

discover yourself inspire posterity





### Welcome discover yourself, inspire posterity

### Vision

To be a prestigious, internationally recognized university offering innovative and high quality education with a focus on research excellence, ethics, diversity and equality for all: cultural advancement, positive partnerships and collaboration in order to produce world-class leaders in the fields of Science, Technology and the Arts, while emphasizing strong moral and ethical values thus creating professionals imbued with the resources and moral fiber to meet the challenges of tomorrow.

The University of Lahore was established in 1999 and since then has become one of the largest private sector university of Pakistan. With more than 150 degree programmes, the university has to offer a place for all with the desire to learn the most contemporary programmes available in Pakistan. The University is the first in Pakistan to be ranked internationally and today enjoys the largets international student body from across 15 countries.

#### ACCREDITATIONS

HEC Recognised W4 Category University Pakistan Medical & Dental Council (PMDC) Pharmacy Council of Pakistan Pakistan Nursing Council Pakistan Engineering Council (PEC) Pakistan Bar Council



### A WARM WELCOME TO ALL THE STUDENTS FROM THE LARGEST PRIVATE SECTOR UNIVERSITY OF PAKISTAN.

The University of Lahore was established in 1999 with a vision to build a world class prestigious institution offering innovative and high quality education, unique learning environment, state of the art facilities and infrastructure. The University was granted degree awarding status by Government of the Punjab in 2002. Since its inception as Chartered University, dedicated efforts of the Board of Governors, Ibadat Educational Trust, teaching faculty and University management brought it to the level of an internationally recognized university in Pakistan. The University of Lahore has been ranked among the top 550-600 universities of the world and 171-180 in Asian Universities (QS & Times Higher Education Supplement). Moreover regulatory bodies of the Government of Pakistan that is Medical and Dental Council, Pakistan Engineering Council, Pakistan Nursing Council and Pharmacy Council of Pakistan have accredited its professional programs.

I firmly believe that the role of universities in the twenty-first century in Pakistan must respond to phenomenal changes unleashed by rapid advancement in science and technology for the economic development of the country as well as the challenge posed by globalization. We are already visualizing about the future of higher education in the next millennium and making efforts for this purpose. I am



confident that our University will acquire this prime objective with professional competence, commitment and dedication of management and highly qualified teaching faculty.

The University of Lahore is playing a significant role in the lives of thousands of young students and graduates of Medicine, Dentistry, Engineering, Allied Health Science, Molecular Biology, Biotechnology, Biochemistry, Environmental Science, Business Studies, Information Technology, Computer Sciences, Art and Social Sciences.

I am glad that researchers and scholars of the University are working as a team for contributing towards building up a positive social capital for the benefit of our civil society. We do this by creating best ideas and practices for dissemination amongst students in classrooms and laboratories.

I welcome knowledge seekers and professionals to experience the enjoyable and congenial learning environment at UOL. I am sure that you will find desired values in our programs.

#### M A Raoof Patron, Board of Governors

### WE KNOW YOUR TIME AT UNIVERSITY SHALL MAKE YOUR FUTURE. OUR MISSION IS TO HELP YOU REALISE YOUR POTENTIAL.

The University of Lahore believes in delivering excellence in research and learning, and our ability to add to your academic skills and social skills will allow you to lead in your professional career. We aim to create high-quality graduates who are practically skilled to enter the world of work.

The University of Lahore is recognised as the largest private sector university of Pakistan, and there is no better time to join the university when it is expanding internationally with campuses and networks being developed across the world. We believe in commercialisation and enterprise and have invested in the establishment of commercial enterprises in order to ensure our students gain the hands-on experience that actually matters for graduating students.

Our academic standards are high and we believe in encouraging independent thought driven by creativity and critical insight. You will experience our faculty that is one of the best in Pakistan and believe in research and expression in academic terms.

The experience at a university for a student is not only driven by the excellence in academics and research but the entire experience of being involved in the projects that the university takes on, as well as the experience a student gains outside the classroom. We



have extensive activities at the campus from sports to cultural events and media and society events that shall keep you engaged and entertained across the year.

The University of Lahore has now expanded internationally with its first move to Uganda providing support to setup a medical school. We believe that internationalisation is an important step towards ensuring experiences academically and intellectually are shared. We also have the largest international community in a private sector university with students from 15 different countries currently enrolled at the university.

We provide extensive support to our students including preparing for a career, mentoring, personal support and financial support. Your success at The University of Lahore will be the measure of our success in delivering high quality education.

I look forward to welcoming you to the University of Lahore.

Awais Raoof Chairman, Board of Governors

### THE UNIVERSITY IS NOW CRAVING ITS PATH IN ECONOMICALLY IMPORTANT AREAS OF RESEARCH.

I have watched with deep interest the progress of the University of Lahore, since its inception in the year 1999. From a recent review of various departments of the Unviersity, I am encouraged to see that the quality of education has been sustained by our young ad experienced faculty. In the changing scenario of instructional technology, the constructivist theroy of learning has become the mainstay of the teachinglearning process. Contrary to this, for a large number of years the studetns have been treated as passive learners. The integration of tools of technology with education has created a different circumstance in which the learner is an active participant and is thus able to use his creative abilities for problem solving. I am pleased to know that on a fully networked capmus, the teachers are making best use of this learning methodology. I believe that if this practice is sustained, then, the University will be able to add substatial value to the training of studetns in accordance with market needs.

The university is now craving its path in economically important areas of research, especially in the field of Molecular Biology and Biotechnology. The initiation of Post-Doc programme in this subject is likely to play an important role in the develeopment of specialised human resource in a prospective economic field.



Whereas our teachers are fully involved in the training of studetns, yet I find a lot of room for further imporvement in student-teacher interaction inside and outside the classroom. In a Unviersity where cultural advancement is of utmost importanance, it is imperative that sufficient space should be provided for extra curricular activities. This aspect should be strengthened by encourageing the students for establishing academic societies. I already see a lot of telent among the studetns which can be hardnessed for such activities. Furthermore, I hope that as we grow, a more intense relationaship can be dvelepoed between the University and the industry. This is necessary for translation of knowledge into technoolgy.

I see a bright future for the University, and wish the Unviersity great success in the times to come.

Prof. Dr. M. H. Qazi Vice Chancellor

## THIS CAMPUS HAS GROWN BOTH IN SIZE AND QUALITY OF EDUCATION.



extracurricular activities while maintaining a strong focus on learning.

I extend my warmest welcome to all students and members of the faculty who join us at Islamabad campus.

The roots of the University of Lahore are embedded in its Islamabad Campus. This campus was established in 1998 with the aim of attaining the status of a University. After the establishment of the Lahore Campus (which now is the main Campus) and grant of charter as a University in 2002, the embryo of establishing a full fledged multi-disciplinary University has come to fruitation.

In pursuit of excellence, the University developed its original core value at the Islamabad campus. This campus has grown both in size and quality of education. Served by the experienced and competent faculty and supported by the requisite infrastructure, the students are getting good education at an affordable cost. The University is committed to further increase the size of the Campus and gradually add new disciplines.

At the new and purpose built Campus, which is located in the scenic surroundings of Islamabad, students are provided congenial and professionally conducive environment to pursue their educational goals. They are guided and helped by the professionally dedicated faculty through regular counseling sessions. At the Campus, recreational and sports facilities are provided to encourage students to organize and engage in

Brig. (R) Muhammad Ajaib President, Islamabad Campus

Technical and professional education is the instrument of growth & development of any country's economy, The University of Lahore has, therefore, special focus on such disciplines. Medical and Dentistry, Public Health, Electrical Engineering, Civil Engineering, Mechanical Engineering, Parm-D and Nursing Programmes equipped with modern laboratories have been duly approved by the Pakistan Medical and Dental Council (PMDC), Pakistan Engineering Council (PEC), Pharmacy Council of Pakistan and Nursing Council respectively. The programmes of Allied Health Sciences, Molecular Biology and Biotechnology, Biochemistry, Law, Management Sciences, IT & Computer Sciences, Mass communications, Technology (Mechanical Civil and Electrical), and Electronic Media have earned their name at national level. Moreover, we will broaden further our diverse range of collaboration in the fields of teaching and research among institutions locally and abroad, create an academic and multicultural atmosphere in the campus, promote knowledge transfer and strengthen social service.



On behalf of the University of Lahore I welcome all future students to visit and become the part of the fastest growing private sector multidiscipline charted university of Pakistan. With best wishes for your bright future.

> Prof. Dr. Saleem Shuja Rector

Keeping in view the need of market oriented programs in Sargodha and its surroundings, the management of the University of Lahore decided to establish its campus at Sargodha with state of the art infrastructure and facilities, which will not only fulfill the need of local community but also the people of adjacent Districts i.e. Khushab, Bhakkar, Mianwali, Chiniot, Jhang, Mandi Bahaudin, and Hafizabad.

The establishment of campus at Sargodha of such a prestigious and esteemed institution is a matter of pride for the residents of Sargodha.

From this academic year Sargodha Campus will start its classes in the disciplines of Management Sciences, Computer Sciences & I.T, and Commerce. It is appreciated that administration of University of Lahore has made special arrangement for highly qualified and experienced teaching faculty for Sargodha campus. The community of Sargodha will definitely get quality education on affordable expenses

I wish bright and meaningful future to the prospective students of this campus. We will inshallah maintain high standard of education like Lahore and Islamabad campuses. In the coming year Medical and Engineering programs will also be launched in the purpose built campus at Sargodha.future.

> Dr. Zulfiqar Ali Bhatti President, Sargodha Campus

We are a welcoming university with the highest international student body in the private sector, and our growth reflects our quality and student satisfaction. We have invested in many of our disciplines in order to ensure that we can provide the best quality education in Pakistan.

Our teachers are fully involved in the training of studetns, In a Unviersity where cultural advancement is of utmost importanance, it is imperative that sufficient space should be provided for extra curricular activities. This aspect should be strengthened by encourageing the students for establishing academic societies. I already see a lot of telent among the studetns which can be hardnessed for such activities. Furthermore, I hope that as we grow, a more intense relationaship can be dvelepoed between the University and the industry. This is necessary for



translation of knowledge into technoolgy. I see a bright future for the University, and wish the Unviersity a great success in the times to come.

> Nasir Mahmood Pro.Rector (Academics)

From the current academic Year 2013-2014 Chenab campus will start its classes in the disciplines of Management Sciences, Engineering & Technology, Computer Sciences, Commerce, Allied Health Sciences, English Language and Literature.

It is highly appreciated that the administration of The University of Lahore has made special arrangements to hire highly qualified and experienced teaching faculty for Chenab Campus, Gujrat. The Community Living in the Gujrat and its surrounding areas will definitely get quality education at an affordable cost and that too in their hometown.

We will maintain a high standard of education like Lahore, Islamabad and Sargodha campuses. I wish a bright and meaningful future for the prospective students of this campus and am also of firm opinion that they will be an asset for the prosperity of the country in general and this area in particular.

#### Dr. Ghulam Rasool Chaudary President, Chenab Campus



	PROS	SPECTUS C	ONTENTS
THE UNIVERSITY OF LAHORE	ENGINEERING	PHARMACY	FACULTY OF ARTS & ARCHITECTURE
Introduction 02	Electrical Engg 22 - 29	114 - 125	School of Creative Arts 194 - 205
University Campuses	Mechanical Engg 30 - 35	ALLIED HEALTH SCIENCES	Achitecture 206 - 209 192 - 209
Student Life	Civil Engg	Lahore School of Nursing 128 - 132	LANGUAGES AND
08	36 - 43	Radiological Sciences & Medical Imaging	
Student Affairs 12	Technology 44 - 51	Technology 133 - 143	English Language & Literature 212 - 219
Quality Enhancement Cell (QEC)	Electronics 52 - 63	Public Health 144 - 148	210 - 219
14 International Students	Computer Engg 20 - 67 <sup>64 - 67</sup>	Physical Therapy 149- 153	SOCIAL SCIENCES Physics 222 - 229
UoL Relief	INFORMATION TECHNOLOGY	Health Professional Technology 154 - 157	Mathematics & Statistics 230 - 235
02 - 15	Computer Science & IT 68 - 79 70 - 79	Sports Sciences 158 - 161	Economics 236 - 239
	SCIENCES	Clinical Lab Technology 162 - 163	Education 240 - 245
	Institute of Molecular Biology and Biotechnology	Diet & Nutritional Sciences 164 - 166	Islamic Studies 220 - 235 246 - 249
THAN T	82 - 109 Cantra fau Dacaarth in	Radiology Research Section	COLLEGE OF LAW
	Centre for Research in Molecular Medicine 110 - 113	126 - 173 167 - 173	250 - 255
	80 - 113	LAHORE BUSINESS SCHOOL	UNIVERSITY RULES & POLICIES
	-	174 - 191	256 - 283

### **THE UNIVERSITY OF LAHORE**

### discover yourself, inspire posterity

We are a forward thinking, friendly and amazing university to be at, with an experience you would remember in the future. Part of the Ibadat Educational Trust, we have invested in outstanding facilities with the widest range of courses to offer in the private sector universities, we are highly respected across Pakistan as the university with teaching and research excellence.

We enjoy an international reputation and were the first private sector university of Pakistan to be ranked among the top universities of the world (QS World University Rankings). We believe in pioneering research and commercialisation and have introduced courses that teach practical skills of the work place environment, ensuring you are prepared for the future. Our practical teaching approach will inspire you to think independently and creatively and cultivate your mind ensuring you are more prepared for the work world.

Finally we are situated in the most popular city of Pakistan, full of culture, life and sights.

#### **Teaching Excellence**

UOL has developed an excellent teaching and learning environment, and has achieved strong results in teaching assessments with the largest international student body in a private sector university in Pakistan.

#### **Excellent Facilities**

The University has invested extensively in new teaching facilities. With the new facilities for computer sciences and the up-coming engineering facilities at Lahore, the University will invest in providing the best teaching and learning environment in Pakistan. The Teaching Hospital at the campus shall also add to the value of the Medical programme. The University has also invested in the School of Creative Arts (SOCA), where students are now engaged in the activities of the Media Group housed within the facilities of the School, therefore giving them the experience of newspaper, television and film. SOCA is the only facility in Pakistan with two commercial studios, latest in cinematic and television equipment and a sound studio delivering commercial film sound production.

#### **Commercialisation and Enterprise**

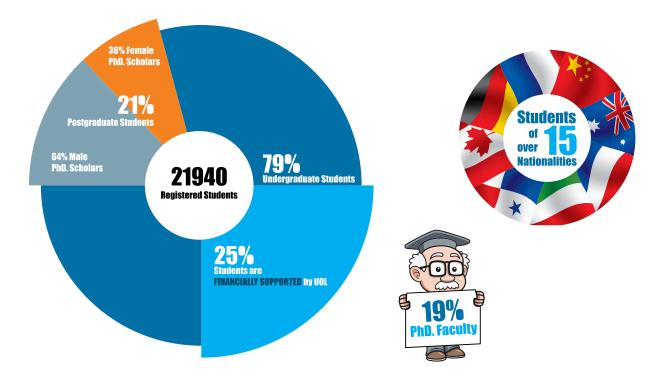
We believe in teaching through practice and therefore the university has already invested heavily in SOCA. Additionally there is a gaming and animation house at the university delivering the needs of commercial consumers across the world. The University intends to further invest in a medical park and an IT house in order to gauge the commercial application into teaching and learning for students.

#### **Career Focused**

Education and learning is all about preparing students for the future, we believe in delivering degree programmes that develop skills and knowledge, ensuring all students learn work-related skills. Many courses have been developed with the consultation of organisations and professionals in order to ensure the market needs of a future employer are satisfied.

#### **QUICK FACTS**

21,940 students 2954 taught courses 119 degree programmes 32 academic departments 11 faculties 7 campuses, 2 technology parks



#### History of the University of Lahore

The University of Lahore is the largest private sector university in Pakistan, with more than 22,000 students and 7 campuses. The University was established in 1999 and has since then been offering courses in the fields of Medicine & Dentistry, Engineering, Arts and Social Sciences. With strong emphasis on balanced progress and focus on human capital the university has grown to 11 faculties and 32 departments.

The quality of teaching facility and research excellence has also granted international recognition placing the University amongst the first Pakistani University to be ranked in the QS Ranking, and in 2012 ranked among the top 6 Universities from Pakistan in QS Asia Ranking. The Higher Education Commission (HEC) recognises the University of Lahore at its highest "W4" category of Universities reserved for those institutions that fulfill all criterion of an International Quality University. The University of Lahore has special focus on Professional and Technical Education as it is an instrument of growth & development of any country's economy, therefore, the programs of Medical & Dentistry, Public Health, Electrical Engineering, Civil Engineering, Mechanical Engineering, Pharm-D, Nursing and Law which are equipped with state of the Art Laboratories and are accredited by Pakistan Medical & Dental Council (PMDC), Pakistan Engineering Council (PEC), Pharmacy Council of Pakistan and Pakistan Nursing Council and Pakistan Bar Council respectively.

Strong linkages with the industry are of paramount importance for any Higher education institution and The University of Lahore enjoys excellent links with international Universities. We also have a range of knowledge sharing and human resource development programs with major multinationals of Pakistan. Students at the University can expect excellent internship and skill development programmes during the course of their education.



### CAMPUSES

### Lahore

The University's Defence Road Campus is built near the prime Defence Road area just off Raiwind Road and consists of a purpose built facility spanning 100 Acres which houses the University College of Medicine & Dentistry, Pharmacy department, Lahore Business School, Institute of Molecular Biology and Biotechnology, Bio-chemistry, Environmental Science, Faculty of Allied Health Sciences, Nursing School, Law Department and School of Creative Arts. The facility features a lush park with fountains and flower gardens and an inner courtyard, which provides ample space for students to rest and recuperate. Additional facilities include a four floor student center, a purpose built library, on premises hostels with concierge and laundry and spacious auditoriums. The premise also encompasses two technology parks, the Agritechnology park and the biotechnology (CRIMM) is also based here. The Development of a Mosque and a comprehensive sports complex are currently underway.

The Campus on Raiwind Road spans 4 Acres & 7 Kannals and houses the Engineering, technology and computer science, University College of Dentistry, Mathematics Department and English Literature & Language. The facility features a comprehensive library, a spacious cafeteria and fully equipped laboratories and IT infrastructure. The City Campus houses the school of Accountancy and Finance and is based in the posh Gulberg Area.



### Sargodha

Since its establishment in 1999 as a degree awarding institute "The University of Lahore" (UOL) has always been at the forefront of innovation. In a short time span it has played a proactive role in shaping and accelerating the modern day Higher Education scene in Pakistan. The Sargodha Campus has spread in its educational fields and now provides wide variety of curriculums including Management Sciences, Computer Sciences, and English language and Literature.

The Sargodha Campus at Sargodha road is spread over 4 acres of area. The facilities like Library, Cafeteria, mosque, Playgrounds, Faculty Offices, and air conditioned classrooms all have been centered in Sargodha Campus. The University Management ensures the availability of these facilities to students and Faculty & Staff.



### **Gujrat**

The Gujrat campus of The University of Lahore (UOL) at Adjacent Chenab Bridge highway is spread over 5 acres of area. The facilities like library, student's auditorium, class rooms, laboratories, Mosque, canteen, dispensary, Playgrounds, faculty offices have all been catered at the Gujrat campus. We endeavor to provide all possible facilities to students and staff for research and development in various fields of education.





### Islamabad

Islamabad Campus which was established in 1998 is the mother campus of the University Lahore (UoL) and is being served by a fully developed infra-structure for Civil Engineering, Electrical Engineering, Computer Sciences, Pharmacy and Management Sciences. Both for technical and professional disciplines dedicated and competent faculty delivers the curriculum.

The following courses are being offered at Islamabad campus:

BS Electrical EngineeringD Pharmacy (5 years)BS Mechanical EngineeringM.PHIL PharmaceuticsBS Civil EngineeringBS Computer SciencesBBA-HonsMasters in Computer SciencesMBAMS Computer Sciences (after 16 years of education)M.PHILBachelor of Science in Electronics and electrical Systems (BSEES)MS in Electronic and Electrical Systems (MSEES)

### **INFRASTRUCTURE**

The University of Lahore started its operation in Islamabad from a campus at Blue Area. To achieve the vision, UoL has created its new purpose built educational facility called New Campus (Sihala) on a 140 kanal piece of land.



### STUDENTS SERVICES

A professional librarian is managing the libraries. The libraries contain more than 15,000 books covering all disciplines. In addition, the libraries are maintaining book banks for use of the students on all subjects being covered by the university. In addition an access to HEC Digital library is also available at both the campuses.

#### TRANSPORT

Islamabad Campus is maintaining a large fleet of modern buses to provide pick & drop facility, to student and those faculty members who are not maintaining their personal cars or motor-bikes. The transport facility also provided to hostel residents. A micro-bus/coaster was also purchased for the faculty members. Transport between the campuses is available to the students as a regular feature

#### HOSTEL FACILITY

Boarding and lodging facility for both the campuses is available.

#### IT SERVICES

State of the art IT Labs at both the campuses are being marinated with internet facility.

### EXTRA CURRICULAR ACTIVITIES

#### SPORTS

Sports and others extra curricular activities are must for developing productive mind & active bodies, always ready to take on any life challenge including education. Healthy minds are dynamics and always meet new stiff challenges and possess will to complete. Currently the university is focusing upon verities of sports competitions and Annual Sports Week is the integral part of the Yearly Calendar. We hold inter/intra discipline sports competition during this week.

#### DEBATES

Debates are a regular feature that are organized during the summer semester. Judges are invited from outside the university. This helps generate a feeling of respect for fairness, which is always the core value of educational institutions and UoL respects it in the every sense of the word. The debates are held on current issues of national importance in both English and Urdu.

#### ANNUAL FUNCTIONS

Functions are considered to be the main fiber of the culture in any institutions. UoL is very seriously perusing a policy of building a culture based on mutual respect, team spirit, confidence, sense of competition and many other attributes. We actively involve students in debates, Invite visiting.

#### STUDY TOURS

Study tour are an important part of the Curriculum. These tours provide an opportunity to students to visit & see the functioning of different organizations. Live study tours of Pharmacy Department are conduct to called different plants & other shrub for conducting research and general studies excursion. Trips are also organized at departmental level & which provides students a chance spent time together in non-educational and highly productive activities out but the campus

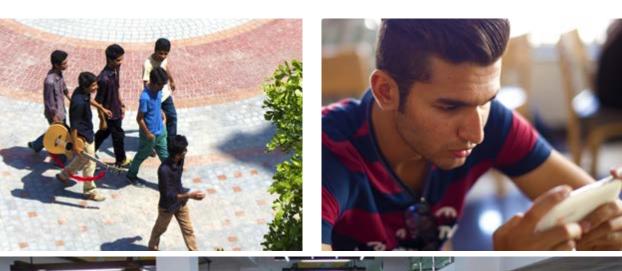
#### STUDENTS FAREWELL & WELCOME FUNCTION

Over the years Islamabad Campus has developed and matured a tradition of welcoming the new students and warm send off to the passing out graduates. These functions help students to inherit cardinal values of the culture right at the time of joining UoL. In these functions skits and the happenings of the time spent in the university are highlighted. These functions are refreshing and entertaining.



### **STUDENT LIFE**

You can look forward to more than just studying at The University of Lahore, with extensive facilities and campus life, you will never forget this experience.



### LIBRARY FACILITIES

The University's library resources include books, journals and e-books. The University of Lahore currently houses four well equipped libraries with cumulatively more than 31000 books catering to a wide range of subjects. The University also has access to 72 Mbps Pakistan Educational Research Network (PERN) facilities, E- Library, OPAC, mini labs, HEC digital library as well as International online Libraries and Journals. The University of Lahore has subscription of World Class Turnitin services for Plagiarism check.



#### **SPORTS FACILITIES**

At the University of Lahore, we firmly believe that a healthy body is a key to a healthy mind. In this regard, the UOL has invested in purpose built sports and recreational facilities, which include spaces for, table tennis, swimming, cricket and football. A FIFA grade football field and track are also in development along with separate Gymnasiums for both male & female students. Sports at the University are managed by a dedicated department of sports..

#### **TRANSPORT**

The University of Lahore (UoL) has its own large fleet of buses, mini buses and vans that provides pick and drop facility to its various campuses and around the city. The University also provides shuttle bus services to its students and faculties from one campus to another. A detailed transport plan along with specified routes can be obtained from the Transport Office of UoL.

#### **IT FACILITIES**

The University boasts excellent IT facilities with dedicated PC and Mac labs on premises. 72 MB/s internet is also available to students in labs as well as the new wireless service on the Defense Road Campus. All University students receive a dedicated University email address. Student information is stored and accessed via sophisticated University management system thus making the UoL a forerunner in modernizing student data management services within Pakistan.

#### **IT HELPDESK**

IT office has maintained a portal named "IT support" to facilitate the faculty and staff across the university. Software's are remotely installed in computers. IT helpdesk also provides wifi facility to laptops of students and faculty. IT helpdesk is also responsible for answering queries of students.



#### HOSTELS/ACCOMMODATION

Separate hostel accommodation is available for both male and female students at The University of Lahore (UoL). The Defence Road Campus of the University features in facility of two hostels for females: Razia Hall and Fatima Hall, for about 1,100 students in it. A separate boys' hostel is also being completed. But avoiding students from any residential inconvenience, UoL has rented two hostels for boys near the campuses. A total of 70 students (boys) are accommodated in these hostels.

In order to facilitate the students, the following facilities have been provided at both the boys and girls hostels; Mess, Mosque, Separate Television room, Telephone, Newspapers, Guest Rooms, common Room, Computer Room, Electric Water Coolers, High speed internet and Wifi, Hostel Laundry and 24 hours security. Hostel wardens are responsible for ensuring the availabilities of all facilities and management in hostels. Additional housing and accommodation is available in the vicinity of the campus on Defense road and Raiwind road and is managed by the University hostels department.

#### **GYM (UOL CLUB)**

The University has a on campus gym, where you will be able to benefit from expert fitness advice, take training classes and all at a very discounted rate only for students and faculty members at the University.



#### **CATERING & CAFETERIA**

The University houses dedicated student center, four floors of self-service cafeteria serving delicious continental cuisine, snacks through kiosks at Defense Rood Campus. Event management, guesthouse dining and hostel dining are also provided by Food and Lodging department. A coffee bar and independent faculty dining area is also present within the facility along with adjunct services such as internet café and bookshops etc. The Raiwind Road Campus, Islamabad Campus, Sargodha Campus and Lahore City Campus also have dedicated University managed cafeteria facilities.

#### **FINANCE & SCHOLARSHIPS**

Ibadat Educational Trust offers liberal scholarships for the benefit of needy and meritorious students. These include discounted fees, full fee scholarships, and maintenance allowances. Total Scholarships and Financial Assistance provided to students in the academic year 2012 was at Rs.53,287,000/-

**NOTE:** Further information can be obtained from the finance office.

#### **MEDICAL & DENTAL**

The University of Lahore has invested in extensive health and dental facilities. These include a 300 bed teaching hospital located on campus, a dental hospital located at Raiwind Road Campus.

Furthermore the University has a physical therapy centre situated at the Raiwind Road campus with state of the art equipment and experts.



#### SPORTS

The University of Lahore has participation in several sports and has continued to win gold, silver and bronze in several sporting activities.

#### WOMENS CHAMPIONSHIPS

- 1st position in all Pakistan intervarsity women Cricket championships (2012-2013) 1st position in all Pakistan intervarsity women volleyball championships (2012-2013) • 1st position in all Pakistan intervarsity women handball championships (2012-2013) • 1st position in all Pakistan intervarsity women netball championships (2012-2013) 1st position in all Pakistan intervarsity women Rifle Shooting championships (2012-2013) 1st position in all Pakistan intervarsity women badminton championships (2012-2013) 1st position in all Pakistan intervarsity women baseball championships (2012-2013) • 1st position in all Pakistan intervarsity women cycling championships (2012-2013) 2nd position in all Pakistan intervarsity women athletic championships (2012-2013) 2nd position in all Pakistan intervarsity women Football championships (2012-2013) • 2nd position in all Pakistan intervarsity women table tennis championships (2012-2013) • 2nd position in all Pakistan intervarsity women Ski championships (2012-2013) 3rd position in all Pakistan intervarsity women Jujitsu championships (2012-2013) 2nd position in all Pakistan intervarsity women Rowing championships (2012-2013) • 3rd position in all Pakistan intervarsity women Judo championships (2012-2013) 2nd position in all Pakistan intervarsity women Swimming championships (2012-2013) • 3rd position in all Pakistan intervarsity women Archery championships (2012-2013) • 4th position in all Pakistan intervarsity women Chess championships (2012-2013) **MENS CHAMPIONSHIPS**  1st position in all Pakistan intervarsity men Rugby championships (2012-2013) 1st position in all Pakistan intervarsity men Mountaineering championships (2012-2013)
- 1st position in all Pakistan intervarsity men Rifle Shooting championships (2012-2013) 2nd position in all Pakistan intervarsity men Netball championships (2012-2013) 2nd position in all Pakistan intervarsity men Basketball championships (2012-2013) 2nd position in all Pakistan intervarsity men Handball championships (2012-2013) 2nd position in all Pakistan intervarsity men Rowing championships (2012-2013) 2nd position in all Pakistan intervarsity men Wrestling championships (2012-2013) 2nd position in all Pakistan intervarsity men Jujitsu championships (2012-2013) 3rd position in all Pakistan intervarsity men BodyBuilding championships (2012-2013) 3rd position in all Pakistan intervarsity men Baseball championships (2012-2013) • 3rd position in all Pakistan intervarsity men Judo championships (2012-2013) 3rd position in all Pakistan intervarsity men Cycling championships (2012-2013) 3rd position in all Pakistan intervarsity men Karate championships (2012-2013) • 3rd position in all Pakistan intervarsity men Kabbadi championships (2012-2013) • 4th position in all Pakistan intervarsity men Football championships (2012-2013) • 4th position in all Pakistan intervarsity men Taekwondo championships (2012-2013) 4th position in all Pakistan intervarsity men Badminton championships (2012-2013) • 4th position in all Pakistan intervarsity men Swimming championships (2012-2013)





### **STUDENT AFFAIRS**

The well-being of our students is our primary concern. The Office of Student Affairs (OSA) ensures just that by providing you support and guidance in matters that require professional help.

We have got more than 22,000 students, and to ensure that every individual who comes to the university gets all the support they need we have a dedicated Office of Student Affairs.

#### We Offer you

- specialist support services to ensure your general well-being is looked after and to keep you on track academically;
- qualified and experienced staff provide you with advice to help you through any difficulty - financial, personal, academic or administrative.

OSA is the students point of contact for all administrative needs, including questions about finance, immigration, student cards, exams or graduation. You can visit OSA in person or email your enquiry.

