi. The Department of Genetics offers BS, MS, M.Phil, and Ph.D. degrees in Genetics. These programs are led by a highly qualified faculty and supported by research collaborations with advanced international institutions. The department includes a diverse group of graduate and postgraduate students who actively engage in research involving microbes, plants, animals, and humans. A significant number of students focus on research projects of national importance, addressing areas like health, agriculture, environment, biotechnology, and medical sciences.

Our mission is to create an environment where genetics, as a fundamental science, fosters learning and innovation that benefits individuals, society, and the environment. We are committed to maintaining an intellectually stimulating and inclusive atmosphere to help students grow both academically and personally, preparing them for lifelong success.

From studying the genetic basis of diseases to exploring biodiversity and evolutionary mechanisms, our curriculum spans a wide range of topics. Students gain a strong theoretical foundation through lectures and practical experiences, developing a deep understanding of genetics and its applications in the natural world. Our graduates contribute to academia, industry, and policy-making, both in Pakistan and internationally.

Graduate students enjoy a modern, well-equipped learning environment with state-of-the-art classrooms and labs. Recent upgrades, supported by the Higher Education Commission (HEC) of Pakistan, ensure access to cutting-edge tools and technologies. All academic activities are carried out according to university policies.

POSTGRADUATE PROGRAMS OFFERED

The Department of Genetics at the University of Karachi offers the following postgraduate degree programs:

- **MS in Genetics**
- **M.Phil. in Genetics**
- **Ph.D. in Genetics**

These programs are designed to foster an intellectually stimulating environment where genetics, as a core scientific discipline, supports personal growth, societal advancement, and environmental sustainability. The curriculum spans a broad spectrum—from genetic disorders to biodiversity and evolutionary biology—emphasizing both theoretical learning and hands-on research training.

PROGRAM OBJECTIVES

The postgraduate programs in Genetics aim to:

- **Advance Knowledge Creation**
Encourage original, high-impact research in contemporary areas of genetics.
- **Cultivate Research Leadership**
Equip students with the skills to plan, lead, and mentor in academic and research settings.
- **Encourage Interdisciplinary Research**
Promote collaborative research across fields such as biotechnology, medicine, agriculture, and environmental sciences.
- **Strengthen Policy and Industry Impact**
Prepare graduates to influence science policy and drive innovation in academia and industry.
- **Promote Global Competitiveness**
Train scholars to contribute to the international scientific community through publications, conferences, and collaborations.

AIM AND SCOPE OF THE POSTGRADUATE PROGRAMS

The postgraduate programs in Genetics aim to provide advanced academic and research training to develop skilled professionals, researchers, and educators equipped to meet global and national challenges. These

programs foster critical thinking, independent research skills, and expertise in classical and molecular genetics. Graduates are prepared for diverse career paths in biomedical research, agriculture, environmental sustainability, biotechnology, education, and policy-making. With a strong interdisciplinary foundation, they contribute to scientific innovation, personalized healthcare, food security, and evidence-based policy in both academic and industrial settings. The postgraduate programs in Genetics aim to provide advanced academic and research training to develop skilled professionals, researchers, and educators equipped to meet global and national challenges. These programs foster critical thinking, independent research skills, and expertise in classical and advanced molecular genetics. Graduates are prepared for diverse career paths in biomedical research, agriculture, environmental sustainability, biotechnology, education, and policy-making. With a strong interdisciplinary foundation, they contribute to scientific innovation, personalized healthcare, food security, and evidence-based policy in both academic and industrial settings

FACULTY MEMBERS AND SPECIALIZATIONS

Name	Designation	Area of Specialization
Dr. Uzma Badar	Professor	Microbial genetics, molecular genetics
Dr. Erum Shoeb	Professor & Chairperson	Environmental microbiology, microbial & behavioral genetics
Dr. Jameela Akhtar	Professor	Environmental microbiology, biotechnology, marine microbiology
Dr. Fouad Masood Qureshi	Associate Professor	Microbial genetics, human genetics
Dr. Rifat Zubair Ahmed	Associate Professor	Microbial ecology, genomics, human molecular genetics
Dr. Nadia Khan	Assistant Professor	Plant molecular genetics
Dr. Ayesha Riaz	Assistant Professor	Drosophila genetics, cell biology, molecular genetics
Dr. Shumaiza Anis	Assistant Professor	Host genetics and infectious diseases. Genetics of anti-microbe resistance, Molecular Genetics
Dr. Sarwat Afshan	Assistant Professor	Plant biochemical genetics
Dr. Aribah Naz	Assistant Professor	Microbial genetics

RESEARCH FACILITIES

The department offers advanced infrastructure supporting a wide range of genetics research and training.

- Computer Lab**
 Equipped with high-performance systems and software for sequence analysis, gene annotation, statistical analysis, and bioinformatics. Supports training in data analysis, genome informatics, and molecular modeling.
- Seminar Library**
 A rich collection of textbooks, reference materials, research journals, and dissertations. Provides a quiet environment for literature reviews and academic study.
- Specialized Research Laboratories**
 The Department of Genetics is equipped with specialized laboratories supporting key research areas. The **Molecular Genetics Lab** focuses on DNA/RNA analysis, PCR, cloning, and gene expression studies.
 The **Plant Molecular Genetics Lab** supports crop improvement, plant stress genetics, plant transformation, and cytogenetics.

The **Microbial Genetics Lab** facilitates microbial genetic analysis, antibiotic resistance research, and microbial biotechnology applications. These labs provide hands-on training and infrastructure for advanced genetic research.

DEPARTMENT INFRASTRUCTURE

The Genetics Department features:

- **Classrooms:** Two multimedia-equipped classrooms for dynamic teaching.
- **Research Labs:** Four laboratories with state-of-the-art equipment for cytogenetics, plant stress genetics, molecular biology and genetic experiments. There is a well-set lab for culturing *Drosophila* (fruit fly) and doing various genetic analysis experiments.
- **Seminar Library:** A curated scientific collection supporting coursework and research.
- **Computer Lab:** Possess many computers with high-speed internet and bioinformatics tools for computational genetics.
- **Courtyard:** In the middle of the department there is a courtyard for co-curricular activities and for academic gatherings.

RESEARCH AVENUES IN GENETICS

The Department of Genetics supports advanced research across diverse fields, including molecular genetics, genomics, and genome editing. Key focus areas include hereditary disease studies, gene therapy, population genetics, bioinformatics, and crop improvement. Research also extends to microbial biotechnology, pharmacogenomics, and developmental genetics—promoting innovations in health, agriculture and industry.

DEPARTMENT OF GEOGRAPHY

INTRODUCTION

The department of geography is one of the pioneer departments of the University of Karachi. It was established in 1952 under the Chairmanship of Professor Dr. Manick B. Pithawala. Professor Oscar Schmider was one of the leading German geographers who served as the Chairman of the department. The department was served by leading Pakistani geographers who completed their higher education at leading universities in the United States, United Kingdom and Germany. The department has an excellent academic history. The department has been providing teaching and research facilities in various fields of geography for the last seventy years. The department has organized several national and international conferences, including the Pakistan Geographical Conference and the International Geographical Conference. The department has also organized seminars, lectures and workshops. The department has qualified academic staff.

The department of geography offers B.S, M. Phil and Ph.D. programs. The main objective of the department is to produce professional geographers in various fields of geography.

ELIGIBILITY OF POSTGRADUATE PROGRAMS

1. M.Phil Program (M.A/M.Sc/ B.S(4 years) in Geography
2. Ph.D Program M.A/M.Sc/B.S (4 years) in Geography , M.Phil in Geography/ M.S/M.Phil RS/GIS)

AIMS AND SCOPE OF THE PROGRAM

The purpose of the post-graduate programs is to provide research facilities in various professional fields of applied geography. The department provides research facilities to students in the fields of environmental studies, demography, urban studies, transport management, water resources etc. The department has computer labs where technological skills and training are provided in the fields of Remote Sensing and GIS.

INTERNSHIPS

The department of geography has collaboration with governmental and private organizations like Pakistan Metrological Department, SUPARCO, Population Census Organization, SSGC, Pakistan Agriculture Research Council etc. which offer internships and professional training to research students.

FACULTY WITH THEIR AREAS OF SPECIALIZATION

Dr. Shamshad Akhtar Professor and Chairman Contact no: 0333-3536896 shakhtar@uok.edu.pk	Urban geography, Population geography, Cultural geography
Dr. Sheeba Afsar Professor	Natural Hazards and Management, Remote Sensing and GIS , Environmental studies
Dr. Saima Shaikh Associate Professor	Environmental Management, Remote Sensing and GIS, Disease Ecology
Dr. Anila Kausar Assistant Professor	Agriculture studies, Urban Studies and Remote Sensing and GIS
Dr. Yasmeen Anis Assistant Professor	Climate studies, Oceanography, Coastal geomorphology, and Remote Sensing and GIS
Dr. Salman Zubair Associate Professor	Urban Transport and Traffic Management Studies, Remote Sensing and GIS
Dr. Lubna Ghazal Assistant Professor	Climate studies, Water Resources and Management and Remote Sensing and GIS
DR. Imran Ahmed Associate Professor	Medical Geography, Environmental studies and Remote Sensing and GIS

INFRASTRUCTURE AND RESEARCH FACILITIES

The department is housed in a two-storied building where lecture rooms, computer labs, seminar library, museum and rooms of faculty and staff members exist.

- **Computer Labs:** The department of geography has two computer labs where students perform their lab work related to Remote Sensing, GIS, Computer Cartography etc.

- **Seminar Library:** The department of geography provides seminar library facilities in the department where books, maps, topographical maps, research journals, thesis and research reports are available.
- **Museum:** The department of geography has a museum where a huge collection of stone artefacts of prehistoric culture, a collection of rocks and minerals, and a collection of fossils are available. The Museum is dedicated to the Late Professor Abdur Rauf Khan, who excavated and collected this huge collection of artifacts of Stone Age culture and Indus Civilization.

AVENUE OF RESEARCH AND EMPLOYMENT OPPORTUNITIES

Students in the geography department have vast opportunities for research in the application of RS and GIS. Students can conduct research work in population studies, urban studies, traffic management, water resources, environmental studies, urban planning, agriculture studies, climate change, geomorphological studies, disaster management and medical geography.

Students of the geography department have vast opportunities for employment in the field of teaching in government and private sectors. Students are also employed by SUPARCO, Pakistan Meteorological Department, Population Census Organization, Survey of Pakistan, Engineering firms like ECIL, SSGC, K-electric etc.

DEPARTMENT OF GEOLOGY

INTRODUCTION

Department of Geology was established in 1956 in old building of the campus and shifted to the present building in beginning; most of the students were foreigners from different countries like Iran, Jordan, Iraq and Somalia. Department of Geology has good relationship with the oil exploration companies like PPL, OGDCL, UTP, ENI, UEPL, POL and OMV etc. as well as services companies like Weatherford, Schlumberger, Baker Hughes, Geoservices and Exlog etc. The department has an impressive geology museum which houses a large collection of valuable rocks fossils and mineral specimen. Since a large number of employees and key position holders in oil and gas sector are graduates of Department of Geology, University of Karachi. Being alumni of the department, all pass out have established cordial relationship with department of Geology for the promotion of subject and Department. In recent past, Department has signed MoUs with PPL, SECMC Engro, HDIP and Goldensun Petroleum to strengthen the department.

POSTGRADUATE PROGRAMS AVAILABLE

M.S/M.Phil & Ph.D programs

PROGRAMS OBJECTIVES

M.Phil/ Ph.D. program is designed to:

1. Produce a research worker who has acquired good all round knowledge of geology, in depth knowledge in specialized areas, and the skills to carry out original research.
2. Provide persons who have excellence to carry out research work and give rise new endeavors either in exploration of natural recourses or remediation of natural hazards for serving relevant fields and humanity.
3. Establish a cadre of specialists and professionals in various fields of geology who can provide effective leadership in conducting and supervising high level research in various fields of geology.
4. Provide opportunities of professional growth and development to scholars in general and in-service personnel in particular.

A large number of Ph. D. and M. Phil degrees have so far been awarded in the last few years. At present scholars are registered for M. Phil and Ph. D. degrees in the fields of economic geology, geochemistry, sedimentology, engineering geology, hydrogeology, petroleum geology and marine geology. In spite of heavy load of teaching, the senior teachers undertake funded research project from different agencies. The staff members of the department have published a large number of research articles in international scientific journals within country and abroad.

AIMS AND SCOPE OF THE PROGRAM

Department aims to produce effective and responsible leaders by creating insightful knowledge and inspiring minds in dialogue with the world around. We focus on providing competency-driven education, leveraging our resources to provide experiential learning, committing to continuous improvement and linking our research and outreach efforts to the driving forces of our economy.

REGULAR FACULTY MEMBERS WITH THEIR AREAS OF SPECIALIZATION/EXPERTISE

<u>Name of Faculty Member</u>	<u>Designation</u>	<u>Area of specialization</u>
1. Dr. Erum Bashir	Professor & Chairperson	Geochemistry/ Mineralogy
2. Dr. Adnan Khan	Associate Professor	Hydrogeology/Environment Geology
3. Dr. Sadaf Naseem	Assistant Professor	Hydrogeology
4. Dr. Sadaf Ismail	Assistant Professor	Petroleum Geology
5. Dr. Shella Bano	Assistant Professor	Soil & Groundwater
6. Dr. Bushra Shabab	Assistant Professor	Geochemistry, Stratigraphy
7. Dr. Maria Kaleem	Assistant Professor	Hydrogeochemistry, Petrography
8. Mr. Muhammad Arsalan	Lecturer	Remote Sensing & GIS

RESEARCH FACILITIES AVAILABLE (LIBRARY, LABORATORY, COMPUTER LAB)

Library: A large numbers of books available in our Seminar Library. The Department has a separate Reference Library for Post Graduate Students where a large number of books for post graduate students are also available. Students also avail Dr. Mahmud Husain Library. University Library Books Grant is available to acquire and maintain libraries.

Laboratory Facilities: Following subjects laboratories are available for research purposes. Environmental Geology, Engineering Geology, Geochemistry, Optical Mineralogy, Stratigraphy and Paleontology, Petrology & Mineralogy, Marine Geology, Sedimentology, Thin section Preparation Lab, Photomicrography Lab, Computer Laboratory, Geophysics (VES Resistivity /Terra meter), Instrument Lab (AAS, Spectrophotometer, Flame Photometer).

Computing Facilities: Department of Geology has adequate networking computer facilities. **Multimedia / Projectors:** The department has 06 multimedia and 02 Laptops (obsolete version). **Website:** The university website <http://www.uok.edu.pk> has a link for Department of Geology and each faculty member has its own official e-mail address. **Internet:**The department has Internet facility and all computers are interconnected with main communication.

Infrastructure: The department has three spacious buildings in which teacher's offices, class rooms, laboratories and libraries are present. Department also has an impressive geology museum which houses a large collection of valuable rocks, fossils and minerals specimen. Around one hundred seating capacity Auditorium is also functioning in the Department. Department have three gardens with large numbers of plantation and flowers.

Avenues of Research: Mineral, Oil & Gas, Energy and Coal sectors. Beside these, other research includes fields of Hydrogeology, Geochemistry, Engineering Geology, Geophysics, Sedimentology, Oceanography, Soil and Rock etc.

DEPARTMENT OF HEALTH, PHYSICAL EDUCATION & SPORTS SCIENCES

(Physical Therapy Program)

INTRODUCTION

Physical Education is a way of education by means of physical movement. From Molecular Biology to Material Sciences nothing of value can be expected from a society if the teaching and research in Health and physical education is ignored or if it is relegated to a secondary status. Being a natural phenomenon, movement is the essence of life and the entire mechanism of human body is geared to it. Experts believe that exercise is also as important as food. While food provides necessary energy for the body, exercise tones up the human organism so that it can utilize this energy in a better way. Since a healthy body is necessary for a healthy mind, physical education as a discipline is more intimately concerned with human development than educational disciplines.

Physical fitness is not only a concept but it reflects a practical approach to human betterment in terms of health. The survival of a nation is undoubtedly dependent on physical fitness which ensures general proficiency in all walks of life, and is inevitably linked with better economic growth. It is needless to emphasize the importance of physical education as a discipline as it already stands recognized at the university level. All the advanced countries, realizing its virtues and benefits, have included this subject as an essential part of curriculum at all levels of education.

The Department has been working strenuously towards a program of teaching and research to meet the needs of the country in Physical Education & Sports Sciences.

AN OVERVIEW OF THE PROGRAM

This is a time of innovation in medical education when changes in health care delivery systems have profound implications for treatment. There is public and professional demand for more relevance in educational programs with funding bodies and government requiring accountability and quality in education. Throughout the world there is an increasing recognition of the need for Physical therapist who work in the health care system to obtain training for better treatment. The Ph.D Physical therapy has been designed to meet the country's need for the Research oriented Physical therapists who are better equipped with updated knowledge and advance skills.

MISSION OF DEPARTMENT

Department of Health, Physical Education and Sports Sciences is committed to produce competent physical therapist by providing knowledge and skilled based educational so inculcating the element of research with intent to improve patient care.

MISSION OF POSTGRADUATE PROGRAM

The post graduate program aims to inculcate the element of research among physical therapy professionals thus promoting evidence based physical therapy practices for the better health care through clinical and academic services introduction.

SCOPE OF PROGRAM

Physical therapy services are worldwide considered as an integral part of health care services, starting from the emergency or intensive care unit to community-based rehabilitation, health and wellness and fitness programs. Physical Therapist is now a part of health care teams in primary, secondary and tertiary care units thus inculcating research and evidence based physical therapy practices with the intent to improve quality of education and patient care. Student education and training at the university is directed towards producing graduates who will contribute towards enhancing health education and the promotion of healthy life styles in populations from all socio-economic strata of Pakistan

POST GRADUATE PROGRAM AVAILABLE

M.Phil & PhD in Physical Therapy

OBJECTIVES OF THE PH.D DEGREE PROGRAM

PhD:

1. PhD in Physical Therapy has been planned to furnish qualified candidates with the mandatory skills needed to operate in the field of Medicinal Chemistry of Various places and associated enterprises along with government bodies.
2. PhD in Physiotherapy Program provides training and experiences that prop up interdisciplinary subjects learning, encourage critical and theory-based problem-solving skills to address to help peoples.
3. A candidate who did PhD in Physical Therapy can join research programs, Lecturer, Therapist, etc.
4. The candidate earns handsome amount in the initial years.

WHY STUDY PHD PHYSIOTHERAPY?

1. PhD in Physical Therapy program is advantageous for candidates who want to achieve leadership roles in the field of Physical Therapy.
2. The main purpose of the PhD in Physical Therapy program is to make candidates responsive and achieve skilful knowledge obtainable on the subject and distribute their theses and earn accordingly.
3. PhD in Physical Therapy facilitates the integration of practical fieldwork with academic subjects.

JOB PROFILES

After the successful completion of the course, one can opt to work either in the public sector or the private. Both of these sectors provide good opportunities.

Physical Therapy is a fruitful and rewarding career, after the candidates clear the license examination of a particular country, higher opportunities open up for a fresher to seek work in the healthcare industry.

A PhD Physical Therapy is responsible to prescribe remedial exercises for easing pain in muscles and bones. They also help in strengthening muscles after major accidents to regain lost control. A Physical Therapist also ensures that the patient is balanced neurologically. Some of the Job Positions where the graduate's work are as mentioned below:

Job Profiles	Job Description
Physical Therapist	A Physical Therapy is responsible for analyzing patients. They are also Responsible for the preparation and front actions and agenda initiative.
Lecturer	A Lecturer works with colleges and universities and guides future candidates towards learning and implementing the basics of physiotherapy. They also facilities to help improve the well-being of people as a community.
Researcher	Researcher Physical Therapy show analysis and then administer statistics beginning early days teaching disability, and physical condition projects. They are also accountable for adding professional status to the institute.
Consultant	They provide direct services to patients who seek treatment under them.

FUTURE SCOPE

1. A candidate after successful completion of a degree in PhD in Physical Therapy is eligible to take Job Opportunities.
2. Some of the job roles that are available after the booming achievement of this Program will be including programs, Lecturer, Therapist, etc. The candidate earns good in the initial years after some experience and practical knowledge the salary can hike up.
3. The prospect of PhD in Physical Therapy program is high and estimated to increase in the upcoming time.
4. PhD is the highest degree a person can obtain in PhD in the Physical Therapy field, individual can do research work in the area.

5. To enable the post graduate students to upgrade their knowledge and skills in the field of Physical Therapy
6. To acquire the understanding of advance clinical skills across the field of physical therapy; critically evaluate and contribute to research in their clinical area.
7. To incorporate evidence based physical therapy practice by learning clinical decision making, patient preference and practice knowledge
8. To enable students to enhance the research and development in the field of Physical Therapy
9. To improve the student's abilities to develop and carry researches that shall lead to establish evidence-based practices for the prevention and treatment of impairments, functional limitations and disability.
10. To provide the students with relevant knowledge and skills to assume positions of responsibility and leadership in the field of Physical Therapy.

Conclusively PhD in Physical Therapy Program provides training and experiences that prop up interdisciplinary learning, encourage critical and theory-based problem-solving skills to address psychology, and foster the growth of people's minds.

SCOPE OF THE DEGREE PROGRAM (MARKET, SOCIAL AND EMPLOYABILITY)

Scope after of the Degree Program. (Market, Social & Employability)

Physical Therapy PhDs are given many positions like Researcher, Therapy Manager, Research Assistant Customer Care Manager, Sports Physio Rehabilitator, Self Employed Private Physical Therapist and more. Most PTs with a PhD working full time can expect to earn in the top quarter of salaries, which is over \$100,000.

Earning a PhD gives credibility in the workplace as well as highly valuable transferable skills, having this degree opens opportunities in fields or positions where having an advanced degree is recommended or required.

Completing a PhD in Physical Therapy program is a respected accomplishment and for good reason. Those who earn a PhD in Physical Therapy have invested considerable time and effort in completing their degree program. Completion is often associated with prestige and credibility along with a personal sense of accomplishment that comes from reaching the highest level of academic achievement.

Not only will this accomplishment impact personally, but it will also influence professional life. Many employers value the knowledge and skills that come with earning a PhD. This will give credibility in the job market, showing both employers and coworkers that individual is a hardworking and dedicated professional. While earning PhD individuals will not only gain specialized knowledge within Physical Therapy field but also transferable skills that they can use, no matter what career path they ultimately follow. Learning proper research methods and how best to take notes is an invaluable skill that a PhD Physical Therapy can use in most workplace settings.

PhD Physical Therapy will also learn important communication skills, including presenting and writing. Employers value job candidates who have good writing skills and who are comfortable presenting information to other employees. Communication skills are critical in every workplace and are constantly ranked among the most important skills for successful professionals.

A PhD Physical Therapy gains credibility in the workplace as well as highly valuable transferable skills, they will find that having this degree opens opportunities in fields or positions where having an advanced degree is recommended or required.

It's a common misconception that a PhD only prepares professionals to enter the world of academia. A PhD Physical Therapy can prepare individuals to enter a profession in any aspect of Physical Therapy, depending on the focus on the degree. Although a PhD Physical Therapist can still choose to pursue a career as a professor or researcher at a university, but he can also look into a career in growing Hospitals industry or a higher-level position in his current profession.

For example, with a PhD in Physical Therapy would be able to pursue careers in a variety of professions, such as publishing or grant writing. A Physical Therapy PhD would prepare individuals for a variety of data analytic positions or even consulting. These are just a few examples of jobs outside academia that a Physical Therapy could pursue with a PhD.

So, earning a PhD in Physical Therapy can open higher-level management positions or a better salary. Given that Physical Therapist will now have a highly desired skill set, they might also be able to advance more quickly in their current career and gain more benefits after earning this advanced degree.

Throughout the process of earning PhD, a Physical Therapist will most likely be collaborating with professors on research efforts and writing a dissertation. Getting to know professors in the current or desired field is a great opportunity, whether Physical Therapist looking for a job or not. Networking with professionals is often how people find job opportunities that they wouldn't have found just looking online.

A PhD Physical Therapist will also be building connections with other graduate students. They can be a great source of knowledge and support if they ever need it while earning their PhD and beyond. These connections can become part of professional network and valued lifelong relationships.

FUTURE SCOPE:

1. A candidate after successful completion of a degree in PhD in Physical Therapist is eligible to take Job Opportunities.
2. Some of the job roles that are available after the booming achievement of this Program will be including programs, Lecturer, Therapist, etc. The candidate earns good in the initial years after some experience and practical knowledge the salary can hike up.
3. The prospect of PhD in Physical Therapy program is high and estimated to increase in the upcoming time.
4. PhD is the highest degree a person can obtain in PhD in the Physical Therapy field, individual can do research work in the area.

Conclusively PhD in Physical Therapy Program provides training and experiences that prop up interdisciplinary learning, encourage critical and theory-based problem-solving skills to address psychology, and foster the growth of people's minds.

OBJECTIVES OF THE M.PHIL DEGREE PROGRAM

M.Phil Physical Therapy :

1. M.Phil in Physical Therapy has been planned to furnish qualified candidates with the mandatory skills needed to operate in the field of Medicinal Chemistry of Various places and associated enterprises along with government bodies.
2. M.Phil in Physical Therapy Program provides training and experiences that prop up interdisciplinary subjects learning, encourage critical and theory-based problem-solving skills to address to help peoples.
3. Candidates who are under this program are taught basic psychology to enhance understanding of people's mental state.
4. A candidate who graduates M.Phil in Physical Therapy can join research programs, Lecturer, Therapist, etc.
5. The candidate earns handsome amount in the initial years.

WHY STUDY M.PHIL:

5. M.Phil in Physical Therapy program is advantageous for candidates who want to achieve leadership roles in the field of Physical Therapy.
6. During a degree in Physical Therapy, Candidates are allowed to work in various organizations and practices.
7. The main purpose of the M.Phil in Physical Therapy program is to make candidates responsive and achieve skilful knowledge obtainable on the subject and distribute their theses and earn accordingly.
8. M.Phil in Physical Therapy facilitates the integration of practical fieldwork with academic subjects.

JOB PROFILES

After the successful completion of the course, one can opt to work either in the public sector or the private. Both of these sectors provide good opportunities.

Job Profiles	Job Description
Physical Therapist	A Physical Therapist is responsible for analyzing patients. They are also Responsible for the psychoanalysis and understanding of statistics for preparation and front actions and agenda initiative.
Lecturer	A Lecturer works with colleges and universities and guides future candidates towards learning and implementing the basics of physiotherapy. They also facilities to help improve the well-being of people as a community.
Researcher	Researcher Physical Therapy show analysis and then administer statistics beginning early days teaching disability, and physical condition projects. They are also accountable for adding professional status to the institute.
Consultant	They provide direct services to patients who seek treatment under them.

FUTURE SCOPE:

1. A candidate after successful completion of a degree in M.Phil in Physical Therapy is eligible to take Job Opportunities.
2. Some of the job roles that are available after the booming achievement of this Program will be including programs, Lecturer, Therapist, etc. The candidate earns good in the initial years after some experience and practical knowledge the salary can hike up.
3. The prospect of M.Phil in Physical Therapy program is high and estimated to increase in the upcoming time.
4. M.Phil is the highest degree a person can obtain in M.Phil in the Physical Therapy field, individual can do research work in the area.
5. To enable the post graduate students to upgrade their knowledge and skills in the field of Physical Therapy
6. To acquire the understanding of advance clinical skills across the field of physical therapy; critically evaluate and contribute to research in their clinical area.
7. To incorporate evidence based physical therapy practice by learning clinical decision making, patient preference and practice knowledge
8. To enable students to enhance the research and development in the field of Physical Therapy
9. To improve the student’s abilities to develop and carry researches that shall lead to establish evidence-based practices for the prevention and treatment of impairments, functional limitations and disability.
10. To provide the students with relevant knowledge and skills to assume positions of responsibility and leadership in the field of Physical Therapy.

Conclusively M.Phil in Physical Therapy Program provides training and experiences that prop up interdisciplinary learning, encourage critical and theory-based problem-solving skills to address psychology, and foster the growth of people’s minds.

SCOPE OF THE DEGREE PROGRAM (MARKET, SOCIAL AND EMPLOYABILITY)

Scope after of the Degree Program. (Market, Social & Employability).

Physiotherapy M.Phil are given many positions like Researcher, Therapy Manager, Research Assistant Customer Care Manager, Sports Physio Rehabilitator, Self Employed Private Physical Therapy and more. Most PTs with a M.Phil working full time can expect to earn in good salaries.

Earning a M.Phil gives credibility in the workplace as well as highly valuable transferable skills, having this degree opens opportunities in fields or positions where having an advanced degree is recommended or required.

Completing a M.Phil in Physical Therapy program is a respected accomplishment and for good reason. Those who earn a M.Phil in Physical Therapy have invested considerable time and effort in completing their degree program. Completion is often associated with prestige and credibility along with a personal sense of accomplishment that comes from reaching the highest level of academic achievement.

Not only will this accomplishment impact personally, but it will also influence professional life. Many employers value the knowledge and skills that come with earning a M.Phil. This will give credibility in the job market, showing both employers and coworkers that individual is a hardworking and dedicated professional.

While earning M.Phil individuals will not only gain specialized knowledge within physiotherapy field but also transferable skills that they can use, no matter what career path they ultimately follow. Learning proper research methods and how best to take notes is an invaluable skill that a M.Phil Physical Therapy can use in most workplace settings.

M.Phil Physical Therapy will also learn important communication skills, including presenting and writing. Employers value job candidates who have good writing skills and who are comfortable presenting information to other employees. Communication skills are critical in every workplace and are constantly ranked among the most important skills for successful professionals.

A M.Phil Physical Therapy gains credibility in the workplace as well as highly valuable transferable skills, they will find that having this degree opens opportunities in fields or positions where having an advanced degree is recommended or required.

Earning an M.Phil in Physical Therapy can open higher-level management positions or a better salary. Given that Physical Therapist will now have a highly desired skill set, they might also be able to advance more quickly in their current career and gain more benefits after earning this advanced degree.

Throughout the process of earning M.Phil, a Physical Therapist will most likely be collaborating with professors on research efforts and writing a dissertation. Getting to know professors in the current or desired field is a great opportunity, whether Physical Therapist looking for a job or not. Networking with professionals is often how people find job opportunities that they wouldn't have found just looking online.

A M.Phil Physical Therapist will also be building connections with other graduate students. They can be a great source of knowledge and support if they ever need it while earning their M.Phil and beyond. These connections can become part of professional network and valued lifelong relationships.

FUTURE SCOPE

1. A candidate after successful completion of a degree in M.Phil in Physical Therapy is eligible to take Job Opportunities.
2. Some of the job roles that are available after the booming achievement of this Program will be including programs, Lecturer, Therapist, etc. The candidate earns good in the initial years after some experience and practical knowledge the salary can hike up.
3. The prospect of M.Phil in Physical Therapy program is high and estimated to increase in the upcoming time.

Conclusively M.Phil in Physical Therapy Program provides training and experiences that prop up interdisciplinary learning, encourage critical and theory-based problem-solving skills to address psychology, and foster the growth of people's minds.

FACULTY					
DETAILS OF M.PHIL / PH.D FACULTY					
S.No.	Name	Designation	Permanent / Visiting	Title of degree	Expertise / Area of Specialization
1.	Prof. Dr. Basit Ansari	Professor	Permanent	PH.D	Exercise Physiology

2.	Dr. Sadaf Ahmed	Assistant Professor	Permanent	PH.D	Pain Management & Psycho Physiology
3.	Dr. Faizan Mirza	Assistant Professor	Permanent	PH.D	Neuromuscular Screening & Rehabilitation
4.	Dr. Mazahir Zia Shaikh	Assistant Professor	Permanent	PH.D	Physical Therapy
5.	Ms. Shazia Tabussum	Assistant Professor	Permanent	M.PHIL	Physical Education
6.	Dr. Humayun Imran Azeemi	Assistant Professor	Permanent	M.PHIL	Physical Education

RESEARCH FACILITIES

The Department is equipped with all the required practical facilities. The Department has a fully equipped Human Performance Laboratory to incorporate the latest techniques and performance analysis methodologies.

SPECIFIC RESEARCH AREAS (AVENUES OF RESEARCH)

The Department of Health, Physical Education & Sports Sciences has a broad scope for qualitative as well as quantitative research in the field of Kinesiology, Exercise Physiology, Socio economic impact of Physical Therapy

DEPARTMENT OF MATHEMATICS

INTRODUCTION

The Department of Mathematics at the University of Karachi has a rich history dating back to its establishment in 1956, with Prof, Dr. Suleman Kerawala serving as its first Chairman. Renowned as one of the largest departments within the Faculty of Science, it upholds a mission to infuse vitality into mathematics and reciprocally enrich life through its teachings and research endeavours. Embracing both Pure and Applied Mathematics and interdisciplinary pursuits, the department offers undergraduate, graduate, and postgraduate programs. Students are nurtured in mathematical reasoning, equipped with essential tools, and empowered with the skills to apply mathematical principles effectively. Central to its objectives is fostering a deep understanding and appreciation of mathematics as a dynamic and creative discipline. To support these students can access facilities, including computer labs and seminar libraries, supplemented by a newly established conference hall for academic and research activities.

POSTGRADUATE PROGRAMS AVAILABLE

1. M. Phil. (Mathematics)
2. Ph. D. (Mathematics)

PROGRAM OBJECTIVES

The M. Phil. And Ph. D. program directly contributes to the departmental mission by nurturing future mathematicians and preparing them for impactful careers. The program offers a rigorous curriculum designed to achieve the following objectives:

1. **Solid Mathematical Foundation:** Equip students with a strong foundation in core mathematical concepts, including analysis, algebra, topology, and applied mathematics, preparing them for advanced research or professional applications.
2. **Research Skills Development:** Develop students' research skills by introducing research methodologies, literature review techniques, effective communication strategies, and responsible data analysis practices to foster independent research abilities
3. **Exploration of Specialized Field:** Offer a range of elective courses to allow students to explore specific areas of mathematics that align with their interests, such as mathematical modelling, computational mathematics, or financial mathematics.
4. **Preparation for Further Studies:** Prepare students for doctoral programs or research careers by developing critical thinking, problem-solving, analytical abilities, and the ability to formulate and investigate original research questions.
5. **Interdisciplinary collaboration:** Recognizing the importance of mathematics across disciplines, we actively collaborate with other departments to offer qualified instructors and contribute to the mathematical needs of various fields.

AIMS AND COPE OF THE PROGRAMS

1. M.Phil. in Mathematics provides students with an opportunity to deepen their understanding of mathematical theory, develop advanced research skills and prepare for both academic and non-academic careers in a wide range of fields.
2. Ph.D. in Mathematics is designed to equip students with the knowledge, skills, and expertise needed to conduct original research at the highest level and to make significant contributions to the field of mathematics. It is a rigorous and intellectually demanding program that prepares graduates for leadership roles in academia, and beyond.

**REGULAR FACULTY MEMBERS WITH THEIR AREAS OF
SPECIALIZATIONS / EXPERTIES**

S. No.	Name of Ph. D. Faculty Members	Specialization / Expertise
01.	Dr. Najeeb Alam Khan	Applied Mathematics, Mathematical Modelling, Dynamical System.
02.	Dr. Syeeda Sadia Zia	Climate Analysis, Fluid dynamics
03.	Dr. Saba Naz	Data Analysis, Climate and Optimization
04.	Dr. Tanveer Ahmed Siddiqi	Applied Mathematics, Stochastic Processes, Optimization, Artificial Intelligence (Decision Making Mode), Mathematical Statistics
05.	Dr. Imtiaz Ahmed	Operations Research, Analysis
06.	Dr. Syed Inayatullah	Operations Research, Data Sciences
07.	Dr. Muhammad Ayaz	Mathematical Modelling, Artificial Neural Networks, Fractional Derivatives
08.	Dr. Asif Raza Khan	Mathematical Inequalities and Applications
09.	Dr. Saqib Ur Rehman	Climate Dynamics, Environmental Assessment
10.	Dr. Fozia Hanif	Optimization, Cryptography, Wireless Sensors Networks, Underwater Sensors, Block Chain, Machine Learning, Deep Learning, Quantum Cryptography, Mathematical Modelling and Simulations
11.	Dr. Syed Ahmed Hassan	Applied Mathematics, Mathematical Modelling, Climatic Influenced River Flow Modelling and Forecasting, Solar Influenced Hydro climate Variations
12.	Dr. Hina Zaheer	Optimizations Research
13.	Dr. Asma Rani	Optimization
14.	Dr. Noor Fatima Siddiqui	Applied Mathematics
15.	Dr. Samreen Ahmed	Applied Mathematics
16.	Dr. Ateeq Razzak (FSL)	Solar and Renewable Energy
17.	Dr. Salman Safdar	Mathematical Biology, Epidemiology and Non-linear Dynamical Systems
18.	Dr. Sumayyah Saadi	Mathematical Inequalities
19.	Dr. Mehwish Shafi Khan	Hydro climatic Modelling, Mathematical Modelling

RESEARCH FACILITIES AVAILABLE (LIBRARY, LABORATORY, COMPUTER LAB)

Two thousand and two hundred books are available at Seminar Library and a Computer lab is available with Multimedia facility

AVENUES FOR RESEARCH

1. Dynamical Systems
2. Hydroclimatic Modelling
3. Mathematical Epidemiology
4. Mathematical Inequalities
5. Operations Research
6. Optimization
7. Solar and Renewable Energy

DEPARTMENT OF MICROBIOLOGY

INTRODUCTION

Microbiology is a broad discipline which has both basic and applied aspects. Therefore, microbiologists must have good understanding about microbial taxonomy, genetics, immunology and physiology in order to identify these agents, utilize their metabolic potential on commercial levels and to manipulate these organisms for the betterment of humanity.

The Department of Microbiology at the University of Karachi was established in 1957 with only 22 students and one full-time teacher (late Prof. Dr. A. A. Anwar) and a part time teacher cum student (Late Prof. Dr. Pirzada Misbahuddin Ahmed Siddiqui). Since this was the first and only department of microbiology for many years, in this country, offering a degree, Prof. Dr. Anwar could be truly regarded as the “Father of Microbiology” in Pakistan.

Because of the importance of the subject and its applicability, this department is now regarded as one of the best departments within the faculty of science. As a result, this department has become popular and a large number of students opt to study Microbiology as their major. Furthermore, this department caters the needs of more than 500 students who opt to study Microbiology as one of their minors each year.

Besides offering B.S. / Honors and Masters degrees, this department has a reputation of its M. Phil. / M.S. and Ph. D. programs. At present, more than 150 scholars are enrolled in M. Phil. and Ph. D. programs.

POST GRADUATE PROGRAMS

1. M. Phil. / M.S.
2. Ph. D

PROGRAM OBJECTIVES

The doctoral program in Microbiology trains students at the highest level to assume research and leadership roles in the biological sciences.

The objectives of Post Graduate Programs in Microbiology programme are:

1. To produce qualified microbiologists with the competencies to provide services to the private and public sectors including environment, agriculture, medicine and industries.
2. To build national and regional technological and infrastructural capacities for imparting terminal education, training and research on contemporary microbiology.
3. To develop and foster collaborations with developed countries and institutes of global excellence, facilitating the exchange of knowledge and development of cooperation in related industries.
4. To strategically prepare the Karachi, Pakistan region to actively interact with the developing world in Microbiology services, research and development.

AIMS AND SCOPE

The graduates of M. Phil. / Ph. D. in Microbiology program will:

1. Engage in and conduct original research in the field of microbiology.
2. Have the attributes of Subject specialists, Scientific researchers, Educators, Effective communicators and Collaborators
3. Serve as Educators who are capable of teaching various sub-disciplines of microbiology
4. Serve as Scientific Reserachers to conduct quality and credible research.
5. Compete successfully for productive employment or post-doctoral training in industry or academic institutions.

RESEARCH FACILITIES

A computer lab, seminar library and dedicated, well-equipped M.Phil. / Ph. D. research lab are available at the department.