You will also be able to book accomodation and sports and gym facilities through the OSA and get advise on careers and placements.

#### **STUDENT SERVICES CENTRE**

Within this portal you will find services, applications, and solution to your personal queries, during your time here at the UOL.

#### Academic services

Academic services are here to handle queries regarding student's letters, semester freeze/ withdrawal, issuance of interim/final transcript, examination, issuance of different certificate.

#### **Financial services**

Financial services will deal with students, who are seeking help on financial matters like semester fee installments, concession, fines, etc.

#### Hostel admission services

Here at Hostel Admission Services, we oversee the admission of UOL students to the various UOL hostels.

#### Student Life and Development Center

Student Life & Development (SLD) creates purposeful experiences for students that promote leadership, life skills, and personal development while enhancing campus life.



**Student Clubs and societies** Student Organization/ Clubs and societies will help students for development of personal and interpersonal skills.

#### **Residential life**

The Residential Life is responsible for maintaining student residences which support the educational mission of UOL and are designed to provide a variety of learning opportunities that promote students' academic endeavors, and which encourage their growth and development.

#### **Development Center**

This gateway will offer workshops on variety of topics related to your career development, health, and culture and religion.

#### Sports and recreational activities

The Sports and Wellness Department maintains sports facilities and organizes events with wide participation.

#### **Student Support**

This center aims at providing on-campus career and counseling services to UOL students for their vibrant future.

#### **Career Services**

The careers service is here to help you find fulltime work and internships, as well as offering support with career planning.

#### **Counseling Services**

During your time at the University of Lahore you may find yourself in a challenging situation that is unfamiliar to you. Our trained staff will help you in:

- CV writing
- preparing for interviews
- personal grooming
- self enhancement

## **QUALITY ENHANCEMENT CELL (QEC)**

The QEC at University of Lahore has made a major development to Enhance the Quality of both Education & Services provided across the University, in compliance with the policies put forward by HEC.

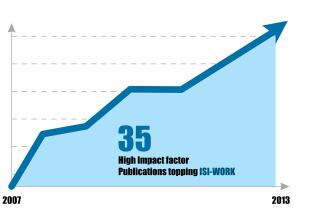
Maintaining the momentum of quality consciousness is crucial in Higher Education Institutions (HEIs). Quality Enhancement Cell in UOL is an internal guality assurance and enhancement mechanism of the institution. QEC at University of Lahore is tasked with planning, guiding and monitoring Quality Assurance (QA) and Quality Enhancement (QE) activities of the Institution. The QEC at University of Lahore channelizes and systematizes the efforts and measures of the University towards Academic Excellence by being a facilitative and participative organ of the institution. It has become a driving force for ushering in Quality by working out intervention strategies to remove deficiencies and Enhance Quality by methods of analysis, reporting and when needed experimental incubation. At University of Lahore, The QEC was established in May 2010. Since then, the cell has been working effectively not only to Enhance Quality but also continuously maintaining and improving on it.

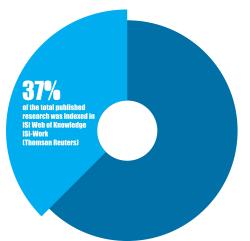
#### **SCOPE OF QEC**

Annual Monitoring and Evaluation of academic Program, Faculty and Student's

- Quality Assurance of all undergraduate as well as ٠ postgraduate degree programs.
- ٠ Evaluation and analysis of quality standards of teaching and learning in each subject area.

- Build up program specifications and quality ٠ assurance processes.
- Evaluate Department and Institutional ٠ Assessment.
- Developing Evaluation Methods.
- ٠ Ensure the quality and standard of the degree awarding.
- Analyze and review academic affiliation with governing bodies and institutions.
- Ensure that the Services provided at the HEI are compatible with the standards and benchmarks set forth by the University Management.





QEC was established in May 2010. Since then, the

Quality but also continuously maintaining and

postgraduate degree programs.

Network for Quality Assurance

Agency (QAA) Network.

improving on it.

Faculty)

PMDC.

•

cell has been working effectively not only to Enhance

Quality Assurance of all undergraduate as well as

Motivating Faculty, Staff & Students of University

of Lahore for Research. (Research Grants to

QEC is an active member of The International

Agencies in Higher Education, International

Network for Quality Assurance Agencies in Higher

Network (APQN) and Pakistani Quality Assurance

Quality Enhancement Cell has worked to facilitate

and remove any objections if ever raised by Accreditation Councils like PEC, PTC, PCP and

QEC working on the guidelines of HEC has

initiated the process of Course Catalogue.

the basis of data sent to HEC by QEC.

International collaboration with various

International Universities and Institutes via

standardized the Course Specifications and

University was awarded highest, W4 Ranking on

Education (INQAAHE), the Asia-Pacific Quality

## **SUMMARY OF OEC ACTIVITIES**

MoU's for purpose of Quality Enhancement, Research encouragement & Faculty/Student/ Staff exchange. E.g. Girne American University (Northern Cyprus) & Tambov State Technical University (Russia) among others.

QEC has different departmental incubation underway:

Alumni Office

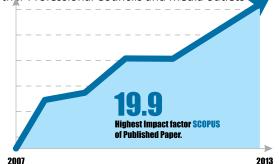
36%

of the total published research was Indexed i

**SCOPUS (Elsevier)** 

- Media Office ٠
  - Student Services Centre (SSC)
- Job Placement
- ٠ Learning Center
- Student Representative Office (SRO)

QEC is acting as an information gateway for critical external resources (to & from UOL) E.g.; HEC, PEC, PMDC, National Computing Council, National Business Council, Pakistan Pharmacy Council, Nursing Council, other Professional Councils and Media outlets





### **INTERNATIONAL STUDENTS**

University of Lahore enjoys excellent collaboration & partnerships in various areas of knowledge, educational research & resource sharing with some of the most prestigious Universities of the World

The University of Lahore has always believed in organizing healthy cultural activities for local as well as International Students. The University of Lahore welcomes International Students from different countries and has in recent years attracted students from Palestine, Sudan, Yemen, Turkey, Syria, Somalia, Afghanistan, Nepal, Oman, Kingdom of Saudi Arabia, South Korea, Jordan, UAE and Uganda amongst others. Foreign seats are available in Degree Programs such as Medicine, Dentistry, Engineering, English

language and Literature.

#### **INTERNATIONAL OFFICE AT UOL**

The University of Lahore operates a dedicated international office to facilitate our international students.

#### **MISSION**

The International office is designed and dedicated to look after the international relations and accreditation of the University worldwide.

We look forward to provide maximum help to our international students including but not limited to receiving them from the airport, their accommodation, visa & residential permit process and follow up till they graduate. We endeavor to form very good memories of the University of Lahore during their stay in Pakistan.

#### **INTERNATIONAL CULTURAL DAY**

Every year, The University of Lahore organizes International Student's Cultural Day for the students of different nationalities. Youngsters belonging to various countries and nationalities represent their culture and traditions at this event.

Students introduce their countries & traditions along with cultural performances in the event. Stalls at the event are also of great attraction to the guests and people. In April 2013, we saw successful event in shape of 3rd International Students Cultural Day.

#### **INTERNATIONAL ADMISSIONS**

For internatioal students applying to The University of Lahore, an application needs to be submitted to:

International Office international.students@osa.uol.edu.pk



## SOCIAL RESPONSIBILITY



UOL Relief has been at the forefront of providing emergency relief and rehabilitation during times of natural disasters since 2005.

Community service is not new to The University of Lahore (UOL). UOL has been at the forefront of providing emergency relief and rehabilitation during times of natural disasters since 2005. It was felt that the time was ripe to launch the relief program under a separate department to do all the philanthropic work and to execute the required relief plan. Thus UOL Relief came into being as a project of the University of Lahore. Headed by the Pro Rector (Academics) Prof. Nasir Mahmood, UOL Relief has been able to reach millions of people in far flung areas ever since. We feel proud to say that the effort of UOL Relief is purely voluntary. The University of Lahore staff and students assist UOL Relief by volunteering their time, presence and logistics for the aid work. The University of Lahore (UOL) has the services of hundreds of studentvolunteers for the execution of its aid plan. This enables us to focus the efforts and 100 % of the funds for the relief & community work. This collective effort has made it possible for us to help the community in times of disaster.

#### **2005 EARTHQUAKE**

In 2005, Pakistan already engulfed by various issues faced the most devastating Earthquake in her history. Over 75,000 people lost their lives in this Earthquake in the Northern Areas of Pakistan. These areas blessed with the immense natural beauty (and also home to world's highest concentration of peaks) is also remote and not well connected. This is where UOL stepped in for the first time and initiated an unprecedented Rescue and Relief efforts. Utilizing services of some of the people in Management with knowledge of adventure sports in the area, and highly motivated student body this was an activity which though started in October 2005 but has since continued. Today working under a proper initiative titled "UOL Relief", it has established emergency Health Care Units, Schools, Houses, Medical Camps, helped with evacuations, setting up of shelters and so on.

\_\_\_\_UO لىلىف

- Rescue, tents, food, first aid to the affected families.
- Construction of houses, follow-up medical camps

#### On going work

- Regular food program for the widows
- Education support program for the orphans

#### 2009 IDP CRISES

During the IDP crisis in 2009, UOL team with the help of hundreds of student- volunteers started a much needed aid plan. We played a constructive relief and rehabilitation role for the IDP's of Swat. UOL's rehabilitation role is still being carried out in swat and UOL is providing Food packages, clothes and tents for the displaced families over there.

#### 2010 FLOOD

Since 2005, UOL Relief has worked on providing support to the multiple massive flooding victims in North of Pakistan and then in South of Punjab, During the floods of 2010 which were declared the 'flood of mellennia' University of Lahore kept up with its past tradition and started a flood relief campaign within a few days after the disaster. The University itself allocated 5 million rupees for the purpose of relief and rehabilitation of the flood victims. The rehabilitation and rebuilding role carried out by UOL during the floods of 2010 are as follows:

- Provide Rescue, food packages, tents for the affected families
- Construction of houses in Rajanpur, Charsada, Skardu, GasBala, Tatto, Fari Meadows (GilgitBaltistan area Construction of Water Channel for irrigation and for house hold use
- School & basic health unit in Tatto

### BAIT-UL-NISHAT (SHELTER HOME 2012)

The UOL Relief is dedicated and committed to salvage the plight of physically disabled orphans, abandoned and street children with the view of rescuing and caring for these afflicted, hopeless and disadvantaged children in the society. For that purpose UOL Relief set up a Shelter Home in Lahore for orphaned special children who cannot be traditionally catered in a conventional orphanage because of their serious but non-life threatening disabilities. The main aim of the orphanage is to create a comfortable, conducive environment and dependable alternative family life and peaceful home for these socially and physically disadvantaged children in the society.

### GUNARFARAM (GILGIT BALTISTAN2013)

The UOL Relief provides shelter, Food and Education Support Program to the families of Widows in GilgitBaltistan.

Apart from the UOL Relief initiative which heavily relies on support and voluntarism of our University students and alumni – UOL's students are also engaged in various social initiatives via inside University campuses and activities. In last one year UOL has become part of International Universities Search and Rescue Council, Cyprus. Conducted Environmental and Social issue seminars/workshops to raise student awareness on these vital topics. UOL's services to the society in time of crisis have been recognized by UN, various International NGOs and Pakistan Government/Army.

UOL is also a part of "International Universities Search-Rescue Council" based in Turkish Cyprus and engage in regular visit of students and Faculty between the countries of Turkey, Iran, Azerbaijan, Russia, Moldavia and Iraq.





# Faculty of **ENGINEERING & TECHNOLOGY**

ELECTRICAL ENGINEERING	CIVIL ENGINEERING
MECHANICAL ENGINEERING	TECHNOLOGY
ELECTRONICS & ELECTRICAL SYSTEMS	COMPUTER ENGINEERING



# Department of **ELECTRICAL ENGINEERING**Faculty of Engineering & Technology

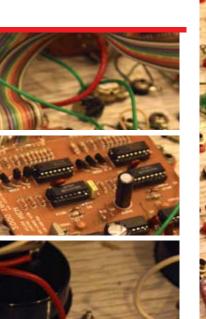
### Mission **STATEMENT**

The mission of the department of electrical engineering is to prepare a pool of human resource that could contribute in the development and progress of the nation in the broad area of electrical engineering. To be able to meet this end, we expect our graduates to possess sufficient breath in electrical engineering and in-depth knowledge and training in one or more of the areas such as power and electrical machines, electronics and computer, communications and signal processing, control and industrial automation.

### INTRODUCTION

The Department of Electrical Engineering was established in year 2000. Our undergraduate program, BSc Electrical Engineering got accreditation from Pakistan Engineering Council, first time in year 2007 effective from year 2003. Since then we have been getting our program reaccredited every year. In addition to the evaluation of the program by PEC, HEC has also started getting an

annual report duly monitored by QEC created under HEC regulation. The engineering program is run according to the directive of PEC on the minimum requirement of number course credits which keeping teaching quality high and student-teacher ratio wihin a specified limit. In year 2008 we launched MS Electrical Engineering program also under the guide line of HEC. This is a two year evening program with thesis. Beginning semester Spring-2014, the department launched its PhD (Electrical Engineering Program).

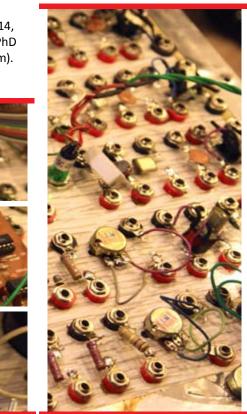


### Degrees **OFFERED**

Bachelor of Science in Electrical Engineering **(BSEE)** 

Master of Science in Electrical Engineering (MSEE)

#### Ph D







### Bachelor of Science in **ELECTRICAL ENGINEERING** (BSEE)

### INTRODUCTION

The undergraduate electrical engineering program forms on building a solid foundation in mathematics, physical sciences and computer programming to ensure the students are equipped with future professional skills, rational reasoning, analytical skills and lifelong learning techniques. The program provides a broad engineering knowledge, which enables the students to communicate and interact effectively with engineers and technologist specializing in different areas and to make technical decision with confidence. One successful completion,

the students will process the ability to understand, identify problems and their solution and implementations.

### Career **PROSPECTS**

Electrical engineers are in demand with employers in Pakistan and overseas. The major employment areas include electrical power generation, supply and distribution, power systems, the installation and design of electrical machinery and communication.

### Program **FACTS**

Program Length Full-time, 4 Years, Credit Hrs 138

#### **Entry Requirements**

F.sc (Math, Physics and chemistry), OR Equalent DAE Telecom, DAE Electronics, DAE Instrumentation, DAE Electrical with Minimum 60%, Entrance Test.

Location **Raiwind Road Campus** 

Recognised **BY** 

**Higher Education Commission** Pakistan Engineering Council

### Road **MAP**

Semester 1	Cr Hr	Semester 2	Cr Hr	Semester 3	Cr Hr	Semester 4	Cr Hr
Applied Calculus	3	Basic Mechanical Engineering	3	Applied Thermodynamics	3	DC & AC Machines	4
Communication skills	3	Computer Programming	3	Complex Variables And Transforms	3	Digital Design Lab	2
Circuts Analysis -I	3	Applied Physics	3	Computer Aided Drawing	1	Data Structures	3
Introduction to computing	3	Linear Algebra	3	Electrical Engineering Workshop	1	Signals And Systems	4
Islamic & Pakistan Studies	3	Differential Equations	3	Logic Design & Switching Theory	4	Solid State Geometry & Multivariate Calculus	3
Mechanical Engineering Workshop	1	Circuts Analysis -II	3	Social Science	3	Electronic Devices & Circuits	4

Network Analysis

4

### COURSES

### **TECHNICAL ELECTIVES**

- **POWER ENGINEERING**
- Power Distribution and Utilization
- (Breadth Core I) · Instrumentation and
- Measurements (Breadth Core II)
- Advanced Electrical Machines
- Power System Analysis
- Power Generation
- Electrical Power Transmission
- Power System Protection
- Power System Stability & Control Advanced Electrical Machine
- Design
- High Voltage Engineering
- Renewable Energy Systems Digital Signal Processing
- Digital Control Systems
- · Analog and Digital
- **Communication Systems**
- Integrated Electronic Circuits
- PLC and Industrial Drives

- Digital Control Systems · Analog and Digital
- **Communication Systems**
- Integrated Electronic Circuits
- PLC and Industrial Drives

#### COMMUNICATION ENGINEERING

- Computer Communication Networks (Breadth Core I)
- · Electronic Circuit Design (Breadth Core II)
- Digital Communications
- Wave Propagation and Antennas
- Digital Signal Processing
- Information Theory and Coding
- Instrumentation and
- Measurements
- Transmission and Switching
- Systems
- \*NOTE: Only One Subject Will Be Taken As Per Stream Selected By The Student.

### Road **MAP**

Semester 5	Cr Hr	Semester 6	Cr Hr	Semester 7	Cr Hr	Semester 8	Cr Hr
Electromagnetic Field Theory	3	Communication Systems	4	Control Systems	3	Ece design project	6
Microprocessor Based Embedded Systems	4	Numerical Analysis	3	Power Electronics	4	Technical Elective	3
Engineering Economics And Management	3	Breadth core ii	4	Enterprenourship	3	Technical Elective	3
Probability And stochastic Processes	3	Technical Elective	3	Technical Report Writing	3		
Breadth core i	4	* Instrumentation And Measurement / Electronic Circuit & Design / Computer Communication Network	3	Technical Elective	3		
				Technical Elective	3		

- Satellite Engineering
- Optical Communication
- RF and Microwave Engineering
- Navigation and Radar Systems
- Digital Image Processing
- Antenna Theory and Design
- Mobile and Pervasive Computing

Power Distribution and Utilization

ELECTRICAL ENGINEERING

### Master of Science in **ELECTRICAL ENGINEERING** (MSEE)

### INTRODUCTION

The program is structured around a core of knowledge related to analytical and management tools, supplemented by advanced technical electives in the area of power engineering, electronics and communication engineering. The students must study eight subjects of 3 credit hours each. In addition he/she will submit a research thesis of weight 6 credit hours. The detail of the program is given in the curriculum.

Career **PROSPECTS** 

This program has been designed for professionals working who wish

#### to enhance their technical skills for career advancement. Students will gain an ability to use advance mathematics and stochastic processes for the analysis of engineering problems acquire understanding and appreciation of concepts related to quality, information management and the ability to synthesize knowledge and using the program. This program enhances the strength of the students in the area of their choice and makes them better prepared to compete in higher intellectual and academic pursuits such as PhD programs.

### Program FACTS

#### Program Length

Full-time, Evening Shift 2 Years, Credits Hrs: 30

#### **Entry Requirements**

BS (Electrical Engg. Electronics Engg. Telecom Engg. Computer Engg. Communication Engg) from PEC recognized university with 2.5 CGPA (Semester System) or 60% Annual System. Interview and entry test & GAT validity two years arranged by NTS

#### Location

6

**Raiwind Road Campus** 

### Recognised **BY**

**Higher Education Commission** 

### Road **MAP**

Semester 1	Cr Hr	Semester 2	Cr Hr	Semester 3	Cr Hr	Semester 4	Cr Hr
Mathematical methods for Engineer	3	Advance Power system Protection	3	Advance High voltage engineering	3	Elective-II	3
Power system Quality	3	Power circuit breaker and substation	3	Elective-I	3	Elective-III	3

Thesis

### **COURSES**

#### STREAM 1: POWER ENGINEERING STREAM2: ELECTRONICS AND COMMUNICATION

#### **CORE COURSE**

**ELECTIVES** 

analysis

Transient in Power

Power system planning

- 1-Mathematical methods for Engineer • 2-Power system Quality
- 3-Advance Power system Protection

· Insulation Coordination of power system

Power distribution. Automation & control

· Power system stability & load flow

· Power system operation and control

- Stochastic process 4-Power circuit breaker and substation • 5-Advance High voltage engineering
  - Advance computer network

ENGINEERING

**CORE COURSE** 

- Digital Communication system
- Advance digital signal processing

• Mathematical methods for Engineers

### ELECTIVES

- Information theory and coding
- Introduction to cryptology
- Mobile and wireless communication

#### Advance Communication network

- · Performance evaluation of
- communication network · Real time embedded system
- Switched mode power supply
- Digital speech processing
- Note: list of electives is not exhaustive. More subjects can be added keeping in view the market requirement.



## Doctor of **ELECTRICAL ENGINEERING (PHD )**

### INTRODUCTION

PhD degree is the highest degree program offered by the Electrical Engineering Department. It is organized according to HEC guidelines and is recognized by HEC. The program is divided in to four main streams: Communication, Control, Power system and Signal processing. The program of 48 credit hours requires completion of 18 credit hours of course work and 30 credit hours of research thesis. Four courses are designated as mandatory.

### Career **PROSPECTS**

The graduates of this program primarily will find position in academic institutions and universities research institutes, research laboratories, consulting companies also employ graduate with this degree

### **CORE COURSE**

• 1-mathematical methods in Engineering

2-Optimaization Techniques
3-Probability and stochastic process
4-Research methods

#### **ELECTIVES**

- 1-Linear control system
  2-Optimal control theory and application
- 3-Advance digital control system
- 4-Power system steady state analysis
- 5-Power system dynamic analysis
  6-Power system Planning
- 7-Digital signal processing
- 8- Speech and audio processing 9- Real Time systems
- 10. Radiation and propagation of Electromagnetic Waves.
- 11. Antenna Theory and Applications.12. Digital communication

### Program **FACTS**

#### Program Length

Full-time, 3 Years, Credits Hrs: 48

#### **Entry Requirements**

MS (Electrical Engg. Electronics Engg. Telecom Engg. Computer Engg. Communication Engg) from PEC recognized university with 3 and above CGPA (Semester System) or 60% Annual System. Interview and entry test & GAT validity two years arranged by NTS

#### Location

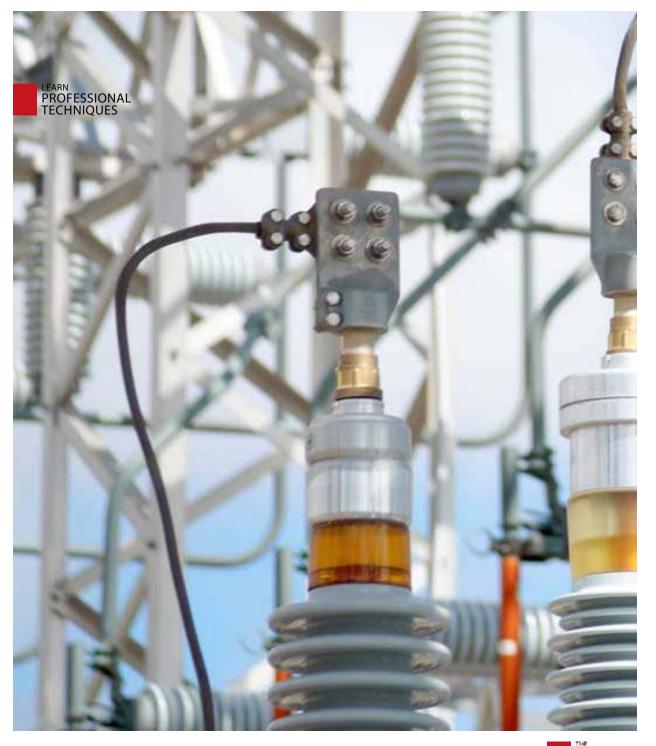
Raiwind Road Campus

### Recognised **BY**

Higher Education Commission

### Road **MAP**

Semester 1	Cr Hr	Semester 2	Cr Hr	Semester 3	Cr Hr	Semester 4	Cr Hr
Mathematical methods in engineering	3	Research methods in Electrical Engineering	3	Course No. 5	3	Course No. 7	3
Optimization techniques	3	Probability and stochastic Process	3	Course No. 6	3		



### Department of **MECHANICAL ENGINEERING** Faculty of Engineering & Technology

### Mission STATEMENT INTROE

### T INTRODUCTION

Mechanical Engineering, being the mother of all engineering sciences, plays a very important role in almost every field of life such as automotive, aerospace, biotechnology, computers, electronics, energy conversion, environmental control, marine, defense installations, oil and gas development, heavy electrical goods manufacturing, construction machinery, machine tools and so on. The need to design and manufacture everything from small individual parts and devices to large systems exists which opens opportunities for students in industries.

The Department of Mechanical engineering at the University of Lahore was granted permission to induct its 1st batch in 2008 by Pakistan Engineering Council (PEC). Department of Mechanical Engineering was granted accreditation in 2012 and 2013 for its first and second batch respectively. Accreditation of its 3rd batch is expected in second half of 2014. Department of Mechanical Engineering was granted permission to start MS and Ph.D in Mechanical **Engineering Programmes in** Novermber-2013 by the Academic Council of the University of Lahore. The Department has been given license to conduct CPD programmes by PEC.

### Degrees **OFFERED**

Bachelor of Science in Mechanical Engineering (BSME)

MS Mechanical Engineering (MS)

Ph.D Mechanical Engineering (Ph.D)







## Bachelor of Science in **MECHANICAL ENGINEERING (BSME)**

#### INTRODUCTION

BSME at the University of Lahore provides education in Thermal Sciences, Manufacturing & Production Engineering, Mechanics, Design & Vibrations, Fluid Mechanics, Control Engineering, Power, Energy and Quality Control. It offers students an opportunity to study in a wide variety of subjects with practical training.

### Career **PROSPECTS**

Mechanical Engineering has a diversity of applications in almost all industries of Manufacturing, Power Plants, Design of Static & Dynamic equipment etc. in any part of the world. In Pakistan different kinds of industries and organizations need mechanical engineers abundantly e.g. Heavy Mechanical Complex, NDC, Suparco, PMO, Pak Air Force, Pakistan Army, PIA, Nuclear Energy Commission and many industries in private sector.

### Program **FACTS**

Program Length Full-time, 4 Years

Entry Requirements F.Sc, DAE (Mechanical), A-Level or Equivalent (Minimum 60% Marks)

Location

Raiwind Road Campus

### Recognised **BY**

Pakistan Engineering Council

### Road **MAP**

Semester 1	Cr Hr	Semester 2	Cr Hr	Semester 3	Cr Hr	Semester 4	Cr Hr
Applied Chemistry	3	Applied Mathematics II	3	Electrical Engineering	3	Applied Mathematics III	3
Applied Mathematics	3	Communication Skills	2	Engineering Dynamics	4	Electronics	3
Applied Physics	3	Engineering Materials	3	Fluid Mechanics I	3	Fluid Mechanics II	4
Computer System & Programming	3	Engineering Statics	3	Mechanics of Materials I	3	Machine Design & CAD I	3
Engineering Drawing & Graphics	3	Islamic Studies	2	Pakistan Studies	2	Mechanics of Materials II	4
English	3	Thermodynamics I	3	Thermodynamics II	4	Psychology & Human Behavior	2

2

Workshop Practice

### COURSES

#### **CORE COURSES**

1-Applied Chemistry 2-Applied Mathematics **3-Applied Physics** 4-Computer System & Programming 5-Engineering Drawing & Graphics 6- English 7- Applied Mathematics II 8- Communication Skills 9- Engineering Materials **10- Engineering Statics** 11- Islamic Studies 12- Thermodynamics I 12- Workshop Practice 14- Electrical Engineering 15- Engineering Dynamics 16- Fluid Mechanics I 17- Mechanics of Materials I 18- Pakistan Studies 19- Thermodynamics II 20- Applied Mathematics III 21- Electronics 22- Fluid Mechanics II 23- Machine Design & CAD I 24- Mechanics of Materials II 25- Psychology & Human Behavior 26- Applied Mathematics IV 27- Heat and Mass Transfer 28- Machine Design & CAD II 29- Precision Engineering & Metrology 30- Technical Writing & Presentation Skills

31- Control Engineering

32- Engineering Statistics
33- Manufacturing Processes I
34- Mechanics of Machines
35- Refrigeration & Air Conditioning
36- Engineering Economics
37- Manufacturing Processes II
38- Mechanical Vibration
39- Internal Combustion Engines
40- Project

#### **ELECTIVE COURSES (TECHNICAL)**

Mechatronics
 Power Plant Engineering
 Renewable Energy Resources
 Tribology
 Maintenance Engineering
 Finite Element Analysis
 Computational Fluid Dynamics
 Fluid Power: Hydraulics & Pneumatics
 Gas Dynamics
 Aerodynamics

#### **ELECTIVE COURSES (MANAGEMENT)**

1-Total Quality Management
 2-Industrial Management
 3-Project Management
 4- Operations Management
 5- Business & Entrepreneurship
 6- Safety, Health & Environment Management

Semester 5	Cr Hr	Semester 6	Cr Hr	Semester 7	Cr Hr	Semester 8	Cr Hr
Applied Mathematics IV	3	Control Engineering	3	Engineering Economics	2	Internal Combustion Engines	3
Heat and Mass Transfer	4	Engineering Statistics	3	Manufacturing Processes II	4	Power Plant Engineering	3
Machine Design & CAD II	4	Manufacturing Processes I	4	Mechanical Vibration	4	Renewable Energy Resources	3
Precision Engineering & Metrology	3	Mechanics of Machines	4	Mechatronics	3	Total Quality Management	3
Technical Writing & Presentation Skills	3	Refrigeration & Air Conditionin	4	Project	6		

## Master of Science in **MECHANICAL ENGINEERING** (мsме)

### SCHEME OF **STUDIES**

Course	Cr Hr
Advanced Numerical Analysis	3
elect Any three	
Course	Cr Hr
Advanced Thermodynamics	3
Advanced Fluid Mechanics	3
Finite Element Analysis	3
Advanced Heat Transfer	3
elect Any three	
Course	Cr Hr
Advanced CAD/ CAM	3
Advanced Engineering Materials	3
Advanced Mechanical Vibration	3
Advanced Automatic Control Systems	3
Experimental Methods	3
Internal Combustion Engines	3

### Program **FACTS**

**Program Length** Full-time, 2 Years, cr. hours 30

Location Raiwind Road Campus

Recognised BY Pakistan Engineering Council

### Select Any three

	/	
3	Course	Cr Hr
3	Aerodynamics	3
3	Project Planning and Management	3
3	Thesis (Compulsory)	
3	Course	Cr Hr
3	Thesis	6

## Doctor of **MECHANICAL ENGINEERING (PH.D**)

Course	Cr Hr
Advanced Engineering Materials	3
Finite Element Analysis	3
Theory of Elasticity	3
Experimental Stress Analysis	3
Product Design & Development	3
Advanced Automatic Control Systems	3
Advanced Fluid Mechanics	3
Computational Fluid Dynamics	3
Advanced Stress Analysis	3
Total Quality Management	3
Advanced Dynamics	3
Advanced Solid Mechanics	3
Theory of Plates and Shells	3
Internal Combustion Engines	3
Mechanism Design	3
Tribology	3
Solar Energy Utilization	3
Energy Management	3

### Program **FACTS**

**Program Length** Full-time, 3-5 Years, cr. hours 48

Location Raiwind Road Campus

### Recognised BY Pakistan Engineering Council

### Thesis (Compulsory)

Course	Cr Hr
Thesis	30

Combustion

Air Pollution

### Department of **CIVIL ENGINEERING** Faculty of Engineering & Technology

#### Mission **STATEMENT**

The Department of Civil Engineering was established to train students to become competent professionals and researchers through its eminent faculty, state of the art laboratories and infrastructure. The promotion of research activities to find innovative solutions of pragmatic engineering problems by using research facilities of international standards.

### INTRODUCTION

Civil engineering deals with development in terms of conceiving, planning, designing, executing, managing, maintaining and rehabilitating infrastructure and building facilities. This is a diversified discipline which deals with all types of human endeavors related to the growth of civilization in the shape of buildings, transportation systems, industry, power systems, water resources, environment and geo sciences. Civil Engineers play a vital role to execute the visualization and routinely face multi-faceted, dynamic challenges on projects in various roles as client, consultant,

contractor and related fields. The Department of civil engineering is providing excellence to its students by improving competencies in novel techniques and methods to fulfill the needs of a sustainable built environment. This diverse platform has been established to provide quality engineering education which will allow its students to acquire the most advanced knowledge. Civil Engineering is a challenging profession which requires knowledge of mathematics, applied sciences and computation skills to solve civil engineering problems. The curriculum is designed to nurture students to latent capabilities. Advanced engineering theoretical constructs and skills are instilled in students by utilizing state of the art lab equipment to learn the engineering profession and utilise it in the development of the society.

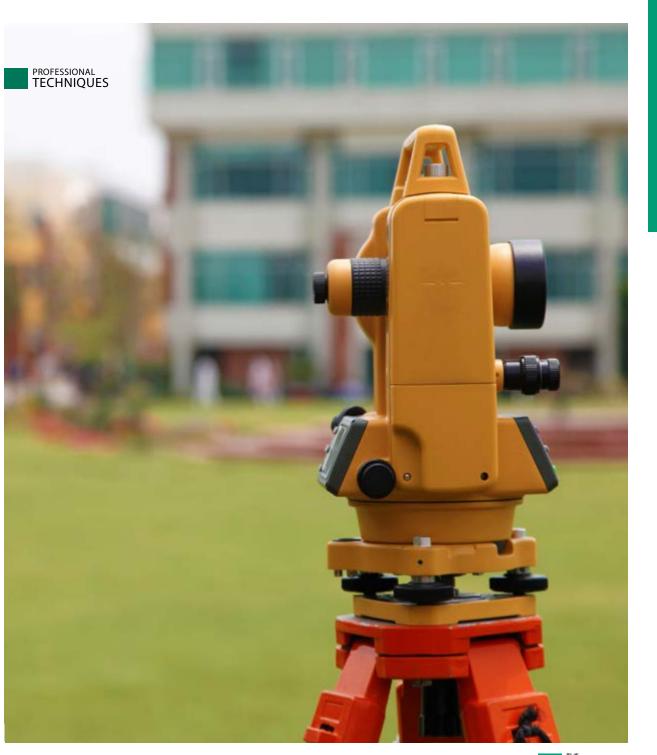
### Degrees **OFFERED**

Bachelor of Science in Civil Engineering (BSCE)

Master of Science in Civil Engineering (MSCE)

Ph.D in Civil Engineering (Ph.D)





### Bachelor of Science in **CIVIL ENGINEERING** (BSCE)

### INTRODUCTION

The Civil Engineering discipline lays emphasis on a basic knowledge of mathematics, applied sciences and computation skills. This program will help students to apply their knowledge in the fields of Civil Engineering to identify, formulate, and solve open-ended Civil Engineering problems. It offers students an opportunity to study a wide variety of subjects with practical training and understanding of the professional, ethical and social responsibilities needed for Civil Engineering Practice.

#### Career **PROSPECTS**

The Civil Engineering graduate can look for jobs in road projects, building work, consultancy firms, quality testing laboratories or housing societies. Civil

#### Engineers have good prospects Program **FACTS** of finding a job in Government departments, private and public Program Length sector industries, research and Full-time, 4 Years teaching institutions etc. Civil Engineers will always be needed to maintain and repair existing **Entry Requirements**

Minimum 60 % Marks in F.Sc (Pre-Engineering)/A-Levels/ Diploma in Associate Engineering (DAE-Civil)

#### Location

**Raiwind Road Campus** 

#### Recognised **BY**

**Higher Education Commission** Pakistan Engineering Council

### **COURSES**

#### **PRE-REQ COURSES**

- Tranportation planning and Management
- Soil Mechanics
- Plain & Reinforced Concrete-I
- Advanced Fluid Mechanics
- Hydrology & Water Management
- Enviormental Engineering-I
- Hydrology & Water Management
- Advanced Fluid Mechanics
- Plain & Reinforced Concrete-I
- Structural Analysis-I
- Steel Structures
- Social Sceineces-I

#### **CORE COURSES**

- Engineering Mechanics
- Engineering Surveying
- Engineering Drawing
- Civil Engineering Materials & Construction

Cr Hr

2

Semester 6

2 Mechanics of Solids-II

3 Social Sciences

3 Advanced Fluid Mechanics

3 Environmental Engineering – 1 4

- Civil Engineering Drawing & Graphics
- Advanced Engineering Surveying
- Mechanics of Solids-I
- Fluid Mechanics
- Quantity Surveying & Estimation
- Structural Analysis
- Soil Mechanics

Semester 5

Engineering

Probability Method in

Engineering (Math-IV) Transportation Planning and

Hydrology and Water

Structural Analysis-II

Steel Structures

Resources Management

Construction Management &

Engineering Economics

Advanced Fluid Mechanics

<ul> <li>Plain</li> </ul>	& Reinforced	Concrete-I

- Environmental Engineering-I
- Transportation Planning & Management
- Hydrology and Water Management
- Construction Management
- Architecture & Town Planning

#### **ELECTIVE COURSES**

- Highway & Traffic Engineering
- Pavement and Foundation Engineering
- Plain & Reinforced Concrete-II
- Hydraulic Engineering
- Irrigation and Drainage Engineering
- Environmental Engineering II
- Irrigation and Hydraulics Engineering

Cr Hr

2

2

2

3

Semester 8

Engineering

Structural Engineering

Hydraulics & Irrigation

Design of Strcutures

Disaster Management

Project (Part-B)

- Design of Structure
- Social Sciences-II

Cr Hr

3 Plain & Reinforced Concrete-I 4 Architecture & Town Planning 3

3

Semester 7

Engineering

2 Geo-Informatics

Project (Part-A)

Environmental Engineering

Plain & Reinforced Concrete-

Geotechnical and Foundation

Road	MAP	

Semester 1	Cr Hr	Semester 2	Cr Hr	Semester 3	Cr Hr	Semester 4	Cr Hr
English Language Skills	3	Computer Programming	3	Engineering Geology	3	Quantity Surveying & Estimation	3
Applied Calculus (Math-I)	3	Engineering Mechanics	4	Numerical Analysis (Math-III)	4	Structural Analysis	3
Engineering Drawing	4	Engineering Surveying	4	Advanced Engineering Surveying	3	Soil Mechanics	4
Civil Engineering Materials	3	Basic Electro Mechanical Engineering	4	Mechanics of Solids-I	4	Communication Skills & Technical Writing	2
Islamic & Pakistan Studies	3	Differential Equation (Math- II)	3	Fluid Mechanics	4	Civil Engineering Drawing & Graphics	3

facilities and structures and to

transport, urban and water

Civil Engineers are employed in

all major construction projects

or central government, private

construction companies, military,

engineering services and project

management. Civil Engineering

graduates can also go in for

or they can open their own

or construction services.

research and take up teaching

independent firms for consultancy

city governments, provincial

carried out by the municipalities,

resources engineering.

construct new ones in the fields of

coastal, environmental, structural,

Highway & Traffic Engineering 3

Cr Hr

3

4

3

2

3

## Master of Science in **CIVIL ENGINEERING** (MSCE)

### **INTRODUCTION**

Master of Science in Civil Engineering is designed to produce graduates with enhanced knowledge in the fields of:

- Structural Engineering
- Geotechnical EngineeringHydraulics and Irrigation
- Engineering

• Environmental Engineering The degree program focuses on providing skills required in different fields of Civil Engineering. The students will study eight subjects consisting of four from each core and elective courses in addition to a six credit hours research thesis mentioned in the curriculum approved by the academic council.

The programme shall have a minimum of three year supervised study period that may be extended to a maximum of seven years towards successful completion of all requirements and award of

#### **COURSES** STRUCTURAL ENGINEERING

#### **CORE COURSE**

- Structural Analysis
- Reinforced Concrete Structures
- Properties of Structural Materials
- Prestressed Concrete
- Steel Structures
- Seismic Design of Structures
- Structural Mechanics
- Stability of Structures

40

the Master's Degree. Under the programme, student is required to undertake minimum of a 24 credit hours of courses work and 6 credit hours of research depending upon the area of specialization thus making a total of minimum 30 credit hours while maximum of 6 credit hours shall be allowed per semester. The duration of the semester would be 16 to 18 weeks.

### Career **PROSPECTS**

The students of the graduate program will be well equipped with the knowledge of Civil Engineering and research jobs in Government and Public Sector, departments, industries, research centers and technical institutions. They will be capable enough to develop their own firms, research centers and will provide consultancy services to Government and Private sectors.

**ELECTIVES COURSES** 

• Theory of Plates and Shells

Seismology and Earthquake Engineering

Seismic Design of Masonry Structures

Structural Mechanics of Concrete

Advanced Concrete Technology-I

Advanced Concrete Technology-II

Bridge Engineering

Design of Structures

Structural Dynamics

Structural Optimization

### Program **FACTS**

Program Length 3 Years

#### Entry Requirements

 Minimum CGPA of 2.5 in semester system or 60% marks in Annual system in BSc Civil Engineering for all four disciplines. However for the Environmental Engineering programme, students with Bachelors degree in engineering from other disciplines such as environmental, chemical and other related may be considered on case-by-case basis
 Minimum Graduate Assessment Test

- (GAT) score 50%
- Passing written entry exam
- Successful interview

Location Raiwind Road Campus

### Recognised **BY**

#### Higher Education Commission

- Advanced Soil Mechanics
- Foundation Engineering-I
- Foundation Engineering-II
- Geotechnical Investigation
- Environmental Geo-techniques
- Numerical Methods in EngineeringHydraulic Structures
- Hydro Power Engineering
- Irrigation Engineering and Practice
- Application of RS & GIS in Civil Engineering
- Environmental Management and

### COURSES

#### Impact Assessment

- Industrial and Hazardous Waste Management
- Water Supply and Wastewater
   Collection System
- Thesis

#### GEOTECHNICAL ENGINEERING

#### **CORE COURSES**

- Advanced Soil MechanicsFoundation Engineering-I
- Foundation Engineering-I
- Dam Engineering
- Geotechnical Investigations
- Soil Improvement Techniques
- Earth Retaining Structures
- Environmental Geo-Techniques

#### **ELECTIVE COURSES**

- Rock Engineering
- Soil DynamicsNumerical Methods Engineering
- Geotechnical Engineering in
   Professional Practice
- Hydraulic Structure
- Hydro Power Engineering
- Applied Hydrology
- Sediment Transport
- Fluid Mechanics
- Application of RS & GIS in Civil
- Engineering

  Soil Erosion & Watershed Management
- Ground Water Engineering
- Ground Water Engineering
- Reinforced Concrete Structures
- Properties of Structural Materials
- Prestressed Concrete
- Steel Structures
- Seismic Design of Structures
- Environmental Management and Impact Assessment
- Industrial and Hazardous Waste
- Management
- Water Supply and Wastewater
- Collection System
- Thesis

#### HYDRAULIC & IRRIGATION ENGINEERING

Soil Improvement Techniques

• Environmental Geo-Techniques

Environmental Management and

Wastewater Treatment and Design

Industrial and Hazardous Waste

Water Supply and Wastewater

· Environmental Chemistry and

Air and Noise Pollution Control

Ecology and Risk Assessment

Marine Pollution and Control

Environmental Health and Safety

Modeling of Environmental System

Agricultural Pollution and Control

Environmental Pollution Control

Soil Improvement Techniques

Environmental Geo-Techniques

· Property of Structural Materials

CIVIL ENGINEERING

UNIVERSITY OF

LAHORE

Solid Waste Management

**ELECTIVE COURSES** 

Water Quality Modeling

Hydraulic Structures

Applied Hydrology

• Thesis

· Physico-Chemical Process in

• Experimental Methods in

Environmental Engineering

• Numerical Methods in Engineering

• Earth Retaining Structures

ENVIRONMENTAL

ENGINEERING

**CORE COURSES** 

Impact Assessment

Management

Microbiology

Collection System

**Environmental System** 

#### CORE COURSES

- Irrigation Engineering and Practice
- Applied Hydrology
- Hydraulic Structures
- Hydro Power Engineering
- Advanced Fluvial Hydraulics
- Sediment Transport
- Fluid Mechanics
- Application of RS & GIS in Civil Engineering

#### **ELECTIVE COURSES**

- Drainage Engineering
- Computer Aided Design of Hydraulic Structures
- River Engineering & Flood Management
- Soil Erosion & Watershed Management
- Hydrological Modeling
- Water Resources Planning and Management
- Ground Water Engineering
- Reinforced Concrete Structures
- Property of Structural Materials
- Prestressed Concrete
  Seismic Design of Structures

Advanced Soil Mechanics

• Geotechnical Investigations

Earth Retaining Structures

• Soil Improvement Techniques

Environmental Geo-Techniques

• Industrial and Hazardous Waste

Water Supply and Wastewater

Geotechnical Investigations

Numerical Methods in Engineering

Environmental Management and Impact

Bridge Engineering

Dam Engineering

Assessment

Management

• Thesis

Collection System

Dam Engineering

### Ph.D in **CIVIL ENGINEERING** (PH.D)

#### PHD PROGRAM IN CIVIL ENGINEERING

The Department of Civil Engineering has started PhD program in Civil Engineering by offering courses in the following four areas of interest:

- a. Structures
- b. Geotechnical
- c. Hydraulics & Irrigation
- d. Environment

The student must select one of the above mentioned areas of interest and complete 18 credit hours in that area by selecting courses from only one of the specified lists. Basically, subjects may be selected by mutual consultation of the scholar and his PhD supervisor. The subjects have to be passed obtaining accumulative CGPA 3.0. It is a mandatory to get at least CGPA 3.0 out of 4.0 as required by HEC to appear in PhD comprehensive exam, otherwise the candidate will not be eligible to continue further PhD research studies.

The student must follow the Higher Education Commission (HEC) Rules and Regulations given below

### HEC Criteria for Admissions in **PHD PROGRAM**

Minimum criteria for the admission in PhD Program: a) A minimum CGPA of 3.0 (out of 4.0 in the Semester System) or 60% marks (First Division in the Annual System) in M.Phil. /M.Sc. or Equivalent degree is required.

b) A subject test conducted by the National Testing Service (NTS) or ETS, USA in the area of specialization applied for PhD studies must be passed obtaining: i. In case of GAT subject test, a minimum of 60% marks is required to pass the test.

ii. In the case GRE subject test, the minimum of 60% percentile score is required to pass the test. iii. If the test is not available in NTS subject list, then a University Committee consisting of at least 3 PhD faculty members in the subject area and approved by the HEC will conduct the test at par with GRE subject test and qualifying score for this will be 70% score

### ENGINEERING

(1) Course work of minimum 18 credit hours preferably in the first year is required to be completed and followed by a comprehensive examination for granting candidacy as PhD researcher.

(2) After 1 year, candidate will be asked to write a mini thesis for the evaluation of his work, after which selection and approval of research topic will be done. (3) The PhD dissertation must be evaluated by at least two PhD experts from technologically/academically advanced foreign countries in addition to local committee members (3 or more members). (4) Acceptance/publication of at least one research paper based on the PhD research in an HEC approved "X" category journal is a requirement for the award of PhD degree.

(5) The plagiarism test must be conducted on the dissertation before its submission to the two foreign experts, as described above.

(6) Copy of approved PhD dissertation (both hard and soft) must be submitted to HEC for record in PhD country directory and for attestation of the PhD degree by the HEC in future.

### COURSES

#### STRUCTURAL ENGINEERING

#### STRUCTURES COURSE

- Structural Analysis
- Reinforced Concrete Structures
- Properties of Structural Materials Pre-Stressed Concrete
- Steel Structures
- Seismic Design of Structures
- Structural Mechanics
- Stability of Structures
- Bridge Engineering
- Design of Structures
- Theory of Plates and Shells
- Structural Dynamics
- Seismology and Earthquake

Engineering

- Seismic Design of Masonry Structures
- Structural Optimization
- Fracture Mechanics of Concrete
- Advanced Concrete Technologies I Advanced Concrete Technologies II
- Finite Element Analysis
- Analysis and Design of Masonry
- Structure Reliability Based Structural Analysis
- Fiber Reinforced Polymer
- Coastal Engineering
- Structural Fire Engineering
- Nonlinear Structural Analysis
- Advanced Mechanics of Solid
- Advanced Materials of Construction PhD Thesis

#### HYDRAULIC AND IRRIGATION COURSE

- Design of Hydraulic Structures
- Advanced Fluvial Hydraulics
- Hydropower Engineering
- Irrigation Engineering and Practices
- Applied Hydrology
- Sediment Transport
- Fluid Mechanics
- Application of RS & GIS in Civil
- Engineering

- Drainage Engineering
- Computer Aided Design of Hydraulic Structure

Collection System

Microbiology

PhD Thesis

Environmental Chemistry and

Air and Noise Pollution Control

Ecology and Risk Assessment

Marine Pollution and Control

Environmental Health and Safety

Modeling of Environmental Systems

Environmental Pollution and Control

• Agricultural Pollution and Control

Solid Waste Management

Water Quality Modeling

- River Engineering and Flood Management
- · Soil Erosion and Watershed Management
- Hydrological Modeling
- Water Resources Planning and Management
- Ground Water Engineering
- Flood Risk Management
- Applied Hydraulics
- Statistical Hydrology
- PhD Thesis

#### **GEOTECH COURSE**

- Advanced Soil Mechanics
- Foundation Engineering-I
- Foundation Engineering-II
- Dam Engineering
- Geotechnical Investigation
- Soil Improvement Techniques
- Earth Retaining Structures
- Environmental Geo Techniques
- Rock Engineering
- Soil Dynamics
- Numerical Method In Engineering
- Geotechnical Engineering In Professional practice PhD Thesis

#### ENVIRONMENT

- Environmental Management and Impact Assessment
- Physico-Chemical Processes in Environmental System
- Wastewater Treatment and Design
- Experimental Methods in Environmental Engineering
- Industrial and Hazardous Waste
- Management
- Water Supply and Wastewater

#### UNIVERSITY OF CIVIL ENGINEERING AHORE

### Department of **TECHNOLOGY** Faculty of Engineering & Technology

#### Mission **STATEMENT**

The Technology Department envisages catering for the future needs of an ever expanding industrial sector whilst creating the vision and potential to produce the Technologists needed in the future.

### INTRODUCTION

Engineering disciplines have come a long way in developing countries to the level that we can now see in our own surroundings. In the beginning, Civil, Mechanical & Electrical engineering were the main branches being offered in all engineering setups. As development progressed, new and more productive methods became the need of the time for growing population. Innovation and new ideas became research models. This brought in specializations which needed more productive machines & methods. In order to achieve these objectives, new teaching programs were introduced to cope with new demand patterns. The BS-Tech program is an off shoot of General Engineering in Electrical, Mechanical and Civil

sector and is geared towards

production and catering for

the needs of the industry. The

designs of technology courses are more oriented towards learning professional skills. Our courses are blends of general subjects like English, Mathematics, Applied Physics and related engineering subjects which help students gradually, enter different engineering disciplines. The University in an effort to improve upon its existing standard has remodeled its curriculum and other facilities. For the overall improvement of education the University has introduced a new strategy into its learning process by providing exclusive industrial training to its students. This is obtained by industrial training to respective industries and engineering set-ups . In this context, the academic calendar for industrial training is made at the beginning of 5th semester and 7th semester. Since the number of students in different technologies is growing, the Department Training Cell is continuously increasing its liaison with new industries to cop up the needs. Students have to go the industries for the training in leading industries of mechanical, electrical and civil sectors during summer. This program is monitored by the Department on regular basis. Students prepare their technical reports for the

### Degrees **OFFERED**

Bachelor of Science in Mechanical Technology (BS Tech Mechanical)

Bachelor of Science in Civil Technology **(BS Tech Civil)** 

Bachelor of Science in Electrical Technology (BS Tech Electrical)

evaluation by the examining body of the department. As a result of this industrial exposure, there is likelihood for the students being offered jobs in the industrial sector. Graduates of Technology are the future architects of the economic development of the country. The University management understands these challenges, and is striving to provide the required skills for technology graduates to fit into all the industries of today and tomorrow.





### Bachelor of Science in **MECHANICAL TECHNOLOGY** (BS-TECH MECHANICAL)

### INTRODUCTION

#### Career **PROSPECTS** This course is designed to

prepare students for a career as

technologists within a broad range

The mechanical development and progress of a country is directly proportional to the well being and living standard of a society. With the ever increasing complexities of technologies, the present world is facing an acute shortage of able technologists. The BS-Tech Mechanical provides a sound grounding of principles and fundamentals through practical work and problem solving activities. We provide our students a blend of technical and managerial skills coupled with tips for maximum effectiveness in productivity.

of mechanical and manufacturing industries. Employers of our graduates include consultancy services, small enterprise companies and large volume manufacturers. During the project allocation process, the students are encouraged and guided to undertake projects according to the current local needs of Pakistan. Students are guided and supervised by the faculty members who advise and instruct their students during the process of their projects. The Department also organizes projects exhibitions for motivation and development

### Program **FACTS**

Program Length Full-time, 4 Years, Credit Hrs: 133

#### **Entry Requirements**

2nd Division, F.Sc (Pre-Engg.), / DAE (Mechanical) , A Level or Equivalent

Location Raiwind Road Campus

### Recognised **BY**

Higher Education Commission

projects exhibitions were held which were highly appreciated by the students of different departments, visitors and in local media.

### Road **MAP**

Semester 1	Cr Hr	Semester 2	Cr Hr	Semester 3	Cr Hr	Semester 4	Cr Hr
English Comprehension	3	Communication Skills	3	Applied Mathematics III	3	Industrial Electronics	3
Engineering Drawing I	3	Engineering Drawing II	3	Computer Programming	3	Mechanics of Machines I	3
Applied Chemistry	3	Applied Mechanics	3	Industrial Materials	3	Fluid Mechanics	3
Applied Physics	3	Applied Thermodynamics	3	Auto Cad	3	Applied Mathematics IV	3
Applied Mathematics I	3	Applied Mathematics II	3	Mechanics of Materials	3	Machining Process	3
Computer Application I	3					Machine Design I	3

of technological exposure. During

previous years various final year



Semester 5	Cr Hr	Semester 6	Cr Hr	Semester 7	Cr Hr	Semester 8	Cr Hr
Engineering Economics	3	Hydraulic Machinery	3	Material Handling	3	Heat Transfer	3
Machine Design II	3	Introduction to Mechatronics	3	Metal Cutting & Machinery Tools	3	Power Plant Engineering & Energy Resources	3
Advance Thermodynamics	3	Installation Testing & Maintenance of Machine	3	IC Engines	3	Environmental Technology for Industries	2
Mechanical Vibration	3	Refigeration & Air Conditioning	3	Automation & Control	3	Islamic & Pakistan Studies	3
Industrial Management	3	Quality Control & Assurance	3	Project	3	Occupational Health Safety & Environment	3
		Training Programme I	4			Training Programme II	4

## Bachelor of Science in **CIVIL TECHNOLOGY** (BS-TECH CIVIL)

### INTRODUCTION

The main emphasis of BS-Technology (Civil) Program is to provide the students with a sound foundation of mathematics and other sciences and to utilize their knowledge in solving problems of structure, hydraulics, geo-tech, highways and environmental engineering. BS- Technology (Civil) enables the students to know about the operation and maintenance of Civil Engineering projects and gives them on-thejob training to enable them to work independently on projects and handle repairs, set up tools and other equipment required for Civil Engineering works. Our students are also trained to use the engineering software for construction.

### Career **PROSPECTS**

BS-Tech students are trained as technologists to face various challenges of the industry. They are trained in basic techniques, skills and the use of modern tools. As a result of this training, they are trained how to utilize their knowledge and skills in modern surveying for land measurement, execution of construction projects. Our graduates are in great demand in local as well as abroad construction companies.

### Program **FACTS**

Program Length Full-time, 4 Years, Credit Hrs: 130

#### Entry Requirements

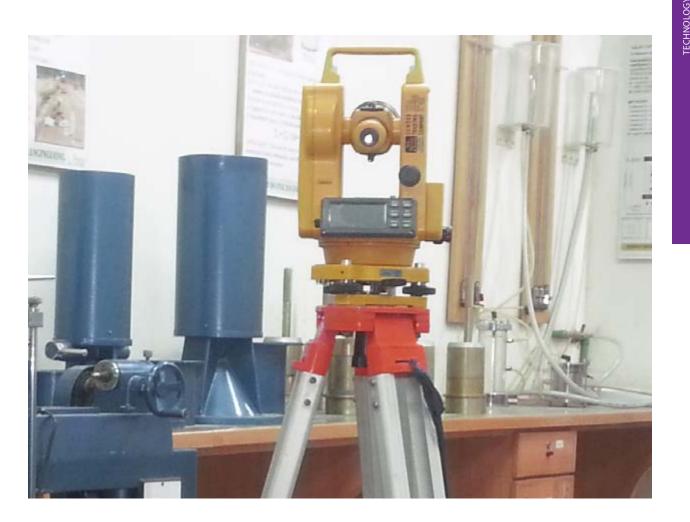
2nd Division, F.Sc (Pre-Engg.), / DAE (Civil) , A Level or Equivalent

#### Location

Raiwind Road Campus

### Recognised **BY**

Higher Education Commission



Semester 5	Cr Hr	Semester 6	Cr Hr	Semester 7	Cr Hr	Semester 8	Cr Hr
Water Supply & Water Management	3	Hydrology	4	Irrigation & Hydraulic Structures	4	Traffic Engineering	3
Steel Structures	3	Engineering Economics	3	Total Quality Management	3	Foundation & Pavement Technology	4
Application of GIS in Civil Technology	3	Architecture & Town Planning	3	Pre Stressed & Pre Cast Concrete Technology	4	Computer Aided Analysis & Design	3
Concrete Technology I	3	Concrete Technology II	3	Highway & Transportation Technology	4	Training Programme II	4
Environment Management	3	Project Management	3	Final Year Project	3		

Training Programme I

### Road **MAP**

Semester 1	Cr Hr	Semester 2	Cr Hr	Semester 3	Cr Hr	Semester 4	Cr Hr
Computer Applications I	3	Applied Mathematics II	3	Repair & Maintenance of Structures	3	Structural Mechanics	3
Materials & Methods of Construction	3	Engineering Geology	3	Fluid Mechanics	4	Soil Mechanics	3
Engineering Drawing	3	Communication Skills	3	Applied Mathematics III	3	Applied Mathematics IV	3
English Comprehension	3	Mechanics of Materials	4	Islamic & Pakistan Studies	3	Cost Estimates & Contract Documents	3
Applied Mathematics I	3	Construction Surveying	4	Computer Programming	3	Technical Report	3

### Bachelor of Science in **ELECTRICAL TECHNOLOGY** (BS-TECH ELECTRICAL)

### **INTRODUCTION**

The undergraduate BS-Tech Electrical program is based on solid foundation of all electrical and electronics systems and computer systems. Successful completion of the program equips the students with the ability to grow as professionals and develop rational and analytical skills. The program provides a broad technological core competence which enables students to contribute in various electrical and related fields. On successful completion of this program, the student will be able to solve integrated problems, analyze hypothesis testing, and implement modern technological systems.

### Career **PROSPECTS**

This program is designed to prepare the students for career as technologists in many electrical and related fields. BS-Technology (Electrical) is suited to those wishing to pursue a career in telecommunication, power, networking, and other sub categories of these fields. Electrical technologist are in great demand with employers within Pakistan and abroad. Within electrical technology, the main employment areas include electrical power generation with supply and distribution, power systems, installation and design of electrical machinery, telecommunication industry, network operators, TV and radio service providers.

### Road **MAP**

Semester 1	Cr Hr	Semester 2	Cr Hr	Semester 3	Cr Hr	Semester 4	Cr Hr
Applied Calculus	3	Linear Algebra & Differential Equations	3	Complex Variables & Transforms	3	Solid State Geometry & Multivariate Calculus	3
Computer Fundamentals	3	Network Analysis I	3	Computer Programming	3	Microprocessor Theory & Interfacing	3
Linear Circuit Analysis	3	Engineering Drawing	3	Digital Electronics	4	Electronics Devices & Circuits	3
Applied Physics	3	Basic Mechanical Technology	3	Network Analysis II	3	Measuring Instruments & Measurements	3
English Comprehension	3	Communication Skills	3	Introduction to Solid State Devices	3	Hydraulic & Hydraulic Machine	3

Islamic & Pakistan Studies 3

### Program **FACTS**

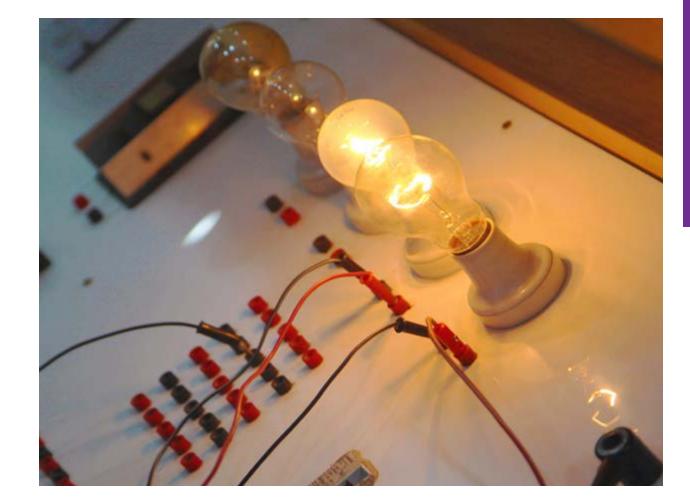
Program Length Full-time, 4 Years, Credit Hrs: 132

#### **Entry Requirements**

2nd Division, F.Sc (Pre-Engg.), / DAE (Electrical, Electronics, Instrument), A Level or Equivalent

Location **Raiwind Road Campus** 

Recognised **BY Higher Education Commission** 



Semester 5	Cr Hr	Semester 6	Cr Hr	Semester 7	Cr Hr	Semester 8	Cr Hr
Data & Computer Communication	3	Communication Systems I	3	Communication System II	3	Substation Technology	3
Electromagnetic Field Theory	3	Industrial Electronics	3	Power Electronics	4	Control Technology	4
Advance Electronics	3	Power Transmission & Distribution	3	Switch Gear & Protective Devices	3	Engineering Economics	3
Power Generation & Utilization	3	Total Quality Management	3	High Voltage Technology	3	Training Programme II	4
Electrical Machines	4	Occupational Health Safety & Environment	3	Final Year Project	3		
Foundations of Engineering	3	Training Programme I	4				

# Department of **ELECTRONICS AND ELECTRICAL** SYSTEM

### Faculty of Engineering & Technology

### Mission **STATEMENT**

In partnership with our students, the mission of our department is to:

Provide quality course and lab work that meets international educational standards. Provide an environment where students feel free to gain knowledge without gender and racial discrimination under the umbrella of the ethics of Islam. Critically examine and refine knowledge to transfer it in practice through electronics and electrical systems.