Following instruments / facilities are present:

1. Biosafety cabinets with incinerators
2. Laminar Flow
3. Thermocycler and electrophoresis unit
4. Liquid Nitrogen storage tanks, Refrigerators, ice makers
5. Spectrophotometer
6. CO₂ incubator
7. Orbital shaker
8. Water baths
9. Incubators
10. Microscopes
11. Animal house
12. Orbital Shaker
13. Autoclaves

REGULAR FACULTY MEMBERS

S#	FACULTY	DESIGNATION	SPECIALIZATION
01.	Dr. Tanveer Abbas	Professor	Food Microbiology and Antimicrobial Agents
02.	Dr. Abdul Wahab	Professor and Chairman	Isolation of Antimicrobial Compounds from Actinomycetes and Endophytes, Antimicrobial resistance
03.	Dr. Zaid Ahmed Pirzada	Professor	Streptococcal Pathogenesis, Clinical Microbiology
04.	Dr. Asma Naim	Professor	Clinical Bacteriology, Pathogenesis and Antimicrobial resistance; Bioinformatics
05.	Dr. Muhammad Sohail	Professor	Isolation of microbial enzymes; Antimicrobial resistance
06.	Dr. Muneera Naz Baloch	Professor	Bioactive Agents of Lactic Acid Bacteria
07.	Dr. Nusrat Jabeen	Professor	Molecular Biology, Virology and Bioinformatics
08.	Dr. Sehar Afshan Naz	Professor	Clinical Mycology
09.	Dr. Adnan Khan	Associate Professor	Study on Mode of transmission and Control of <i>Helicobacter</i> and <i>Campylobacter</i> infections
10.	Dr. Asma Saeed	Associate Professor	Bacterial genetics; Plasmid interactions and incompatibility
11.	Dr. Farheen Ansari	Associate Professor	Antibacterial and antifungal activities of medicinal and wild plant extracts
12.	Dr. Maryam Shafique	Associate Professor	Applied Microbiology and Biotechnology
13.	Dr. Nayyar Mehmood	Assistant Professor	Enzymology, Bacteriocins
14.	Dr. Fouzia Haider	Assistant Professor	Molecular Biology and Biotechnology

15.	Dr. Sana Eijaz	Assistant Professor	Molecular Medicine and Microbiology
16.	Dr. Wajeeha Binte Asad	Assistant Professor (T)	Industrial and Microbial enzyme
17.	Dr. Anjum Zehra Naqvi	Assistant Professor	Molecular Biology, Antimicrobial Agents
18.	Dr. Urooj Zafar	Assistant Professor	Environmental Microbiology, Antimicrobial Resistance
19.	Dr. Yasir Raza	Assistant Professor	Molecular Microbiology, Cell and Tissue Culture
20.	Dr. Sadiyah Muhammad Saleemullah Khan	Assistant Professor (T)	Applied and Environmental Microbiology / Biotechnology
21.	Dr. Amna Alam	Assistant Professor (T)	Antimicrobial Agents, Viral Diagnostics, Molecular Epidemiology

DEPARTMENT OF PHYSICS

INTRODUCTION

The department of Physics was established in 1952 with Professor Dr. Mujtaba Karim as the founding Chairman. Since then the department has played an important role in the development of Science and Technology in the country. A considerable number of students have obtained their degree in Physics and are now rendering their services in reputable organizations within and outside the country. The department has twenty two (18) regular faculty members, out of which eleven (13) have PhD qualification and rest of them all have MPhil. Degrees. The department of Physics post-graduate research programs leading to the award of MS/M.Phil. and Ph.D. degrees. These post-graduate programs are strictly monitored as per the University of Karachi rules and procedures and are administratively governed by Advanced Studies and Research Board (ASRB), the University of Karachi. Enrolled students and scholars are required to choose a research advisor of their choice of research discipline from the faculty. Under the guidance of the research advisor (s), students submit their research proposal as Synopsis to ASRB for approval. After their course and completion of approved research work, students are required to submit their research thesis which is refereed by local and foreign referees who are eminent scientist and researchers in their respective fields. To keep students abreast of the recent developments in the field of Physics in general and in their respective disciplines in particular, research advisors regularly give opportunities to their research students to participate in local and internal conferences and seminars / workshops.

POST-GRADUATE PROGRAMS

1. MS Program 30 Credit Course Work (Eligibility for admission 16 years of education)
In this stream, as per ASRB and HEC policy enrolled students are required to complete a prescribed course work (Cr 24). Students have the option to take two more courses worth 3+3 credit to complete their degree requirement of 30 credits. Provided all other necessary requirements are fulfilled, MS degree is awarded by the University of Karachi. MS qualification is 18 years of educational.
2. MPhil Program 24+06 Credits (Eligibility for admission 16 years of education)
In this stream, as per ASRB and HEC policy enrolled research scholars to complete their degree by completing total required credits in terms of courses (Cr 24) and have to complete their theoretical or experimental research thesis worth 6 credit to fulfill MPhil. degree requirement. After all necessary requirements are fulfilled, MPhil. Degree is awarded by the University of Karachi. MPhil qualification is 18 years of educational.
3. PhD Program 18+12 Credits (Eligibility for admission 18 years of education)
Research scholars are required to complete 18 credits of course work as per ASRB and HEC policy. During the course of PhD program, research scholars are required to complete their approved research thesis and must have at least one W-Category research publication. After completion of all necessary requirements, as per policy, PhD Scholar is required to give a PhD defense presentation to be eligible for an award of PhD degree.

PROGRAMS OBJECTIVES

After successful completion of the post-graduate programs, following are the long-term and in multifaceted scenario:

1. Have the understanding of the implications and responsibilities of good and credible research practices in pursuing quality research.
2. Have developed a broad understanding of the subject that can be applied in dissemination and creation of knowledge.
3. Achieved a level of competency and have developed a capacity to work independently and as a team member.
4. Be able to identify the research question and be able gather and assimilate relevant the data for the application of mathematical and research tools.
5. Is proficient in translating the research problem in to a viable and practical solution as demanded by the private and public sector organization.

6. Is proficient in writing research proposals, research publications and is able to communicate in written and verbal forms with the members of the community in particular and with broader audience in general.
7. Have developed a threshold level of being able to supervise research.

AIMS AND SCOPE

Aim: Consistent with the aims of the University of Karachi, Department of Physics seeks to train its research students and scholars so that they have a sound research skills, have acquired latest theoretical and experimental understanding and foremost to develop critical thinking in achieving aims and objectives; and to have developed a mechanism of enquiry which is ethical and professional in an expert manner.

Scope: In addition to the coverage of broad areas of Physics research, programs aims to develop broader understanding of research challenges of the society. To promote a research atmosphere / thinking which is both intellectual and conducive to searching knowledge to answer questions.

PHD FACULTY MEMBERS AND DEPARTMENTAL RESEARCH COMMITTEE (DRC)

All PhD faculty members are members of the Departmental Research Committee (DRC). As per post-graduate policy, DRC is tasked with carrying out all administrative activities related to research in the department.

Following are DRC faculty members:

1. Dr. Imran Ahmad Siddiqui, **Professor**
Specialization: Laser Physics, Quantum & Atom Optics, Quantum Field Theory and Gravitation, Wind and Tidal Energy, Brain-Computer Interfacing (BCI)
2. Dr. Intikhab Ulfat, **Professor & Chairman**
Specialization: Solid State Physics, Synchrotron Spectroscopy, Medical Physics, Renewable Energy Resources
3. Dr. Syed Rizwan Ali, **Professor**
Specialization: Solid State Physics, Spintronics, Thin Films, Magnetic Nanostructures & Vacuum Technology
4. Dr. Muhammad Naeem Khan, **Professor**
Specialization: Magnetic Semiconductor, Molecular Magnets, Nanomagnetism, Spintronics
5. Dr. Syed Zeeshan Abbas, **Associate Professor**
Specialization: Renewable Energy Resources, Electronics
6. Dr. Sadaf Qaseem, **Associate Professor**
Specialization: Solid State of Physics, Dilute Magnetic Semiconductor Nanoparticles, Band gap Engineering
7. Dr. Saif Uddin Jilani, **Assistant Professor**
Specialization: Nuclear Physics and Space Science
8. Dr. Sadaf Fatima, **Assistant Professor**
Specialization: Solid State Physics, Synchrotron based X-ray absorption spectroscopy for Nanomaterials.
9. Dr. Sheikh Zeeshan Iqbal, **Assistant Professor**
Specialization: Laser Spectroscopy, Laser Induced Break Down Spectroscopy (LIBS)
10. Dr. Muhammad Khalid, **Assistant Professor**
Specialization: Nano Technology and Electronics

11. Dr. Kamran-ul-Haq Khan

Assistant Professor

Specialization:

Electrospinning-Based Nanofiber Fabrication and Its Applications

12. Dr. Muhammad Ali Qureshi **Assistant Professor**

Specialization:

Nonlinear Dynamics, Chaos Theory, Electronics, Cryptography, Fractional Calculus, Computational Physics

AVENUES OF RESEARCH

The most significant aspect of learning Physics is that it is an experimental science, not an abstract intellectual discipline. At the departmental level, currently M.Phil. & Ph.D. programs are running and research studies are being done in wide ranging fields of theoretical and experimental Physics. In these studies, collaboration from other organizations & institutes is also sought when needed. Qualified faculty members are actively engaged in research areas such as:

- Nanotechnology
- Atomic and Molecular Spectroscopy & Optics
- Laser
- Space Physics
- Medical Physics and Biophysics
- Neurophysics and Brain-Computer Interfacing
- Renewable Energy Resources and Environmental Science
- Material Science
- Electronics
- Computational Physics
- Theoretical Physics

FACILITIES

Beside teaching laboratories, department has a number of other laboratories and computing facilities facilitating in theoretical and experimental research:

- Spectroscopy Research Laboratory
- Solid State Research Laboratory
- Condensed Matter Research Laboratory
- Brain Computer Interface Laboratory
- Electronics Laboratory
- Computer Laboratory
- Seminar Library
- Mechanical Workshop

CAREER OPPORTUNITIES

Students enrolled in MPhil and PhD programs are offered Teaching Assistantships and Teaching Associateships. In such capacities students / research scholars are required to work full-time in the department and are assigned laboratory and teaching courses. This not only has monetary benefits but also serves as improvements / training of students. Depending on the teaching load requirements of the department, at the start of each semester applications are invited and based on interview candidates are selected. After completing and getting MPhil and PhD degrees, opportunities are available both in public and private sector Higher Education Institutions (HEIs) and research organizations where they can serve in their respective disciplines. Graduates also have the opportunity to apply in international research organizations and foreign universities for Post-Doctoral studies. MPhil and PhD Physics graduates develop critical thinking and objective approaches, virtue of which appears as leadership qualities. This gives them opportunity to use their expertise to serve as team leads and consultants in public and private sector organizations and in business and corporate environments.

DEPARTMENT OF PHYSIOLOGY

INTRODUCTION

As the backbone of every medical breakthrough, the Department of Physiology occupies a prominent and exalted position within the Faculty of Science at the University of Karachi. Founded by Prof. Dr. Mahmood Hussain Qazi in 1964, the department holds the distinction of being the first institution outside medical colleges to introduce teaching and research programs in Basic and Experimental Physiology at both graduate and postgraduate levels. It proudly stands as the only institute in Pakistan to have produced MPhil and PhD scholars in various disciplines of Physiology over the years. Currently, the department is actively engaged in teaching and research, offering advanced studies in core areas such as neurophysiology, endocrine physiology, reproductive physiology, poultry physiology, pathophysiology, and hematology. Recognizing that Physiology forms the foundational base of biological science, resonating from the cellular level to the organism as a whole, the department is committed to nurturing young minds to become future scientists and lifelong learners. The mission of the Department of Physiology is to produce experts who can contribute to cutting-edge research, generating endless possibilities for the development of novel therapeutic drugs and technologies. By providing a rigorous and comprehensive education, the department aims to equip its students with the skills and knowledge necessary to excel in the modern age of Biosciences, Clinical/Biomedical Sciences, and other Applied Biological Sciences.

POSTGRADUATE PROGRAMS AVAILABLE

- M.Phil in Physiology
- Ph.D in Physiology

OBJECTIVES FOR PHD AND MPhil RESEARCH PROGRAMS IN PHYSIOLOGY

The PhD and MPhil post-graduate research programs in Physiology are meticulously designed to deliver quality education in Physiology through research, fundamentally aligned with the university's mission. By focusing on advanced research, critical skills development, and comprehensive education, the program supports the university's goal of fostering academic excellence and innovative research. The objectives of the program are as follows:

- Provide a stimulating approach to the major forces instrumental in shaping basic, clinical and applied skills in physiology.
- Foster the development of professional skills through a well-designed curriculum based on experiments, training, and research.
- Provide quality education and training that embody the aspirations of the Pakistani population and the global community.
- Facilitate the creation, preservation, integration, transmission, and utilization of knowledge in physiology.
- Encourage critical analysis, interpretation, and discussion of factual information and data related to physiology.

PROGRAM SCOPE

These objectives ensure that students are well-prepared to contribute to the field of Physiology, advancing both their personal careers and the broader scientific community. The program aims to produce graduates who are not only knowledgeable but also skilled in research and practical applications, meeting the needs of both national and international communities. Our M.Phil. and PhD programs aim to produce graduates who are not only knowledgeable in the theoretical aspects of Physiology but also skilled in practical and research applications. By equipping students with advanced knowledge, professional skills, and a strong research foundation, the MPhil and PhD programs in Physiology ensure that graduates are well-prepared to contribute to the scientific community and address global challenges in medical and biological sciences.

INFRASTRUCTURE AND FACILITIES OF THE DEPARTMENT OF PHYSIOLOGY

The Department of Physiology at the University of Karachi boasts necessary infrastructure that supports both teaching and research at the highest levels. The department is equipped with modern laboratories furnished with advanced apparatus such as PCR machines, spectrophotometers, Power Labs and electrophoresis units, enabling comprehensive experimental and applied research in various physiological disciplines. The well-equipped labs cater to techniques in electrophysiology, microscopy, physiological chemistry, hematology, metabolic physiology, general physiology, and clinical physiology. Classrooms are designed for interactive learning, well-organized seminar library provides the latest textbooks and references on various physiology disciplines, while dedicated computer facilities, including specialized research units and a separate computer laboratory, support computational needs for academic and research activities. The department also includes an animal house, which is essential for conducting advanced physiological experiments and research involving animal models.

REGULAR FACULTY MEMBERS WITH THEIR AREA OF SPECIALIZATION AND EXPERTISE PROFESSOR**Professor**

- Dr. Taseer Ahmed Khan: Molecular & Poultry Physiology

Associate Professor

- Dr. Lubna Naz: (Chairperson) Pathophysiology and Herbal therapeutics
- Dr. Sadaf Ahmed: Behavioural and Psychophysiology
- Dr. Anwar Ali: Cell & Molecular Physiology
- Dr. Mehruza Nisa: Molecular Physiology & Clinical Endocrinology

Assistant Professor

- Dr. Arifa Savanur: Neuromuscular Physiology
- Dr. Zulfiqar Ahmed: Poultry Science
- Dr. Nazish Iqbal Khan: Integrative & Pathophysiology
- Dr. Ghazala Yasmeen: Renovascular Physiology
- Dr. Sumera Sohail: Pathophysiology
- Dr. Syed Mudassir Haider Rizvi: Neuromuscular Physiology
- Ms. Ambreen Niazi (M.Phil) Reproductive and pathophysiology
- Ms. Samia Mushtaq (M.Phil) Hematology and Natural therapeutics

Lecturer

- Dr. Faizan Mirza: Physiology of Aging & Psychophysiology
- Ms. Uzma Firdous (M.Phil) Reproductive Endocrinology
- Dr. Muhammad Nisar: Endocrinology

DEPARTMENT OF STATISTICS

INTRODUCTION

Department of Statistics was established in 1963. Prof. Muhammad Iqbal was the first Chairman. It is one of the Significant Departments in the faculty of Science.

The proliferation of quantitative information in society demands that we help to develop the next generation of statistics professionals while increasing the statistical literacy of our students and the frequency of collaboration with our colleagues.

The aim of the department of statistics is to develop concrete concepts of the subject in the students to transform it to a research oriented department. Students are taught advanced statistical softwares to enhance their understanding of data and sharpen research skills.

POSTGRADUATE PROGRAMS AVAILABLE AT STATISTICS

The Department of Statistics offers admissions in M.Phil, MS, and P.hD programs.

PROGRAM'S OBJECTIVES

The main objectives of M.Phil./ MS/Ph.D. Statistics are aligned with the objectives of the university and the program mission statements which focuses, interactive teaching, class presentation and research methodology. These are as follows:

1. To guide students about acquisition of real data from various sources.
2. To enhance the data handling and data smoothing skills so as to prepare data for statistical analysis.
3. To impart and enrich the computing skills of the students by making them familiar with various software's; Eviews, STATA, Minitab, R, Python, SPSS, SAS and other advanced statistical softwares.
4. To improve and enhance the writing skills of the students enabling them for report compilation and thesis/article write up.

AIMS AND SCOPE OF THE PROGRAM

The aim of the program is to impart statistical knowledge and skills in the students, enabling them to handle manage and analyze all types of data from field to forecasting, necessary for better planning development and growth of the country. Statistics has unlimited scope in all fields which include medical, biological, business, finance, economics, computer science and etc.

REGULAR FACULTY MEMBERS WITH THEIR AREAS OF SPECIALIZATION/ EXPERTISE

Highly qualified and competent teachers are part of the faculty. They are very dedicated and committed with their job and rigorously involved in quality teaching and research. Following are the Department Research Committee members with their area of expertise.

S. No.	Name	Designation	Area of Expertise
1	Dr. Arfa Maqsood	<i>Associate Professor</i>	Time Series, Econometrics, Sampling Distributions
2	Dr. Suboohi Safdar	<i>Associate Professor</i>	Design of Experiments, Reliability & Quality Control, Regression Analysis
3	Dr. Bushra Shamshad	<i>Associate Professor</i>	Multivariate and Categorical Data Analysis, Sampling Distributions
4	Dr. Samreen Fatima	<i>Associate Professor</i>	Time Series, Multivariate Analysis, Machine Learning and Econometrics
5	Dr. Farah Yasmeen	<i>Assistant Professor</i>	Time Series Analysis, Demography, Multivariate Analysis
6	Dr. Tanzila Yaqoob	<i>Lecturer</i>	Operations Research, Econometrics, Time Series Analysis
7	Dr. Tayyab Raza Fraz	<i>Lecturer</i>	Econometrics, Time Series Forecasting

RESEARCH FACILITIES AVAILABLE

The department has a spacious seminar library enriched with subject related books. Students can utilize the library for reading, discussion and for completing their assignments. The students can also get membership of LEJ digital library. Computer lab with updated PC's is also available for the research students.

INFRASTRUCTURE

The department has comfortable infrastructure to support conclusive learning environment.

AVENUES OF RESEARCH

- Textile
- Medical Universities and Hospitals
- Financial Institutions
- Pakistan Bureau of Statistics
- Consumer Based Survey Organizations
- All public/private R&D organizations

DEPARTMENT OF ZOOLOGY

INTRODUCTION

Department of Zoology was established in 1951 and now it holds a pivotal position in the faculty and can also be compared with any department of Zoology elsewhere in and outside Pakistan. The department right from its inception has been imparting instruction of B.Sc., BS and M.Sc., levels besides providing facilities for post-graduate research leading to M.Phil. and Ph.D. degrees. More than two thousand (2000) research papers have been published by the faculty members in National and International research journals. Various monographs and thirty-two books have been published by the faculty members. About 300 students are enrolled each year at various levels in the department including various specialization, several are being enrolled each year in M.Phil. and Ph.D. Programs.

The graduates of the department while catering the needs of the education department, where they are readily absorbed as lecturers of Zoology in schools, colleges and University also have job opportunities in the department of Agriculture, Plant protection, Fisheries, Zoological Survey, Zoological Gardens, Safari parks, Pakistan Council of Scientific and Industrial, Research, National Institute of Oceanography, Pakistan Agricultural Research Council, WWF, IUCN and Public and Private sectors pathological laboratories.

POSTGRADUATE PROGRAMS AVAILABLE AT ZOOLOGY

1. MS
2. M.Phil.
3. Ph.D.

PROGRAMS OBJECTIVES

The main objectives of M.Phil./Ph.D. Zoology are aligned with the objectives of the university and the program which focuses, interactive teaching, class presentation and research methodology. There are as follows:

1. To enhance the skills to prepare a pool of zoologist who can work for betterment of nature.
2. To improve the students enabling them for report compilation and thesis/article write up different specialization of Zoology, Marine Zoology, Wildlife, Entomology, Limnology, Parasitology.