Provide a learning environment that motivates students for Research and Development (R&D).

### INTRODUCTION

This department is one of the primary departments of the University of Lahore. Its initial setup was laid when this university opened its gates for students to learn and grow. The course work here is based upon the latest technologies and learning tools. Students are directed towards research and innovation. Our topnotch faculty is well-versed in their respective fields and our teaching methods comply with international standards.

### Degrees **OFFERED**

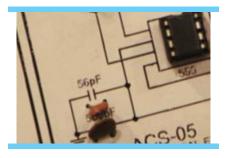
Bachelor of Science in Electronics & Electrical Systems (BSEES)

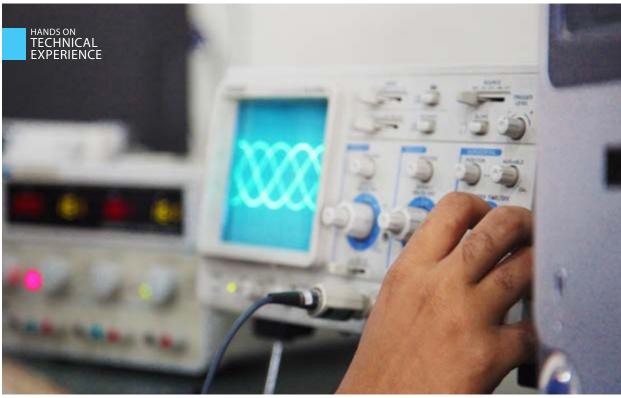
Bachelor of Science in Power and Energy Systems (BSPES)

Bachelor of Science in Electronics and Communication **(BSEC)** 

Bachelor of Science in Communication and Information Technology (BSCIT)

Master of Science in Electronics & Electrical Systems **(MSEES)** 







## Bachelor of Science in **ELECTRONICS & ELECTRICAL SYSTEMS** (BSEES)

### INTRODUCTION

### Career **PROSPECTS**

In order to keep pace with the rapid changes in an ever-growing industry, this program is designed to equip students with state-of-art skills. The program also enables students to understand the basic concepts and to handle practical issues in related fields through comprehensive teaching based on solving open ended problems using software as well as hardware experiments in the lab. BSEES degree program is designed specifically for students with average background knowledge in the field of sciences.

After completion of this degree program the graduating students could develop careers in Power, Energy, Communication, Electronics, Electrical and Automation industry or even in

Microwave engineering.

### Program Length

Full-time, 4 Years, Credit Hrs:135

Program **FACTS** 

#### **Entry Requirements**

45% marks in F. Sc.(Pre-Engineering), ICS, DAE (Electronics, Electrical, Instrumentation, Telecommunication, Computer Technology), A-Level, or equivalent.

#### Location

Raiwind Road Campus

### Recognised **BY**

Higher Education Commission

### COURSES

#### **CORE COURSES**

- Introduction to computing
- Circuit analysis-I
- Calculus
- Islamic and pakistan studies
- Computer programming
  Mechanics
- Communication skills
- Introduction to solid state devices
- Linear algebra and differential equations
- Data structures
- Digital logic design
- Circuit analysis-II
- Complex variables and transformsEconomics
- Introduction to electrical machinesMicroprocessor and computer
- architectureSignals & systems
- Multivariate calculus
- Instrumentation and measurement
- Probability and stochastic processes

- Electrical engineering workshop
  Computer adjed drawing
- Microelectronics-I
- Microprocessor based embedded systems
- Numarical analysis
- Electromagnetic field theory
- Digital signal processing
- Communication systems-I
- Microelectronics-II
- Business management
- Data and computer communication
- Power electronics
- Digital system design
- Control systems
- Ece design project

#### ELECTIVE COURSES (POWER SYSTEMS)

- Power systems
- Power system protection
- Power system analysis
- High voltage engineeringElectric power quality

- Power system stability
- Power system dynamics
- Power plants
- Nuclear power systems

#### ELECTIVE COURSES (COMMUNICATION)

- Digital communication
- Introduction to telecom system
- Electromagnetic compatibility
- Antenna engineering
- Optical fiber communications
- Telecom switching
- Advanced network
- Mobile communication
- Embedded systems design
- Microwave engineering-I
  Microwave engineering-II
- Wireless communication
- Digital image processing
- Medical electronics

Semester 1	Cr Hr	Semester 2	Cr Hr	Semester 3	Cr Hr	Semester 4	Cr Hr
Introduction to computing	4	Computer programming	4	Data structures	4	Introduction to electrical machines	4
Circuit analysis-I	4	Mechanics	4	Digital logic design	4	Microprocessor and computer architecture	3
Calculus	4	Linear algebra and diffrential equations	4	Circuit analysis-II	4	Signals & systems	4
Islamic and pakistan studies	3	Computer aided drawing	2	Complex variables and transforms	4	Multivariate calculus	4
Communication skills	3	Introduction to solid state devices	3	Economics	3	Instrumentation and measurement	4
				Electrical engineering workshop	1		

Cr Cr Hr Cr Hr Cr Hr Semester 6 Semester 7 Semester 8 Semester 5 Probability and stochasitic 3 Digital signal processing 4 Power electronics 4 Technical elective 3 processes Numerical analysis 3 Communication systems-I 3 Digital system design 2 Technical elective 3 Microelectronics-I 4 Microelectronics-II 4 Control systems 3 Technical Elective 3 Microprocessor based Business management 3 Ece design project 4 6 embedded systems Data and computer Electromagnetic field theory 3 3 Technical elective 3 communication

### Bachelor of Science in BACHELOR OF SCIENCE IN POWER & ENERGY SYSTEMS (BS PES)

### INTRODUCTION

Bachelor of Science in Power and **Energy Systems is a technical** degree in the field of power and energy systems. Different countries in the world have vast different infrastructures, demands and opportunities regarding power and energy systems. Natural resources play major roles in technology implementation. New technologies including fuel cells, batteries, and hybrid systems can meet or exceed conventionally agreed upon targets. Power and Energy Systems program is designed to provide skills to develop as a professional who specializes in dealing with the breadth of energy systems used to generate, convert, transmit and manage energy throughout multiple networks, including electrical power. It is particularly appropriate for students who want to work in power and energy-related areas, or those who want to refocus their careers or gain more in-depth understanding of the technical and societal drivers in electric power and energy technology development and realization. The department encourages the students to participate in research projects, and provide them with all possible facilities

and guidance. The learning in this degree will be useful to students who pursue careers or research in power and energy systems. In addition, they will have the opportunity to participate in the activities of different university societies, attend departmental seminars, and contribute to the departmental governance.

#### Career **PROSPECTS**

Power and Energy sector is one of the most rapidly growing and ever green sectors in the economy. Clearly this sector will continue to change, and powerfully impact the way we conduct our lives. Typically BS Power and Energy jobs entail designing, installing, and testing/ fixing Electrical systems and equipment. A career in BS Power and Energy is a promising one. The four year Bachelor of Science in Power and Energy prepares students for professional careers in a range of industries that encompass Power Plants, WAPDA, NTDC, PIA, Railway, and PTCL, PLC design and implementation and teaching positions in various universities across the country. This combination of knowledge and skills leads to careers as professional chartered engineers in a range of sectors, including Power electronics, power supply

#### Program **FACTS**

#### **Program Length** Full-time, 4 Years, Credit Hrs:135

#### **Entry Requirements**

45% marks in F. Sc.(Pre-Engineering), ICS, DAE (Electronics, Electrical, Instrumentation, Telecommunication, Computer Technology), A-Level, or equivalent.

#### Location

**Raiwind Road Campus** 

#### Recognised BY Higher Education Commission

and distribution, instrumentation and control, construction, plus numerous manufacturing industries. Electrical and electronic engineers are also valued in business and commerce, where their numeracy, team working, analytical and project management skills can be put to good use.

### COURSES

#### CORE COURSES

- Introduction to computing
- Islamic studies and pakistan studies
- Circuit analysis-I
- Calculus
- Introduction to solid state deviceComputer programming
- Communication skills
- Mechanics
- Linear algebra and differential equations
- Engineering software lab-l
- Applied thermodynamics
- Circuit analysis-II
- Complex variables and transformsEconomics

#### Road **MAP**

#### Instrumentation and measurement

- Signals and systems
- Multivariate calculus
- Introduction to electrical machines
- Electromagnetic field theory
- Probability and stochasitic processes
- Microelectronics-I
- Power systems
- Electrical engineering workshop
- Power plants
- Power system analysis
- Power system protection-II
- High voltage engineering
- Business management
- Power electronics
- Control systems
- Power system protection-I

#### Design project

Alternate energy resourcesTechnical report writing

#### **ELECTIVES COURSES**

- Electric power quality
- · Power system stability
- Power system dynamics
- Power plants
- Nuclear power systems
- Air pollution and global warming
- Geothermal reservoirs systems
- Emerging energy technologies
- Fuel cell fundamentals

Semester 1	Cr Hr	Semester 2	Cr Hr	Semester 3	Cr Hr	Semester 4	Cr Hr
Introduction To Computing	4	Introduction to solid state devices	3	Applied thermodynamics	3	Instrumentation and measurement	4
Islamic And Pakistan Studies	3	Computer programming	4	Digital logic design	4	Signals and systems	4
Circuit analysis-I	4	Mechanics	4	Circuit analysis-II	4	Multivariate calculus	4
Calculus	4	Linear algebra and differential equations	4	Complex variables and transforms	4	Introduction to electrical machines	4
Communication Skills	3	Engineering software lab-l	1	Electrical engineering workshop	1	Microprocessor and computer architecture	3
				Economics	3		
Semester 5	Cr Hr	Semester 6	Cr Hr	Semester 7	Cr Hr	Semester 8	Cr Hr
Electromagnetic field theory	3	Power plants	3	Control systems	3	Technical report writing	
			5	control systems			3
Probability and stochasitic processes	3	Power system analysis	3	Power electronics	4	Technical elective	3
	3 4				4 3	Technical elective	
processes	_	Power system analysis	3	Power electronics			3
processes Micro electronics-I Microprocessor based	4	Power system analysis Power system protection-I	3	Power electronics Power system protection-II	3	Technical elective	3

### Bachelor of Science in **ELECTRONICS AND COMMUNICATION** (BSEC)

#### INTRODUCTION

This program is a unique blend of **Electronics and Communication** curricula. The aim of this program is to equip students with state-of-art skills and to produce graduates who would excel in an ever-growing industry of telecommunication and nanotechnologies. Students would be taught the core principles of Electronics field along with the key concepts of communication such as Signal Processing, Modulation techniques, GSM and Optical communication principles. This will help students to produce the software as well as hardware based solutions to the vast industry of Electronics, Automation (Control Systems and Embedded Systems Design) and Communication.

BSEC degree program is designed specifically for students with average background knowledge in the field of sciences.

#### Career **PROSPECTS**

The career scope of this degree program is really wide based on the selection of specialization courses taught in the program. After completion of this degree program, the graduating students could develop careers in the field of Communication Technologies, **Electronics and Automation** industry or even in RF Planning and Antenna Engineering.

### Program **FACTS**

Program Length Full-time, 4 Years, Credit Hrs:135

#### **Entry Requirements**

45% marks in F. Sc.(Pre-Engineering), ICS, DAE (Electronics, Electrical, Instrumentation, Telecommunication, Computer Technology), A-Level, or equivalent.

#### Location

**Raiwind Road Campus** 

Recognised **BY** Higher Education Commission

### **COURSES**

#### **CORE COURSES**

- Introduction to computing
- · Circuit analysis-I
- Calculus
- Islamic and pakistan studies Computer programming
- Mechanics
- Communication skills
- · Introduction to solid state devices
- Linear algebra and differential equations
- Data structures
- Digital logic design
- Circuit analysis-II
- · Complex variables and transforms
- Economics
- Engineering software lab-l
- Introduction to electrical machines Microprocessor and computer
- architecture Signals & systems

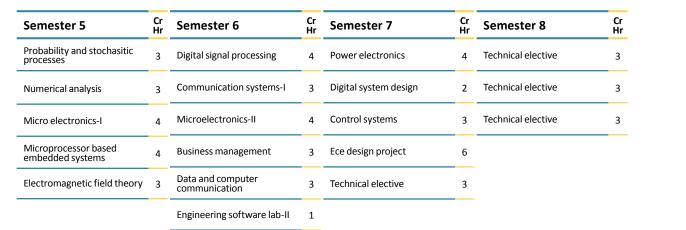
- Multivariate calculus
- Instrumentation and measurement
- · Probability and stochasitic processes
- Electrical engineering workshop
- Microelectronics-I
- Microprocessor based embedded systems
- Electromagnetic field theory
- Digital signal processing
- Communication systems-I
- Microelectronics-II
- Engineering software lab-II
- Business management
- Data and computer communication
- Power electronics
- Digital system design
- · Control systems
- Ece design project
- Technical report writing

#### **ELECTIVE COURSES**

- Digital communication
- Introduction to telecom systems
- Electromagnetic compatibility
- Antenna engineering
- Optical fiber communications
- Telecom switching
- Advanced network
- Mobile communication
- Embedded systems design
- Microwave engineering-I
- Microwave engineering-II
- Wireless communication
- Digital image processing
- Medical electronics

Road	MAP

Semester 1	Cr Hr	Semester 2	Cr Hr	Semester 3	Cr Hr	Semester 4	Cr Hr
Introduction to computing	4	Computer programming	4	Data structures	4	Introduction to electrical machines	4
Circuit analysis-I	4	Mechanics	4	Digiatl logic design	4	Microprocessor and computer architecture	3
Calculus	4	Engineering software lab-l	1	Circuit analysis-II	4	Signals & systems	4
Islamic and pakistan studies	3	Introduction to solid state devices	3	Complex variables and transforms	4	Multivariate calculus	4
Communication skills	3	Linear algebra and differential equations	4 Economics 3 Instrumentation measurement	Instrumentation and measurement	4		
				Electrical engineering workshop	1		



### Bachelor of Science in **COMMUNICATION AND INFORMATION TECHNOLOGY** (BSCIT)

### INTRODUCTION

The Bachelor of Science in **Communication and Information** Technology is a professional four year course that will provide students with solid skills and a knowledge base in communication, networking and IT applications areas of Communication and Information Technology (CIT). As well as the ability to apply practical solutions across the CIT arena, it will also allow students to develop skills in application development, program design, systems analysis and design, networks, web design, and the implementation of technology.

As a graduate of the Bachelor of Science in CIT, you will be able to: Investigate – the ability to draw on a solid technological and software core of CIT knowledge and practice in analyzing and developing current applications • Integrate – the ability to amalgamate the knowledge and skills in developing new applications and new application areas

 Innovate - the required skills and knowledge base to keep up to date with the rapid development in technology and practice across CIT. This will be an extension of current understandings and the ability to find innovative CIT solutions and move the CIT field forward.

### Career **PROSPECTS**

As a CIT graduate, you can look forward to career opportunities such as network administrator or engineer, RF engineer, smart mobile communication devices and networks, digital TV and radio broadcasting optical fiber networks for high-speed internet services flight control and safety systems for aircraft radar and navigation aids for land, sea and air transport high-resolution scanners and nanotechnology devices for medical diagnosis and treatment satellites for communication, navigation, scientific and Earth/ space observation applications, systems architect, systems integrator, database administrator or programmer, web analyst, community/commercial web systems designer/developer, software quality analyst, business programmer, software engineer analyst, systems developer, games developer, and information systems manager.

### Program **FACTS**

#### Program Length Full-time, 4 Years, Credit Hrs:135

#### **Entry Requirements**

45% marks in F. Sc.(Pre-Engineering), ICS, DAE (Electronics, Electrical, Instrumentation, Telecommunication, Computer Technology), A-Level, or equivalent.

#### Location

**Raiwind Road Campus** 

#### Recognised **BY Higher Education Commission**

#### **COURSES CORE COURSES**

- Introduction to computing
- Circuit analysis-I
- Calculus
- Islamic and pakistan studies
- Computer programming
- Introduction to solid state devices Linear algebra and differential
- equations Communication skills
- Data structures
- Engineering software lab-l
- Discrete structures
- Digital logic design
- Complex variables and transforms
- Economics
- Object oriented programming

- Computer architecture
- Economics
- Signals & systems
- Multivariate calculus
- Probability and stochasitic processes Numerical analysis
- Operating systems
- · Data and computer communication
- Electromagnetic field theory
- Digital signal processing
- Communication systems-I
- Software engineering
- Database management systems · Business management
- Microprocessor based embedded systems

#### Road **MAP**

#### Communication systemsn ii

- Design project
- Digital image processing

#### ELECTIVE COURSES

- · Wireless communication
- Telecom switching
- Mobile communication
- Optical fiber communications
- Laser and applied optics
- Information theory
- Network security
- Antenna design
- Microwave engineering-I

- Microwave engineering-II
- · Database ware housing and mining
- · Object oriented analysis and design

• Distributed database systems

Mobile application development

Database application design

Human computer interaction

· Geograpical information systems

Artificial intelligence

Machine learning

Pattern recognition

Web programming

Advance networks

· Game development

Systems programing

Semester 1	Cr Hr	Semester 2	Cr Hr	Semester 3	Cr Hr	Semester 4	Cr Hr
Introduction to computing	4	Computer programming	4	Data structures	4	Object oriented programming	4
Circuit analysis-I	4	Introduction to solid state devices	3	Discrete structures	3	Computer architecture	3
Calculus	4	Linear algebra and differential equations	4	Circuit analysis-II	4	Economics	3
Communication skills	3	Mechanics	4	Complex variables and transforms	4	Signals & systems	4
Islamic and pakistan studies	3	Engineering software lab-I	1	Digital logic design	4	Multivariate calculus	4
Semester 5	Cr Hr	Semester 6	Cr Hr	Semester 7	Cr Hr	Semester 8	Cr Hr
Probability and stochasitic processes	3	Digital signal processing	4	Microprocessor based embedded systems	4	Technical elective	3
Numerical analysis	3	Communication systems-I	3	Communication systems-II	3	Technical elective	3
Operating systems	3	Software engineering	3	Design project	6	Technical elective	3
Data and computer communication	3	Database management systems	4	Technical elective	3		
Electromagnetic field theory	3	Business management	3	Technical elective	3		
Microelectronics-I	4						

## Master of Science in **ELECTRONICS & ELECTRICAL SYSTEMS** (MSEES)

#### **INTRODUCTION**

for career advancement. It

prepares individuals to apply

advanced Mathematical and

Scientific principles to the

design, development and

operational evaluation of

electronics and communication

focuses on developing the skills

required to design electronics &

Students are required to design, manufacture and deliver a working product that meets these industry

communication solutions that

meet industrial, military and international technical standards.

systems. The degree program

#### Career **PROSPECTS**

The MSEES program offered at After completing the degree, the University of Lahore has been student can work in Mobile designed for professionals working Services Provider, Internet Services in the industry willing to enhance Providers, Network Operators, their technical skills and knowledge R.F Planning and Optimization, T.V Channels, Research and **Development Organizations.** 

#### Program **FACTS** Program Length

Full-time, 2 Years, Credit Hrs:30

#### **Entry Requirements**

BS Electronics/BSEE/BS Telecom/ M.Sc. Physics/ B.Tech(Hons)/BS Computer Science. HEC recognized University min 2.5 CGPA or 60% marks (Annual sys). Interview & Entry Test & GAT arranged by NTS

#### Location

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**Raiwind Road Campus** 

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#### Road **MAP**

standards.

Semester 1	Cr Hr	Semester 2	Cr Hr	Semester 3	Cr Hr	Semester 4	Cr Hr
Mathematical methods for Engineer	4	Advance Power system Protection	4	Advance High voltage engineering	4	Elective-II	4
Power system Quality	4	Power circuit breaker and substatio	4	Elective-I	4	Elective-II	3

Thesis

#### **COURSES**

#### **STREAM 1: POWER**

#### **CORE COURSE**

- Core courses
- Mathematical methods for engineer
- Power system quality
- Advance power system protection
- Power circuit breaker and substation
- Advance high voltage engineering

#### **ELECTIVES**

- Transient in power
- Insulation coordination of power system
- Power system stability and load flow analysis
- · Power system operation and control
- · Power system planning
- Power distribution, automation and control

#### **STREAM2: ELECTRONICS & COMMUNICATION**

#### CORE COURSE

- · Mathematical methods for engineer
- Stochastic process
- Advance computer network
- Digital communication system
- Advance signal processing

#### ELECTIVES

- Information Theory And Coding
- Information theory and coding
- Introduction to cryptology
- Mobile and wireless communication
- Advance communication network
- Performance evaluation of communication network
- Real time embedded system
- Switched mode power supply



## Department of **COMPUTER ENGINEERING** Faculty of Engineering & Technology

#### Mission **STATEMENT**

The mission of Department of Computer Engineering is to promote cause of engineering education particularly in the field of computer engineering. Our aim is to produce quality engineers adequately equipped with latest Computer engineering knowledge and Professional skills.

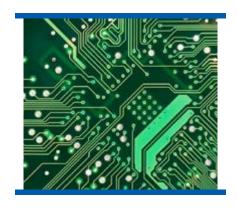
#### **INTRODUCTION**

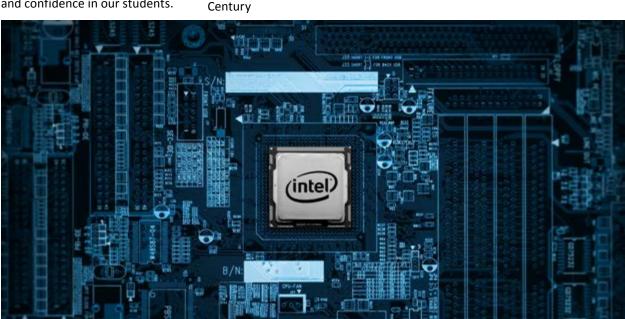
The Department of Computer Engineering is committed to excellence in teaching, research and inculcating a sense of pride and confidence in our students.

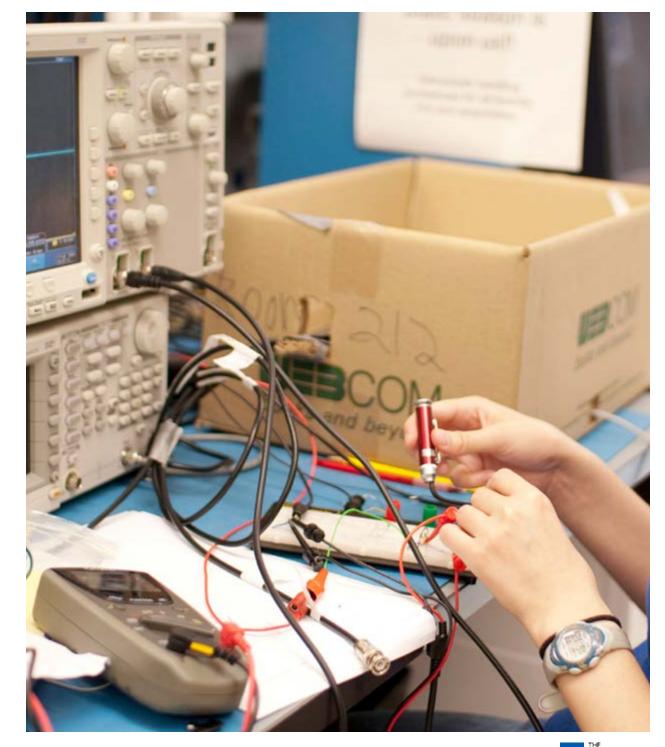
The objective is to empower our students with latest technical knowledge and skills by providing them with the best teaching faculty, state of the art lab facilities and excellent research and development environment. The motivation is not just to nurture their technical skills but to provide professional grooming and guidance so that our students are groomed as thorough professionals and inspiring individuals. . We as a team resolve to take the department to the heights of success and glory and prepare the students for the forthcoming challenges of 21st

#### Degrees **OFFERED**

Bachelor of Science in Computer Engineering







# Bachelor of Science in **COMPUTER ENGINEERING**

#### **INTRODUCTION**

The newly established Department is offering Bachelor of Science in Computer Engineering program. The scheme of studies for this program has been designed keeping in view the needs of industry and placement of its graduates in Robotics, Artificial Intelligence, Automation, Bio-Medical, Computer Networks, Telecom and Electronics sectors.

#### Career **PROSPECTS**

After completion of this degree program the graduating engineer will have bright careers in industry as automation and control engineers, instrumentation engineers, communication engineers, bio-medical and Computer engineers. They can also pursue thier higher studies in the field of electrical, electronics and computer engineering.

#### Program **FACTS**

Program Length

Full-time, 4 Years, Credit Hrs:139

#### **Entry Requirements**

F.sc (Math, Physics and Chemistry), ICS, or Equivalent DAE Telecom/ Communication, DAE Instrumentation, DAE Electronics, DAE Electrical with Minimum 60%, Entrance Test

Location

Defence Road Campus

Recognised BY Higher Education Commission Pakistan Enginering Council

#### COURSES

#### Elective **COURSE**

- Object oriented Programming
- System Programming
- Software Quality Assurance and Testing
- Parallel and Distributed Computing
- Digital Signal Processing
- Computer Graphics
- Artificial Intelligence
- Digital System Design
- Embedded System
- Linear Control Theory
- Communication Systems
- Bio Medical



#### Road **MAP**

Semester 5	Cr Hr	Semester 6	Cr Hr	Semester 7	Cr Hr	Semester 8	Cr Hr
Numerical Analysis	3	Operating Systems	4	Entrepreneurship	3	Engineering Project management	3
ELECTIVE 2	3	Computer Communication Networks	4	ELECTIVE 5	4	Professional Ethics	3
Data Communication	4	Software Engineering	4	IDE ELECTIVE 1	3	IDE ELECTIVE 2	4
Database Management System	4	ELECTIVE 4	4	Engineering Economics	3	Senior Year Project 2	6
ELECTIVE 3	4	Technical Report Writing	3	Senior Year Project Enrollment	0		

Semester 1	Cr Hr	Semester 2	Cr Hr	Semester 3	Cr Hr	Semester 4	Cr Hr
Calculus and Analytical Geometry	3	Linear Algebra	3	Complex Analysis and Transform Methods	3	Differential Equations	3
English Language Proficiency	3	Communication Skills	3	Pakistan Studies and Islamiat	4	Microprocessor Systems	4
Introduction to Computing	3	Computer Programming	3	Elective 1	4	Data Structure and Algorithms	4
Applied Physics	4	Electrical Network Analysis	4	Electronics Devices and Circuits	4	Signals and Systems	4
Linear Circuit Analysis	4	Digital Logic Design	4	Computer Architecture and Organization	4	Probability methods in Engineering	3
Work Shop Practice	1			Engineering Drawing	1		

# Faculty of **INFORMATION TECHNOLOGY**

COMPUTER SCIENCE & INFORMATION TECHNOLOGY



# Department of COMPUTER SCIENCE & INFORMATION TECHNOLOGY

#### **Faculty of Information Technology**

#### Mission **STATEMENT**

Our mission is to provide outstanding education to its undergraduate and graduate students in accordance with the principles of the University mission. We strive for excellence in creating, applying, and imparting knowledge in computer science and Information Technology through comprehensive educational programs and research base teaching. We expect our graduates to provide a service to professional societies, the community, and the nation.

INTRODUCTION

Our department is committed

to offer high-tech courses with

research based teaching. We believe that our well-structured and carefully planned courses enable students to improve their skills and place them competitive positions in the market. Moreover, we believe that the students acquire true knowledge with intelligence which gives them the leadership skills to take-

on the technical challenges at national and international level. Our curriculum focuses on computational thinking, examining the strengths and limitations of computers in terms of what can be computed, developing programming knowledge and skills and enhancing the understanding of computer based problem solving techniques. We make sure that our students have acquired the necessary skills and knowledge to produce computer-based optimal solutions to the problems from the areas such as computer science, artificial intelligence, management, engineering, telecommunication, networking, transportation etc.

#### Degrees **OFFERED**

Bachelor of Science in Computer Science (BSCS)

Bachelor of Science in Software Engineering (BSSE)

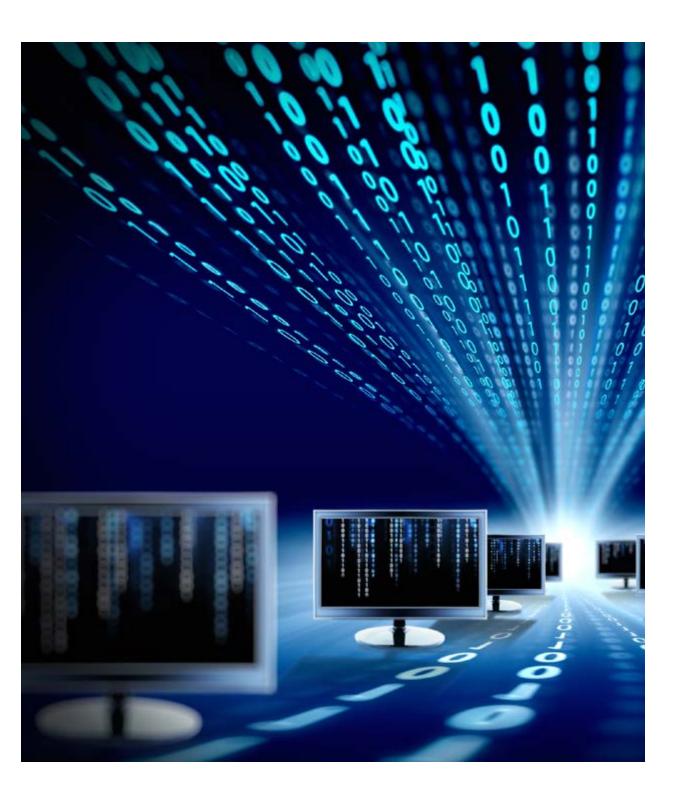
Master in Computer Science (MCS)

Master in Science and Information Technology (MSc-IT)

Master of Science In Computer Science (MSCS)

Doctor of Philosophy in Computer Science (Ph.D)





## Bachelor of Science in **COMPUTER SCIENCE** (BSCS)

#### INTRODUCTION

The Bachelor of Science in Computer Science is the first professional degree aimed at producing the undergraduates for the job market as Software Engineers, IT Administrators, entrepreneur, academia professionals and the like. This program is tailored to introduce, prepare, develop and ingrain the understanding and discipline of computing in students. We offer market oriented courses, as indicated in the program course description, to achieve the objective of producing highly talented computer professionals. Our program inculcates in the students the problem-solving abilities for the industry and government sectors. It enables

Road **MAP** 

72

students to analyse the real life problems and transform them into a suitable abstract model. design an optimal algorithm and successfully implement them on the computer.