AIMS AND SCOPE OF THE PROGRAM

The aim of the program is to impart zoological knowledge and skills in the students, enabling them to handle manage and analyze all type of specimens from field. Zoology has great scope in all fields which include medical, biological, teaching, field research, Agriculture and computer science applications etc. understanding the aspects of different specialization is very important for providing sound scientific advice in research.

REGULAR FACULTY MEMBERS WITH THEIR AREAS OF SPECIALIZATION/ EXPERTISE

Qualified teachers are part of the faculty. They are very dedicated and loyal with their job and involved in quality teaching and research. Following are the Department Research Committee members with their area of expertise.

Professors

1. **Prof. Dr. Shoaib (Chairman)**
Specialization Limnology and Freshwater Fisheries
2. **Prof. Dr. Solaha Rahman**
Specialization Marine Zoology

Associate Professors

1. **Dr. Karim Gabol**
Specialization Wildlife

Assistant Professors

1. **Dr. Sumera Farooq**
Specialization Marine Zoology
2. **Dr. Ghazala Yasmeen**
Specialization Wildlife
3. **Dr. Shakila Parveen**
Specialization Parasitology
4. **Dr. Shahina Rao**
Specialization Limnology and Freshwater Fisheries
5. **Dr. Rizwana Abdul Ghaffar**
Specialization Parasitology
6. **Dr. Muhammad Tariq Rajput**
Specialization Entomology
7. **Dr. Roohi Kanwal**
Specialization Wildlife
8. **Dr. Samreen Mirza**
Specialization Parasitology
9. **Dr. Atia Batool**
Specialization Limnology and Freshwater Fisheries

RESEARCH FACILITIES AVAILABLE

Zoology department has a seminar library available with subject related books and many journals for researchers. Students can utilize the library for reading, discussion and for completing their assignments. The students can also get membership of LEJ digital library, Computer lab with updated PC's are also available for the research students.

INFRASTRUCTURE

The department has comfortable infrastructure to support conclusive learning environment.

AVENUES OF RESEARCH

Students after completion their studies opportunities of getting employment in various public/private R&D organizations and education sectors, e.g. job opportunities in the department of Agriculture, Plant protection, Fisheries, Zoological Survey, Zoological Gardens, Safari parks, Pakistan Council of Scientific and Industrial, Research, National Institute of Oceanography, Pakistan Agricultural Research Council, WWF, IUCN and Public and Private sectors pathological laboratories.

DR. A. Q. KHAN INSTITUTE OF **BIOTECHNOLOGY & GENETIC** **ENGINEERING (BIOTECHNOLOGY) (KIBGE)**

INTRODUCTION

Dr. A. Q. Khan Institute of Biotechnology and Genetic Engineering (KIBGE) is a research institute with state-of-the-art facilities to conduct research on modern biological sciences and to impart higher education at the University of Karachi. The institute was established with an aim to foster research-based knowledge relevant to the developing world in the scientific domain of biotechnology and genetic engineering. There are four interdisciplinary key areas of research at KIBGE that include agriculture biotechnology, environmental biotechnology, industrial biotechnology and medical biotechnology.

Agriculture Biotechnology focuses research on food safety and security issues such as antimicrobial resistance, pesticides and heavy metal contamination in food chain and sustainable crop production using proteomic and genomic approaches.

Environmental Biotechnology focuses research on developing biopolymeric nanofibers, nano-composites, nanohybrid systems using sustainable approaches for controlling environmental pollutants widespread in the environment.

Industrial Biotechnology focuses research on production and structural elucidation of various industrial metabolites that include enzymes, antimicrobial peptides, biopolymers and nanomaterials that are synthesized under *in-vivo* / *in-vitro* conditions using microbial or synthetic biology approaches.

Medical Biotechnology focuses research on hereditary and acquired disorders prevalent in the community, cancer genomics, cardiovascular complications, metabolic and inflammatory disorders for disease biomarker discovery and validation.

KIBGE has established a sound scientific research environment that promotes quality research in aforementioned scientific fields.

RESEARCH AT KIBGE

KIBGE has well-equipped laboratory facilities in the field of biotechnology, molecular biology and genetic engineering including plant tissue culture, cell culture facility along with well-monitored greenhouse. The infrastructure of the institute has been developed according to the needs and requirements of innovative and advanced research. The key objective of the institute is to train scholars by imparting rigorous training along with preparing them to be a productive member of the scientific community. Scholars are provided supportive research-intensive environment that enhances leadership qualities which motivate them to make discoveries in the field of biotechnology and genetic engineering. Scholars also have the benefit of understanding contemporary techniques from national and international subject-experts in the field of biological sciences and related fields.

AVAILABLE FACILITIES

- Auditorium
- Lecture Halls
- Library
- Internet Facility
- Mosque
- Cafeteria

NETWORKING PARTNERS

The institute is part of several international research networks and encourages students and researchers to pursue training abroad. KIBGE is one of the principal partners in the network of collaborative research involving partners from all over the world, including Australian National University, Australia; University of Buea, Cameroon; University of Zagreb, Croatia; INSERM, University of Paris, France; Max Planck Institute, Germany; Pasteur Institute of Iran, Iran; University College Dublin, Ireland; University Sains Malaysia, Malaysia; University of Auckland, New Zealand; Ohio University, USA; Bangor University, United Kingdom; University of Malaya, Malaysia and many other international institutes.

SPECIFIC RESEARCH AREAS

Students are provided with a scientific platform to achieve outstanding research level with comprehensive biotechnological skills. The current curriculum guarantees biotechnological specialization ranging from research communication skills to research and development. Other avenues include bioinformatics, biostatistics, cytogenetics, plant biotechnology, industrial and environmental biotechnology, human molecular genetics, biosafety, ethics and regulatory affairs etc.

CAREER OPPORTUNITIES

Graduate scholars from KIBGE are trained to develop subject-specific transferable skills that are currently valued by all employers in academia, industry and government organizations. Scholars may find employment in specialized biotechnology and biotech related industrial sectors such as pharmaceutical, health care, food manufacturing, aquaculture and agricultural industries. KIBGE also fosters hands-on research opportunities to the students and alumni towards securing places at various international higher education institutions and networking partners abroad.

DIRECTOR GENERAL (ACTING)

- Prof. Dr. Khalid Mahmood Iraqi

FACULTY MEMBERS WITH AREA OF SPECIALIZATION**Professors**

1. Prof. Dr. Saddia Galani (Agriculture Biotechnology)
2. Prof. Dr. Afsheen Aman (Industrial/Environmental Biotechnology)
3. Prof. Dr. Sitwat Zehra (Medical Biotechnology)
4. Prof. Dr. Saima Saleem (Medical Biotechnology)

Assistant Professors

1. Dr. Sehrish Fatima (Medical Biotechnology)
2. Dr. Afsheen Arif (Medical Biotechnology)
3. Dr. Asma Ansari (Industrial/Environmental Biotechnology)
4. Dr. Syeda Nuzhat Nawab (Medical Biotechnology)
5. Dr. Nadir Naveed Siddiqui (Industrial/Environmental Biotechnology)
6. Dr. Ishrat Jamil (Agriculture Biotechnology)

PROGRAMS OFFERED

M.Phil. and Ph.D. in Biotechnology (KIBGE)

DR. PANJWANI CENTRE FOR MOLECULAR MEDICINE & DRUG RESEARCH (MOLECULAR MEDICINE) (PMD)

INTRODUCTION

The Dr. Panjwani Center for Molecular Medicine and Drug Research (PCMD), International Center for Chemical and Biological Sciences, (ICCBS) was established in 2004 through a generous donation of Dr. Panjwani Memorial Trust in the memory of Dr. Mohammad Hussain Panjwani, a leading scholar and philanthropist. Since then the PCMD has initiated several academic programs to train M. Phil / Ph. D. level manpower through research projects focusing on prevalent diseases of Pakistan.

The core mission of the center is to train highly qualified manpower in the emerging fields of molecular medicine and drug research. The efforts are focused on developing greater understanding of the pattern and causes of most common diseases of Pakistan in order to develop effective diagnostic tools and affordable treatments.

The PCMD has several public service units, including DRAP (Drug Regulatory Authority of Pakistan) Certified Bioequivalence and Clinical Research Center (CBSCR), Diagnostic Laboratory, Genome Center, Virology Center and Sindh Forensic DNA and Serology Laboratories. All these units are also ISO 9001 and 17025 accredited facilities. It also a UNESCO category II center.

SPECIFIC RESEARCH AREAS WITH WELL EQUIPPED LABS INCLUDING

- Bioinformatics and Computational Biology
- Cancer Research
- Cell and Molecular Biology
- Clinical Pharmacology
- Drug Discovery, Design and Synthetic Medicinal Chemistry
- Electrophysiology
- Epidemiology
- Genomics
- Infectious Diseases
- Metabolic Disorders
- Virology
- Human Genetics and Gene therapy
- Infectious Agents and Diseases
- Metabolic Disorders
- Molecular Enzymology
- Molecular Immunology
- Molecular Pharmacology
- Neurosciences and Neuropharmacology
- Proteomics and Metabolomics
- Structural Biology
- Tissue Engineering and Stem Cell Research
- Tropical Disease Research
- Virology

FACILITIES

- Biobank
- Diagnostic and Clinical Research
- Imaging
- Molecular, Microbial and Drug Banks

SPECIFIC RESEARCH AREAS

Visit our website <http://iccs.edu>

FACULTY MEMBERS

Visit our website:

<http://iccs.edu/page-panjwani-faculty>

PROGRAMS AVAILABLE

M. Phil. and Ph.D. in various disciplines of Molecular Medicine.

HEJ RESEARCH INSTITUTE OF CHEMISTRY

(CHEMISTRY)

INTRODUCTION

The H.E.J. Research Institute of Chemistry, International Center for Chemical and Biological Sciences (ICCBS) is one of the finest academic research institutions of developing world in the field of chemical and biochemical sciences. Its large complex covers over 40 acres, and is comprised of 8 research buildings, equipped with some of the region's most sophisticated laboratory equipment. The complex also includes a pilot plant, electrical powerhouses, green houses, animal house facility, auditorium and a residential colony with 50 houses, five apartment buildings, and an international guesthouse. The H.E.J. Research Institute of Chemistry carries out research, training, product development, and service delivery in the chemical, biological and biomedical sciences. The center also provides analytical testing for a broad range of clients for both the public and private sectors, nationally and internationally.

Over the past 57 years, over 1,200 students have earned M. Phil. and doctorate degrees from the institute. These degree-granting programs are based on world-class training to young researchers coming primarily from developing countries, including those belonging to the Organization of Islamic Cooperation (OIC), and, Non-Aligned Movement (NAM), and African Union. The institution has won the Islamic Development Banks (IDB) Prize for best Science and Technology Institution twice in 2004 and 2010. The ICCBS is a UNESCO category II Center and WHO collaborating center.

CAREER OPPORTUNITIES

The HEJ Research Institute of Chemistry is a prime institution of the world; its graduates are serving the nation in various capacities. The graduating scholars receive offers of post-doctoral and faculty positions in foreign, as well as in the universities of Pakistan. The scholars are also absorbed in local industries in R & D and other sections of industries.

FACILITIES

The center has a large doctoral program in chemistry, biochemistry with over 300 Ph.D. students. The main areas of research, and training of students include natural product chemistry, protein chemistry, pharmacology, computational chemistry, nano-chemistry, and plant biotechnology. The analytical, spectroscopic, computational, clinical and other facilities of the institute are *at par* to any good institution in the world. The center also has ISO 17025 / 9001 certified Industrial Analytical Center is providing services to over 600 industries in Pakistan.

A number of goal oriented projects related to the chemistry of natural products, protein chemistry, plant biotechnology, and pharmacology of herbal medicine are being vigorously pursued which has led to the award of over 1,200 M. Phil. and doctorate degrees. The scientific contributions of over 8,000 research papers, over 300 books, and over 300 international patents have earned international recognition.

Specific Research Areas

Visit our website <http://iccs.edu>

Faculty Members

Visit our website

<http://iccs.edu/page-hej-faculty>

Programs Available

M. Phil., and Ph.D. Program in various disciplines of Chemistry, Bio-organic Chemistry, Biotechnology and Pharmacology.

DR. M. AJMAL KHAN INSTITUTE OF **SUSTAINABLE HALOPHYTE UTILIZATION** **(BOTANY)**

INTRODUCTION

The Dr. Muhammad Ajmal Khan Institute of Sustainable Halophyte Utilization (ISHU), aptly renamed after its founder Director (via the *Syndicate Notification No. A.F.18(35)/2019 via resolution No. 2 dated: 29th June, 2019*) was established in 2006 to serve humanity through a better understanding of salt-tolerant plants (halophytes) and their sustainable use for food, medicine, fodder, forage, biofuel and climate change mitigation. The institute has trained several students and researchers through international and national collaborative projects and has made significant breakthroughs in saline agriculture by using saline resources. The quality of the research at MAK-ISHU can easily be judged by more than 500 international peer reviewed articles. The institute is proud of its post-graduate students who completed their research successfully and are now actively serving in prestigious public and private teaching & research institutes, colleges, and universities throughout Pakistan.

The Institute holds a prominent position in the University of Karachi for its research activities. Since the time of its establishment (2006), over 25 scholars have completed their Ph.D Research and currently 20 students are enrolled in M.Phil and 7 in Ph.D program. In addition to academic activities, the Institute holds seminars, conferences and internship programs related to the plant sciences on regular basis. The Institute has established several research collaborative / linkage programs with the Institutions of USA, China, Germany and Japan and published more than 225 research articles in the last five years.

POSTGRADUATE PROGRAMS AVAILABLE

M.Phil. & Ph.D in Botany (ISHU)

AVENUES FOR RESEARCH

- Plant Ecology and Ecophysiology
- Biochemistry and Biotechnology
- Phytochemistry of Medicinal Halophytes
- Transcriptomics and Proteomics
- Ecotoxicology and Phytoremediation
- Halo-fuel and Saline Agriculture

PROGRAM'S OBJECTIVES

The main objective of the postgraduate programs at MAK-ISHU is to 1) Understand the mechanistic basis of natural high-stress tolerance of halophytes through ecophysiological studies, supported by biochemical and molecular tools and 2) Investigate ways to use halophytes for various purposes in saline and water-scarce regions in harmony with nature.

AIMS AND SCOPE OF THE PROGRAM

The emphasis of the programs at MAK-ISHU is to train students on cutting-edge research techniques and avenues for a better understanding of stress tolerance mechanisms leading ultimately towards sustainable halophyte utilization. These postgraduate programs are in line with several United Nations Sustainable Development Goals (SDG's), particularly SDG 2 (Zero hunger), SDG 7 (Affordable & clean energy), SDG 11 (Sustainable Cities and Communities), SDG 12 (Responsible Consumption and Production), SDG 13 (Climate Action), SDG 14 (Life in Water) and SDG 15 (Life on Land).

REGULAR FACULTY MEMBERS

Professors

Dr. Bilquees Gul
Dr. Irfan Aziz (Director)

Associate Professors

Dr. Muhammad Zaheer Ahmed
Dr. Abdul Hameed

Research Officers

Dr. Zainul Abideen
Dr. Tabassum Hussain
Dr. Muhammad Qasim

FACILITIES AVAILABLE

ISHU has state of the art facilities for conducting research in lab, green-house and field conditions. Salt tolerant plants have the potential to become nonconventional future crops which may be utilized as food, feed, fiber, medicines and ornamentals. Instruments such as Atomic Absorption Spectrometer, CNS analyzer, GC-MS, HPLC, Ion Chromatograph, Gel Doc System, PCR's, Li-COR Photosynthesis system, Walz PAM fluorometer, Osmometer and Plant Water Status Console are available.

INFRASTRUCTURE

The Institute has state-of-the-Art facilities with 6 offices and 4 working laboratories at the ground floor and 10 working labs at the first floor. Additionally, the institute has 2 conference rooms, dark and cold rooms for sample storage and 3 netted green houses in the premises for conducting laboratory trials.

CAREER OPPORTUNITIES

ISHU graduates can apply for teaching positions in public and private colleges & universities as well as in research and development organizations related to plant sciences.

MARINE REFERENCE COLLECTION AND RESOURCE CENTRE

INTRODUCTION OF THE DEPARTMENT

The Marine Reference Collection and Resource Centre is the oldest marine biodiversity research centre in Pakistan. It was founded in 1967 as an Invertebrate Reference Museum by renowned marine scientist of the country Prof. Dr. Nasima M. Tirmizi (late), who was also founder director of the first Institute of Marine Science in Pakistan. MRC&RC has been providing excellent facilities to the marine science community of Pakistan and regional countries. It supports marine biodiversity research through comprehensive taxonomic data on marine fauna and flora and is in fact one of the unique research and training facilities in the region with a mission emphasizing taxonomic research, conservation and education. The centre, which has only been a feature of invertebrate taxonomic studies, has demonstrated ability and agility in responding to the management and conservation of marine biodiversity in a national, regional and international context. MRC&RC has a preeminent museum dedicated to inspiring curiosity and learning about the invertebrate fauna through its unparalleled collections, exhibits and research.

So far 44 research projects have been accomplished through national and international fundings/grants. The faculty and research students of the centre have produced 800 publications including research papers, articles, monographs, books and illustrated keys. MRC&RC has been publishing Pakistan Journal of Marine Sciences since the last three decades. This is the only research journal from Pakistan on Marine Sciences which is HEC recognized, indexed at WEB OF SCIENCE Master Journal List. The centre is linked with a number of local and foreign institutions for collaborative research including: *University of Réunion, France.*, University of Kwa Zulu-Natal, South Africa., Sinop University, Turkey., Gazi University, Turkey., University of Baghdad, Iraq., University of Chittagong, Bangladesh., Sudan University of Science & Technology., University De Sao Paulo, Brazil., University of Kelaniya, Sri Lanka., Sindh Fisheries Department, Marine Fisheries Department, National Institute of Oceanography, SUPARCO, PCSIR, Coastal Development Authorities etc.

POSTGRADUATE PROGRAMS AVAILABLE

1. M.Phil
2. Post graduate training and research supervision.

PROGRAMS' OBJECTIVES

1. Clearly articulate the specific research goals and outcomes.
2. Familiarize with existing research. This will help identify gaps in the current knowledge.
3. Keep updated with the latest developments, methodologies, and technologies relevant to research work. Attend conferences, workshops, and seminars, and subscribe to reputable journals and publications.

AIMS AND SCOPE OF THE PROGRAM

Exploration of coastal areas natural resources: The Centre supports marine biodiversity research through comprehensive taxonomic data on marine fauna & flora and thus offers research and training facilities in the region with a mission emphasizing on conservation and education.

REGULAR FACULTY MEMBERS WITH THEIR AREAS OF SPECIALIZATION/EXPERTISE

S. No.	Names	Area of Specialization
1.	Dr. Farhan Shafiq Ghory	Larval rearing of Crustacea-Decapoda, Systematic of Brachyura and Sipuncula.
2.	Dr. Muhammad Uzair Khan	Taxonomy of Fish and Coastal Biodiversity.
3.	Ms. Wafra Matanat Zhaeen	Systematic of sea anemone and Stomatopod, Ecological and Environmental Impact and Assessment.

RESEARCH FACILITIES AVAILABLE

The centre has a carefully maintained Museum (repository) with more than 10,000 specimen, Preservation room, Wet laboratory to conduct research on live specimen, Ichthyology and Pollution lab, Mangrove lab, Molluscan lab, Plankton lab, SEM (Scanning Electron Microscope) room, Photographic lab, an Auditorium and Museum library with more than 3000 books, journals, reports, proceedings etc. A shore laboratory/Marine Research Station situated at Sandspit beach is also part of Marine Reference Collection and Resource Centre.

INFRASTRUCTURE

1. Wet laboratory to conduct research on live specimen
2. Labs (All the working laboratories are provided with necessary equipment)
3. Museum (repository)
4. Museum library
5. Internet Access

AVENUES FOR RESEARCH

1. Explore marine biodiversity research through comprehensive taxonomic data on marine fauna & flora along the northern Arabian Sea.