#### Career **PROSPECTS**

The typical jobs for the **BS Computer Science** graduates include software engineering, database design and administration, web development, quality assurance and testing, IT consultants and computer professionals in various government or private organizations.

#### Program **FACTS**

Program Length Full-time, 4 Years

#### **Entry Requirements**

Intermediate, FA / F.Sc / ICS / I.Com. A-Levels, DAE or equivalent (Minimum 50% marks)

Candidates having non-mathematics background in HSSC or equivalent examination must study a 3 credit hours deficiency mathematics course in the first semester. The credit hours of a deficiency mathematics course will not be counted towards the degree completion.

#### Location

Defence Road Campus

## Recognised **BY**

**Higher Education Commission** 

Semester 1	Cr Hr	Semester 2	Cr Hr	Semester 3	Cr Hr	Semester 4	Cr Hr
Introduction to Computing	4	Electromagnetism	3	Digital Logic and Design	3	Data Structures and Algorithms	3
Programming Fundamentals	4	Technical & Report Writing	3	Object Oriented Programming	3	Introduction to Database Systems	4
Calculus and Analytical Geometry	3	Computer Programming	3	Multivariable Calculus	3	Computer Organization and Assembly Language	3
Functional English	3	Probability & Statistics	3	Communication Skills	3	Differential Equations	3
Islamic & Pakistan Studies	3	University Elective-I	3	Discrete Structures	3	Professional Practices	3
				University Elective-II	3	University Elective-III	3

#### COURSES

#### **CORE COURSES**

- IIntroduction to Computing
- Programming Fundamentals
- Calculus and Analytical Geometry
- Functional English
- Islamic & Pakistan Studies Electromagnetism
- Technical & Report Writing
- Computer Programming
- Probability & Statistics
- Digital Logic and Design
- Object Oriented Programming Multivariable Calculus
- Communication Skills
- Discrete Structures
- Data Structures and Algorithms
- Computer Organization and Assembly
- Language • Differential Equations
- Professional Practices
- Linear Algebra
- Operating System
- Theory of Automata & Formal Languages
- Introduction to Software Engineering
- Computer Communication & Networks
- Compiler Construction
- Numerical Computing
- Design and Analysis of Algorithm

- Computer Architecture
- Software Design Project-I
- Artificial Intelligence
- Human Computer Interaction
- Software Design Project-II

#### ELECTIVE COURSES

- Advance Software Engineering
- Java Software Paradigm
- Software Testing & Implementation
- Software Project Management
- Data Warehousing & Data Mining
- Database Application Design
- Distributed Database Systems
- Database Operations & Maintenance
- Data & Network Security
- Wireless Networks
- Internet Architecture & Protocol
- Digital Image Processing
- Expert Systems
- Artificial Neural Networks
- Intelligent Systems
- Computer Graphics
- Multimedia
- Technical Game Design
- Mobile Application Development
- Financial Accounting
- Financial Management
- Human Resource Management
- Cr Hr Cr Cr Cr Hr Semester 6 Semester 7 Semester 8 Semester 5 Ĥr Linear Algebra 3 Compiler Construction 3 Software Design Project-I 3 Software Design Project-II 3 **Operating System** Numerical Computing 3 Artificial Intelligence 3 CS Elective-V 3 Theory of Automata & Formal Languages Design and Analysis of Algorithm 3 Human Computer Interaction 3 CS Elective-VI 3 Introduction to Software 3 Computer Architecture 3 CS Elective-III 3 CS Elective-VII 3 Engineering Computer Communication & CS Elective-I 3 CS Elective-IV 3 Networks University Elective-IV 3 CS Elective-II 3

• Principle of Marketing

International Relations

Principle of Management

• Business Intelligence

Financial Accounting

Financial Management

• Entrepreneurship

Foreign/Regional Language (French,

German, Sindhi, Punjabi, Urdu etc.)

Organization Behavior and Culture

Geographical Information Systems

Introduction to Graph Theory

Enterprise Resource Planning

Personal Growth & Development

Economics

Psychology

Philosophy

Introduction to Database Systems

# Bachelor of Science in **SOFTWARE ENGINEERING** (BSSE)

#### INTRODUCTION

Software engineering program is a systematic and disciplined approach to developing software. It applies both computer science and engineering principles and practices to the creation, operation, and maintenance of software systems. This program has the vision to advance the technologies, expertise, and skills of its student and equipped them with creative brilliance & state-of-the-art research. To make our graduates well equipped with the new and advanced technologies we have three core values: 1.State-of-the-Art Research advancing the science and practice. 2. Collaboration & Co-operation – bringing together the theoretical and practical work found in IT industry.

3 Development and Demonstration - Developing new creative and innovative ideas and presenting their utility through trial application and prototypes.

#### Career **PROSPECTS**

This program is designed to prepare our students for a career as Software Engineers; System Analysts, Software Architects, Quality Analysts, and Project Managers. Software Engineers help develop software for telecommunications, financial systems, aeronautics, medical devices, transportation systems, banking and various government organizations.

#### Program **FACTS**

Program Length Full-time, 4 Years

#### **Entry Requirements**

Intermediate, FA / F.Sc / ICS / I.Com, A-Levels, DAE or equivalent (Minimum 50% marks), Candidates having nonmathematics background in HSSC or equivalent examination must study a 3 credit hours deficiency mathematics course in the first semester. The credit hours of a deficiency mathematics course will not be counted towards the degree completion.

Location

Defence Road Campus

Recognised **BY Higher Education Commission** 

#### Road **MAP**

Semester 1	Cr Hr	Semester 2	Cr Hr	Semester 3	Cr Hr	Semester 4	Cr Hr
Introduction to Computing	4	Electromagnetism	3	Digital Logic and Design	3	Data Structures and Algorithms	3
Programming Fundamentals	4	Technical & Report Writing	3	Object Oriented Programming	3	Introduction to Database Systems	4
Calculus and Analytical Geometry	3	Computer Programming	3	Supporting Elective - I	3	Linear Algebra	3
Functional English	3	Probability & Statistics	3	Communication Skills	3	Introduction to Software Engineering	3
Islamic & Pakistan Studies	3	University Elective-I	3	Discrete Structures	3	Supporting Elective – II	3
				University Elective-II	3	University Elective-III	3

#### COURSES

#### **CORE COURSES**

- IlIntroduction to Computing
- Programming Fundamentals
- Computer Programming
- Digital Logic and Design
- Object Oriented Programming Discrete Structures
- Data Structures and Algorithms
- Introduction to Database Systems
- Operating Systems
- Introduction to Software Engineering
- Computer Communication and Networks
- Human Computer Interaction
- Senior Capstone Project-I
- Senior Capstone Project-II
- Calculus and Analytical Geometry
- · Probability and Statistics
- Linear Algebra
- Electromagnetism
- Functional English
- Technical and Report Writing Communication Skills
- Professional Practices
- · Pakistan Studies and Islamic Studies
- Software Construction
- Software Requirements Engineering
- Software Design and Architecture

Cr Hr

3

4

3

3

3

3

Semester 6

Software Design &

Architecture

Engineering

SE Elective – II

Elective – I

SE Application Domain

- Software Quality Engineering
- Software Project Management
- Formal Methods in Software Engineering

Software Construction

Software Requirement

Computer Communication &

Supporting Elective – III

**Operating System** 

Engineering

SE Elective - I

Networks

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- Software Metrics
- Software Engineering Economics
- Design Patterns
- Software Testing
- Introduction to Soft Computing
- Real-time systems
- Data Warehousing and Data Mining
- Artificial Intelligence
- Data Security and Encryption
- Microprocessor Interfacing
- Analysis of Algorithms
- Web-Engineering
- Enterprise Systems Engineering
- Embedded & Real time Systems
- Multimedia, game, and entertainment Systems
- System for Small & mobile Platforms
- Agent based Systems
- Operation Research
- Simulation and Modeling
- Natural Language Processing
- Computer Organization and Assembly
- Language

Human Computer Interaction 3

Software Quality Engineering 3

Formal Methods in Software

- Mobile Application Development
- Financial Accounting
- Human Resource Management

3

3

3

- Principle of Marketing
- Philosophy
  - Cr Hr Semester 7

Senior Capstone Project-I

Software Project

Profession Practices

SE Application Domain Elective - II

Management

Cr Hr

3

3

3

3



Cr Hr

3

3

Semester 8

SE Elective – III

3 SE Elective – IV

3 SE Elective – V

Senior Capstone Project-II

• Principle of Management

Business Intelligence

Entrepreneurship

Organization Behavior and Culture

Personal Growth & Development

- - Software Construction

Semester 5

## Master in **COMPUTER SCIENCE** (MCS)

#### **INTRODUCTION**

This programme is designed to produce graduates with specialised training in the core subjects of computer science. These specialised fields include software engineering, database, design & analysis of algorithms, artificial intelligence, web development and networking. The graduates are skilled to identify the computing needs of society and supply effective and optimal solutions for them. Successful graduates of this program who wish to pursue their careers in academia can join the MSc program. Those preferring to join industry will possess sufficient knowledge and skills which will enable them to compete for any such positions available in government and private sector organizations.

#### Career **PROSPECTS**

Job opportunities for our graduates vary. They may work as software engineers, systems analysts, database designers and administrator, network analyst and administrators, e-commerce & web developers and IT consultants in various government or private organizations.

#### **CORE COURSES**

<ul> <li>Fundamentals of Algorithms</li> </ul>
<ul> <li>Introduction to Computer</li> </ul>
Programming
<ul> <li>Database Systems</li> </ul>
<ul> <li>English Comprehension</li> </ul>
<ul> <li>Discrete Structures</li> </ul>
<ul> <li>Web Programming</li> </ul>
<ul> <li>Object Oriented Programming</li> </ul>
<ul> <li>Data Structures &amp; Analysis of</li> </ul>
Algorithms
<ul> <li>Theory of Automata</li> </ul>
<ul> <li>Computer Organization &amp; Assembly</li> </ul>
<ul> <li>Visual Programming</li> </ul>
<ul> <li>Software Engineering</li> </ul>
<ul> <li>Advanced Object Oriented</li> </ul>

#### Program **FACTS**

Program Length Full-time, 2 Years **Entry Requirements** Bachelors with 14 Years Education, BA / B. Com / BSc or equivalent examination from a HEC recognized University/Institute (Minimum 45% marks) Location

**Defence Road Campus** 

#### Recognised **BY**

**Higher Education Commission** 

#### Programming

- Operating System
- Computer Networks
- Distributed Database Systems
- Advanced Software Engineering
- Computer Architecture
- System Programming
- Programming Languages Concept
- Artificial Intelligence
- Compiler Construction • Final project

Semester 1	Cr Hr		Cr Hr	Semester 3	Cr Hr	Semester 4	Cr Hr	
Fundamentals of Algorithms	3	Object Oriented Programming	3	Advanced Object Oriented Programming	3	System Programming	3	
Introduction to Computer Programming	3	Data Structures & Analysis of Algorithms	3	Operating System	3	Programming Languages Concept	3	
Database Systems	3	Theory of Automata	3	Computer Networks	3	Artificial Intelligence	3	
English Comprehension	3	Computer Organization & Assembly	3	Distributed Database Systems	3	Compiler Construction	3	
Discrete Structures	3	Visual Programming	3	Advanced Software Engineering	3	Final project	6	
Web Programming	3	Software Engineering	3	Computer Architecture	3			

# Master of Science in **INFORMATION TECHNOLOGY** (MSc-IT)

#### INTRODUCTION

This program is designed to produce graduates with specialised training in different fields of Information Technology. The graduating student shall possess knowledge I including the technical, business and communication skills necessary to succeed in his or her professional life. The program's concentration is on the development of theoretical and practical technological skills necessary for the student to conduct information systems analysis, design and development through the use of modern development tools. The graduate's technical background is a balanced mix of basic business knowledge along with detailed knowledge of Information Technology which shall enable him or her to succeed in any business or government organisations.

Road **MAP** 

#### Career **PROSPECTS**

Typical careers for these graduates could be IT Managers, systems & business analysts, database designers & administrator, network analysts & administrators, e-commerce & web development and IT consultants in a variety of business or government organizations.

#### CORE COURSES

- Fundamentals of Algorithms Introduction to Computer Programming
- Database Systems
- English Comprehension
- Software Engineering
- Web Programming
- Object Oriented Programming
- Data Structures & Analysis of Algorithms
- Theory of Automata
- Distributed Database Systems
- Visual Programming
- Electronic Commerce
- Data Communication

Program **FACTS** 

#### **Program Length** Full-Time, 2 Years **Entry Requirements** Bachelors with 14 Years Education, BA / B. Com / BSc or equivalent examination from a HEC recognized University/Institute

- (Minimum 45% marks)
- Location
- Defence Road Campus

#### Recognised **BY**

**Higher Education Commission** 

- Operating System
- Principles of Marketing
- Principles of Management
- Principles of Accounting
- Computer Architecture
- Computer Networks
- Human Resource Management
- Organizational Behavior
- Management Information System

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Final project

Semester 1	Cr Hr	Semester 2	Cr Hr	Semester 3	Cr Hr	Semester 4	Cr Hr
Fundamentals of Algorithms	3	Object Oriented Programming	3	Data Communication	3	Computer Networks	3
Introduction to Computer Programming	3	Data Structures & Analysis of Algorithms	3	Operating System	3	Human Resource Management	3
Database Systems	3	Theory of Automata	3	Principles of Marketing	3	Organizational Behaviour	3
English Comprehension	3	Distributed Database Systems	3	Principles of Management	3	Management Information System	3
Software Engineering	3	Visual Programming	3	Principles of Accounting	3	Final project	6
Web Programming	3	Electronic Commerce	3	Computer Architecture	3	THE	

# Master of Science in **COMPUTER SCIENCE** (MSCS)

#### **INTRODUCTION**

This program is designed to produce graduates with specialised knowledge in Computer Science. Therefore the masters programme in Advanced Computer Sciences cover the major topics in Computer Science. The course work is the right mix of theoretical and practical work aimed at providing its graduates the necessary skills in Computer Sciences to excel in their professional lives. It is our mission that the department serve a wide stream of students, which will undoubtedly be arriving with varying backgrounds and objectives. For this reason, the programme proposed herein has been stretched out to cover most of the important areas of computer science including Software Engineering, Computer Networks, Database Systems, Advanced Algorithms, Programming Languages, Computer Graphics, Artificial Intelligence and Research Methodologies.

#### Career **PROSPECTS**

The successful graduates have the option of serving in industry as well as joining academia. While in academia they can transfer their knowledge to youngsters and continue their studies towards a PhD degree. They can also become a useful resource for industry as software engineers, database administrators and designers, e-commerce specialists, network specialists, and software project managers.

#### **CORE COURSES**

- Advanced Algorithm Analysis Advanced Software Engineering Advanced Computer Architecture Research Methods
- Advanced Operating Systems
- Advanced Theory of Computation
- Thesis II

#### Thesis – I **ELECTIVE COURSES**

Software System Design & Architecture

- Topics in Software Engineering Object Oriented Software Engineering
- Software Quality Assurance Advance Computer Networks
- Network Security & Cryptography Internet Technologies & Protocols

Road <b>MAP</b>					<ul> <li>Software Evolution &amp; Maintenance</li> </ul>			
Semester 1	Cr Hr	Semester 2	Cr Hr	Semester 3	Cr Hr	Semester 4	Cr Hr	
Advanced Algorithm Analysis	3	Research Methods	3	Elective – I	3	Elective – II	3	
Advanced Software Engineering	3	Advanced Operating Systems	3	Thesis – I	3	Thesis – II	6	
Advanced Computer Architecture	3	Advanced Theory of Computation	3					

#### Program **FACTS**

Program Length Full-Time, 2 Years

#### **Entry Requirements** BSCS 4 years degree program (minimum 130 credit Hours) from HEC recognized University/Institute

Computer Science 2 years degree program (MCS/M.Sc-IT, M.Sc-**Computer Science) from HEC** recognized University/Institute

16 years engineering graduates (min 130 credit hours) from a HEC recognized University/Institute.

Minimum of 2.5/4.00 CGPA. In case of percentage system, minimum 60% aggregate.

**NTS General Assessment** Test (GAT) Minimum 50% Marks

## Recognised **BY**

**Higher Education Commission** 

- Advanced Databases
- Object Oriented Databases
- Data Mining
- Advanced Wireless Networks
- Software Evolution & Maintenance

# PhD in **COMPUTER SCIENCE**

#### INTRODUCTION

The Doctor of Philosophy (PhD) degree program in computer science prepares students for research and teaching careers in academia and for research and technical careers in industry and government. This program provides the students with an opportunity to solve complex problems in their area of interest. It is divided up into a series of milestones which every student progresses through on the way to the degree.

#### Road MAP

The Students can enroll in any 3 courses in semester 1 and 3 courses in semester 2 from the given list. The courses are not limited to the list below

Semester 1	Cr Hr
Multi Agent Systems	3
Formal Methods	3
Advance Topics in Software Engineering	3
Evolutionary Network	3
Software Evaluation and Maintenance	3
Information and Coding Theory	3
Software Process Engineering and Improvement	3
Advance Wireless Networks	3
Software Architecture and Design	3
Research Methods	3
Network Security	3
Network Planning and Management	3
Heuristic Search Methods	3

#### Program **FACTS**

Program Length Full-Time, 3 Years

#### **Entry Requirements**

MS/M. Phil (18 years of education) or equivalent degree in the relevant field from HEC recognized University/ Institute.

CGPA 3.0 (out of 4.0 in the Semester System) or First Division (in the Annual System)

Subject Test: A subject test conducted by the National Testing Service (NTS) in the area of specialization chosen at the PhD level must be cleared prior to admission for the PhD Program or the candidate may appear in the following test scheduled.

a. In the case of GAT Subject test a minimum of 60% marks is required to pass the test.

b. In the case GRE subject test, a minimum 60% Percentile Score is required to pass the test. c. If the Test is not available in NTS subject list, then a University Committee consisting of at least 3 Ph.D faculty members in the subject area and approved by the HEC will conduct the Test at par with GRE Subject Test and qualifying score for this will be 70% score.

Location **Raiwind Road Campus** 

#### Recognised **BY Higher Education Commission**

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AHORE

# Faculty of **SCIENCES**

#### INSTITUTE OF MOLECULAR BIOLOGY & BIOTECHNOLOGY

CENTRE FOR RESEARCH IN MOLECULAR MEDICINE



# Institute of **MOLECULAR BIOLOGY & BIOTECHNOLOGY** Faculty of Sciences

#### Mission **STATEMENT**

The Institute of Molecular Biology and Biotechnology (IMBB) and Centre for Research in Molecular Medicine (CRiMM) have been especially developed to provide facilities for teaching and research at the frontiers of knowledge to students from all rungs of society without any distinction of cast, color, and creed or financial status. The Mission of the Institute is to promote learning for the development of innovative techniques, creation of knowledge and gainful employment in the market. Along with this the Institute provides a congenial atmosphere for the promotion of co-curricular abilities of the students.

#### INTRODUCTION

The Institute of Molecular Biology and Biotechnology was established in the year 2004. It offers under graduate and graduate degree programs in the subject of Biochemistry, Molecular Biology, Physiology, Biotechnology, Microbiology and Environmental science. It is the first Institute of its kind in the private sector. The curricula for the degree program

are designed to prepare manpower needed for the economic development of the country. The Institute employs highly qualified faculty for the delivery of curricula. The semiotic method is combined with interactive teaching to enhance the learning process. The major focus of the university is to impart technologies which could be used gainfully by graduates for employment or for further education. The research programs of the department are based on recent developments at the frontiers of knowledge. Some of the areas of research include: cell signaling in normal and in cancer cells, alternate remedies for treatment of cancer (for example. natural products, micro RNAs and Oncolytic viruses among others) recombinant DNA technologies, metabolic disorders cancer markers, genetic disorders, agritechnology, gene manipulation in plants, hydroponics stress induced by various heavy metals in plants of economic importance, purification of proteins of economic importance and many related problems in areas of molecular endocrinology,

clinical biochemistry and medical

microbiology.

Special MPhil programs in the subject of Biochemistry, Microbiology, Physiology and Ultra Sound Technology, especially designed for MBBS Doctors are also offered by the Institute. These programs are approved by Pakistan Medical and Dental Council (PMDC) and are conducted by senior PhD faculty of the Institute and Centre for Research in Molecular Medicine (CRiMM). The department encourages the students through exhaustive studies to imbibe new knowledge in their fields of research. Centre for research in Molecular Medicine and Institute of Molecular Biology and Biotechnology are equipped with up-to-date equipment to undertake research for which the students opt in their third and fourth semesters.



#### Degrees **OFFERED**

**BS** in Biochemistry & Biotechnology

Microbiology & Biotechnology Molecular Biology & Biotechnology Environmental sciences

**BS in Biotechnology** 

**MSc** in Biochemistry & Biotechnology

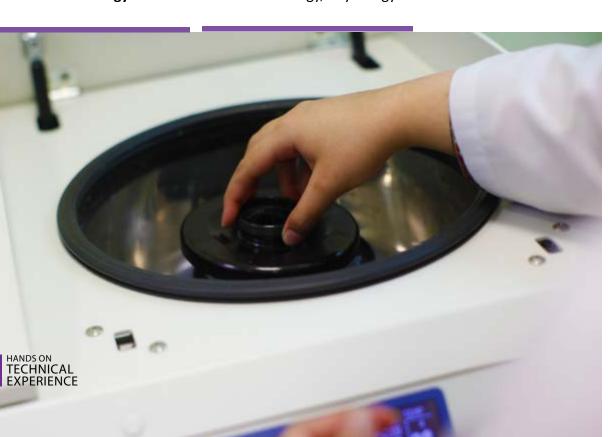
MSc in Biotechnology

Microbiology & Biotechnology

Degrees **OFFERED** 

Molecular Biology & Biotechnology **M.Phil/MS** in Biochemistry Biotechnology Microbiology Molecular Biology Environmental sciences Forensic Sciences

**PhD** in Biochemistry Biotechnology, Microbiology Molecular Biology, Physiology



## Bachelor of Science BIOCHEMISTRY & BIOTECHNOLOGY

#### INTRODUCTION

The program after completion is equivalent to MSc since the degree is awarded on successful completion of 16 years of education after Higher Secondary School Education. The Degree program fulfils all the curriculum requirements for BS Degree recommended by Higher Education Commission consisting of compulsory, core and allied courses. The basic training of research work

#### Career **PROSPECTS**

Industrial, Agricultural, Educational, Research & Development and Health Organizations

Program **FACTS** 

Program Length Full-time, 4 Years

#### Entry Requirements 12 years of education (Higher Secondary School Certificate/ Intermediate) with at least second Division

Location Defence Road Campus

Recognised BY Higher Education Commission

#### COURSES

- Biochemistry I: Introduction to Biochemistry
- Biochemistry II: Metabolism I
- Biochemistry III: Metabolism II
- Enzymology
- Body Fluids and Function
- Biochemistry of Vitamins and Minerals
- Microbial Biochemistry and Biotechnology
- Plant Biochemistry
- Natural Product I

- Biochemistry of Hormones
- General Physiology
- Clinical Biochemistry
- Biochemistry & Physiology of Stress Tolerance
- Environmental Biochemistry
- Techniques in Biochemistry
- Toxicology
- Advanced Biochemistry
- Research Thesis/Review Report



Semester 5	Cr Hr	Semester 6	Cr Hr	Semester 7	Cr Hr	Semester 8	Cr Hr
Biochemistry of Hormones	4	Molecular Genetics and Genetic Disorders	3	Biochemistry & Physiology of Stress Tolerence	3	Advanced Biochemistry	4
General Physiology	3	Food Biotechnology	3	Environmental Biochemistry	3	Bioinformatics and System Biology	3
Clinical Biochemistry	3	Natural Products I	3	Techniques in Biochemistry	3	*Review Report/Research	3
Immunology	4	Introduction to Cell Signalling	3	Bio-safety & Bioethics	2		
Recombinant DNA Technology	4	Biostatistics	3	Toxicology	3		
		Research Methodology	2	*Review Report/Research	3		

#### Road **MAP**

is also imparted.

Semester 1	Cr Hr	Semester 2	Cr Hr	Semester 3	Cr Hr	Semester 4	Cr Hr
Biochemistry I: Introduction to Biochemistry	4	Biochemistry II: Metabolism I	4	Biochemistry III: Metabolism II	3	Enzymology	3
Introductory Genetics	3	Molecular Biology I	4	Introduction to Biotechnology	3	Body Fluids and Function	3
Introduction to Computers	3	Cell Biology I	3	Cell Biology II	4	Biochemistry of Vitamins and Minerals	3
Foundation of English	3	Biomathematics	3	Biological diversity	3	Microbial Biochemistry and Biotechnology	4
Mathematics	3	English Technical Writing and comprehension	3	Communication Skills	3	Plant Biochemistry	3
Islamic Studies	2			Pakistan Studies	2		

# INSTITUTE OF MOLECULAR BIOLOGY & BIOTECHNOLOG

# Bachelor of Science MOLECULAR BIOLOGY & BIOTECHNOLOGY

#### **INTRODUCTION**

The program after completion is equivalent to MSc since the degree is awarded on successful completion of 16 years of education after Higher Secondary School Education.

The Degree program fulfils all the curriculum requirements for a BS Degree recommended by the Higher Education Commission consisting of compulsory, core and allied courses. The basic training of research work is also imparted.

#### Career **PROSPECTS**

Industrial, Agricultural, Educational, Research & Development and Health Organizations.

#### Program **FACTS**

Program Length Full-time, 4 Years

#### **Entry Requirements**

12 years of education (Higher Secondary School Certificate/ Intermediate) with at least second Division

#### Location

Defence Road Campus

#### Recognised **BY**

Higher Education Commission

#### COURSES

- Molecular Biology I
- Cell Biology I
- Introduction to Biotechnology
- Cell Biology II
   Malagular Dialogu
- Molecular Biology II
  Molecular Genetics & Genetic
- Disorders
- Introduction to Cell Signaling
- Genomics, Transcriptomics & Proteomics
- Recombinant DNA Technology
- Microbial Biotechnology & Vaccinology
- General Virology
- Plant Biotechnology
- Epigenetics
- Techniques in Molecular Biology
- Stem Cells and Gene Therapy
  Cell and Tissue Culture
- Applied Biotechnology
- \*Review Report/Research



Semester 1	Cr Hr	Semester 2	Cr Hr	Semester 3	Cr Hr	Semester 4	Cr Hr
Biochemistry I - Introduction to Biochemistry	4	Biochemistry II - Metabolism I	4	Biochemistry III - Metabolism II	3	Enzymology	3
Introductory Genetics	3	Molecular Biology I	4	Introduction to Biotechnology	3	General Microbiology	3
Introduction to computers	3	Cell Biology I	3	Cell Biology II	4	Molecular Biology II	4
Foundation of English	3	Biomathematics	3	Biological Diversity	3	Molecular Genetics & Genetic Disorders	3
Mathematics	3	English Technical Writing and Comprehension	3	Communication Skills	3	General Physiology	3
Islamic Studies	2			Pakistan Studies	2		

Semester 5	Cr Hr	Semester 6	Cr Hr	Semester 7	Cr Hr	Semester 8	Cr Hr
Endocrinology	3	Microbial Biotechnology & Vaccinology	3	Genomics, Transcriptomics & Proteomics	3	Cell and Tissue Culture	4
Bioinformatics and System Biology	3	General Virology	3	Epigenetics	3	Applied Biotechnology	3
General Bacteriology	3	Plant Biotechnology	3	Techniques in Molcular Biology	3	*Review Report/Research	3
Immunology	4	Introduction to Cell Signalling	3	Bio-safety & Bioethics	2		
Recombinant DNA Technology	4	Biostatistics	3	Stem Cell and Gene Therapy	3		
		Research Methodology	2	*Review Report/Research	3		

# Bachelor of Science in **BIOTECHNOLOGY**

#### **INTRODUCTION**

The programme after completion is equivalent to MSc since the degree is awarded on successful completion of 16 years of education after Higher Secondary School Education.

#### Career **PROSPECTS** Industrial, Agricultural,

Educational, Research Development and Health Organizations.

The degree programme fulfills all the curriculum requirements for BS degree recommended by Higher Education Commission consisting of compulsory, core and allied courses.

The basic training of research work is also imparted.

#### Program **FACTS**

Program Length Full-time, 4 Years

#### **Entry Requirements**

12 years of education (Higher Secondary School Certificate/ Intermediate) with at least second Division(Pre Medical/Pre Engg or equiv)

Location Defence Road Campus

#### Recognised **BY**

**Higher Education Commission** 

#### COURSES

- Introductory Genetics
- Molecular Biology I
- Cell Biology I
- Introduction to Biotechnology
- Cell Biology II
- Molecular Biology II
- Animal Biotechnology
- Plant BiotechnologyMicrobial Biotechnology
- Microbial Biotechnic
   Microbial Genetics
- Principles of Biochemical Engineering
- Recombinant DNA Technology
- Genetic Resources & Conservation
- Food Biotechnology
- Pharmaceutical BiotechnologyGenomics, Transcriptomics &
- Proteomics
- Environmental Biotechnology.
- Techniques in Molecular Biology
- Agriculture Biotechnology
- Cell and Tissue Culture
- Health Biotechnology.
- \*Review Report/Research



Semester 5	Cr Hr	Semester 6	Cr Hr	Semester 7	Cr Hr	Semester 8	Cr Hr
Microbial Biotechnology	3	Genetic Resources & Conservation	3	Genomics, Transcriptomics & Proteomics	3	Cell and Tissue Culture	4
Microbial Genetics	4	Food Biotechnology	3	Environmental Biotechnology	3	Health Biotechnology	3
Principles of Biochemical Engineering	3	Pharmaceutical Biotechnology	3	Techniques in Molcular Biology	3	*Review Report/Research	3
Immunology	4	Bioinformatics and System Biology	3	Bio-safety & Bioethics	2		
Recombinant DNA Technology	4	Biostatistics	3	Agriculture Biotechnology	3		
		Research Methodology	2	*Review Report/Research	3		

	_						_
Semester 1	Cr Hr	Semester 2	Cr Hr	Semester 3	Cr Hr	Semester 4	Cr Hr
Biochem I: Introduction to Biochemistry	4	Biochemistry II - Metabolism I	4	Biochemistry III - Metabolism II	3	Ecosystem & Environment	3
Introductory Genetics	3	Molecular Biology I	4	Introduction to Biotechnology	3	General Microbiology	3
Introduction to Computers	3	Cell Biology I	3	Cell Biology II	4	Molecular Biology II	4
Foundation of English	3	Biomathematics	3	Biological Diversity	3	Animal Biotechnology	3
Mathematics	3	English Technical Writing and Comprehension	3	Communication Skills	3	Plant Biotechnology	3
Islamic Studies	2			Pakistan Studies	2		

# Bachelor of Science MICROBIOLOGY & BIOTECHNOLOGY

#### **INTRODUCTION**

The program after completion is equivalent to MSc since the degree is awarded on successful completion of 16 years of education after Higher Secondary School Education.