NATIONAL NEMATOLOGICAL RESEARCH CENTRE (NEMATOLOGY)

INTRODUCTION

National Nematological Research Centre (NNRC) is a leading research and educational institute dedicated to the generation, acquisition of knowledge about Nematology in Pakistan. Nematology is a highly specialized field of biological sciences of agriculture. NNRC was established in 1974 and now has come to symbolize as an efficient, dynamic and forward looking research Centre in Pakistan.

NNRC is ISO Certification 9001 – 2015 for the compliance of its diagnostic services and education program. The Centre has been engaged in publishing bi-annual scientific journal, *Pakistan Journal of Nematology* (PJM) since 1983 and PSN Newsletter since 2002, covering the significant research in fundamental and applied Nematology within and outside the country. It provides diagnostic services related to nematode diseases. Beside this, several books, booklets, manual, proceedings and many national and international patents are the publications of the Centre.

The Centre has collaborations in research with many international and national agricultural research institutions and universities as well as various other departments of the University of Karachi. Numerous research projects have been awarded to NNRC by various funding agencies such as PSF and HEC. Diagnostic, advisory and consultancy services have also been provided to the farmers, scientists and extension workers from all over the country and abroad.

The NNRC collaborates with the government, international research bodies, research centers and non-governmental organizations to create awareness on vital issues of nematode problems and provides forum for all the Nematologists, researchers, agriculturists, extension workers and students of the country to exchange information about nematode diseases by organizing national and international conferences, seminars and workshops regularly.

Research and teaching jobs are available for the post graduates in agriculture related organizations/ universities/ institutions in the country and abroad. Wide range of carrier opportunities are also accessible in various organizations such as PARC, NARC, Plant Protection, Pakistan Atomic Energy Commission, Institutes of Biotechnology & Genetic Engineering, Environmental Protection Agency, Integrated Pest Management (IPM) services, Quarantine, Seed Certification, Pesticide formulations, Food Industries and Research and Development private sector and marketing. The Nematologists are also hired for diagnostic and consultancy services for the field and laboratory services.

POSTGRADUATE PROGRAMS AVAILABLE

- M. Phil. & Ph.D. in Nematology

PROGRAMS OBJECTIVES

The programs are solely entitled to educate and train the young students of biological sciences by providing them necessary skills and experiences to take sound decisions in research field.

AIM AND SCOPE OF THE PROGRAM

The aim is to promote the subject of Nematology to develop highly trained professionals through M. Phil / Ph. D. degree program.

REGULAR FACULTY MEMBERS WITH THEIR AREAS OF SPECIALIZATION

Director

- Dr. Saboohi Raza (Molecular Plant Pathology/ Biotechnology)

Research Officers

- Dr. Tabassum Ara Khanam (Entomopathogenic Nematodes)
- Dr. Salma Javed (Molecular /bioinformatics)

RESEARCH FACILITIES AVAILABLE

NNRC has well equipped laboratories for research work on fundamental and applied Nematology of plant parasitic, free- living soil, fresh water, marine and entomopathogenic nematodes. Over 19,000 nematode specimens are preserved in the Nematode Collection Unit. Computer facilities and internet access are available for researchers. The seminar Library has a collection of more than 1000 books, journals and periodicals related to nematology.

INFRASTRUCTURE

Well maintained class rooms, seminar library, labs and large experimental field and two green houses are also available for the research purpose.

AVENUES FOR RESEARCH

The research programme includes work on the molecular taxonomy, biology, pathogenicity, population dynamics, control of plant parasitic nematodes, use of marine nematodes as pollution indicators, entomopathogenic nematodes. Short and long term training programs in Nematology are also arranged for researchers, students, extension workers and farmers of the country.

DR. ZAFAR H. ZAIDI CENTRE FOR PROTEOMICS (BIOCHEMISTRY)

INTRODUCTION

Proteomics refers to the study of all proteins being expressed in a tissue, cell or an organ at a particular point and time. It reflects a snapshot of expressed proteins in the sample being analyzed. Proteomics is being utilized as a core technology globally to understand the role of protein molecules involved in health and disease. The cutting edge technologies used in proteomics have much greater impact in terms of early diagnosis and offers tremendous potential in prevention and therapeutics. Proteomics facilitates fundamental understanding of diseases by discovery of biomarkers to improve clinical diagnostics. This technology uses a combination of chromatography, electrophoresis, mass spectrometry and bioinformatics tools. Various projects on different types of cancers such as oral, liver and breast carcinoma, diabetes, osteoarthritis, role of antioxidants in disease conditions, stem cells therapeutics, venomics, plant proteomics and salivary proteomics are in progress at the institute. During the last 15 years the institute has produced 14 Ph.D and 15 M.Phil.

DEGREE PROGRAMS OFFERED:

- M.Phil in Biochemistry
- Ph.D in Biochemistry

PROGRAMS OBJECTIVE:

M.Phil and Ph.D. programs at Dr. Zafar H. Zaidi Center for Proteomics offer training in Biochemistry analysis techniques used in research that cover study areas such as structure function relationship, biological properties and activities, bioinformatics and molecular analysis. The programs are designed for students with a background in biological sciences. The programs focus on investigation of proteins samples coming from variety of sources including human samples, animals, microbial and plants. The M.Phil program has a particular emphasis on basic training in a range of skills based subjects and provides a professional training for aspiring candidates. The Ph.D. program involves the advanced level of research with improving the skills further, addressing the interpreting capabilities and developing an individual as an independent researcher.

AIMS AND SCOPE OF THE PROGRAM:

Deciding to pursue for an MPhil degree in Biochemistry is the beginning to the road of learning. Students understand the basic principles and applications of the techniques used in biochemistry and its applications in various biological domains such as health and diseases. Students can enroll in academic positions after completion of degree as well as pursue their studies further towards a PhD degree.

Opting for PhD in Biochemistry at our institute provides opportunities for our students to enroll for jobs in industries as well as academia. We aim is to supervise and train our young forthcoming scientists and build a strong foundation for them to take up responsible positions in society.

LIST OF FACULTY MEMBERS WITH THEIR AREA OF SPECIALIZATION/EXPERTISE:

Associate Professor

Dr. Mehtab Alam (Director)

Research Interests:

Research interest of Dr. Mehtab Alam is based on Peptide synthesis, Toxinology, Venom Chemistry, Ion channel modulators, Isolation and purification of proteins, Protein Bioinformatics, and Therapeutic peptides.

Dr. Zehra Manzoor

Research Interests:

Recent research interests include comparative proteomics, functional proteomics, biomarker identification and drug-induced modifications in breast, liver and oral cancer tissues, serum and cell lines. Recently, Dr. Manzoor is investigating the involvement of PDGFR pathway in cancer progression. She has published her work in international journals of the relevant field.

Assistant Professor**Dr. Syed Faraz Moin****Research Interests:**

Current research interest of Dr. Syed Faraz Moin is Proteomics/Protein Biochemistry that includes protein characterization from snake venom, saliva, dental material, plant, and microbial origin. Currently, Dr. Moin is working on dental material specifically characterization of nanocomposites and proteins extracted from the dentine. He has authored international publications in the field.

Dr. Amber Noman**Research Interests:**

Dr. Amber Noman is working on protein identification, quantification, and protein-protein interactions having aim to identify signaling networks of cancer cells that can be employed for therapeutic interpolation. Current research interest of Dr. Noman focuses on ASS1 gene regulation in hepatocellular carcinoma and the identification of carcinogenesis in liver cancer through EGFR pathway.

Dr. Kanwal Haneef**Research Interests:**

Current research interest includes stem cell differentiation in response to hypoxia, genetic modifications, and small molecule treatments. This includes stem cell isolation, propagation, characterization, and their therapeutic applications. Dr. Haneef is also investigating the molecular mechanisms regulating the differentiation of stem cells using proteomics techniques.

FACILITIES

ZCP has state-of-the-art facilities in the field of Proteomics. The Institute is equipped with instruments such as vertical and horizontal electrophoresis, 2D gel electrophoresis, Western blotting, gel documentation system with Quantity One software, gel spot cutter with 2D gel analysis software (PD Quest), chromatographic instrumentse.g. FPLC, HPLC, ice flaker, ultracentrifuge, PCR, qPCR, cell culture, fluorescence microscope. cryostatand mass spectrometer. The institute has a computer lab with complete *in-silico* solutions for data analysis, protein structure prediction, web based searches and protein docking studies. ZCP also has a library with different reference books and journals related to genomics, proteomics and bioinformatics.

SPECIFIC RESEARCH AREAS:

1. Clinical Proteomics
2. In Silico Studies in Drug Designing And Discovery
3. Oxidative Stress in Breast Cancer, Hepatocellular Carcinoma, Diabetes, and Osteoarthritis.
4. Plant Protein Biochemistry
5. Regulation of Micro RNA in Clinical Conditions.
6. Salivary Proteomics
7. Stem Cells Proteomics
8. Study of Differentiation Mechanisms in 2D and 3D Culture
9. Synthesis and Characterization of Dental Material
10. Venom Proteomics

INSTITUTE OF SPACE SCIENCE & TECHNOLOGY

INTRODUCTION

The Institute of Space Science and Technology (ISST) is a premier institution dedicated to advancing space science education, research, and innovation. ISST integrates cutting-edge academic training with mission-driven research. Our curriculum is designed in compliance with international standards, emerging technologies, and to meet the indigenous requirements of Space Technology in Pakistan. In addition, the proposed curriculum ensures the quality trends and the development of dynamic professional human resources. Our faculty and alumni contribute to landmark projects and collaborations, providing a multidisciplinary environment where Space Science, Aviation Technology, Remote Sensing & GIS and policy converge to address global space challenges, from climate monitoring to interplanetary exploration and beyond, delving into the deep cosmos of the Universe.

POSTGRADUATE PROGRAMS AVAILABLE

- M. Phil. Program
- Ph. D. Program

PROGRAMS' OBJECTIVES

- **Academic Excellence**: Equip students with advanced theoretical and computational skills in space science and technology.
- **Research Innovation**: Foster independent research capabilities for space technology development, data analysis, and theoretical modeling.
- **Global Impact**: Train scholars to address sustainability challenges (e.g., climate change, space debris) through space-based solutions.
- **Ethical Leadership**: Instill principles of responsible space exploration and international collaboration

AIMS AND SCOPE OF THE PROGRAM

ISST's programs bridge fundamental science and applied space technology through five interdisciplinary research domains:

1. Computational Astronomy & Astrophysics
2. Satellite Communication
3. Aerospace Science
4. Atmospheric Science
5. Remote Sensing & GIS

REGULAR FACULTY MEMBERS WITH THEIR AREAS OF SPECIALIZATION/EXPERTISE

Prof. Dr. Muhammad Jawed Iqbal (Astrodynamics, Gravitation Physics, Climate Change)

Assistant Professor

Dr. Mirza Jawwad Baig	(Modeling of Climate Variability, Physical Oceanography)
Dr. Naeem Sadiq	(Climate Dynamics, Meteorology, Environmental Science)
Dr Syed Tanweer Iqbal	(Astromical Laser Spectroscopy, Quantum Optics, Astrophysics)

Lecturer

Mr. Muhammad Anas Qureshi	(Astronomy)
Mr. Fayyaz-ur-Rasheed	(Environmental Physics)
Mr. Muhammad Saleem Khan	(Fluid Dynamics)

RESEARCH FACILITIES AVAILABLE

- Advanced Astronomical Observatory (Equipped with 16 inch and 8 inch Telescopes)
- Computational Astrophysics & Space Data Lab
- Computer Lab for Machine Learning
- Remote Sensing & GIS Lab
- Basics Electronics Lab
- Satellite Communication Lab
- Physics Lab
- Aerospace Workshop

INFRASTRUCTURE

- ISST Teaching Building (four-story Building)
- Seminar Library
- Lecture Halls
- Faculty Offices
- Astronomical Observatory
- Computational Astronomy Lab

AVENUES FOR RESEARCH

- Computational Astronomy
- Cosmology
- Gravitation Physics
- Space Physics
- Environmental Physics
- Aerospace Science
- Remote Sensing & GIS
- Satellite Communication

CENTER OF EXCELLENCE FOR WOMEN'S STUDIES

INTRODUCTION

Since its inception, the Center of Excellence for Women's Studies (CEWS) University of Karachi has been engaged in offering teaching and research facilities in a friendly environment to prepare students to act as agents of change. We are the first to offer B.A (Hons.), M.A and M.Phil. / Ph. D. degree programs in Pakistan. Currently the Center offers admission in BS 4 Years Program (morning & evening), BS 3rd Year (morning & evening), and M.Phil. / Ph. D. programs. Women's Studies, an interdisciplinary subject, aims to make visible women's role and contributions towards building a gender-bias free society for a holistic development of the nation. We offer a variety of courses to address the issues of women and gender, both nationally and internationally. The major focus of our teaching and research is to bridge-up the gap between the academia and women at the grass-root level. Thus, our students move beyond the Campus and interact with women to document their every-day lived experiences.

CAREER OPPORTUNITIES

As Women's Studies prepares students to act as agents of social change, therefore, our students are well equipped and trained to take up jobs that a person qualified in any other discipline can undertake. Majority of CEWS graduates are now hired in various positions by private organizations, government and non-government agencies. As one of the requirements of our teaching is practicum, our students work as interns with various GOs / NGOs and thus gain practical training and gain experience. To help our students in their future careers, we remain engaged with the corporate sector.

FACILITIES

CEWS has well-qualified faculty to help and assist students in their quest for knowledge. We also invite scholars, academics and activists from various fields to share their scholarship and experiences with our students. Our library with its holding of more than 4000 books, journals, reports on women and gender is the only library of its kind in the country. We have a collection of press-clippings on almost all aspects of women's lives. Our library is accessed not only by our students but it also caters to the academic search needs of scholars, activists and journalist who wish to avail this facility. Our library catalogue is accessible through electronic portal.

SPECIFIC RESEARCH AREAS

- Introduction to Women and Gender Studies
- Women Technology & Entrepreneurship
- Women & Work: Child Labour, Girl Child, Self-Employed Women
- Women, Religion & Religious Traditions
- Health Concerns of Women & Gender
- Women's History
- Women & Law
- Women & Politics
- Women & Media
- Women & Health
- Women Sports & Physical Education
- Social Construct of Gender
- Women in Islam
- Women in World Religion
- Psychology of Women
- Development Planning (nationally & globally) and Women

PROGRAMS OFFERED

1. M. Phil.
2. Ph. D.

PROGRAM AIM, MISSION, OBJECTIVES AND OUTCOMES

Vision of the Department

To engage Women’s Studies students, teaching and non-teaching faculty in gender oriented productive and research activities in order to bridge the gap between academic knowledge about women and gender.

Aim

To help develop critical insight about social realities lived experiences and systemic oppressions.

M.Phil. / Ph. D. Program Mission

Students in Women’s Studies are expected to adopt Women’s Studies as a change- making exercise. It also seeks to engage students in the production of knowledge that emerges from feminist critique of social, cultural and institutional structures that promote and strengthen patriarchy, for the elimination of gender biases.

Mission Statement of the Department

The mission of the Center is to play a role as a catalyst for change, bridging the gap between academic knowledge about women and their everyday life experiences, along with to prepare a human resource for institutions of women and gender development. To train students in such a way that they learn to critically analyze patriarchal structures that hampers the growth of an egalitarian society --- socio-economically, culturally, politically, and religiously. Also, engage students in an on-going academic activity through class-discussions and research in the production and dissemination of knowledge through a feminist critique of the historic and current social, cultural, and institutional structures that hamper social justice and create gender-based oppressive society. Moreover, the aim is to equip students to develop a research culture that encourages and contributes to gender equality and equity.

OBJECTIVES OF THE PROGRAM:

The program focuses on extending the knowledge and research expertise of students through scientific inquiry. It is designed for individuals who have the intellectual capacity for advanced research and who wish to contribute to future development of Women’s Studies as a discipline.

To understand multiplicity of feminist theories and the major feminist texts associated with them.

1. To understand the need and purpose of conducting research.
2. To examine how interdisciplinary feminist paradigms generate research for social change and policy intervention.
3. To understand how the dynamics of feminist research methods give identities to the ‘objects’ of research.

M. PHIL / PH. D PROGRAM OUTCOMES

1. Students write and disseminate researches conducted about women and gender issues.
2. Students will demonstrate an analytical understanding of some major feminist theories by drawing out dominant themes considering the ways in which class, ethnicity, and sexual orientation have interacted with women’s gendered identity and roles.
3. Student will develop thesis in consultation with the research supervisor.
4. Student will conduct six seminars of one hour each during one year of course work.

SCOPE OF THE PROGRAM

The M. Phil. / Ph. D. Women’s Studies program opens up numerous career prospects for graduates and prepares them for various professional fields

NO. OF SEATS AVAILABLE

S. No.	Degree	No. of Seats
1	M. Phil. Women’s Studies	25
2	Ph. D. Women’s Studies	10

PH.D FACULTY DETAILS

Name	Designation	BPS	Degree	Title of the Ph.D. Thesis
Dr. Asma Manzoor	Professor/ Director	21	Ph. D.	A Study of Socio-Economic Conditions for the Establishment of Export Processing Zones and Reasons of Employment Attraction for Women in the Karachi Export Processing Zone
Dr. Shagufta Nasreen	Associate Professor	20	Ph. D.	Impact of Globalization Policies (fiscal Austerity, privatization and trade liberalization) conducted on the women workers of urban industrial sector of Karachi
Dr. Aliyah Ali	Associate Professor	20	Ph. D.	Causes of Crimes among female prisoners in Karachi Jail, a study of the socio-economic and environmental problems and effects on personality
Dr. Seema Manzoor	Assistant Professor	19	Ph. D.	Women Sufi's: A Veiled Paragon in South Asia

INSTITUTE OF MARINE SCIENCE

INTRODUCTION OF THE INSTITUTE

Marine Science is a branch of Earth Science that deals with all aspects related to oceans, seas, their coasts and seabed. It covers a wide range of topics including Ocean, currents, waves, and tides; marine organisms and ecosystem dynamics; geophysical fluid dynamics; plate tectonics and geology of the sea floor including their minerals and hydrocarbon potential; and fluxes of various chemical substances and physical properties within the ocean and across its boundaries. These diverse topics relate to a multitude of disciplines like chemistry, physics, biology, geology, meteorology, and geography that oceanographers blend together to comprehend knowledge of the world oceans and processes within it. Marine science is a contemporary field of education having emerged as a hybrid of traditional fields such as physical attributes of oceans, biology, chemistry and geology.

POSTGRADUATE PROGRAM AVAILABLE

1. M.Phil.
2. Ph. D.

PROGRAM OBJECTIVES

M. Phil. Marine science offers a wide range of multi-disciplinary areas of study comprising four core areas; Biological, chemical, geological and physical oceanography. Programme is designed for students with these diverse backgrounds. This programme focuses on marine science with particular emphasis on marine environment, coastal development, sustainability and includes basic training in a range of skills based subjects and provides a professional training for aspiring candidates.

AIMS AND SCOPE OF THE PROGRAM

Marine Science is aimed over preparing graduates for a variety of interesting careers and opportunities. A marine graduate/ scientist can be employed in federal, state and local government agencies to manage and monitor the use of marine resources, solve problems and conduct research. They can be employed by private industries such as seafood, fisheries, aquaculture, exploratory marine geology, satellite imagery, and ecological modeling, including environmental agencies and numerous non-government organizations.

Regular Faculty Members with their area of specialization/expertise

Name	Qualification	Designation	Area of Expertise
Dr. Nuzhat Afsar	Ph.D. (Marine Biology)	Director/ Associate Professor	Marine Biology/Marine Pollution / Marine Environment
Dr. M. Shoaib Kiani	Ph.D. (Zoology)	Assistant Professor (T)	Marine Zoology/ Marine mammal and large marine vertebrates
Dr. Nazia Arshad	Ph.D. (Zoology)	Assistant Professor (T)	Marine Zoology/ Benthic Ecology/Meiofauna
Mr. Qaiser Abbas	Ph.D. (in progress)	Taxonomist	Marine Pollution/ Sea Weeds, Mangroves/ Biocemical Work

RESEARCH FACILITIES AVAILABLE

The Institute of Marine has limited facilities but it is doing its best to make efficient use of available facilities and build on them consistently. For instance recent developments towards upgrading the facilities are present in the form of Sieve Shaker, HPLC, and Atomic Absorption Spectroscopy etc. for analysis of Biological, Geological, Chemical and Physical samples.

INFRASTRUCTURE

Ambitious and progressive get-up-and-go towards infrastructure of the Institute of Marine Science continued to upgrade its infrastructure.

AVENUES FOR RESEARCH

1. **Physical Oceanography**, or **marine physics**, studies deal with physical attributes of the oceans including temperature-salinity structure, mixing, waves, tides and currents, light and sound transmission, etc.
2. **Chemical Oceanography** or **marine chemistry** is the study of chemistry of the ocean and its chemical interaction with the atmosphere.
3. **Biological Oceanography** or **marine biology** is the study of plants, animals and microbes of the ocean and their ecological interaction with the habitat. The sustainable use of living resources may be provided through three separate modules with specific electives designed for fisheries, aquaculture and conservation biology.
4. **Geological Oceanography** or **marine geology** studies the structure and morphology of the ocean floor, tectonic activity and volcanism associated with plate margins, continental margins, beaches and coastal areas, sediment transport and deposition regimes, and offshore mineral and hydrocarbon deposits etc.

High-quality education expertise of the faculty that will prepare graduates and future scientists to accept the challenges of leadership, positions within the seafloor mining, seafood export, blue economy/ fisheries promulgation, and aquaculture and associated industries to strengthen the country's economy. The institute shall promote and encourage the pursuit for knowledge in new areas of marine science, innovation in skills and expertise for sustainable usage of renewable and non-renewable resources from sea i.e., natural product research and patent product usage in pharmacy, biomedical sciences & biotechnology.

ANY OTHER RELEVANT INFORMATION

Mission of these Marine Science Programmes is to equip students with an understanding of the world's oceans and a positive reception of the importance of marine ecosystems in a global perspective. This mission could be consummated through a combination of hands-on laboratory and field experience, supported by a broad background in the marine sciences, including basic to advanced knowledge of the natural science disciplines of biology, chemistry, physics, geology, statistics and mathematics.

INSTITUTE OF ENVIRONMENTAL STUDIES

INTRODUCTION

The subject of environmental studies is interdisciplinary, in which the relationship of humans with their physical, biological and social environments is studied. The subject provides an integrated approach to the understanding and finding solution of the environmental issues that range from human community health to global climate change.

The Institute of Environmental Studies was founded in 1982 for developing the human resources to address the environmental issues of the country and is the oldest institute in the field of environmental studies. Initially the institute offered M.Phil. and Ph.D. Programmes. Later, in 1996, the Evening Programme was launched for offering M.Sc. degree. Currently the Institute of Environmental Studies is offering BS, BS 3rd Year, M.Phil. and Ph.D. degrees in both the Evening and the Morning Programmes.

The Institute has organized many national and international work-shops and seminars in collaboration with the Higher Education Commission and the Ministry of Health and Environment. The Institute has Ph.D. faculty members whose work is published in various national and international journals. Apart from regular teaching and research, the Institute organizes short-term training activities for in-service personnel and for those who are engaged in research and development programmes.

FACILITIES

The Institute is equipped with advanced laboratories, an updated library and modern equipments that help conduct research on global issues. It provides air-conditioned lecture halls, laboratories and audio-visual facilities for the students. The Institute enjoys focal position on a number of environmental issues and activities for many national and international organizations such as WHO, UNEP, IUCN, WWF, LEADS, SEPA, SSWMB etc.

SPECIFIC RESEARCH AREAS

- Climate Change and its impact on Pakistan
- Designing and developing low cost wastewater treatment Systems.
- Industrial pollution control and management.
- Environmental hygiene (food and water hygiene and safety)
- Environmental Impact Assessment
- Marine pollution and control
- Ecological studies
- Biodegradation of hazardous waste
- Role of trees in environment
- Coastal and Marine Conservation
- Air and noise pollution
- Ocean-atmosphere process and biological productivity
- Environmental Pollution monitoring through GIS and Remote Sensing
- Carbon Sequestration
- Phytoremediation
- Sustainable use of waste for agriculture purposes

CAREER OPPORTUNITIES

After completing BS, BS 3rd Year, MS, M.Phil., and Ph.D. degree programmes, the graduates can easily handle managerial, technical and consultative responsibilities in various industries, multinational companies, civic agencies, consulting firms, environmental health laboratories and organizations, educational and research institutions and environmental protection agencies (EPAs).

FACULTY MEMBERS

Associate Professor

Dr. Farrakh M. Nawaz (Director)

Assistant Professors

Dr. Suraiya Jabeen

Dr. Waqar Ahmed

Dr. Aamir Alamgir

Lecturers

Dr. Noor Fatima

Ms. Humaira Kanwal

PROGRAMMES OFFERED

- BS
- BS 3rd Year.
- MS, M. Phil. & Ph.D.

CENTRE FOR PLANT CONSERVATION

INTRODUCTION

Centre for Plant Conservation was established in Karachi University with the funding of HEC. It is the hub of academic and research activities. The Centre is divided into two major sub-departments. (i) **Karachi University Herbarium** is a fundamental source of identification of plants and permanent reference Centre via dried plant specimen and Flora of Pakistan. It serves the primary need of identification for basic and applied research in botany, biology, agriculture, pharmacy, genetics, pharmaceutical chemistry, aerobiology and biotechnology. (ii) **Prof. Dr. S.I. Ali Botanical Garden** is a conservation center spread over an area of 35 acres divided into 13 regions, holds well documented approx. 3000 plant species, in living form for the purposes of conservation, research, display and education. Seed bank in the botanical garden, containing seeds of more than 500 variety of plant species of Pakistan. A wide range of plants are also propagated by different methods in nursery.

The aim of the Centre is to provide and promote facilities for advanced study and research in various aspects of plant conservation and ethno-botany. It enhances the knowledge of plant conservation and sustainable utilization of plant biodiversity of rare and endemic plants of Pakistan and also provides opportunities for collaborative research with related departments/ institutes at national and international levels.

POST GRADUATE PROGRAMS AVAILABLE

M.Phil. & Ph.D.

PROGRAM OBJECTIVES

The objectives of an MPhil/PhD program in a Centre for Plant Conservation are typically designed to align with the overarching goals of plant conservation and biodiversity preservation. These objectives include:

Plant Conservation Strategies: Emphasis on ex-situ collection, taxonomy, and restoration.

Interdisciplinary Expertise: Coursework/training in systematics, ecology, physiology, agronomy.

Career and Research Preparedness: Ready for roles in academia, industry, and conservation sectors.

AIMS AND SCOPE OF THE PROGRAM

The primary aim of the MPhil/PhD program in a Centre for Plant Conservation is to cultivate a new generation of skilled researchers and professionals who are equipped with advanced knowledge and expertise to address the critical challenges in Plant Systematics, conservation and biodiversity preservation. The program strives to foster innovative research, interdisciplinary collaboration, and practical solutions to conserve plant species and their habitats, ensuring the sustainability of ecosystems for future generations.

The scope of the MPhil/PhD program encompasses a wide range of activities and areas of study, including but not limited to Plant Systematics, Plant biodiversity, Plant Conservation, Tissue culture, Germ plasma storage, Ethnobotany, Horticulture; and Phytochemistry.

REGULAR FACULTY MEMBERS

- Dr. Roohi Bano (In-Charge and Associate Professor)
- Dr. Shaukat Ali (Senior Taxonomist)
- Dr. Muneeba Khan (Taxonomist)

RESEARCH FACILITIES AVAILABLE

Karachi University Herbarium (KUH) has more than 150,000 plants species (mostly flowering plants), including those which are several decades old. **Herbarium research Library** has more than 2000 books and 240 journals on Plant Sciences and a huge collection of national and international floras, proceedings and monographs for research scholars and students. Internet and audio visual facilities for the students are also available. **Transport facility** for field visits to various regions of Pakistan for research and training. The Centre is well-equipped with advance laboratories i.e. Plant Tissue culture Lab, Scanning Electron Microscope Lab, Atomic absorption Lab, and Phytochemistry Lab. **Educational visits of Botanical Garden** are provided for school, colleges and university, and also facilitate many students/ research scholars for the preparation of Nature-based learning projects and presentations and organize field activities, workshops

(Germination/ Organic gardening) and plantation drive. **Seed Bank** provides facility in seed exchange program and many more are under process. **Flora of Pakistan** is a research based series of plants of Pakistan comprise of 225 volumes, providing baseline information for research scholars/ scientists at national and international level and also for exchange research program.

INFRASTRUCTURE

Centre for Plant Conservation consist of Two main buildings

1. Karachi University Herbarium (KUH): It is double story building consisting of Herbarium, 4 labs, library, Scanning Electron Microscopy Room, and offices.
2. Prof. Dr. S.I. Ali Botanical Garden Building: It is located in the Garden vicinity, includes Tissue culture lab, Seminar room, Seed Bank, and offices.

AVENUE FOR RESEARCH

Dean Grant, HEC Grants, HEC Scholarships

CAREER OPPORTUNITIES

Students holding M. Phil. / Ph.D. degrees from Centre for Plant Conservation can apply in different fields of biology departments, Educational and Research Institutions, and Pharmaceutical Organizations (Government or Non-Government sectors).

AREA STUDY CENTRE FOR EUROPE

Introduction

The Area Study Centre for Europe (ASCE), University of Karachi was established alongwith five other Area Study Centres (situated in major state sector Universities of Pakistan) by an act of Parliament (ASC Act No.XLV. 1975). The Centre is an autonomous institution, under the academic discipline of the University of Karachi, supervised by a Board of Governors and is funded by the Federal Government.

The Centre provides a peaceful atmosphere for teaching and research at the M.S/M.Phil/Ph.D level. Its M. Phil course work in European Studies is spread over two semesters, which is designed to give students a thorough understanding of contemporary Europe. Europe's relation with Pakistan and the developing world are given particular importance.

In September 1999, European Union (EU) sponsored M. Phil programme in European Studies at ASCE.

In 2001, the centre was awarded the Jean Monnet Chair of European Political Science by the European Commission.

ASCE also became a partner in the EU-sponsored "CLIMA" project in 2009.

The Centre holds regularly national/international seminars and workshops/lectures. The Centre also publishes an HJRS-listed the bi-annual *Journal of European Studies*.

Programs Offered;

- M. Phil in European Studies

Programs' Objectives:

- To produce experts and students of the European Studies.
- To promote higher studies with an inter-disciplinary approach
- To apprise researchers of current national and international developments.

Aims and Scope of the Program:

The ASCE aims to disseminate advance scientific knowledge of 'Europe', its socio-economic experiences to build an intellectual community performing research, academic and policy-making activities.

Director

- Prof Dr. Samina Saeed (Director) (Poetical Science)

Faculty Members

Assistant Professors

- Dr. Shaista Shaheen Zafar (European Studies)

Senior Research Fellow

- Ms. Munazza Nargis Kazmi (General History)
- Research Associate
Mr. Muhammad Ahsan (Poetical Science)

Facilities

Well-equipped Reference Library

Avenues for Research:

Multi-dimensional research avenues are available;

- National/international research projects
- Public/private institutions/Think tanks
- Media, NGOs, Civil Services etc.
- The Centre offers core courses for research in European History, Contemporary European Political and Economic Institutions, Political Geography, Theory and Practice of European Integration, European Union Law, the European Union's Foreign Policy and External Relations, Economics of European Integration, Research Communication Skills and Research Methodology.

Eligibility:

- * B.S/M.A in Social Sciences and Law with atleast 55% or 2.5 GPA (for M.Phil admissions).
- * M.Phil in European Studies and Social Sciences can apply for Ph.D in European Studies.
- * Aptitude test is mandatory to get admission in M.Phil/Ph.D programme.

Career Opportunities

Majority of the students after completing their course work and research get jobs in Teaching, Foreign Office, Think-Tanks, National/International NGOs, and Print/ Electronic Media.

Others Programs:

- German English/French Language Certificate/Diploma Course (Afternoon)

For Further Enquiry:

Telephone: 99261652-53

Website: www.uok.edu.pk/research_institutes/asce/index.php

www.asce-uok.edu.pk

Email: asce_uok@hotmail.com

SHEIKH ZAYED ISLAMIC RESEARCH CENTRE

INTRODUCTION

The Sheikh Zayed Islamic Centre of the University of Karachi is a gift for the People of Pakistan established under the financial support of H.H Sheikh Zayed Bin Sultan Al-Nahyan, the ruler of the United Arab Emirates. The Centre was brought under the administrative Control of the University of Karachi in 1985. We are thankful to the UAE Government for providing us this valuable gift. Sheikh Zayed Islamic Centre is imparting quality education in the discipline of Islamic Studies with particular reference to information technology. It is indeed a matter of pride that the Centre is conducting various courses of studies from B.S to Ph.D. level and is active in the field of research and studies leading to M.Phil/ Ph.D. programmes. The centre is also organizing courses in Islamic Banking which is an urgent need of time.

M.PHIL PROGRAM

- M.Phil (Islamic Studies with Computer Technology)

AIMS AND OBJECTIVES OF THE PROGRAM

The M.Phil Program is aimed at catering the needs of higher education, conceptual growth, mastering advanced knowledge and to make the students well versed to participate in solving research problems of the discipline of Islamic Studies along with possessing a full command over applying the tools/methods of Computer Technology in their research applications.

DURATION OF THE PROGRAM

This program requires study on regular basis till two semester (one year) course work of 24 credit hours (three compulsory and five optional courses) followed by a thesis.

DEGREE AWARDED

M.Phil in Islamic Studies with Computer Technology.

COURSE DESCRIPTION

The 10 courses are gleaned from three different field of study, “Islamic Studies, Arabic Language and Literature & Computer Science.

M.PHIL (ISLAMIC STUDIES WITH COMPUTER TECHNOLOGY)

First Semester

Sno	Course No	Course Title	Credit Hours
1.	711	Early Islamic Sources - I	3
2.	721	Arabic-I	3
3.	731	Research Methodology	3
4.	741	Usool-e-Fiqh	3
5.	751	Application of Logic in Uloom-e-Shariah	3
Credit Hours			15

Second Semester

Sno	Course No	Course Title	Credit Hours
1.	712	Early Islamic Sources - II	3
2.	722	Arabic-II	3
3.	732	Applied Research Methodology	3
4.	752	Advanced IT Application in Islamic Studies	3
5.	762	Research Communication Skills	3
Credit Hours			15
Thesis			6
Total Credit Hours of the program			36

After the successful completion of course work and research work. Thesis will be assigned to the students according to the policies of University of Karachi.

PAKISTAN STUDY CENTRE

INTRODUCTION OF THE CENTRE

Pakistan Study Centre was established under an Act of the parliament passed in 1976. The Centre began functioning in 1983 and since then it has developed into a prestigious institute of higher learning and research. Apart from conducting courses at BS, M.Phil and Ph.D., levels, the Centre has excelled in original in-house and contractual research that has received wide acclaim both at the national and international levels. The Centre has also organized numerous international and national conferences apart from regular in-house seminars and symposia. The BS programme of the Centre is based on multi-disciplinary courses which enables the students to compete in the civil service examination and also seek place in the teaching profession.

POSTGRADUATE PROGRAM AVAILABLE

1. M.Phil

PROGRAMS' OBJECTIVES

M.Phil / Ph.D Programme is designed to carry out intensive and in-depth research on any aspect of history, culture, literature, religion, education, Pakistan movement, sociology, international relations and politics of Pakistan.

AIMS & SCOPE OF THE PROGRAM

Aims

To promote post graduate research and produce scholars of Pakistan Studies.

Scope

The scholars will have scope in teaching and research institutions, Media, Civil Services, Other National & International Organization etc.

REGULAR FACULTY MEMBERS WITH THEIR AREAS OF SPECIALIZATION / EXPERTISE

1. Dr Erum Muzaffar (Foreign Relations, Environment & Geography)
2. Ms. Sadaf Masood (Economics)
3. Mr. Yasir Hanif (History)

RESEARCH FACILITIES AVAILABLE

Library and Internet Access

Infrastructure

Classrooms, multimedia, furniture etc.

AVENUES FOR RESEARCH

History, Politics, I.R, Economics, Sociology, Arts & Architecture, Culture, Literature, etc.

ANY OTHER RELEVANT INFORMATION

The Centre regularly publishes a bi-annual research journal *Pakistan Perspectives* (since 1996) which is regarded as one of the most prestigious journals of social sciences published in Pakistan. The journal is recognized by the HEC in 'Y' category.

POSTGRADUATE ADMISSION POLICY – 2026

ADMISSION REQUIREMENTS AND PROCEDURE FOR MPhil / ME / MS

Eligibility Criteria

- a) At least sixteen years of studies (Masters degree, M.A., M.Sc., M.B.A., M.P.A., B.B.A., M.A.S., M.L.I.S., M. Com., B.S., B.E., B.Pharm., Pharm.D., M.B.B.S., B.D.S., D.V.M.) or equivalent qualification with at least second division in the relevant field from an HEC recognized university/institution. However, candidates with M.B.B.S., B.D.S., D.V.M. or equivalent qualification will be required to undertake 15-credit hour courses (300-600 level), in addition to 24-credit hour courses prescribed for MPhil program to be decided by the DRC and 30 credit hour courses for MS program. There is no requirement to submit Equivalence certificate for the graduates of Public Sector Universities.

Note: 6 credit hours of research work are mandatory for MPhil. Those candidates who have done MS (with course work) are not eligible for admission in PhD.

One MPhil seat is especially allocated for the special person from each department / Centre / Institute.

The admission on special persons' reserved seats is granted only after the medical examination and verification from the Social Welfare Department, Government of Sindh and / or Civil surgeon.

b) Intradisciplinary Qualification

The intradisciplinary admission may only be allowed, if:

- a) **Departmental Research Committee allows, and**
- b) The applicant has a strong interest in purposing an MS/MPhil/equivalent degree in a different discipline.
- c) **The applicant has passed GRE-Subject / equivalent test with minimum 50% marks in the discipline of admission and has taken 6-9 CH of deficiency courses of level 6.**
- d) The admission committee is satisfied that the applicant's knowledge of primary area (level 6) has sufficiently prepared him or her to undertake the course of studies of the MS/M.Phil/equivalent program (or, in the opinion of the admission committee, the preparation can be deemed satisfactory by taking a few additional courses after starting the program.

Admission Procedure

1. All candidates will be required to submit the following documents along with the **Entrance Test Application Form**
 - i. Consolidated transcript/marks certificate of the last degree examination.
 - ii. Matric / O levels Certificate
 - iii. Computerized National Identity Card.
 - iv. Recent photographs.
2. Appearance in Karachi University Entrance Test 2026 (KUET-2026) is mandatory for all applicants who wish to seek admission in MPhil/MS program to be conducted by relevant departments/centers/institutes of the University of Karachi.
3. a) The test shall comprise of the following sections:

Section-I Subject knowledge	80%
Section-II English and Communication Skills	20%
- b) Candidates will be required to score at least 50% marks in KUET-2026 each section to be eligible for consideration for the *provisional admission*.

- c) If a candidate has already qualified the International (subject) GRE/HAT/GAT subject, he/she will be exempted from subject test component of KUET 2026. The validity of International (subject) GRE is 5 years and HAT/GAT is for two years. The minimum passing score is **50%**. However, the candidate has to appear in Karachi University Entrance Test 2026 (KUET-2026) English test component, moreover, interview will be mandatory.

Note: *Qualifying the Karachi University Entrance Test (KUET-2026) is no guarantee for admission.*

4. All the students who qualify the Karachi University Entrance Test 2026 (KUET-2026) will be required to appear in person for an interview to be conducted by the respective Departmental Research Committee (DRC) to finalize the admission procedure. Distribution of interview marks are given in **Annexure-II**.

Provisional Admission for MPhil /MS/ME

Applications for provisional admission will be considered on the basis of eligibility, merit, availability of seats and supervisors.

Final admission list will be prepared by the DRC according to the following formula:

- a. The marks obtained in the prerequisite degree examination will be given 20% weightage.
- b. The marks secured in the Entrance Test 2026 will be given 50% weightage.
- c. The marks obtained in the interview will be given 30% weightage.