The degree program fulfils all the curriculum requirements for BS degree recommended by Higher Education Commission consisting of compulsory, core and allied courses.

The basic training of research work is also imparted.

#### Career **PROSPECTS**

Industrial, Agricultural, Educational, Research & Development and Health Organizations.

#### Program **FACTS**

Program Length Full-time, 4 Years

#### Entry Requirements

12 years of education (Higher Secondary School Certificate/ Intermediate) with at least second Division

Location

Defence Road Campus

# Recognised **BY**

Higher Education Commission

#### COURSES

- Cell Biology I
- General Microbiology
- Cell Biology II
- BacteriologyMicrobial Biochemistry
- Medical Microbiology
- Microbial Physiology
- General Mycology
- Microbial Genetics
- General Virology
- Microbial Biotechnology & Vaccinology
- Food Microbiology
- Industrial Microbiology
- Environmental Microbiology
- Techniques in Microbiology
- \*Review Report/Research



Semester 1	Cr Hr	Semester 2	Cr Hr	Semester 3	Cr Hr	Semester 4	Cr Hr
Biochemistry I - Introduction to Biochemistry	4	Biochemistry II - Metabolism I	4	General Microbiology	3	General Bacteriology	3
Introductory Genetics	3	Molecular Biology I	4	Introduction to Biotechnology	3	Microbial Biochemistry	4
Introduction to Computers	3	Cell Biology I	3	Cell Biology II	4	Molecular Biology II	4
Foundation of English	3	Biomathematics	3	Biological Diversity	3	Medical Microbiology	3
Mathematics	3	English Technical Writing and Comprehension	3	Communication Skills	3	Microbial Physiology	3
Islamic Studies	2			Pakistan Studies	2		

Semester 5	Cr Hr	Semester 6	Cr Hr	Semester 7	Cr Hr	Semester 8	Cr Hr
General Mycology	3	Microbial Biotechnology & Vaccinology	3	Genomics, Transcriptomics & Proteomics	3	Cell & Tissue Culture	4
Microbial Genetics	4	Food Microbiology	3	Environmental Microbiology	3	Bioinformatics and System Biology	3
General Virology	3	Industrial Microbiology	3	Techniques in Microbiology	3	*Review Report/Research	3
Immunology	4	Introduction to Cell Signaling	3	Bio-safety & Bioethics	2		
Recombinant DNA Technology	4	Biostatistics	3	Stem Cell and Gene Therapy	3		
		Research Methodology	2	*Review Report/Research	3		

# Bachelor of Science ENVIRONMENTAL SCIENCES

#### **INTRODUCTION**

The programme after completion is equivalent to MSc since the degree is awarded on successful completion of 16 years of education after Higher Secondary School Education. The degree program fulfils all the curriculum requirements for a BS Degree recommended by the Higher Education Commission consisting of compulsory, core and allied courses. The basic training of research work is also imparted.

#### Career **PROSPECTS**

Industrial, Agricultural, Educational, Research Development and Health Organizations.

#### Program **FACTS**

Program Length Full-time, 4 Years

#### Entry Requirements

12 years of education (Higher Secondary School Certificate/ Intermediate) with at least second division

Location

Defence Road Campus

#### Recognised **BY**

Higher Education Commission

#### COURSES

- Introduction to Environmental Science
- Biology –I\*
- Introduction to Earth Science
- Biology –II\*
- Basic Chemistry\*
- Anthropology
- Environmental Chemistry
- Environmental Physics
- Environmental Economics
- Philosophy\*
- Fundamentals of Ecology
- Environmental Microbiology
- Environmental Pollution
- Climatology\*
- Psychology\*
- Applied Ecology
- Environmental toxicology
- Environmental Profile of Pakistan

- Biostatistics
- Analytical techniques in Environmental Science
- Introduction to biochemistry
- Environmental Biotechnology
- GIS & Remote Sensing
- Environmental Management Systems
- Biodiversity & Conservation
- Environmental MonitoringAgro-ecology
- Climate Change
- Environmental Impact Assessment
- Natural Resource Management
- Research Methods in Environmental Science
- Disaster management
- Environmental Laws & policies
- Health and Environment
- Pollution control Technologies

Semester 1	Cr Hr	Semester 2	Cr Hr	Semester 3	Cr Hr	Semester 4	Cr Hr
Introduction to Environmental Science	3	Introduction to Earth Science	3	Pakistan Studies	2	Fundamentals of Ecology	3
Biology–I*	3	Biology –II*	3	Environmental Chemistry	3	Environmental Microbiology	3
Introduction to Computer Sciences	3	Basic Chemistry*	3	Environmental Physics	3	Environmental Pollution	3
Mathematics	3	Biomathematics	3	Environmental Economics	3	Climatology*	3
Foundation of English	3	Anthropology	2	Communication Skill	3	Psychology*	2
Islamic Studies	2	English Technical Writing & Comprehensive	3	Philosophy*	2		-

Semester 5	Cr Hr	Semester 6	Cr Hr	Semester 7	Cr Hr	Semester 8	Cr Hr
Applied Ecology	3	Environmental Biotechnology	3	Climate Change	3	Environmental Laws & policies	3
Environmental toxicology	3	GIS & Remote Sensing	4	Environmental Impact Assessment	3	Health and Environment	3
Environmental Profile of Pakistan	3	Environmental Management Systems	3	Natural Resource Management	3	Pollution control Technologies	3
Biostatistics	3	Biodiversity & Conservation	3	Research Methods in Environmental Science	3	Review Report	3
Analytical techniques in Environmental Science	3	Environmental Monitoring	3	Disaster management	3		
Introduction to biochemistry	3	Agro-ecology	3	Review Report	3		

## Master of Science **BIOCHEMISTRY & BIOTECHNOLOGY**

#### **INTRODUCTION**

The program after completion is equivalent to MSc since the degree is awarded on successful completion of 16 years of education after 2 years of BSc degree. The Degree program fulfils all the curriculum requirements for MSc Degree recommended by Higher Education Commission consisting of compulsory, core and allied courses. Basic training in research work is also imparted.

#### Career **PROSPECTS**

Industrial, Agricultural, Educational, Research **Development and Health** Organizations.

#### COURSES

 Biochemistry I: Introduction to Biochemistry

 Introduction to Molecular Biology & Biotechnology

- Introduction to Physiology • Biochemistry of Hormones
- Enzymology
- Biochemistry II: Metabolism I Clinical Biochemistry
- Natural Products 2
- Immunology
- Biostatistics
- Biochemistry III: Metabolism II Biochemistry of Cell Signaling Environmental Biochemistry • Techniques in Biochemistry
- Bioinformatics and System Biology Research Thesis/Review

#### Program FACTS

Program Length Two-Years Full Time

#### **Entry Requirements**

14 years of education (BSc or Equivalent) with at least 2nd division Certificate/Intermediate)

Location **Defence Road Campus** 

Recognised **BY Higher Education Commission** 

# Master of Science **MOLECULAR BIOLOGY & BIOTECHNOLOGY**

#### INTRODUCTION

The program after completion is equivalent to MSc since the degree is awarded on successful completion of 16 years of education after 2 years of BSc degree. The Degree program fulfils all the curriculum requirements for MSc Degree recommended by Higher Education Commission consisting of compulsory, core and allied courses. Basic training in research work is also imparted.

#### Career **PROSPECTS**

Industrial, Agricultural, Educational, Research **Development and Health** Organizations.

#### COURSES

- Biochemistry I: Introduction to Biochemistry
- Introduction to Molecular Biology & Biotechnology
- Introduction to Physiology
- General Microbiology
- Molecular Genetics & Genetic Disorders
- Biochemistry of Macromolecules Immunology
- Recombinant DNA Technology
- Cell and Tissue Culture
- Biostatistics
- Genomics. Transcriptomics & Proteomics
- Applied Biotechnology
- Techniques in Molecular Biology
- Cell Signaling & Signal Transduction
- Research thesis/Review

#### Program **FACTS**

**Program Length** Two-Years Full Time

#### **Entry Requirements** 14 years of education (BSc or Equivalent) at least 2nd division

Certificate/Intermediate)

Location

Defence Road Campus

#### Recognised **BY**

**Higher Education Commission** 

- Bioinformatics and System Biology

#### Road **MAP**

Semester 1	Cr Hr	Semester 2	Cr Hr	Semester 3	Cr Hr	Semester 4	Cr Hr
Biochemistry I: Introduction to Biochemistry	4	Biochemistry II: Metabolism I	4	Biochemistry III: Metabolism II	3	Bioinformatics	3
Introduction to Molecular Biology & Biotechnology	4	Immunology	4	Biochemistry of Cell Signaling	3	Research thesis/Review	6
Introduction to Physiology	3	Natural Product II	3	Techniques in Biochemistry	4		
Biochemistry of Hormones	3	Clinical Biochemistry	3	Environmental Biochemistry	2		
Enzymology	3	Biostatistics	3	Research thesis/Review	6		

Semester 1	Cr Hr	Semester 2	Cr Hr	Semester 3	Cr Hr	Semester 4	Cr Hr
Biochemistry I: Introduction to Biochemistry	4	Biochemistry of Macromolecules	4	Genomics, Transcriptomics & Proteomics	3	Bioinformatics	3
Introduction to Molecular Biology & Biotechnology	4	Immunology	4	Applied Biotechnology	2	Research thesis/Review	6
Introduction to Physiology	3	Recombinant DNA Technology	4	Techniques in Molcular Biology	4		
General Microbiology	3	Cell and Tissue Culture	3	Cell Signaling & Signal Transduction	3		
Molecular Genetics & Genetic Disorders	3	Biostatistics	3	Research thesis/Review	6		

# Master of Science **BIOTECHNOLOGY**

#### INTRODUCTION

The programme after completion is equivalent to a MSc since the degree is awarded on successful completion of 16 years of education after Higher Secondary School Education. The degree program fulfills all the curriculum requirements for a BS Degree recommended by the Higher Education Commission consisting of compulsory, core and allied courses. The basic training of research work is also imparted.

#### Career **PROSPECTS**

Industrial, Agricultural, Educational, Research development and Health Organizations.

#### COURSES

- Biochemistry I: Introduction to Biochemistry
- Introduction to Molecular Biology & Biotechnology
- Genetic Resources & Conservation
- Microbial Biotechnology
- Environmental Biotechnology
  Agricultural Biotechnology
  Immunology
- Recombinant DNA Technology
- Cell and Tissue Culture
- Biostatistics
- Genomics, Transcriptomics&
   Proteomics
- Health Biotechnology
- Techniques in Molecular BiologyFood Biotechnology
- Bioinformatics and System Biology
- Research thesis/Review

#### Program **FACTS**

Program Length Two-Years Full Time

#### Entry Requirements

14 years of education (BSc or Equivalent) with at least 2nd division Certificate/Intermediate)

Location Defence Road Campus

### Recognised BY

Master of Science MICROBIOLOGY & BIOTECHNOLOGY

#### INTRODUCTION

The programme after completion is equivalent to an MSc since the degree is awarded on successful completion of 16 years of education after Higher Secondary School Education. The degree program fulfills all the curriculum requirements for a BS Degree recommended by the Higher Education Commission consisting of compulsory, core and allied courses. The basic training of research work is also imparted.

#### Career **PROSPECTS**

Industrial, Agricultural, Educational, Research development and Health Organizations.

#### **COURSES**

- Biochemistry I: Introduction to Biochemistry
- Introduction to Molecular Biology & Biotechnology
- Introduction to Physiology
- General Microbiology
- General Virology
- Mycology
- Immunology
- Medical Microbiology
- Cell and Tissue Culture
- Biostatistics
- General Bacteriology
- Industrial Microbiology
- Techniques in Microbiology
  Microbial Biotechnology &
- Vaccinology
- Bioinformatics and System Biology
- Research Thesis/Review

## Program **FACTS**

#### **Program Length**

Two-Years Full Time

#### Entry Requirements 14 years of education (BSc or Equivalent) with at least 2nd division Certificate/Intermediate)

Location

Defence Road Campus

#### Recognised **BY**

Higher Education Commission

#### Road **MAP**

Semester 1	Cr Hr	Semester 2	Cr Hr	Semester 3	Cr Hr	Semester 4	Cr Hr
Biochemistry I: Introduction to Biochemistry	4	Agricultural Biotechnology	3	Genomics, Transcriptomics & Proteomics	3	Bioinformatics	3
Introduction to Molecular Biology & Biotechnology	4	Immunology	4	Health Biotechnology	2	Research thesis/Review	6
Genetic Resources & Conservation	3	Recombinant DNA Technology	4	Techniques in Molcular Biology	4		
Microbial Biotechnology	3	Cell and Tissue Culture	3	Food Biotechnology	3		
Environmental Biotechnology	3	Biostatistics	3	Research thesis/Review	6		

Semester 1	Cr Hr	Semester 2	Cr Hr	Semester 3	Cr Hr	Semester 4	Cr Hr
Biochemistry I: Introduction to Biochemistry	4	General Mycology	3	Bacteriology	3	Bioinformatics	3
Introduction to Molecular Biology & Biotechnology	4	Immunology	4	Industrial Microbiology		Research thesis/Review	6
Introduction to Physiology	3	Medical Microbiology	3	Techniques in Microbiology	4		
General Microbiology	3	Cell and Tissue Culture	3	Microbial Biotechnology & Vaccinology	3		
General Virology	3	Biostatistics	3	Research thesis/Review	6		

# M.Phil **BIOCHEMISTRY**

#### **INTRODUCTION**

The program of study is equivalent to M.Phil. since the degree is awarded on successful completion of 16 years of education after the award of BS degree of 4 years duration or MSc degree of 2 years duration. The Degree program fulfils all the curriculum requirements for MPhil Degree programs as recommended by Higher Education Commission, consisting of compulsory, core and allied courses. The students are required to complete 24 credit hours of courses in the first 2 semesters and conduct research & remaining 12 credit hours complete in the next 2 semesters. Before starting research, the students have to pass Comprehensive Exam as required by HEC. All students are required to pass GAT examination

conducted by National Testing Service (NTS). Admission test will be held by the Institute.

#### Career **PROSPECTS**

Industrial, Agricultural, Educational, Research Development and Health Organizations.

#### **COURSES**

- Advanced Biochemistry
- Recent Trends in Immunology
- Advanced Heterocyclic Compounds (EC)
   Advanced Clinical Biochemistry
- Techniques in Biochemistry
- Advanced Toxicology (EC)
- Biochemistry of Cell Signaling & Transduction (EC)
- Research Thesis

#### Program **FACTS**

Program Length Two-Year's Full Time

#### **Entry Requirements**

16 years of education (BS/MSc/MBBS/ BDS/BPharm) with at least 2nd division. Certificate/Intermediate)

Location Defence Road Campus

Recognised **BY** 

Higher Education Commission Pakistan Medical & Dental Council

# M.Phil **MOLECULAR BIOLOGY**

#### INTRODUCTION

The program of study is equivalent to M.Phil. since the degree is awarded on successful completion of 16 years of education after the award of BS degree of 4 years duration or MSc degree of 2 years duration. The Degree program fulfils all the curriculum requirements for MPhil Degree programs as recommended by Higher Education Commission, consisting of compulsory, core and allied courses. The students are required to complete 24 credit hours of courses in the first 2 semesters and conduct research & remaining 12 credit hours complete in the next 2 semesters. Before starting research, the students have to pass Comprehensive Exam as required by HEC. All students are required to pass GAT examination

conducted by National Testing Service (NTS). Admission test will be held by the Institute.

#### Career **PROSPECTS**

Industrial, Agricultural, Educational, Research and development and Health Organizations.

#### COURSES

- Advanced Molecular Biology
  Advanced Recombinant DNA
- Technology
  Molecular Genetics & Genetic Disorders (EC)
- Recent Trends in Immunology
- Techniques in Molecular Biology
- Genomics, Transcriptomics & Proteomics (EC)
- Cell Signaling & Signal Transduction (EC)
- Research Thesis
- Research mesis

#### Program **FACTS**

Program Length Two-Year's Full Time

#### Entry Requirements

16 years of education (BS/MSc/MBBS/ BDS/BPharm)Certificate/Intermediate)

Location Defence Road Campus

#### Recognised **BY**

Higher Education Commission

#### Road **MAP**

Semester 1	Cr Hr	Semester 2		Semester 3	Cr Hr	Semester 4	Cr Hr
Advanced Biochemistry	3	Advanced Clinical Biochemistry	3	Elective III: ( e.g. Biochemistry of Cell Signaling)	3	Research Thesis	6
Recent Trends in Immunology	3	Techniques in Biochemistry	2	Research Thesis	6		
Elective I: (e.g. Advanced Heterocyclic Compounds)	3	Elective II: ( e.g. Advanced Toxicology)	3				
Biostatistics	2	Bioinformatics	2				

Semester 1	Cr Hr	Semester 2		Semester 3	Cr Hr	Semester 4	Cr Hr
Advanced Molecular Biology	3	Recent Trends in Immunology	3	Elective III: (e.g. Cell Signaling & Signal Transduction)	3	Research Thesis	6
Advanced Recombinant DNA Technology	3	Techniques in Molecular Biology	2	Research Thesis	6		
Elective I: (e.g. Molecular Genetics & Genetic Disorders)	3	Elective II: (e.g. Genomics, Transcriptomics & Proteomics)	3				
Biostatistics	2	Bioinformatics	2				

# M.Phil of **BIOTECHNOLOGY**

#### INTRODUCTION

The program of study is equivalent to M.Phil. since the degree is awarded on successful completion of 16 years of education after the award of BS degree of 4 years duration or MSc degree of 2 years duration. The Degree program fulfils all the curriculum requirements for MPhil Degree programs as recommended by Higher Education Commission, consisting of compulsory, core and allied courses. The students are required to complete 24 credit hours of courses in the first 2 semesters and conduct research & remaining 12 credit hours complete in the next 2 semesters. Before starting research, the students have to pass Comprehensive Exam as required by HEC. All students are required to pass GAT examination conducted by National Testing

Service (NTS). Admission test will be held by the Institute.

#### Career **PROSPECTS**

Industrial, Agricultural, Educational, Research and development and Health Organizations.

#### COURSES

- Principles of Biotechnology
  Advanced rDNA Technology
  Cell & Tissue Culture (EC)
- Health BiotechnologyIndustrial Biotechnology
- Molecular Basis of Plant Development (EC)
- Techniques in Biotechnology
  Transgenic Organisms (EC)
- Research Thesis

#### Program **FACTS**

Program Length Two-Year s Full Time

#### Entry Requirements

16 years of education (BS/MSc/MBBS/ BDS/BPharm) Certificate/Intermediate)

Location

Defence Road Campus

#### Recognised **BY**

Higher Education Commission

# M.Phil of **MICROBIOLOGY**

#### INTRODUCTION

The program of study is equivalent to M.Phil. since the degree is awarded on successful completion of 16 years of education after the award of BS degree of 4 years duration or MSc degree of 2 years duration. The Degree program fulfils all the curriculum requirements for MPhil Degree programs as recommended by Higher Education Commission, consisting of compulsory, core and allied courses. The students are required to complete 24 credit hours of courses in the first 2 semesters and conduct research & remaining 12 credit hours complete in the next 2 semesters. Before starting research, the students have to pass Comprehensive Exam as required by HEC. All students are required to pass GAT examination conducted by National Testing

#### Road **MAP**

Semester 1	Cr Hr	Semester 2		Semester 3	Cr Hr	Semester 4	Cr Hr
Advanced Microbiology	3	Microbial Biochemistry and Physiology	3	Elective III: (e.g.) Advanced Virology	3	Research Thesis	6
Microbial Genetics and Diseases	3	Techniques in Microbiology	2	Research thesis	6		
Elective I: ( e.g. Medical Microbiology)	3	Elective II: (e.g. Food Microbiology)	3				
Biostatistics	2	Bioinformatics	2				

## Service (NTS). Admission test will be held by the Institute.

#### Career **PROSPECTS**

Industrial, Agricultural, Educational, Research development and Health Organizations.

#### COURSES

- Advanced Microbiology
- Microbial Genetics and Diseases
- Medical Microbiology (EC)
- Microbial Biochemistry and Physiology
- Techniques in Microbiology
- Food Microbiology (EC)
- Advanced Virology (EC)
- Research Thesis

# INSTITUTE OF MOLECULAR BIOLOGY & BIOTECHNOLOGY

Program FACTS

16 years of education (BS/MSc/MBBS/

BDS/BPharm) with at least 2nd division

**Program Length** 

Two-Year s Full Time

**Entry Requirements** 

Certificate/Intermediate)

**Defence Road Campus** 

Recognised **BY** 

Higher Education Commission

Pakistan Medical & Dental Council

Location

					_		
Semester 1	Cr Hr	Semester 2	Cr Hr	Semester 3	Cr Hr	Semester 4	Cr Hr
Principles of Biotechnology	3	Health Biotechnology	3	Elective III: (e.g. Elective III: Transgenic Organisms)	3	Research Thesis	6
Advanced rDNA Technology	3	Elective II: (e.g. Molecular Basis of Plant Development)	3	Research thesis	6		
Elective I: ( e.g. Cell & Tissue Culture)	3	Techniques in Biotechnology	2				
Biostatistics	2	Bioinformatics	2				

# M.Phil of **ENVIRONMENTAL SCIENCE**

#### **INTRODUCTION**

The program of study is equivalent to M.Phil. since the degree is awarded on successful completion of 16 years of education after the award of BS degree of 4 years duration or MSc degree of 2 years duration. The Degree program fulfils all the curriculum requirements for MPhil Degree programs as recommended by Higher Education Commission, consisting of compulsory, core and allied courses. The students are required to complete 24 credit hours of courses in the first 2 semesters and conduct research & remaining 12 credit hours complete in the next 2 semesters. Before starting research, the students have to pass Comprehensive Exam as required by HEC. All students are

required to pass GAT examination conducted by National Testing Service (NTS). Admission test will be held by the Institute.

#### Career **PROSPECTS**

Industrial, Agricultural, Educational, Research development and Health Organizations.

#### Program **FACTS**

Program Length Two-Year s Full Time

#### Entry Requirements

16 years of education (BS/MSc/MBBS/ BDS/BPharm) with at least 2nd division Certificate/Intermediate)

Location Defence Road Campus

#### Recognised **BY**

Higher Education Commission

# M.Phil of **PHYSIOLOGY**

#### INTRODUCTION

The program of study is equivalent to M.Phil. since the degree is awarded on successful completion of 16 years of education after the award of BS degree of 4 years duration or MSc degree of 2 years duration. The Degree program fulfils all the curriculum requirements for MPhil Degree programs as recommended by Higher Education Commission, consisting of compulsory, core and allied courses. The students are required to complete 24 credit hours of courses in the first 2 semesters and conduct research & remaining 12 credit hours complete in the next 2 semesters. Before starting research, the students have to pass Comprehensive Exam as required by HEC. All students are

required to pass GAT examination conducted by National Testing Service (NTS). Admission test will be held by the Institute.

#### COURSES

- Advanced Physiology
- Advances in Endocrinology
- Cell and Molecular Physiology (EC)
- Advances in Neurophysiology
- Physiology of Reproduction (EC)
- Cell Signaling & Signal Transduction (EC)
- Techniques in Physiology
- Research Thesis

#### Program **FACTS**

**Program Length** Two-Year s Full Time

#### Entry Requirements

16 years of education (BS/MSc/MBBS/ BDS/BPharm) with at least 2nd division Certificate/Intermediate)

#### Location

Defence Road Campus

Recognised BY Higher Education Commission Pakistan Medical & Dental Council

#### Road **MAP**

Semester 1	Cr Hr	Semester 2		Semester 3	Cr Hr	Semester 4	Cr Hr
Environmental Governance	3	Environmental Impact Assessment	3	Research and Thesis	6	Research Thesis	6
Environmental Analytical Techniques	3	Environmental Management Systems	3				
Environmental Chemistry	3	Environmental Biotechnology	3				
Applied Environmental I Microbiology	3	Advances in Plant Ecology	3				

Semester 1	Cr Hr	Semester 2 Cr Hr		Semester 3	Cr Hr	Semester 4	Cr Hr
Advanced Physiology	3	Advances in Neurophysiology	3	Elective III: (e.g. Cell Signaling and Signal Transduction)	3	Research Thesis	6
Advances in Endocrinology	3	Elective II: (e.g. Physiology of Reproduction)	3	Research Thesis	6		
Elective I: (e.g. Cell and Molecular Physiology)	3	Techniques in Physiology	3				
Biostatistics	2	Bioinformatics	2				

# INSTITUTE OF MOLECULAR BIOLOGY & BIOTECHNOLOGY

# M.Phil of **FORENSIC SCIENCE (PFS)**

#### INTRODUCTION

The program of study is equivalent to M.Phil/MS. Stdents who have completed 16 years of education at BS or MSc level are eligible for admission to MPhil degree program. The Degree program fulfils all the curricular requirements as set out by the Higher Education Commission, consisting of compulsory. The students are required to complete 24 credit hours of courses in the first 2 semesters and conduct research in the remaining 12 credit hours spread over two semesters. All students are required to pass GAT examination conducted by the National Testing Service (NTS). Admission test is held by the Institute.

#### Career **PROSPECTS**

crime science, forensic drug chemistry, computer science, biosciences, statistics, anthropology forensic Biology odonthology. The students are more likely to apply in Law Enforcement agencies like FA/NAB (Anti Corruption)

#### COURSES

Forensic Analytical Toxicology
Analytical Techniques in Forensic Chemistry

- Bloodstain Pattern Analysis
  Forensic Photography
- Advances in Forensic Anthropology
- Firearms and Tool Marks Analysis
  Population Genetics and Statistics
  Forensic Questioned Document Analysis

#### Program **FACTS**

Program Length Two-Year s Full Time

#### Entry Requirements

16 years of education (BS/MSc/MBBS/ BDS/BPharm) with at least 2nd division Certificate/Intermediate)

#### Location

Defence Road Campus

#### Recognised **BY**

Higher Education Commission

## Ph.D PROGRAM

#### **INTRODUCTION**

Ph.D program has been organized in accordance with the guidelines provided by the Higher education Commision (HEC). Those who have completed 18 years of education are eligible for admission to the program. The program in the subject of Biochemistry, Physiology and Microbiology are approved by the Pakistan Medical and Dental Council (PMDC).