Submission of Forms for Admission

Candidates selected for provisional admission will be required to complete admission form along with the submission of the following documents:

1. Two recent photographs.
2. Attested photocopies certificates/ degrees from S.S.C. to Masters or the prerequisite exam.
3. Attested photocopy Computerized National Identity Card.
4. In case of foreign students, NOC from HEC and the Ministry of Education, Economic Affairs Division and Ministry of Foreign Affairs, Government of Pakistan, Islamabad and a copy of valid visa and passport.
5. Certificate from the Equivalence Committee, University of Karachi, in case the accreditation status of the prerequisite degrees is not clear.
6. The Admission & Tuition fee is mentioned in **Annexure-I**.

Duration of Program

The duration of MPhil, MS and ME will be minimum of 1.5 years and maximum of four (4) years from the date of provisional admission. No further extension will be given.

Appointment of Research Supervisor

Faculty members of the University of Karachi / ASRB approved supervisors may be appointed as research supervisors.

Course Work

a) MS (with course work)

1. All selected candidates will be required to complete course work of minimum 30 credit hours with a maximum of 12 credit hours per semester. See **Annexure-IV** for details.
2. Every candidate will be required to submit details of courses duly endorsed by the course Incharge and Chairperson of the parent department in the Semester Examination Section on prescribed course selection proforma (**Annexure-IV**).
3. Candidates are required to attend at least 75% classes of each course.

4. The candidate must clear the course work of 30 credit hours with minimum **CGPA 3.00**.
5. **A student who will be declared short of CGPR shall improve it in the next available single chance by appearing in any two courses having less than 70 marks i.e. B.**
6. If the student fails to attain a **CGPA of 3.00** or more even after the improvement chance, he/she will be given only a Post Graduate Diploma (PGD) instead of MS degree. Student can improve his/her CGPA in three years. Minimum **2.5 CGPA** is required for Post Graduate Diploma.
7. **Those candidates who have done MS (with course work) are not eligible for admission in PhD**

b) MPhil / ME (With Course and Research Thesis)

1. All selected candidates will be required to complete course work of minimum 24 credit hours in two semesters (each course of 3 credit hours). See **Annexure-IV** for details.
2. Candidates are required to attend at least 75% classes of each course.
3. Every candidate will be required to submit details of courses duly endorsed by the course Incharge and Chairperson of the parent department in the Semester Examination Section on prescribed course selection proforma (**Annexure-IV**).
4. The student has to pass the course work with **CGPA 3.0** or more.
5. **A student who will be declared short of CGPR shall improve it in the next available single chance by appearing in two courses having less than 70 marks i.e. B.**
6. If the student fails to attain a CGPA of 3.00 or more even after improvement chance, after one year or overall within three years, he/she will be given only a Post Graduate Diploma (PGD) instead of MPhil degree. Minimum **2.5 CGPA** is required for Post Graduate Diploma.
7. After passing the course work with **CGPA 3.0** or more, the student will be required to apply through proper channel for confirmation of admission and approval of research proposal within one year.
8. The student will submit a research proposal according to the approved format of the ASRB through proper channel along with a copy of the marks certificate issued by the Semester Examination Section.

Evaluation & Award of MPhil and MS Degree

1. MS / ME (With Course Work)

The student will submit a mark Proforma of 30 credit hours course work with CGPA 3.0 or more along with clearance form through proper channel in ASRB for the award of MS degree (with course work). **They are not eligible for the admission in PhD.**

2. MPhil / ME (With Course and Research Thesis)

The student will submit a research thesis which will be evaluated by two external examiners (outside Karachi) appointed by the ASRB. The MPhil degree shall be awarded by the ASRB subject to positive reports of the supervisor, two external examiners and a successful public defense of the thesis by the candidate, with an external examiner.

ADMISSION REQUIREMENTS AND PROCEDURE FOR DOCTOR OF PHILOSOPHY (PhD)

Eligibility Criteria

- a) At least 18 years of studies M.Phil., M.Pharm., M.S. (with research of six credit hours), MBA (with 4 years BBA) or equivalent qualification in the relevant field from HEC recognized University/Institution. There is no requirement to submit Equivalence certificate for the graduates of Public Sector Universities.

One Ph.D. seat is especially allocated for the special person from each department / Centre / Institute.

The admission on special persons' reserved seats is granted only after the medical examination and verification from the Social Welfare Department, Government of Sindh and / or civil surgeon.

b) CGPA

- a) For admission in the PhD programs, a minimum CGPA of 3.0 (out of 4.0 in the semester system) or 60% (in the annual system) in the MPhil / equivalent degree being considered for admission, is required, whether such degree was obtained from Pakistani or foreign universities.
- b) If the CGPA/Percentage is not mentioned on the transcript, the candidate must produce equivalent weightage from the parent university.
- c) The students having strong demonstrated interest in obtaining PhD degree, but their CGPA is below 3.00 (minimum 2.6 CGPA) (out of 4.0 in the semester system) or 60% marks (in the annual system) in the most recent degree obtained, may be admitted to a PhD program after fulfilling the following requirements:
- i. Shall study additional courses of 9-12 CH of level 7 taking a zero semester at admission awarding university/HEI/DAI and score minimum 3.00 out of 4.00 GPA, and
 - ii. The admission committee is satisfied that the applicant's knowledge of primary area (level 7) has sufficiently prepared him or her to undertake the course of studies of the doctoral program.
 - iii. These requirements shall be in addition to any other requirements set in this policy for admission to a PhD program.

c) Intradisciplinary Qualification

The intradisciplinary admission may only be allowed, if:

- a) **Departmental Research Committee allows, and**
- b) The applicant has a strong interest in pursuing a PhD in a different discipline.
- c) **The applicant has passed GRE-Subject/Equivalent Test with minimum 60% marks in the discipline of admission and has taken 6-9 CH of deficiency courses of level 7.**
- d) The admission committee is satisfied that the applicant's knowledge of the primary area (level 7) has sufficiently prepared him or her to undertake the course of study of the doctoral program (or, in the opinion of the admissions committee, the preparation can be deemed satisfactory by taking a few additional courses after starting the program).

Admission Procedure (PhD)

1. All candidates will be required to submit the following documents along with the Entrance Test Application Form:
 - i. Consolidated transcript/marks certificate of the last degree examination.
 - ii. Matric / O levels Certificate
 - iii. Computerized National Identity Card.
 - iv. Recent photograph.

2. Appearance in Karachi University Entrance Test 2026 (KUET-2026) is mandatory for all applicants who wish to seek admission in Ph.D. program to be conducted by relevant departments/centers/institutes of the University of Karachi.

3. (a) The test shall comprise of the following sections:

Section-I	Subject knowledge	80%
Section-II	English and Communication Skills	20%

(b) Candidates will be required to score at least 60% marks in each section of KUET-2026 to be eligible for consideration for the *provisional admission*.

(c) If a candidate has already qualified the International (subject) GRE/GAT/HAT, he/she will be exempted from subject test component of KUET 2026. The validity of International (subject) GRE is 5 years and GAT/HAT is for two years. The passing score is 60%. However, the candidate has to appear in Karachi University Entrance Test 2026 (KUET-2026) English test component, moreover, interview will be mandatory.

Note: *Qualifying the Karachi University Entrance Test (KUET 2026) is no guarantee for admission.*

4. All the students who qualify the Karachi University Entrance Test 2026 (KUET-2026) will be required to appear in person for an interview to be conducted by the respective Departmental Research Committee (DRC) to finalize the admission procedure. Distribution of interview marks are given in **Annexure-I**.

Provisional Admission

Applications for provisional admission will be considered on the basis of eligibility, merit, availability of seats and supervisors. Final admission list will be prepared by the DRC, according to the marks secured in the Interview that will be given **50% weightage**. (See annexure-III)

Submission of Forms for Admission

Candidates selected for provisional admission will be required to complete admission form along with the submission of the following documents:

1. Two recent photographs, duly attested by the Chairperson / Director of the Departments/Institute/ Centers concerned.
2. Attested Photocopies of Certificates / degrees from S.S.C. to M.Phil. / MS (with research of six credit hours) or the prerequisite exam.
3. Attested photocopy of Computerized National Identity Card.
4. In case of foreign students, NOC from HEC and the Ministry of Education, Economic Affairs Division and Ministry of Foreign Affairs, Government of Pakistan, Islamabad and a copy of valid visa and passport.
5. Certificate from the Equivalence Committee, University of Karachi, in case the accreditation status of the prerequisite degrees is not clear.
6. The Admission & Tuition fee is mentioned in **Annexure-I**.

Duration of PhD

The duration of PhD is minimum of three (03) and maximum of eight (08) years from the date of provisional admission. No further extension will be given. Moreover minimum duration for Ph.D. thesis submission is three (3) years from the date of synopsis submission in ASRB.

Course Work for PhD

1. All selected students will be required to complete minimum 18 credit hours course work.
2. Candidates are required to attend at least 75% classes of each course.
3. The student will submit a research proposal according to the approved format of the ASRB through proper channel.

Comprehensive Examination

4. Following the completion of coursework, every PhD student shall be required to pass the comprehensive examination to be granted candidacy as a PhD researcher, with the provision that the student failing to pass the comprehensive exam, shall be allowed to retake the exam once.

Appointment of Research Supervisor

Faculty members of University of Karachi / ASRB approved supervisors may be appointed as research supervisors.

Evaluation of PhD Research Thesis

During the research, the student must publish research paper/s from the thesis as per **HEC, Graduate Education Policy-2023**, approved by the **Academic Council (Resol. No. 02, dated 14-06-2024)** before the submission of PhD thesis in the ASRB Section duly verified by QEC, University of Karachi.

The thesis shall be evaluated as per **HEC, Graduate Education Policy-2023** duly approved by the Academic Council (**Resol. No. 02, dated 14-06-2024**). The Ph.D. degree will be awarded by the ASRB subject to the positive reports from the Research Supervisor, external examiners and a successful public defense with an external examiner.

ADMISSION REQUIREMENTS AND PROCEDURE FOR LLM

Eligibility Criteria

At least sixteen years of studies (BA.LL.B/LL.B) or equivalent qualification with at least ‘Second Division’ in LLB having at least 55 percent aggregate or have a minimum CGPA of 3.00 from an HEC recognized university/institution. There is no requirement to submit Equivalence certificate for the graduates of Public Sector Universities.

Note: 6 credit hours of research work are mandatory for LL.M.

Admission Procedure

All candidates will be required to submit the following documents along with the **Entrance Test Application Form**

- i. Consolidated transcript/marks certificate of the last degree examination.
- ii. Matric / O levels Certificate
- iii. Computerized National Identity Card.
- iv. Recent photographs.

Appearance in Karachi University Entrance Test 2026 (KUET-2026) is mandatory for all applicants who wish to seek admission in LL.M. program to be conducted by School of Law University of Karachi.

The test shall comprise of the following sections:

Section-I	Subject knowledge	80%
Section-II	English and Communication Skills	20%

Candidates will be required to score at least 50% marks in each section (KUET-2026) to be eligible for consideration for the *provisional admission*.

Note: Qualifying the Karachi University Entrance Test (KUET-2026) is no guarantee for admission.

All the students who qualify the Karachi University Entrance Test 2026 (KUET- 2026) will be required to appear in person for an interview to be conducted by the respective Departmental Research Committee (DRC) to finalize the admission procedure. Distribution of interview marks are given in **Annexure-II**.

Provisional Admission for LLM

Applications for provisional admission will be considered on the basis of eligibility, merit, availability of seats and supervisors.

Final admission list will be prepared by the DRC according to the following formula:

- a) The marks obtained in the prerequisite degree examination will be given 50% weightage.
- b) The marks secured in the Karachi University Entrance Test 2026 (KUET- 2026) will be given 30% weightage.
- c) The marks obtained in the interview will be given 20% weightage.

Submission of Forms for Admission

Candidates selected for provisional admission will be required to complete admission form along with the submission of following documents:

1. Recent photograph.
2. Certificates / degrees from S.S.C. to LL.B / B.A. LL.B.
3. Computerized National Identity Card.

4. In case of foreign students, NOC from HEC and the Ministry of Education, Economic Affairs Division and Ministry of Foreign Affairs, Government of Pakistan, Islamabad and a copy of valid visa and passport.
5. Certificate from the Equivalence Committee, University of Karachi, in case the accreditation status of the prerequisite degrees is not clear.
6. The Admission & Tuition fee mentioned in **Annexure-I**.

Duration of Program

The duration of LL.M will be minimum of 1.5 years and maximum of four (4) years from the date of provisional admission. No further extension will be given.

Appointment of Research Supervisor

Faculty members of University of Karachi / ASRB / HEC approved supervisor may be appointed as research supervisor.

LL.M. (With Course and Research Thesis)

1. All selected candidates will be required to complete the minimum 24 credit hours course work.
2. Candidates are required to attend at least 75% classes of each course.
3. The student has to pass the course work with CGPA 3.0 or more.
4. A student who will be declared short of CGPR shall improve it in the next available single chance by appearing in two courses having less than 70 marks i.e. B.
5. If the student fails to attain a CGPA of 3.00 or more even after improvement chance, after one year or overall within two years, he/she will be given only a Post Graduate Diploma (PGD) instead of LL.M. degree. Minimum 2.5 CGPA is required for Post Graduate Diploma.
6. After passing the course work with CGPA 3.0 or more, the student will be required to apply through proper channel for confirmation of admission and approval of research proposal.
7. The student will submit a research proposal according to approved format of the ASRB through proper channel along with a copy of the marks certificate issued by the Semester Examination Section

Evaluation & Award of LL.M. Degree

LL.M. (With Course and Research Thesis)

The student will submit a research thesis which will be evaluated by two external examiners (outside Karachi) appointed by the ASRB. The LL.M. degree shall be awarded by the ASRB subject to positive reports of the supervisor, two external examiners and a successful oral defense of the thesis by the candidate.

ADMISSION REQUIREMENTS AND PROCEDURE FOR MS (Surgery) / MD (Medicine) / MDS (Master of Dental Surgery)

The MS (Surgery) / MD (Medicine) / MDS (Master of Dental Surgery) program at the Faculty of Medicine, University of Karachi runs under semester system of examinations.

Faculty of Medicine, University of Karachi offers admission in MS/MD/ MDS (Master of Dental Surgery) program in the following fields:

Doctor of Medicine (MD)	
S. No	Specialty
1	Anesthesiology
2	Community Medicine
3	General Medicine
4	Nephrology
5	Neurology
6	Chest Medicine (Pulmonology)
7	Cardiology
8	Psychiatry
9	Gastroenterology
10	Dermatology
11	Pediatric Cardiology
12	Emergency Medicine

Master of Dental Surgery (MDS)	
S. No	Specialty
1	Prosthodontics
2	Orthodontics
3	Operative Dentistry
4	Oral and Maxillofacial Surgery
5	Periodontology
6	Sciences of Dental Materials
7	Oral Pathology
8	Community Dentistry
9	Oral Biology and Tooth Morphology

Master of Surgery (M.S.)	
S. No	Specialty
1	General Surgery
2	Gynecology & Obstetrics
3	Ophthalmology
4	Orthopedic Surgery
5	Otorhinolaryngology
6	Urology
7	Oral Surgery
8	Thoracic Surgery
9	Plastic Surgery

Eligibility:

1. Bachelor of Medicine and Bachelor of Surgery (M.B.B.S.) or Bachelor of Dental Surgery B.D.S. or Equivalent qualification with at least Second division from Pakistan Medical and Dental Council (PMDC) and Higher Education Commission (HEC) recognized University plus one-year house job.
2. Copy of the valid registration certificate from Pakistan Medical and Dental Council (PMDC).

Admission Procedure:

- i. All candidates are required to fill the application form for admission in MS/MD/MDS program at University of Karachi.
- ii. All required documents mentioned below must be **attested by Class-I Gazetted officer** and submitted along with the Karachi University Entrance Test 2026 (KUET-2026) Application Form:

- Photocopy of the last examination marks sheet.
 - Photocopy of the last degree.
 - Copy of the valid registration certificate from Pakistan Medical & Dental Council (PMDC).
 - Photocopy of the Computerized National Identity Card.
 - Passport size photograph.
 - One-year house job certificate.
- iii. Candidates will be required to appear in the Karachi University Entrance Test (KUET-2026) conducted by the Faculty of Medicine, University of Karachi. The test shall have a total of 200 marks and comprise of the following sections:
- | | |
|--|------------|
| Section I English and Communication Skills: | 20% |
| Section II Subject Knowledge: | 80% |
| <i>(MCQ 50% + Video Projected Clinical assessment 30%)</i> | |
- iv. Candidates will be required to score at least 50% marks in section-I and 50% marks in section-II, separately to be eligible for consideration for Interview.
- Note:** *Qualifying the Karachi University Entrance Test (KUET-2026) is no guarantee for admission.*
- v. All the students who qualify the test will be required to appear in person for an interview to be conducted by the interview board of the Faculty of Medicine to finalize the admission procedure.

Exemption from Entrance Test:

Exemption from University of Karachi entry test 2026 may be granted by ASRB on case-to- case basis if the candidate has acquired qualifications from American Board of Medical Specialties or holds FCPS, FRCP, MRCOG, FRCOG, MRCP, FFDRCSI, FDSRCS or other major degree/equivalent qualification of relevant specialty recommended by the DRC. Any candidate willing to obtain exemption from University of Karachi Entry Test must apply for the same at the time of admission form submission. No request of exemption will be entertained after the conduction of University of Karachi Entry test 2026.

Format of Karachi University Entrance Test:

The entrance test shall have a total of 200 marks and shall comprise of the following sections:

- **Section I** (English and Communication Skills): 20% = 40 Marks
- **Section II** (Subject Knowledge): 80% = 160 Marks

Section-I

The section shall consist of 40 questions from English and Communication Skills.

Section-II

The section will comprise two sub-sections. Both sub-sections are separate passing heads:

- **MCQs 50% = 100 Marks**
- **Video projected clinical assessment 30% = 60 Marks**

A. MCQs Paper

The MCQs paper shall consist of 100 Multiple Choice Questions with single best answer. The MCQ's will be derived from different subjects as follows:

S.No.	Subject	No. of MCQs
i.	Basic Sciences	50
	a. Anatomy	10 from each subject 10*5= .50
	b. Physiology & Biochemistry	
	c. Pathology	
	d. Pharmacology	
	e. Bio Statistics & Epidemiology	
ii.	Medicine and Allied (MD)	50
Any one	Surgery and Allied (MS)	50
	Dentistry and Allied (MDS)	50

- Each correct answer will carry 1 mark
- An applicant scoring **50%** of marks will be considered pass in written paper.

B. Video-Projected Clinical Examination (VPCE)

- The Video - Projected Clinical Examination will consist of 30 videos/slides.
- The Videos/slides shall consist of data, videos and images of patient's pictures, Histopathology slides, X-rays, CT-Scan, Laboratory test, video clips of patients and pathophysiological videos.
- Each correct answer will carry 02 marks
- The applicant scoring 50 % of marks shall be considered pass in Video-Projected Clinical Examination.

Result Declaration of Karachi University Entrance Test:

The successful candidates will be required to score at least 50% marks in each section and/or subsection, to be eligible for consideration in the interview.

Interview:

Interviews of successful candidates will be held at the office of Dean, Faculty of Medicine by the DRC/Interview Board. Final credential of the candidate e.g., no. of attempts in each profession, any gold medals or distinctions, Diploma or minor qualification in relevant field. Work /research experience in a recognized institution. Number of research articles published in a National or International Journal will be assessed. Professional attitude of the candidates will also be assessed as per enclosed format in **Annexure-V**.

Final Admission List

1. Final admission list will be prepared by the Dean Faculty of Medicine according to the following formula:
 - i. The marks secured in the Entrance Test 2026 will be given 80% weightage.
 - ii. The marks obtained in the interview will be given 20% weightage.

Provisional Admission

Candidates selected for provisional admission will be required to submit admission form along with the following documents signed by the Dean of the Faculty of Medicine:

- i. Copy of the valid registration certificate from Pakistan Medical and Dental Council PMDC.
- ii. Degree holders of other Universities are required to submit Migration Certificate.