#### Program **FACTS**

Program Length Three years full time

Entry Requirements 18 years of education (After MS / M.Phil) with at least 3.0 CGPA

Location Defence Road Campus

#### Recognised BY Higher Education Commission

#### Road **MAP**

Semester 1	Cr Hr	Semester 2 Cr Hr Semester 3		Semester 3	Cr Hr	Semester 4	Cr Hr	
Criminalistics and Introduction to Forensics	3	Elective I: (e.g. Basics of Biological Evidence	3	Research and Thesis	6	Research and thesis	6	
Quality Assurance Standard in Forensic Laboratory	3	Elective II: (e.g. Forensic Science and Death Investigation	3					
Witness and Testimony in Courts	2	Elective III: (e.g. Hair Evaluation for DNA Analysis)	3					
Forensic Communication Skills and Report Writing	2	Elective IV: (e.g. Forensic Drug Chemistry	3					
Forensic Ethics and Project Preparation techniques	2							

#### Road **MAP**

					_		_		_		_
Semester 1	Cr Hr	Semester 2	Cr Hr	Semester 3	Cr Hr	Semester 4	Cr Hr	Semester 3	Cr Hr	Semester 4	Cr Hr
Course I*	3	Course IV* (*Selected from the courses of PhD.)	3	Research *(Thesis)	6	Research* (Thesis)	6	Research* (Thesis)	6	Research* (Thesis)	6
Course II*	3	Research Reading I^	3								
Course III* (*Selected from the courses of PhD.)	З	Research Reading II^ (^Titles to be decided by Supervisor)	3								
		Research *(Thesis)	6								

Research \*(Thesis) 6

# **PhD COURSES LIST**

**NOTE:** The Panel of PhD Supervisors will propose four taught courses from the following lists.

#### Ph.D BIOCHEMISTRY

Cource List	Cr Hr	Cource List	Cr Hr
Advanced Biochemistry	3	Nutritional Biochemistry	3
Recent Trends in Immunology	3	Advances in Enzymology	3
Advanced Heterocyclic Compounds	3	Natural Products 3: Extraction & Analysis	3
Advanced Clinical Biochemistry	2	Advances in Endocrinology	3
Techniques in Biochemistry	3	Research Reading I	3
Advanced Toxicology	3	Research Reading II	3
Biochemistry of Cell Signaling & Signal Transduction	3	Research Thesis	30
Metabolic Pathways	3		

#### **PhD MOLECULAR BIOLOGY**

Cource List	Cr Hr	Cource List	Cr Hr
Advanced Molecular Biology	3	Cell and Molecular Physiology	3
Advanced Recombinant DNA Technology	3	Cell Signalling and Signal Transduction	3
Molecular Genetics & Genetic Disorders	3	Techniques in Molecular Biology	3
Molecular Immunology	3	Research Reading I	3
Genomics, Transcriptomics & Proteomics	3	Research Reading II	3
Advanced Epigenetics	3	Research Thesis	30
Developmental Biology	3		
Molecular Basis of Cancer	3		

#### Ph.D BIOTECHNOLOGY

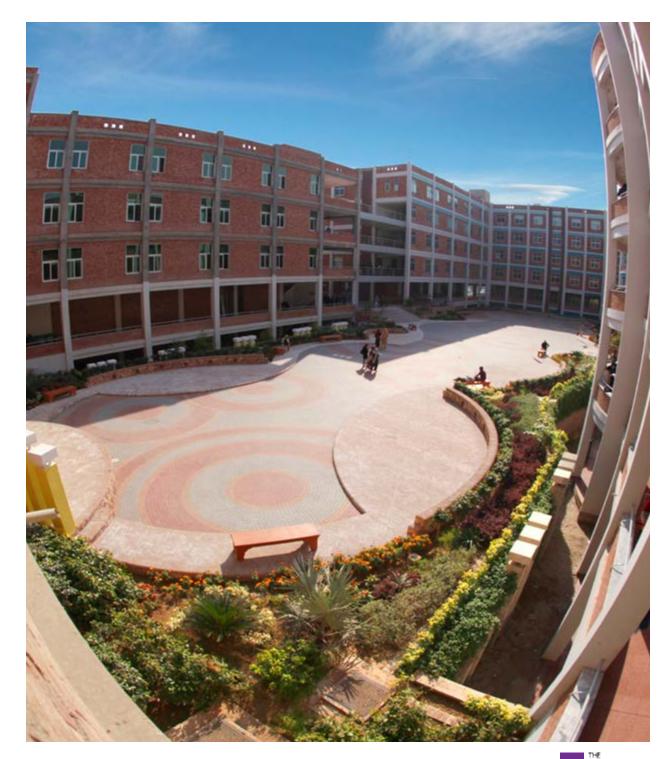
Cource List	Cr Hr	Cource List	Cr Hr
Principles of Biotechnology	3	Advanced Techniques in Biotechnology	3
Advanced rDNA Technology	3	Advances in Plant Biotechnology	3
Cell & Tissue Culture (EC)	3	GM Technology and Environmental	3
Health Biotechnology	2	Management	3
Molecular Basis of Plant Development (EC)	3	Biotechnology of Renewable Resources	3
Transgenic Organisms (EC)	3	Research Reading I	3
Applications of Biotechnology	3	Research Reading II	3
The Molecular Basis of Cancer	3	Research Thesis	30

#### Ph.D MICROBIOLOGY

Cource List	Cr Hr	Cource List	Cr Hr
Advanced Microbiology	3	Microbial Biotechnology & Vaccinology	3
Microbial Genetics and Diseases	3	Cell and Tissue Culture	3
Medical Microbiology	3	Genomics, Transcriptomics & Proteomics	3
Microbial Biochemistry and Physiology	2	Cell Signaling and Signal Transduction	3
Techniques in Microbiology	3	Research Reading I	3
Food Microbiology	3	Research Reading II	3
Advanced Virology	3	Research Thesis	30
Molecular Immunology	3		

#### Ph.D PHYSIOLOGY

Cource List	Cr Hr	Cource List	Cr Hr
Advanced Physiology	3	Nutritional Biochemistry	3
Advances in Endocrinology	3	Cancer Biology	3
Cell and Molecular Physiology	3	Cell & Tissue Culture	3
Advances in Neurophysiology	3	Forensic Sciences	3
Physiology of Reproduction	3	Research Reading I	3
Cell Signaling & Signal Transduction	3	Research Reading II	3
Recent Trends in Neuroscience	3	Research Thesis	30
Physiology of Sports and Exercise	3		



# Centre of **RESEARCH IN MOLECULAR MEDICINE**(CRIMM)

#### Mission **STATEMENT**

• Foster professional and intellectual development of scholars and faculty members at all levels. Place major emphasis on quality of the postgraduate programme leading to PhD.

• Undertake basic research in areas of national importance in the sectors of biomedical sciences and health.

Actively interact and collaborate in research and higher training with other relevant institutions within and outside the country.
Promote research interaction with public agencies and industry.

#### INTRODUCTION

During the last three decades the discipline of molecular and cellular biology has expanded phenomenally in scope and in depth. New knowledge in the field, mainly acquired through a multidisciplinary approach and experimental research, has made it possible not only to unravel living processes in health and disease from molecular to organismal level but also to introduce novel and more effective therapeutic and diagnostic tools in medical practice.

In line with the policy of the University of Lahore to develop high quality expertise and manpower in emerging areas of biomedical sciences, a Centre for Research in Molecular Medicine was initiated in April 2009. The Centre represents a major investment and a bold initiative by the University in the field of life sciences and human health. A covered area of approximately 9,000 sq feet was allocated to the Centre at the University's new campus adjacent to the University College of Medicine, to develop purpose-built teaching and research laboratories with state-of-the-art facilities. The Centre draws resources from other academic units of the University as well, such as the Institute of Molecular Biology and Biotechnology, Department of Pharmacy, the University College of Medicine and the Department of Information Technology. The Centre also has close collaboration in relevant areas with other reputable institutions within and

#### **OBJECTIVES**

outside the country.

• To conduct quality research in molecular medicine and related disciplines with strong relevance to

human health in the local context.
To provide research training of postgraduate students in biomedical sciences, leading to PhD degree.

- To firm up research linkages and interactive cooperation with national and international institutions conducting similar research.
- To attract scientists and physicians for short term training in molecular medicine techniques and invite foreign and local experts for lectures and in research advisory capacity.
- To publish scientific articles based on research conducted at the Centre in peer reviewed international journals.
- To generate high quality manpower to meet the demand for qualified faculty and scientists, in institutions both educational and research, and in industry.
- To provide an open, stimulating and nurturing environment for training and career development in biomedical sciences.

# COLLABORATIVE INSTITUTIONS

NATIONAL

Lahore

Faisalabad

Lahore

The Children's Hospital

and Institute of Child Health,

and Genetic Engineering,

National Institute of Biotechnology

Department of Paediatric Endocrinology

Institute of Nuclear Medicine and Oncology

#### INTERNATIONAL

University of Pittsburgh School of Medicine CRRP, Department of Physiology and Cell Biology Pittsburgh, PA, USA

University of Muenster Centre of Reproductive Medicine and Andrology (CeRA) Muenster, Germany

Imperial College London Department of Genomics of Common Diseases Hammersmith Hospital Campus London, UK University of Santiago de Compostela - Spain Insitute of forensic science

#### Academics & **RESEARCH**

**Postgraduate Programmes:** The Centre for Research in Molecular Medicine attempts to integrate molecular, cellular and systems approaches and focuses on carrying out goal-oriented research and delivering postgraduate programmes of the highest possible quality. The Centre offers postgraduate programmes for medical and science candidates, leading to MPhil and PhD degrees.

#### **CURRENT RESEARCH AREAS**

- Genetics and molecular biology of breast cancer
- Genetics and biochemistry of metabolic diseases with special emphasis on obesity and diabetes
- Molecular and biochemical markers in cancer and metabolic diseases
- Recombinant DNA techniques
- Cell signaling mechanisms in Physiological functions
- Production of monoclonal and polyclonal antibodies used in medical diagnostics and applied medical research
- Cell and tissue culture technology
- Stem cell technology
- Genetics and physiology of idiopathic infertility
- The development and testing of therapeutic agents derived from natural protocol.
- Pharmaco-Physiology of drugs presently used in cancer.

# POSTGRADUATE **PROGRAMS**

The Centre offers MPhil/MS and MPhil/MS leading to PhD programmes, in the following disciplines:

#### Molecular Biology and Biochemistry

Research specializations: Breast cancer and tumor research; molecular biomarkers of disease; proteomics; cell signaling; recombinant DNA technology; tissue culture; immunobiology.

#### Physiology

Research specializations: Molecular and clinical endocrinology; metabolism; biochemistry and molecular biology of metabolic diseases; andrology; genetics of idiopathic infertility; comparative reproductive biology.

#### **Biochemistry**

Research specializations: Biochemistry of growth and development; biochemical spectrum of metabolic syndromes and clinical biochemistry and diagnostics; biochemical markers of metabolic diseases, molecular basis of cardiovascular disease; drug research using animal models.

#### Microbiology

Research specialization in bacteriology; virology; microbial biotechnology (in collaboration with the Institute of Molecular Biology of the University of Lahore).

#### **Radiological Sciences**

Specialization in Diagnostic Radiography, Ultrasonography, Nuclear Medicine and Radiation Therapy

#### Forensic Sciense

Research Specialization in Forensic Serology, Forensic Biology, Forensic Toxicology, Forensic Chemistry, Forensic Documentation and Anthropology.



#### Program **FACTS**

#### Programme Length

M.Phil (MS): 2-4 Years MS leading to PhD: 4-6 Years PhD: 3-4 Years

#### **Entry Requirements**

Min 2nd division or 2.5 CGPA in MBBS/DVM/B.Pharm or Pharm D MS/M.Phil.\* or MSc\* or 4-yr BSc in biological sciences disciplines.

(\*MPhil /MS degree holders joining the PhD programme will be allowed exemption in some courses. Detailed regulation for MPhil/PhD are placed at annexure III)

#### Evaluation

Stage I: Short listing on the basis of academic records, work experience, and the results of the Admission Test Stage II: Interviews of short listed candidates

#### Course Work

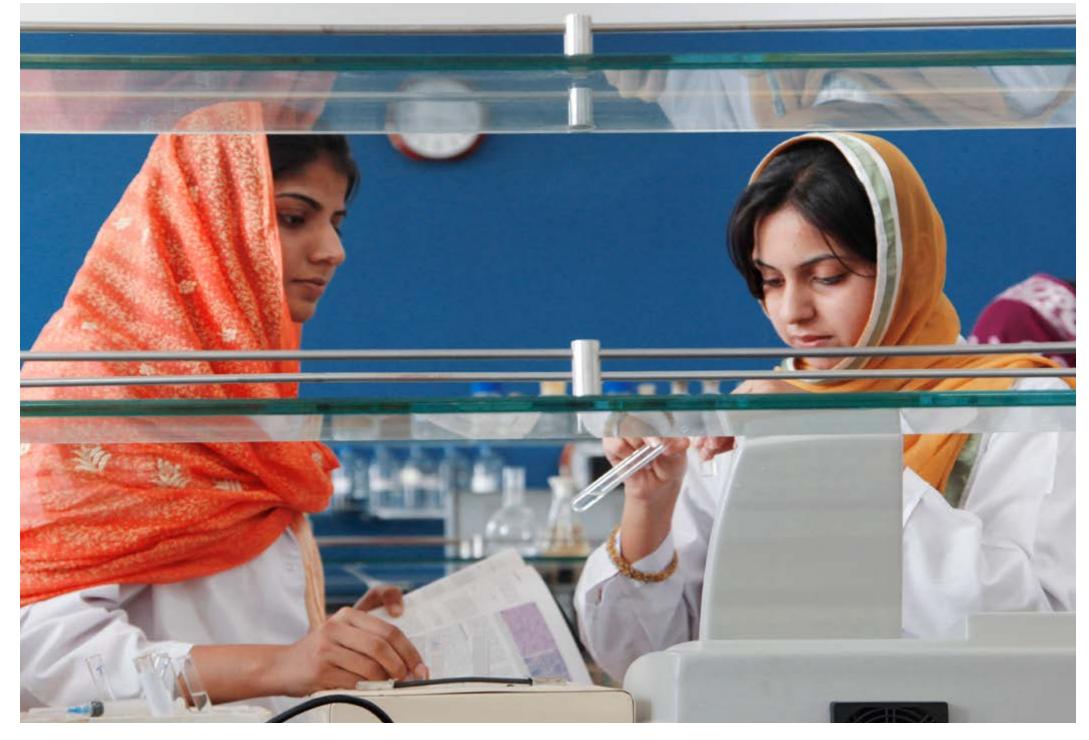
Course work is scheduled during the first 9 months, while the following years are mainly for research, thesis writing & taking advanced level courses. In addition to lectures, tutorials & laboratory exercises, students are trained in protocol writing, paper presentation, data collection & finally conducting a research study in which the faculty members provide all possible support and guidance as advisors.

Location Defence Road Campus

Recognized by Higher Education Commission







PHARMACY

# Department of **PHARMACY** Faculty of Pharmacy

#### Mission **STATEMENT**

The mission of Faculty of Pharmacy, University of Lahore, is to play a pivotal role in the development and advancement of healthcare professionals by educating them with quality education and providing ample opportunities to learn and explore in order to meet the challenges related to healthcare needs of nation, state, and all over the world. This will be accomplished by motivating the students to render their services in order to play a pivotal role in the health care system in Pakistan with full devotion, commitment and dedication

Our vision is to be recognized globally for excellence in innovation, professionalism, education and health related research

#### **INTRODUCTION**

The Faculty of Pharmacy, University of Lahore, is consisting of over 70 teachers who are competent to impart professional and technical education to pharmacy students. Four of them

are holding Ph.D degree and more than six are enrolled in Ph.D program in Pakistan and abroad. Majority of the rest of the faculty members are either M.Phil. or persuing the syllabi/research for obtaining degree Master of Philosophy in any of the Pharmacy disciplines. Faculty members are striving to the best of their ability to prepare the students for future challenges through the development of communication, problem solving skills, caring, professionalism, innovation, productivity and moral ethics among students.

#### Degrees **OFFERED**

Doctor of Pharmacy (Pharm. D) Five Years Program Comprising of 10 Semesters

Master of Philosophy in Pharmaceutics, Pharmaceutical Chemistry, Pharmacology, Pharmacognosy

**Doctor of Philosophy (Ph.D)** Pharmacology

**Doctor of Philosophy (Ph.D)** Pharmaceutical chemistry





## Doctor of **PHARMACY** (PHARM.D)

#### INTRODUCTION

The objective of this 5 years undergraduate degree program is to train pharmacy practitioners to possess leadership qualities, advanced expertise and clinical experience that enable them to be at the forefront of the pharmacy profession and health care in a variety of settings; institutional, community practice, government, academia, and industry and drug development.

The curriculum emphasizes a patient centred course of study and involves a structure that will enable students to develop into reflective practitioners with skills and attitudes to evaluate critically and modify practices in a timely and effective manner.

#### Pre-Reg COURSES

- Pharmaceutical Chemistry-II(Organic-2)
- Pharmaceutical Biochemistry-II(Biochem-II)
- Pharmaceutices-II (Physical Pharmacy-II)
- Physiology & Histology-II
- Pharmaceutics-III(Pharmaceutical Preparation-I)
- Pharmacology & Therapeutics-I (General-I)
- Pharmacetuics-IV (Pharmaceutical Preparation-II) Pharmacology & Therapeutics-II (General-II)
- Pharmacognosy-II
- Pharmaceutical Microbiology-II
- Pathology
- Pharmacology & Therapeutics III (Systemic •Pharmacology-I) Pharmacognosy-III
- Pharmacology & Therapeutics-IV (Systemic Pharmacology-II)
- Pharmacognosy-IV
- Pharmaceutical Chemistry IV (Instrumentation-II)

#### Career **PROSPECTS** The approved Pharm.D curriculum

has been designed / formulated to prepare Quality Pharmacists who will have the capacity, up to date knowledge, strong ethical values, behavior, communication, writing & social skills that will enable them to pursue careers in:

1) Pharmaceutical care in health systems & community environments where appropriate medication usage and patient's safety is paramount.

2) Pharmaceutical Industry & its quality systems.

3) Pharmacovigilance / Patient safety & safe medication usage in community & health care systems.

4) Academia and Research.

Program **FACTS** 

**Programme Length** Full-time, 5 Years

#### **Entry Requirements**

First Division FSc.(Premedical / A-Level equivalent to 60% of FSc.

#### Location

Defence Road Campus, Lahore Islamabad Campus

#### Recognised **BY** Pharmacy Council of Pakistan

**Higher Education Commission** 

5) Managed Patient Care as a member of multidisciplinary health care team.

6) Keeping stakeholders in the pharmaceutical sector up to date on the implications of WTO TRIPS.

- Pharmaceutics-IV (Community Pharmacy)
- Pharmaceutics-VIII (Clinical Pharmacy-I)
- Pharmaceutics-IX (Industrial Pharmacy-I)
- Pharmaceutics-XI(Pharmaceutical Quality & Management-I)
- Pharmaceutics-VII(Hospital Pharmacy-II)
- Pharmaceutics-VIII(Clincial Pharmacy-II)
- Pharmaceutics-IX(Industrial Pharmacvy-II)
- Pharmaceutics-X(Biopharmaceutics-II)
- Pharmaceutics-XI(Pharmaceutical Quality & Management-II) Pharmaceutical Chemistry-V(Medicinal Chemistry-I)
- Pharmaceutics-XVII(Clincial Pharmacy-III)
- Pharmaceutics-XVIII(Pharmaceutical Technology-I) Pharmaceutical Chemistry-V(medicinal Chemistry-II)
- Pharmaceutics-XVII(Clinical Pharmacy-IV) Pharmaceutics-XVIII(Pharmaceutical Technology-II)
- Pharmaceutics-XIX(Forensic Pharmacy-II)
- Pharmaceutics-XX(Pharmaceutical Management & Marketing-II)

#### COURSES

#### Pharm D: 10 semesters

Comprehensive, written + oral

3

4

(Forensic Pharmacy)

(Pharmaceutical

Pharmacy Practice-VIIIB

Management & Marketing)

Pharmaceutical Chemistry-

IVB (Medicinal Chemistry)

(Forensic Pharmacy)

(Pharmaceutical

IVA

Pharmacy Practice-VIIIA

Management & Marketing)

Pharmaceutical Chemistry-

(Medicinal Chemistry)

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Semester 1	Cr Hr	Semester 2	Cr Hr	Semester 3	Cr Hr	Semester 4	Cı H
English-A (Functional English)	2	English-B (Communication & Writing skills)	4	Islamic Studies	3	Pakistan Studies	2
Pharmaceutics-IA (Physical Pharmacy)	4	Pharmaceutics-IB (Physical Pharmacy)	4	Pharmaceutics-IIA (Dosage Form Science)	4	Pharmaceutics-IIB (Dosage Form Science)	4
Pharmaceutical Chemistry-IA (Organic)	4	Pharmaceutical Chemistry-IB (Organic)	4	Pharmaceutics- IIIA (Pharmaceutical Microbiology & Immunology)	4	Pharmaceutics-IIIB (Pharmaceutical Microbiology & Immunology)	4
Pharmaceutical Chemistry-IIA (Biochemistry)	4	Pharmaceutical Chemistry-IIB (Biochemistry)	4	Pharmacology and Therapeutics-IA	4	Pharmacology and Therapeutics-IB	4
Physiology-A	4	Physiology-B	4	Pharmacognosy-IA (Basic)	4	Pharmacognosy-IB (Basic)	4
Anatomy & Histology	4			Pharmacy Practice-IA (Pharmaceutical Mathematics)	3	Pharmacy Practice-IB (Bio- statistics)	3
Semester 5	Cr Hr	Semester 6	Cr Hr	Semester 7	Cr Hr	Semester 8	Cr Hi
Pharmacy Practice-IIA (Dispensing Pharmacy)	4	Pharmacy Practice-IIB (Community, Social & Administrative Pharmacy)	4	Pharmacy Practice-IVA (Hospital Pharmacy)	3	Pharmacy Practice-IVB (Hospital Pharmacy)	3
Pharmaceutical Chemistry- IIIA (Pharmaceutical Analysis)	4	Pharmaceutical Chemistry- IIIB (Pharmaceutical Analysis)	4	Pharmacy Practice-VA (Clinical Pharmacy)	4	Pharmacy Practice-VB (Clinical Pharmacy)	4
Pharmacology and Therapeutics-IIA	4	Pharmacology and Therapeutics-IIB	4	Pharmaceutics-IVA (Industrial Pharmacy)	4	Pharmaceutics-IVB (Industrial Pharmacy)	4
Pharmacognosy-IIA (Advanced)	4	Pharmacognosy-IIB (Advanced)	4	Pharmaceutics-VA (Biopharmaceutics & Pharmacokinetics)	4	Pharmaceutics-VB (Biopharmaceutics & Pharmacokinetics)	4
Pathology	4	Pharmacy Practice-III (Computer and its Application in Pharmacy)	<sup>s</sup> 4	Pharmaceutics-VIA (Pharmaceutical Quality Management)	4	Pharmaceutics-VIB (Pharmaceutical Quality Management)	4
Semester 9	Cr Hr	Semester 10	Cr Hr				
Pharmaceutics-VIIA (Pharmaceutical Technology)	4	Pharmaceutics- VIIB (Pharmaceutical Technology)	4				
Pharmacy Practice-VIA (Advanced Clinical Pharmacy-II)	4	Pharmacy Practice-VIB (Advanced Clinical Pharmacy-II)	4				
Pharmacy Practice-VIIA	3	Pharmacy Practice-VIIB	3				

3

4

# Master of **PHILOSOPHY (M.PHIL)**

#### INTRODUCTION

Evolutionary as well as revolutionary changes are visible and experienced all over the world in the field of pharmacy education and research. The need, desire and significance of knowledge, skills and new techniques are reshaping education in pharmacy. In this era of globalisation, there is a dire need to take the full benefits from recent advances as well as developments taking place in more developed countries offering high quality education in pharmacy.

The Faculty of Pharmacy, University of Lahore, believes in the notion "Think Globally, Act Locally".

The post graduate M.Phil. programme has been launched by the Faculty of Pharmacy in four disciplines, namely, Pharmaceutics, Pharmaceutical Chemistry, Pharmacology, and Pharmacognosy, with the main aim of working in line with the mission of the Higher Education Commission (HEC):

"To facilitate institutions of higher education to serve as an engine of growth for the socio-economic development of Pakistan".

The Faculty of Pharmacy University of Lahore is fully capable of

meeting the three key challenges (a) Quality, (b) Access & (c) Relevance to ensure innovative teaching, service and quality research, with the aim of becoming a premier Faculty of Pharmacy awarding M.Phil. degrees.

#### Career **PROSPECTS**

High quality higher pharmacy education delivered in a safe, professional and easy environment at the Faculty of Pharmacy, The University of Lahore will produce high quality, problem solving pharmacy professionals well equipped with the knowledge, skills and abilities to deliver appropriate, effective and efficient pharmacy services for improving patient care and quality of life by offering workable solutions to problems / major issues in the Health Care System, the Pharmaceutical Industry and its Quality Systems, Academia and Research in the Pharmaceutical Sector.

#### Program **FACTS**

Program Length Full-time, 2 Years Course work: 1 year Research work 7 thesis

Entry Requirements Pharm.D or B.Pharmacy

Location Defence Road Campus

Recognised BY Higher Education Commission

# **PHARMACEUTICS**

#### Road **MAP**

Semester 1	Cr Hr	Semester 2	Cr Hr	Semester 3 & 4
Advanced Pharmaceutics [Theory]	3	Formulation and Product Development [Theory]	3	Research Work and Thesis
Advanced Pharmaceutics [Practicals]	1	Formulation and Product Development [Practicals.]	1	
Biopharmaceutics & Pharmacokinetics [Theory]	3	Pharmacy Practice [Clinical Pharmacy & Pharmaceutical care,] [Theory]	3	
Biopharmaceutics & Pharmacokinetics [Practicals.]	1	Pharmacy Practice [Practicals.]	1	
Microbiology & Molecular Biology [Theory]	3	Biostatistics [Theory]	3	
Microbiology & Molecular Biology [Practicals.]	1	Research Methodology and Special Problems	1	
Seminars	1			

# PHARMACEUTICAL CHEMISTRY

#### Road **MAP**

Semester 1	Cr Hr	Semester 2	Cr Hr	Semester 3 & 4	Cr Hr
Drug Design & Development [Theory]	3	Combinatorial Chemistry [Theory]	3	Research Work and Thesis	25
Drug Design & Development [Practicals.]	1	Combinatorial Chemistry [Practicals.]	1		
Stability of Drugs and Pharmaceutical Analytical Techniques [Theory]	3	Advance Medicinal Chemistry [Theory]	3		
Stability of Drugs and Pharmaceutical Analytical Techniques [Practicals]	1	Advance Medicinal Chemistry [Practicals.]	1		
Chemistry of Natural Products And Phytochemistry [Theory]	3	Biostatistics [Theory]	3		
Chemistry of Natural Products And Phytochemistry [Practicals.]	3	Research Methodology and Special Problems	1		
Seminars	1				

PHARMACY

Cr Hr

25

# PHARMACOGNOSY

#### Road **MAP**

Semester 1	Cr Hr	Semester 2	Cr Hr	Semester 3 & 4	Cr Hr
Advances in Pharmacognosy [Theory]	3	Phytochemicals of Natural Origin [Theory]	3	Research Work and Thesis	25
Advances in Pharmacognosy [Practicals.]	1	Phytochemicals of Natural Origin [Practicals.]	1		
Bio Synthesis and Biotechnology [Theory]	3	CAM (Complementary and Alternate Medicine ). [Theory]	3		
Bio Synthesis and Biotechnology [Practicals.]	1	CAM (Complementary and Alternate Medicine) [Practicals.]	1		
Analytical Techniques in Pharmacognosy [Theory]	3	Research Methodology and Special Problems	1		
Analytical Techniques in Pharmacognosy [Practicals]	1				
Seminar	1				

# PHARMACOLOGY

#### Road **MAP**

	_		_	
Semester 1	Cr Hr	Semester 2	Cr Hr	Semester 3 & 4
Pharmacology & Therapeutics [Theory]	3	Pharmacology & Therapeutics-IV [Theory]	3	Research Work and Thesis
Pharmacology & Therapeutics-I [Practicals.]	1	Pharmacology & Therapeutics-IV [Practicals.]	1	
Pharmacology & Therapeutics-II [Theory]	3	Pharmacology & Therapeutics-V [Theory]	3	
Pharmacology & Therapeutics-II [Practicals.]	1	Pharmacology & Therapeutics. V [Practicals.]	1	
Pharmacology & Therapeutics-III [Theory]	3	Biostatistics [Theory]	3	
Pharmacology & Therapeutics-III [Practicals.]	1	Research Methodology and Special Problems	1	
Seminars	1		-	Note: Comprehe

**INOLE:** Comprehensive written & oral examination is taken at the end of 2nd semester for all desciplines.

Cr Hr

25

# Doctor of Philosophy (Ph.D) in **PHARMACOLOGY**

#### INTRODUCTION

The Doctor of Philosophy (Ph.D.) degree program is the highest academic degree that requires extended study, innovation, creative and intellectual effort. The need, value and worth of knowledge, expertise, professional skills and new research techniques are going to reshape the pharmacy education. In this era, this is a paramount requirement to gain full benefits from the advancement and development of research.

The Faculty of Pharmacy, University of Lahore, offers Doctor of Philosophy (Ph.D.) in Pharmacology. Pharmacology, backbone of pharmacy curriculum is the study of drugs and chemicals on living organisms. Pharmacology today is multidisciplinary, is based

#### Road **MAP**

Semester 1	Cr Hr	Semester 2	Cr Hr
Research Methodology	2	Learning of Various Analytical Research Techniques	2
Battery of Pharmacological Tests to Discover New molecules and Methods and Techniques Applied to Establis Pharmacological Activities in various Classes of Drugs	<sub>sh</sub> 2	Advanced Pharmacology and Therapeutics of Drugs employed to Treat Epidemic/ Pandemic/Endemic	3
Metabolic Disorders 3		Role of Herbal/ or Alternative Therapies in treating ailment	2
Statistical/ Computer Applications	1	Literature Retrieval/Learning of Synopsis writing	1
Seminar	1	Seminar	1

on the knowledge of physiology, biochemistry, cell biology and molecular biology. Pharmacology with its various subdivision links to other mainstreams of biomedical disciplines that are of immense importance in drug designing and therapeutics.

#### Career **PROSPECTS**

Higher Pharmacy education (Pharmacology) is delivered in professional and practical environment. University of Lahore will produce such Professionals who possess a comprehensive understanding of the discipline of Pharmacology and are well equipped with knowledge, innovation and expertise in drug development that will contribute to significant improvement in health care system.

#### Program **FACTS**

#### Program Length

Full-time, 3 to 4 years Course work: 1 year (2 Semester). Research work: 2 to 3 years.

#### Entry Requirements

M.Phil. in Pharmacology with minimum CGPA 3.00 and applicant must have passed GAT (Subjective)

#### Location

Defence Road Campus

#### Recognised **BY**

Higher Education Commission



# Doctor of Philosophy (Ph.D) in **PHARMACEUTICAL CHEMISTRY**

#### **INTRODUCTION**

The Doctor of Philosophy (Ph.D.) degree program is the highest academic degree that requires extended study, innovation, creative and intellectual effort. The need, value and worth of knowledge, expertise, Professional Skills and new research techniques are going to reshape the pharmacy education. In this era, this is a paramount requirement to gain full benefits from the advancement and development of research.

The Faculty of Pharmacy, The

in Pharmaceutical Chemistry.

backbone of Pharmacy Curriculum

synthesizing and characterization

Chemistry is multidisciplinary

and is based on the knowledge

of Physical, Organic, Synthetic

Pharmaceutical Chemistry with its various subdivisions links to

other mainstreams of biomedical

importance in novel drug designing

disciplines that are of prime

and therapeutics development

and Medicinal chemistry.

of novel drug molecules for disease management. Pharmaceutical

University of Lahore offers Doctor of Philosophy (Ph.D.)

Pharmaceutical Chemistry,

is the study of designing

#### Career **PROSPECTS**

Higher Pharmacy Education (Pharmaceutical Chemistry) is delivered in professional and practical environment. The University of Lahore will produce such professionals who possess a comprehensive understanding of the discipline of Pharmaceutical Chemistry and well equipped with knowledge, innovation and expertise in Drug Development that will contribute to significant improvement in health care system.

#### Program **FACTS**

Program Length Full-time, 3 to 4 years Course work: 1 year (2 Semester). Research work: 2 to 3 years.

#### Entry Requirements

M.Phil. in Pharmacology with minimum CGPA 3.00 and applicant must have passed GAT (Subjective)

Location Defence Road Campus

#### Recognised **BY**

Higher Education Commission

#### Road **MAP**

All subjects have 3 credit hours.

#### semester 01

1) DRUG DISCOVERY (credit hours 03)

- A detailed study of Pharmaceutical Biotechnology
- A detailed description of Gene Therapy

#### 2) STURCTURE ACTIVITY RELATIONSHIP (SAR) (credit hours 03)

 Introduction, distribution of drug metabolism, phase I metabolizing enzymes phase-II Conjugation

- SAR with special reference to the binding role of hydroxyl group
- The binding role of amino group
- The binding role of aromatic rings
- The binding role of double bonds
- Quantitive SAR (QSAR)

#### 3) METAL COMPLEXES (credit hours 03)

- Shapes and structure of complexes
- Complex Stability
- General Role of Metal Complexes in Biological Processes

#### semester 02

1) BIOLOGICAL MEMBRAINES (credit hours 03) Introduction The Plasma Membranes The Transfer of Species through Cell Membranes Drug Action that affects the Structure of Cell Membranes and Walls

#### 2) DRUG SOULBILITY (credit hours 03)

Introduction Salt Formation The Incorporation of Water Solubilizing Groups in a Structure Formulation Methods for improving Water Solubility

3) DRUG PROPERTIES AND PHARMCAEUTICAL (credit hours 03) Physico-Chemical and Bio Pharmaceutical Properties of drug substances and Pharmaco-kinetics. Pharmaceutical Calculation involving Buffer Solutions, Radio Active Pharmaceutical, Calculation involving Molecular Weight, Calculations involving Chemical Reaction and Graphical Methods with special reference to linear relationship and interpretatic of data on graphs.