- iii. Computerized National Identity Card.
- iv. Candidates who are employed in Public/Private institutions require Four years leave/deputation for training and course work from the employer. This leave will be 5 years in case of sub-specialties while those who are self-employed will be required to submit the affidavit on Stamp paper of Rs. 100 stating that he/she will be attending the course work and training as per laid down criteria of University of Karachi accordingly.
- v. Teachers and employees of organization where training /research work conducted are exempted from leave. However, a NOC from the employer will be required.
- vi. Candidates who are not employed, a certificate of non-employment stating that during training no employment (other than training program) shall be undertaken/ executed on a stamp paper worth Rs. 100/- (Attested by Notary Public/ Oath Commissioner).
- vii. In case of foreign students, N.O.C. from the Ministry of Education, Economics Affairs Division and Ministry of Foreign Affairs, Government of Pakistan Islamabad and an attested copy of valid visa and passport.
- viii. Certificate from the Equivalence Committee, University of Karachi, in case, the accreditation status of the degrees is not clear.
- ix. Evidence of admission & Tuition fee, given in fee structure **Annexure-I**

Appointment of the Supervisor:

Every student will have to select a supervisor and training slot at the beginning of the program duly approved by the Dean Faculty of Medicine The supervisor must fulfill the criteria of the University of Karachi.

ASRB shall approve the detailed plan of work on the subject or any of its branches and the supervisor on the recommendation of the Dean, Faculty of Medicine.

Criteria of Appointment of Supervisor:

1. The Supervisor should have major postgraduate degree/ diploma i.e. FCPS, Ph.D, FRCS, FRCP, MRCOG, MS, MD or equivalent with at least 5 years standing in relevant field. The Supervisor should be working in an permanent academic position as professor/Associate Professor/ Assistant Professor) whereas for the later two positions there must be at least five / seven years of experience respectively in a teaching hospital/ department in PMDC approved teaching institution.
2. The Supervisor of some other training/research program e.g. FCPS, should not have more than 8 trainees.
3. The Supervisor should follow the structured training program provided by the University of Karachi (ASRB) for his/her candidate, including one-year course work and is required to submit progress report to the ASRB of the candidates quarterly.
4. The Supervisor must have on his/her credit the below workshops being conducted by Faculty of Medicine University of Karachi / an institution recommended by Faculty of Medicine University of Karachi or by any recognized national or foreign university or Degree awarding institution (DAI) including Research Methods/ Biostatistics/Epidemiology, Medical Writing and Critical appraisal, Software based data Analysis and Evaluation
5. The Supervisor will guide his student in synopsis writing and check the synopsis before submission to the University of Karachi.

SCHEME OF STUDY

Duration of Program

The duration of MD/MS program shall be minimum four (4) years and maximum of seven (7) years (in specialties) or minimum five (5) years and maximum eight (8) years (in subspecialties) with structured training in a University of Karachi approved institution under the guidance of an approved supervisor duly verified by the DRC to be submitted the office of Dean Faculty of Medicine.

Program Structure

The MS/MD program at the University of Karachi consists of three parts. To qualify for the award of MS or MD at the University of Karachi a candidate is required to pass all three parts independently. Moreover details regarding each part are stated below.

Part A: Course work in Basic Medical Sciences

Part B: Research & Thesis writing

Part C: Clinical Training (to commence after the selections of supervisor and training institution duly verified by the Chairperson/Director and endorsed by the Dean Faculty of Medicine)

Part A: Course work in Basic Medical Sciences

All selected candidates will be required to complete 24 credit hours courses in two semesters. The candidates are required to attend at least 75% classes in each course. At the end of course work, the candidate will be required to secure CGPA 3.0 or more, And if a students is declared short of CGPR he/she shall improve it in the next available single chance by appearing in any two courses having less than 71 marks i.e. B⁻.

If a student fails to attain a CGPA of 3.00 or more even after improvement chances, after one year or overall, within three years, he/she will be given a certificate of training only whereas the admission in the MS/MD/MDS will be terminated accordingly. A minimum of 2.5 CGPA is required for the award of course work certificate.

During the 1st Year of the course work the students will be based in the department of Basic Medical Sciences during semester 1 and in the department of research/ epidemiology during the semester two as recommended by Dean Faculty of Medicine, and duly approved by the University of Karachi.

A candidate may apply to ASRB through the Dean, Faculty of Medicine for exemption from Part-A and theory of Part-C assessment if he/she holds MRCP, FRCS MRCOG, FCPS or other major equivalent degrees. Their training period will be reduced to 2 years for specialty and 3 years for sub specialty. Candidates who have passed in the same sub specialty will be required 2 years of training. All other cases will be treated on the case to case basis.

Part B: Research & Thesis Writing

After passing the Part-A coursework with CGPA 3.0 or more, the student will be eligible for the submission of synopsis. The research proposal should be submitted according to approved format of ASRB along with a copy of the marks proforma issued by the Semester Examinations Section. The minimum duration for the submission of a thesis is one year from the date of synopsis approval.

A student must submit to ASRB before the award of the degree at least one published research paper from a

thesis in a HEC recognized journal before the submission of thesis or a letter of acceptance of an ISI impact factor journal. He/she will also be required to submit the proof of the workshops being conducted by Faculty of Medicine University of Karachi / an institution recommended by Faculty of Medicine University of Karachi or by any recognized national or foreign university or Degree awarding institution (DAI) including Research Methods/ Biostatistics / Epidemiology, Medical Writing, Communication Skills, Software based data Analysis and Evaluation and Basic Life Support (BSL).

The thesis shall be examined by two foreign examiners appointed by ASRB on the recommendation of the Dean, Faculty of Medicine. The examiners shall report as to whether the thesis is accepted or rejected. In the event of a disagreement between the examiners, ASRB shall appoint a third examiner. After approval of the thesis, the thesis defense examination shall be held at the office of the Dean, Faculty of Medicine. Upon successful acceptance of thesis and satisfactory thesis defense, the candidate shall be permitted to appear in Part-C examination.

Part C: Theory and Clinical/OSCE/Viva/Examination

All candidates admitted in MS/MD/MDS courses shall appear in Part-C examination at the end of structured training program (Fourth year/Fifth year) and having declared Pass in Part-A and Part-B examinations. The examination shall be held on a biannual basis. The candidate who fails to pass the examination within 7 years/8 years of enrollment shall be dropped from the course. A total of maximum five attempts shall be allowed within three years of completion of training to Pass Part-C of MS/MD/MDS program.

The Part-C examination shall comprise of the following three components. All three components are separate passing heads to be declared as Pass in Part-C and secure a minimum of 60% in each component:

Written Examination: 300 marks

- a. Three papers of 100 marks each.
- b. The examiner shall be approved by ASRB on the recommendation of Dean, Faculty of Medicine.
- c. A candidate declared Pass in the first component (written examination) will be eligible to appear in second component (Oral & practical/clinical examination).

Clinical/OSCE/Viva Voce Examination: 300 marks

- a. 1 long case 100 marks
- b. 4 short cases 100 marks
- c. OSCE/Viva Voce 100 marks

The candidate will be required to appear against a panel of three examiners approved by the ASRB on the recommendation of the Dean, Faculty of Medicine for the second component of Part-C (Oral & Practical/Clinical Examination). A maximum of three attempts to Pass in Oral & Practical/Clinical Examinations will be given to a candidate failing which the candidate will have to reappear in both First and Second component of Part-C Examinations.

Log Book Evaluation 200 Marks (50 marks per year)

A candidate has to maintain the Log book throughout the length of the course, which has to be duly certified and evaluated by the Supervisor (in consultation with the Co-Supervisor, if appointed). The developed Log Book will be approved by ASRB on the recommendation of the Dean, Faculty of Medicine. The performance of the candidate shall be evaluated on annual basis i.e.50 marks/year. The log book shall reflect the performance of the candidate based on his/her competence of skills,

assignments, attitude, behavior, journal club, lectures, presentations and clinico-pathologic conferences attended.

Part C: Theory and Clinical /OSCE/Viva Voce Examination (For sub-specialty)

Part C examination for sub-specialty shall be divided into two parts:

- a. Part C-I
- b. Part C-II

Part C-I shall be held after completion of two years of training in the following format:

- a. Written 100 Marks
- b. Clinical/OSCE Exam 100 Marks
- c. Log Book 100 Marks (50 each year)

Part C-II shall be held at the end of 5 years training and in the following format:

- a. Written 300 Marks
- b. Oral, & Clinical 300 Marks
- c. Log Book 150 Marks (50 each year)

Award of MS/MD/MDS Degree

After successful completion of the structured courses of MS/MD/MDS and qualifying Part-A, Part-B and Part-C examinations, the degree with the title MS/MD/MDS shall be awarded.

POSTGRADUATE ADMISSIONS – 2026

SCHEDULE

MPhil, ME, MS, LLM, PhD, MS (Surgery), MD (Medicine) & MDS (Master of Dental Surgery)

1.	Date of Advertisement	Sunday, June 28, 2026
2.	Issuance & submission of Entrance Test Forms (Form can be downloaded for KU website and submitted to the respective department)	June 29, 2026 to July 08, 2026
3.	List of eligible candidates for KU Entrance Test will be displayed on KU website and Departmental notice boards	July 20, 2026
4.	Collection of admit cards by the candidates eligible for KU Entrance Test from the office of the Department concerned	July 23, 2026 to July 24, 2026
5.	Karachi University Entrance Test	Sunday, July 26, 2026
6.	List of successful candidates of Karachi University KUET will be displayed on KU website.	August 02, 2026
7.	Interview of Successful Candidates at their respective departments/ centers/ institutes	August 04, 2026 to August 07, 2026
8.	Final Merit List of successful candidates for provisional admission will be displayed on KU website	August 16, 2026
9.	Issuance and Submission of Admission Form and Fee Voucher (Voucher duly endorsed by ASRB) with all documents to the Postgraduate Admission Office, New Administration Building, Ground Floor.	August 17, 2026 to August 26, 2026
10.	Commencement of Semester	September 01, 2026

POSTGRADUATE ADMISSIONS – 2026

ACADEMIC CALENDAR

First Semester

Teaching	September 01, 2026	December 30, 2026
Semester Examinations	January 04, 2027	January 12, 2027
Semester Break	January 13, 2027	January 15, 2027

Second Semester

Teaching	January 18, 2027	May 18, 2027
Semester Examinations	May 24, 2027	May 31, 2027
Semester Break	June 01, 2027	June 04, 2027

Comprehensive Examination (For PhD Students)	September 02, 2027
---	---------------------------

FEE STRUCTURE – 2026

Department/Program	Processing Fee	Admission Fee (MPhil/ PhD)	M.Phil Semester Fee (Per Six Months)	MPhil Thesis Evaluation/ Viva Examination Fee	PhD Semester Fee (Per Six Months)	PhD Thesis Evaluation/ Viva Examination Fee
Islamic History	8,000	33,000	78,650	55,000	96,800	93,500
Philosophy	8,000	33,000	78,650	55,000	96,800	93,500
Arabic	8,000	33,000	78,650	55,000	96,800	93,500
Sindhi	8,000	33,000	78,650	55,000	-	-
Persian	8,000	33,000	78,650	55,000	96,800	93,500
Urdu	8,000	33,000	78,650	55,000	96,800	93,500
Usool-ud-din	8,000	33,000	78,650	55,000	96,800	93,500
Islamic learning	8,000	33,000	78,650	55,000	96,800	93,500
Quran and Sunnah	8,000	33,000	78,650	55,000	96,800	93,500
Sheikh Zayed Islamic Research Centre	8,000	33,000	78,650	55,000	-	-
Pakistan Study Centre	8,000	33,000	78,650	55,000	-	-
Centre of Excellence for Women's Studies	8,000	33,000	78,650	55,000	96,800	93,500
Social work	8,000	33,000	78,650	55,000	96,800	93,500
Education	8,000	33,000	78,650	55,000	96,800	93,500
History	8,000	33,000	78,650	55,000	96,800	93,500
Special Education	8,000	33,000	78,650	55,000	96,800	93,500
Library and Information Science	8,000	33,000	78,650	55,000	96,800	93,500
Political Science	8,000	33,000	78,650	55,000	96,800	93,500
International Relations	8,000	33,000	90,750	55,000	108,900	93,500
Area Study Centre for Europe	8,000	33,000	90,750	55,000	-	-
Mass Communication	8,000	33,000	90,750	55,000	108,900	93,500
Economics	8,000	33,000	90,750	55,000	108,900	93,500
Sociology	8,000	33,000	90,750	55,000	108,900	93,500
English	8,000	33,000	90,750	55,000	108,900	93,500
Teacher Education	8,000	33,000	90,750	55,000	108,900	93,500
Botany	8,000	33,000	90,750	55,000	108,900	93,500
Physics	8,000	33,000	90,750	55,000	108,900	93,500
Geography	8,000	33,000	90,750	55,000	108,900	93,500
Genetics	8,000	33,000	90,750	55,000	108,900	93,500
Institute of Marine Science	8,000	33,000	90,750	55,000	108,900	93,500
Marine Reference Collection and Resource Centre	8,000	33,000	90,750	55,000	-	-
Zoology	8,000	33,000	90,750	55,000	108,900	93,500
Geology	8,000	33,000	90,750	55,000	108,900	93,500
Applied Physics	8,000	33,000	90,750	55,000	108,900	93,500

Biochemistry	8,000	33,000	90,750	55,000	108,900	93,500
Microbiology	8,000	33,000	90,750	55,000	108,900	93,500
Biotechnology	8,000	33,000	90,750	55,000	108,900	93,500
Institute of Space Science and Technology	8,000	33,000	90,750	55,000	108,900	93,500
Physiology	8,000	33,000	90,750	55,000	108,900	93,500
Applied Chemistry and Chemical Technology	8,000	33,000	90,750	55,000	108,900	93,500
Food Science and Technology	8,000	33,000	90,750	55,000	108,900	93,500
Chemistry	8,000	33,000	90,750	55,000	108,900	93,500
Commerce	8,000	33,000	90,750	55,000	108,900	93,500
Mathematics	8,000	33,000	90,750	55,000	108,900	93,500
Dr. M. Ajmal Khan Institute of Sustainable Halophyte Utilization	8,000	33,000	90,750	55,000	108,900	93,500
Dr. A. Q. Khan Institute of Biotechnology & Genetic Engineering	8,000	33,000	90,750	55,000	108,900	93,500
Centre for Plant Conservation	8,000	33,000	90,750	55,000	108,900	93,500
Chemistry (HEJ)	8,000	33,000	90,750	55,000	108,900	93,500
Dr. Zafar H. Zaidi Center for Proteomics	8,000	33,000	90,750	55,000	108,900	93,500
Institute of Environmental Studies	8,000	33,000	108,900	55,000	133,100	93,500
Statistics	8,000	33,000	108,900	55,000	133,100	93,500
Agriculture and Agribusiness Management	8,000	33,000	108,900	55,000	133,100	93,500
Chemical Engineering	8,000	33,000	108,900	55,000	133,100	93,500
Computer Science	8,000	33,000	108,900	55,000	133,100	93,500
Karachi University Business School	8,000	33,000	108,900	55,000	133,100	93,500
National Nematological Research Centre	8,000	33,000	108,900	55,000	133,100	93,500
Psychology	8,000	33,000	121,000	55,000	145,200	93,500
Public Administration	8,000	33,000	121,000	55,000	145,200	93,500
Dr. Panjwani Center for Molecular Medicine and Drug Research	8,000	33,000	121,000	55,000	145,200	93,500
Pharmaceutics	8,000	33,000	121,000	55,000	145,200	93,500
Pharmacognocoy	8,000	33,000	121,000	55,000	145,200	93,500
Pharmaceutical Chemistry	8,000	33,000	121,000	55,000	145,200	93,500
Pharmacy Practice	8,000	33,000	121,000	55,000	-	-
Pharmacology	8,000	33,000	121,000	55,000	145,200	93,500
Physical Therapy	8,000	33,000	145,200	55,000	181,500	93,500

Faculty of Law (LLM)				
Department/Program	Processing Fee	Admission Fee LLM	LLM Semester Fee (Per Six Months)	LLM Thesis Evaluation/ Viva Examination Fee
School of Law	16,000	82,500	121,000	55,000

Faculty of Medicine: MS (Surgery), MD (Medicine) & MDS (Master of Dental Surgery)						
Department / Program	Processing Fee	Admission Fee MS / MD / MDS	MS/MD/MDS Semester Fee (Per Six Months)	MS/MD/MDS Thesis Evaluation / Viva Examination Fee	MS/MD/MDS Entrance Test Exemption	MS/MD/MDS Exemption for Training
MS/MD/MDS	16,000	82,500	181,500	93,500	22,000	82,500

Annexure-II



**ADVANCED STUDIES AND RESEARCH BOARD
UNIVERSITY OF KARACHI**

INTERVIEW CRITERIA FOR MPhil / LLM / ME						
	Research, Knowledge, Experience and Aptitude			Oral Communication	Proposed Research Plan/ Project	Total
	Research Experience (thesis/ project)	Research Dissemination (poster/presentation)	Publication			
Max Marks	04	04	02	10	10	30
Marks Obtained						
Comments						
Marks obtained in the Interview (out of 30)						
Marks obtained from Last Degree (20%)						
Marks obtained from test (50%)						
Total Marks Obtained (Out of 100)						
Name of Student:						
Form No:						
Department:						

Name and Signature of DRC Members

- | | |
|----------|----------|
| 1. _____ | 4. _____ |
| 2. _____ | 5. _____ |
| 3. _____ | 6. _____ |

Name and Signature of the Chairperson



**ADVANCED STUDIES AND RESEARCH BOARD
UNIVERSITY OF KARACHI**

INTERVIEW CRITERIA FOR PhD						
	Research, Knowledge, Experience and Aptitude			Oral Communication	Proposed Research Plan/Project	Total
	Research Experience (thesis/project)	Research Dissemination (poster/presentation)	Publication			
Max Marks	10	05	05	15	15	50
Marks Obtained						
Comments						
Total Marks Obtained in the interview out of 50						
Marks obtained from Test (50%)						
Total marks obtained in the interview (50%)						
Name of Student:						
Form No:						
Department/Institute/Center						

Name and Signature of DRC Members

- | | |
|----------|----------|
| 1. _____ | 4. _____ |
| 2. _____ | 5. _____ |
| 3. _____ | 6. _____ |

Name and Signature of the Chairperson



ADVANCED STUDIES AND RESEARCH BOARD UNIVERSITY OF KARACHI

No. ASRB/Exams/

1. All selected candidates will be required to complete course work of minimum 30 credit hours with a maximum of 12 credit hours per semester.
2. As per University of Karachi rules all MS students are required to complete ten courses of 3 credit hours each in three semesters (total of 30 Credit hours). In 1st year 8 courses (4 courses per semester) and in the 2nd year (3rd Semester) need to complete 2 courses.
3. Each student will be required to take 8 courses. There is no restriction to take 50% interdisciplinary courses. However, DRC of the respective department may reconsider this policy according to its specific need.
4. All newly admitted MPhil, MS and MS (Surgery)/ MD (Medicine) students are required to submit the following information duly endorsed by the course Incharge and Chairperson/Director of parent department/ Institute/ center in the Semester Examination Section.

SEMESTER - I / II

S.No	Course No.	Course Title	Name of the Department offering the courses	Signature of the course Incharge
1				
2				
3				
4				
5				
6				

Name of Student: _____ Signature: _____

Name of Department (Major): _____

Date: _____

**Chairperson/ Director
(Parent Department)**



**ADVANCED STUDIES AND RESEARCH BOARD
UNIVERSITY OF KARACHI**

INTERVIEW CRITERIA FOR MS / MD / MDS

	Clinical / Subject / Research Knowledge / skills and Work Experience				Professional Attitude	
	No. of attempts in Prof. Exams / Distinctions / Gold Medal / Diploma / Workshops Field / ACLS / BLS / Work Experience in Relevant Field	Clinical / Subject Knowledge / Letter of Recommendations / Good standing Certificates	Research Publication / Research Orientation	Surgical Cases / Procedures / performed Assist / Case Presentation	Motivation / Oral Communication / Behavior / Personality	Total
Max Marks	30	20	10	20	20	100
Marks obtained						
Comments:						

Total Marks Obtained out of 100 = _____

Name of Student	
Form Number	
Specialty (MD / MS / MDS)	
Total marks obtained in interview out of 100	

Name and signature of members DRC/Interview Board

1. _____ 2. _____
3. _____ 4. _____

Name and Signature of Dean: _____