# Faculty of **ALLIED HEALTH** SCIENCES

LAHORE SCHOOL OF NURSING	UNIVERSITY INSTITUTE OF RADIOLOGICAL SCIENCES & MEDICAL IMAGING TECHNOLOGY	UNIVERSITY INSTITUTE OF PUBLIC HEALTH
UNIVERSITY INSTITUTE OF PHYSICAL THERAPY	DEPARTMENT OF HEALTH PROFESSIONAL TECHNOLOGIES	DEPARTMENT OF SPORTS SCIENCES
UNIVERSITY INSTITUTE OF CLINICAL LAB TECHNOLOGY	UNIVERSITY INSTITUTE OF DIET & NUTRITIONAL SCIENCES	RADIOLOGY RESEARCH SECTION



# **LAHORE SCHOOL OF NURSING Faculty of Allied Health Sciences**

#### Mission **STATEMENT**

By the grace of Allah, beginning of BS Nursing Programme in University of Lahore is a great achievement for Nursing Profession. We hope that beginning step will be milestone of new Era of Nursing profession in Punjab. It is Two-Years (Post RN) and Four-Years BSN degree programme to prepare competent nurses who will develop innovative practical

solution to complex health problems from the scientific perspective.

#### INTRODUCTION

To produce health-oriented nurses rather than diseaseoriented nurses by utilizing need based, learning based and community based curriculum. Inculcate milieu that is conducive to critical thinking, problem solving, and is a step ladder to research culture

#### Degrees OFFERED

B.S Nursing (B.S-N)

**B.S Nursing Post RN B.S-N (PostRN)** 



## Bachelor of Science in **NURSING**(BSN)

#### **INTRODUCTION**

This programme consists of 135 credit hours with 43 courses & 1 **Elective Course.** After completion of the four year BS Nursing degree, students will be able to:

a) Utilise the nursing process to provide safe, competent, and holistic nursing care to patients/ clients in a variety of settings. **b)** Utilise effective critical thinking and problem solving skills in their professional practice. c) Utilise scholarly skills and the use of scientific methods in critiquing and applying existing nursing theories and research findings in selected practice settings.

d) Utilise effective oral and written communication in interpersonal and professional interactions with peers, clients, families, and other professionals.

e) Develop leadership skills to promote the development of the profession.

#### Career **PROSPECTS**

Graduate (BSN) nurses can work in a variety of practice settings such as hospitals, long-term care facilities, community and public health agencies, ambulatory care centers, Public Health Service, military services, Administration of Medical centers and in any setting where health care services are needed. It includes operation

room, critical care and emergency departments as well.

#### Core **COURSES**

Fundamental of Nursing-I

- Microbiology
- Anatomy and Physiology-I
- Biochemistry for Nurses
- English-I
- Computer Skills
- Fundamental of Nursing-II
- Anatomy and Physiology-II
- Community Health Nursing-I
- Applied Nutrition
- Enalish-II
- Islamiat
- Pak. Studies
- Adult Health Nursing-I
- Pathophysiology-I
- Health Assessment-I
- Pharmacology-I
- Mathematics
- English-III
- Adult Health Nursing-II
- Pathophysiology-II
- Health Assessment-II
- Developmental Psychology
- Pharmacology-II
- English-IV
- Nursing Ethics
- · Pediatric Health Nursing
- Community Health Nursing-II Teaching / Learning: Principles and Practices
- English-V
- Mental Health Nursing
- Introduction to Biostatistics
- Behavioral Psychology
- Epidemiology
- English-VI
- Culture, Health, and Society
- Critical Care Nursing
- Introduction to Nursing Theories
- · Leadership and Management in

#### Program **FACTS**

Program Length Full-time, 4 Years

**Entry Requirements** Minimum 50%. FSc (Pre-Medical)

Location Defence Road Campus

#### Recognised **BY**

Pakistan Nursing Council (PNC)

**Higher Education Commission** 

#### Nursing

- Nursing Research
- English-VII
- Community Health Nursing-III Nursing Seminar / Role Transition

#### Elective **COURSES**

- Accident and Emergency
- Community Health Nursing
- Critical Nursing
- Dental Health Nursing
- Education
- Management
- Mental Health Nursing
- Operation Theatre Nursing
- Paediatric Nursing

#### Road **MAP**

Semester 1	Cr Hr	Semester 2	Cr Hr	Semester 3	Cr Hr	Semester 4	Cr Hr
Fundamental of Nursing-I	4	Fundamental of Nursing-II	4	Adult Health Nursing-I	8	Adult Health Nursing-II	8
Microbiology	3	Anatomy and Physiology-II	3	Pathophysiology-I	2	Pathophysiology-II	3
Anatomy and Physiology-I	3	Community Health Nursing-I	3	Health Assessment-I	2	Health Assessment-II	2
Biochemistry for Nurses	3	Applied Nutrition	1	Pharmacology-I	2	Developmental Psychology	2
English-I	2	English-II	2	Mathematics	1	Pharmacology-II	2
Computer Skills	1	Islamiat	2	English-III	2	English-IV	2
		Pak. Studies	2			Nursing Ethics	1
Semester 5	Cr Hr	Semester 6	Cr Hr	Semester 7	Cr Hr	Semester 8	Cr Hr
Paediatric Health Nursing	7	Mental Health Nursing	6	Critical Care Nursing	7	Community Health Nursing-III	5
Community Health Nursing-II	6	Introduction to Biostatistics	3	Introduction to Nursing Theories	2	Nursing Seminar / Role Transition	2
Teaching / Learning: Principles and Practices	3	Behavioral Psychology	3	Leadership and Management in Nursing	3	Clinical Practicum	
English-V	2	Epidemiology	2	Nursing Research	3	Accident and Emergency	5
		English-VI	2	English-VII	2	Community Health Nursing	5
		Culture, Health, and Society	2	Critical Care Nursing	7	Critical Nursing	5
						1	-



Dental Health Nursing	5
Education	5
Management	5
Mental Health Nursing	5
Operation Theatre Nursing	5
Paediatric Nursing	5

# Bachelor of Science in **NURSING POST RN (BSN (POST RN)**

#### **INTRODUCTION** This programme consists of 68

credit hours with 20 courses & 1 Elective course. After completion of the two year BS Nursing, students will be able to: a) Utilise the nursing process to provide safe, competent, and holistic nursing care to patients/ clients in variety of settings. **b)** Utilise effective critical thinking and problem solving in their professional practice. c) Utilisescholarly skills and the use of scientific methods in critiquing and applying existing nursing theories and research findings in selected practice settings. d) Utilise effective oral and written communication in interpersonal and professional interactions with peers, clients, families, and other professionals. e) Develop leadership skills to

promote the development of the profession.

#### Career **PROSPECTS**

Graduate (BSN) nurses can work in a variety of practice settings such as hospitals, long-term care facilities, community and public health agencies, ambulatory care centers, Public Health Service, military services, Administration of Medical centers and in any setting where health care services are needed. It includes operation room, critical care and emergency departments as well.

#### Core **COURSES**

- Advance Concept in Clinical Nursing-I
- Communication Skill (English)
- Computer Skills
- Health Assessment
- Microbiology
- Physics & Biochemistry
- Teaching & Learning, Principles and Practices
- Advance Concept in Clinical Nursing-II
- Introduction to Biostatistics
- Nursing Research
- Pathophysiology
- Writing for Research (English)
- Advanced Concept in Community Health Nursing
- Applied Nutrition
- Ethical & Professional
- Development in Health Care • Leadership and Management in
- Nursing
- Professional Writing (English)
- Reproductive Health
- Academic Writing (English)
- Advanced Concept in Mental Health Nursing

#### Elective **COURSES**

- Accident and Emergency Nursing
- Community Health Nursing
- Critical Nursing
- Dental Health Nursing
- Education
- Management
- Mental Health Nursing
- Operation Theatre Nursing
- Paediatric Nursing

## Program **FACTS**

Program Length Full-time, 2 Years

#### Entry Requirements Three Years Diploma General Nursing,

One Year Midwifery / One Year Specialization

Location Defence Road Campus

#### Recognised **BY**

Pakistan Nursing Council (PNC) Higher Education Commission

#### Road **MAP**

Semester 1	Cr Hr	Semester 2	Cr Hr	Semester 3	Cr Hr	Semester 4	Cr Hr
Advance Concept in Clinical Nursing-I	5	Advance Concept in Clinical Nursing-II	5	Advanced Concept in Community Health Nursing	6	Academic Writing (English)	2
Communication Skill (English)	2	Introduction to Biostatistics	3	Applied Nutrition	1	Advanced Concept in Mental Health Nursing	6
Computer Skills	00	Nursing Research	3	Ethical & Professional Development in Health Care	3	Elective	7
Health Assessment	3	Pathophysiology	4	Leadership and Management in Nursing	3		
Microbiology	3	Writing for Research (English)	3	Professional Writing (English)	3		
Physics & Biochemistry	3			Reproductive Health	1		
Teaching & Learning, Principles and Practices	2						



# University Institute of RADIOLOGICAL SCIENCES & MEDICAL IMAGING TECHNOLOGY (UIRSMIT)

#### **Faculty of Allied Health Sciences**

#### Mission **STATEMENT** a) Enable students to develop the cognitive, effective and psychomotor skills needed by an entry level radiographer/ sonographer/sonologist, as prescribed in the professional curriculum.

**b)** Provide a liberal arts and sciences component which will broaden the student's knowledge and understanding into areas beyond the Radiology Curriculum.

c) Provide an opportunity for students to achieve a high degree of information literacy, including the ability to seek and use information resources for problemsolving, critical thinking and professional values, such as those outlined in the American Society of Radiologists.

**d)** Practice set standards for Medical Imaging and Radiology.

e) Prepare students to pass the national certification

examination and gualify for regional licensure. f) Demonstrate a high degree of student success within the curriculum, as evidenced by low attrition & high graduation rates.

#### INTRODUCTION

In April 2011, we began work as a separate campus of the university. based at Shadman, Lahore.

We offered basic courses in Ultrasound. a Post Graduate Diploma in Ultrasound and an M.Phil. in 5 parallel tracks in Ultrasound for the MBBS in the first phase under the umbrella of the University of Lahore. We later introduced the BSc, MSc in Medical Imaging Technology as well as Certification, Diploma and the BSc & MSc in Medical Ultrasound Technology. In February 2012 with more than 100 registered students, this institute was merged into the main University campus. In the near future, we will introduce PhD programs in the fields of Ultrasound and Radiology.

#### Degrees OFFERED

Bachelor of Science in Medical Ultrasound Technology (B. Sc-MUT)

M.Sc. Medical Ultrasound Technology (M.Sc.-MUT)

MS Medical Imaging Technology (MS-MIT)

Medical Imaging Doctor (MID)

Diploma in Medical Ultrasound Technology (DMUT)

Transitional Diploma in Medical Imaging Technology (TDMIT)1 Year

Extended Diploma in Medical Imaging Technology (EDMIT)2 Years

PhD in Medical Ultrasound Technology

**PhD** in Medical Imaging Technology

# Bachelor of Science in **MEDICAL ULTRASOUND TECHNOLOGY** (B.Sc-MUT)

#### INTRODUCTION

This program is introduced for the first time in Pakistan, keeping in view the need of a healthcare institutes in Radiology Department. This course will provide and enable students to cope with the rapid advancement in the field of Ultrasound.

## Career **PROSPECTS**

This program is introduced for the first time in Pakistan, keeping in view the need of a healthcare institutes in Radiology Department. This course will provide and enable students to cope with the rapid advancement in the field of Ultrasound.

#### Program **FACTS**

Program Length 2 Years

Entry Requirements Minimum 50 % F. Sc or Equivalent

Location Raiwind Road Campus

## Recognised **BY**

Higher Education Commission

## Master of Science in **MEDICAL ULTRASOUND TECHNOLOGY** (M.Sc-MUT)

#### **INTRODUCTION**

This program is introduced for the first time in Pakistan, keeping in view the need of a healthcare institute in Radiology Department. This course will provide and enable student to cope with the rapid advancement in the field of Ultrasound.

#### Career **PROSPECTS**

This professional program is for the student's community to provide them the latest techniques in the field of Ultrasound worldwide. After completing this program, they can move further for M.Phil in Ultrasound/Radiology or can get jobs in the Radiology department as a "Technologist".

### Program **FACTS**

Program Length 2 Years

Entry Requirements Minimum 50 % B. Sc or Equivalent

Location Raiwind Road Campus

Recognised BY Higher Education Commission

## Road **MAP**

Semester 1	Cr Hr	Semester 2	Cr Hr	Semester 3	Cr Hr	Semester 4	Cr Hr
Basic Anatomy	4	Obstetrical Ultrasound	6	Medical Ethics	2	Advances in Ultrasound	5
Applied Anatomy	3	Abdominal Ultrasound	6	Small Parts Ultrasound	3	Interventional Ultrasound	4
Ultrasound Physics & Instrumentation	4	Gynaecological Ultrasound	5	Doppler Ultrasound		Fetal Medicine Ultrasound	5
Basic Physiology	2			Vascular Ultrasound	5	Pak.Studies & Islamiyat	3
Applied Physiology	2			Musculoskeletal Ultrasound	4		
Applied Pathology	2						

#### Road **MAP**

Semester 1	Cr Hr	Semester 2	Cr Hr	Semester 3	Cr Hr	Semester 4	Cr Hr
Ultrasound Physics & Instrumentation	5	Obstetrical Ultrasound	5	Research M. & Statistics	5	Research	12
Applied Anatomy	4	Applied Pathology	4	Research	7		
Applied Physiology	4	Applied Doppler	4				
Abdominal Ultrasound	4	Vascular Ultrasound	4				
Small Parts Ultrasound	2	Musculoskeletal Ultrasound	2				
Gynaecological Ultrasound	4	Advances in Ultrasound	4				

# AL SCIENCES & MEDICAL IMAGING TEC

# **MEDICAL IMAGING DOCTOR** (MID)

#### **INTRODUCTION**

This program is equal to professional & clinical Master Degree like Pharm-D & DVM etc. It was introduced first time in Pakistan in spring 2013, keeping in view the need of a healthcare institute in Radiology Department. This course will provide & enable student to cope with the rapid advancement in the field of Medical Imaging Technology e.g. Radiography, CT, MRI, Ultrasound etc.

Road **MAP** 

## Career **PROSPECTS**

This professional program is for the student's community to provide them the latest techniques in the field of Ultrasound worldwide. After completing this program, they can move further for M.Phil in Radiology or can get jobs in the Radiology department as a "Doctor of Medical Imaging" as per job description approved by health authorities later on.

#### Program **FACTS**

Program Length 5 Years (10 semesters) 156 Credit

Hours

#### Entry Requirements Minimum 50 % F. Sc or Equivalent Location Raiwind Road Campus

Recognised **BY** 

Higher Education Commission	

Semester 1	Cr Hr	Semester 2	Cr Hr	Semester 3	Cr Hr	Semester 4	Cr Hr	Semester 5	Cr Hr
Basic Anatomy	4	Medical Ethics.	5	Gynaecological Ultrasound	4	Radiation sciences and technology	3	Applied Medicine	3
Applied Anatomy	3	Applied Physiology	4	Musculoskeletal Ultrasound	3	General Radiology	4	Applied Surgery	3
Medical imaging Physics & Instrumentation	4	Obstetrical Ultrasound	8	Basics of Doppler ultrasound	3	Interventional Radiology	5	Applied Pathology	3
Basic Physiology	2			Abdominal Ultrasound	5	Small parts Ultrasound	5	Clinical Pharmacology	3
Basic Biochemistry	2			Computer Education	2			Echocardiography	4
Basic Pathology	2							Patient care	2
Semester 6	Cr Hr	Semester 7	Cr Hr	Semester 8	Cr Hr	Semester 9	Cr Hr	Semester 10	Cr Hr
Computed Tomography (CT)	7	Magnetic resonance imaging (MRI)	7	Nuclear medicine	4	Practical Ultrasound	2	Practical Magnetic resonance imaging (MRI)	2
Mammography special radiological techniques	7	Medical imaging in Emergency Medicine	2	Advances in Medical Imaging Technology	3	Practical Vascular Ultrasound	2	Practical Fluoroscopy	2
Angiography and cardiac imaging	3	Vascular Ultrasound	3	Research methodology and Biostatistics	2	Practical Medical imaging in Emergency Medicine	2	Practical Mammography	2
		Behavioural Sciences	3	Research Project	8	Practical Computed Tomography (CT)	2	Practical Interventional Radiology	2
		Islamiyat & Pakistan studies	2			Practical X-Rays	2	Practical in Nuclear Medicine	2

# Masters in MEDICAL IMAGING TECHNOLOGY (MS-MIT)

## INTRODUCTION

This program is equal to M. Phil. This program is introduced first time in Pakistan in 2006, keeping in view the need of a healthcare institute in Radiology Department. This course will provide and enable student to cope with the rapid advancement in the field of Medical Imaging Technology e.g. CT, MRI, Ultrasound etc.

#### Career **PROSPECTS**

This professional program is for the student's community to provide them the latest techniques in the field of Ultrasound worldwide. After completing this program, they can move further for PhD in Radiology or can get jobs in the Radiology department as a "Senior Technologist".

# Program **FACTS**

Program Length 2 Years

#### Entry Requirements

Minimum 50 % B.Sc. (Honors 4 years) or Equivalent

Location

Raiwind Road Campus

#### Recognised BY Higher Education Commission

#### Road **MAP**

Semester 1	Cr Hr	Semester 2	Cr Hr	Semester 3	Cr Hr	Semester 4	Cr Hr
Medical Imaging Physics & Instrumentation	2	Obstetrical Ultrasound	2	Research M. & Statistics.	2	Research	17
Applied Anatomy	2	Applied Pathology	1	Medical Ethics	3		
Applied Physiology	2	Applied Doppler	1	Research	12		
Abdominal Ultrasound	2	Vascular Ultrasound	1				
Small Parts Ultrasound	1	Musculoskeletal Ultrasound	1				
Gynaecological Ultrasound	2	Angiography	1				
Conventional Radiography	2	Interventional Radiology	1				
Basics of CT	2	Brain CT & MRI	2				
Basics of MRI	2	Chest CT & MRI	2				
		Abdominal CT & MRI	2				
		Locomotors System CT and MRI	2				

1

Neuroradiology

# Diploma in MEDICAL ULTRASOUND TECHNOLOGY (DMUT)

#### **INTRODUCTION**

This programme is introduced for the first time in Pakistan. It is designed with the needs of healthcare institutes in mind.

The course will enable students to cope with rapid advancements in the field of Ultrasound.

### Career **PROSPECTS**

This professional programme is for the community of Non-Physicians who have their own clinics or private set-ups and want to improve their skills in the field of Ultrasound. It will fulfill that requirement and provide students with the latest techniques in the field of Ultrasound from around the world. After completing the course they will be able to scan their own private patients.

### Program FACTS

**Program Length** 1 Year

Entry Requirements Minimum 50 % FA/F. Sc, LHV, Nurses, DHMS

Location Raiwind Road Campus

Recognised **BY** Higher Education Commission

#### Road **MAP**

Semester 1	Cr Hr	Semester 2	Cr Hr
Ultrasound physics & instrumentation	4	Medical Ethics.	2
Obstetrical Ultrasound	5	Small Parts Ultrasound	3
Abdominal Ultrasound	4	Doppler Ultrasound	4
Gynaecological Ultrasound	4	Vascular Ultrasound	4
		Musculoskeletal Ultrasound	4



# Transitional Diploma in **MEDICAL IMAGING TECHNOLOGY**(TDMIT)

#### INTRODUCTION

This diploma is designed especially for Medical Imaging Graduates who wanted to excel their career in the field of Radiology. This diploma is to provide professional skill in the field of Radiology and students will do practical trainings in the affiliated hospitals.

#### Road **MAP**

Semester 1	Cr Hr				
Practical Ultrasound	2	Practical Magnetic resonance imaging (MRI).	2		
Practical Vascular Ultrasound	2	Practical Fluoroscopy	2		
Practical Medical imaging in Emergency Medicine	2	Practical Mammography	2		
Practical Computed Tomography (CT)	2	Practical Interventional Radiology	2		
Practical X-Rays	2	Practical in Nuclear Medicine	2		

### Program **FACTS**

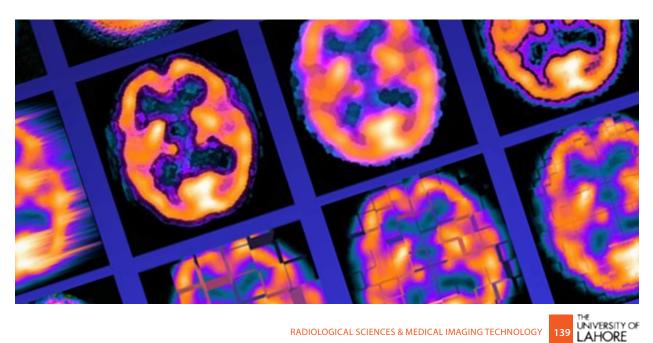
Program Length 1 Year (2 Semesters)

#### **Entry Requirements**

Minimum 50 % 4 Years BS (Hons) in Medical Imaging Technology

#### Location **Raiwind Road Campus**

Recognised **BY Higher Education Commission** 



# Extended Diploma in **MEDICAL IMAGING TECHNOLOGY**(EDMIT)

#### **INTRODUCTION**

This diploma is designed especially for Medical Imaging Graduates who wanted to excel their career in the field of Radiology. This diploma is to provide professional skill in the field of Radiology and students will do practical trainings in the affiliated hospitals.



### Program **FACTS**

Program Length 2 Year (4 Semesters)

**Entry Requirements** Minimum 50 % 3 years BS (Hons) in Medical Imaging Technology

Location **Raiwind Road Campus** 

Recognised **BY** Higher Education Commission

# **PhD Degrees**

#### **INTRODUCTION**

This is 3-5 Years full time PhD program as detailed below:

• PhD Medical Ultrasound Technology (PhD MUT)

• PhD Medical Imaging Technology (PhD MIT)



Program Length 3-5 Years, Morning/Afternoon Session

**Entry Requirements** M.Sc or equivalent

Location Raiwind Road Campus

Recognised **BY** Higher Education Commission



#### Road **MAP**

Semester 1	Cr Hr	Semester 2	Cr Hr			Semester 4	Cr Hr
General Ultrasound	2	Magnetic resonance imaging (MRI).	2	Practical Ultrasound	2	Practical Magnetic resonance imaging (MRI).	2
Vascular Ultrasound	2	Fluoroscopy	2	Practical Vascular Ultrasound	2	Practical Fluoroscopy	2
Medical imaging in Emergencies	2	Mammography	2	Practical Medical imaging in Emergency Medicine	2	Practical Mammography	2
Computed Tomography (CT)	2	Interventional Radiology	2	Practical Computed Tomography (CT)	2	Practical Interventional Radiology	2
Conventional Radiology	2	Nuclear Medicine	2	Practical X-Rays	2	Practical in Nuclear Medicine	2

# **Doctor of MEDICAL ULTRASOUND TECHNOLOGY** (PhD-MUT)

#### INTRODUCTION

This degree is designed especially for those students who want to excel their career in the field of Medical Diagnostic Ultrasound. This Degree will provide professional skill to them and

students will be in a position to get better jobs and its best for teaching ultrasound as well at the same time.

#### Road MAP (SANDWICH PROGRAM)

#### SEMESTER 1(18 CME OF 1 MONTH)

Candidate will appear in the final exam of the course work and NTS Exam and remaining time he will attach with his own university with whom MOU will be signed by the UOL.

#### SEMESTER 2 TO 5 (DATA COLLECTION)

#### SEMESTER 6 (THESIS SUBMISSION AND FINAL EXAM)

#### Road MAP (REGULAR PROGRAM)

Semester 1	Cr Hr	Semester 2	Cr Hr	Semester 3 - 6 / 10
Practical Basic (I)	3	Musculoskeletal Ultrasound	3	
Practical Advance (II)	1	Interventional Ultrasound	1	Research
Obstetrical & Gynecological Ultrasound	1	Small Parts Ultrasound	2	
Abdominal Ultrasound	1			
Vascular Ultrasound	1			
Ultrasound Physics & Instrumentation	1	-		

**Biostatistics** & Research Methodology

1

### Program **FACTS**

**Program Length** 3-4 years (6-8 Semesters)

**Entry Requirements** Minimum MBBS with Masters/M.Phil in Ultrasound/M. Sc or MS

Location **Raiwind Road Campus** 

Recognised **BY** Higher Education Commission



## Doctor of **MEDICAL IMAGING TECHNOLOGY** (PhD-MIT) Program **FACTS**

#### INTRODUCTION

This degree is designed especially for those students who want to excel their career in the field of Medical Imaging Technology (Radiology Department). This Degree will provide professional skill to them and students will be

#### Road MAP (SANDWICH PROGRAM)

#### SEMESTER 1(18 CME OF 1 MONTH)

Candidate will appear in the final exam of the course work and NTS Exam and remaining time he will attach with his own university with whom MOU will be signed by the UOL.

#### SEMESTER 2 TO 5 (DATA COLLECTION)

#### SEMESTER 6 (THESIS SUBMISSION AND FINAL EXAM)

#### Road MAP (REGULAR PROGRAM)

Semester 1	Cr Hr	Semester 2	Cr Hr	Semester 3 - 6 / 10
Biostatics & Research Methodology	3	Angiography	2	
Radiology Physics & Instrumentation	1	Neuroradiology & ENT Radiology	2	
Mammography & Breast	1	Interventional Radiology	2	Research
Radiology & Emergency Medicine	1	Gastrointestinal Radiology	1	
Musculoskeletal Radiology	1	Genitourinary System Radiology	1	
Respiratory System Radiology	1	Neuclear Medicine	1	
Cardiovascular Radiology	1			

#### in a position to get better jobs and Program Length

its best for teaching ultrasound as well at the same time.

3-4 years (6-8 Semesters) **Entry Requirements** 

Minimum MBBS with Masters/M.Phil in Ultrasound or MS-MIT/DMRD/FCPS

Location **Raiwind Road Campus** 

## Recognised **BY**

**Higher Education Commission** 



# University Institute of **PUBLIC HEALTH (UIPH)**

#### Mission **STATEMENT**

Our vision is to become a Centre of excellence for teaching and research in Public Health. We aim to accomplish a benchmark level through • Specialized training and educational opportunities designed to address the evolving needs of the public health system. • Achieving brilliance by

• Achieving brilliance by integrating both academics and research with extraordinary practice opportunities.

- Promoting creative and innovative interdisciplinary research.
- Promoting collaborations and partnerships to address emerging public health problems.

• Improving the capacity of current public health professionals and infrastructure to respond to public health challenges.

#### **NT INTRODUCTION** tre Public Health is the art and Science

of preventing diseases, prolonging life and promoting health through the organized efforts of society. The goal of UIPH is the biologic, physical and mental well-being of all members of society, focuses on the health of the individual patient.

Public Health emphasize the integration of diseases prevention and health promotion on one hand and treatment for acute illness and chronic care on the other with the aim of delivering quality health care services equitably and efficiently.

### Degrees **OFFERED**

Master in Public Health (MPH) – 2 Years

M- Sc. in International Health (M.Sc-IH) – 2 Years

Master of Science in Medical Education (MME)– 2 Years

Certificate in Health Professions Education Programme **(CHPE)** 

Recognised BY Pakistan Medical & Dental Council, Higher Education Commission



# Master in **PUBLIC HEALTH (MPH) 2 YEARS**

#### INTRODUCTION

Master in Public Health (MPH) is a two year post-graduate, professional degree program comprising of 4-semesters. The first three semesters will be dedicated to course work and the last semester is assigned for Practicum (on Job assignment) and dissertation writing/research. It is focused on public health practice through professional training & research. MPH is an interdisciplinary degree designed to prepare students across a wide range of subject areas to explore the complexity Public Health concerns. The program is designed to understand in-depth knowledge of epidemiology,

biostatistics, health management and administration, environmental health, communicable and noncommunicable diseases etc., and their application in analyzing the major national and international public health issues.

### Career **PROSPECTS**

The predominant aim is to provide opportunity to the participants to acquire essential knowledge and skills, transform knowledge into evidence base practice through creative and innovative research, and to disseminate acquired knowledge to the public, health providers and policy makers.

## Program **FACTS**

**Program Length** 2 Years (4 semesters) 72 Credit Hours

Entry Requirements Minimum MBBS or BDS

Location Raiwind Road Campus

#### Recognised BY Pakistan Medical & Dental Council,

Higher Education Commission



# Master of Science in INTERNATIONAL HEALTH (M.SC-IH) 2 YEARS

#### INTRODUCTION

Master in International Health (M.Sc-IH) is a two year post-graduate, professional degree program comprising of 4-semesters. The first three semesters will be rotation writing/research. M.Sc-IH is an interdisciplinary degree designed to prepare students across a wide range of subject areas to explore the complexity of International Health issues. The program is designed to understand in-depth knowledge of epidemiology, biodedicated to course work and the last semester is assigned for Practicum (on Job assignment) and dissestatistics, health policy and planning, environmental health. communicable and noncommunicable diseases etc., and their application in analyzing the major international health issues with more emphasis on developing countries particularly Pakistan.

### Career **PROSPECTS**

The predominant aim is to provide opportunity to the participants to acquire essential knowledge and skills, transform knowledge into evidence base practice through creative and innovative research, and to disseminate acquired knowledge to the public, health providers and policy makers.

#### Program **FACTS**

Program Length 2 Years (4 semesters) 80 Credit Hours

Entry Requirements Minimum MBBS or BDS

Location Raiwind Road Campus

Recognised BY Pakistan Medical & Dental Council, Higher Education Commission

# Master of Science in **MEDICAL EDUCATION** (MME)-2 YEARS

#### INTRODUCTION

Those who require a degree understanding of educational theory, research and practice, either in the hope of assuming leadership roles in educational development and administration of medical institutions must do MME. Master of Science in Medical Education (MME) aims at producing high quality health professions educationists, capable of leading the rapidly changing educational scenario of Pakistani health professions educational system.

The programme strives to equip medical colleges, nursing colleges and other health professions education institutes with high quality educationists who can respond to the educational needs of these institutes. The programme focuses on a variety of educational issues such as curriculum development, teaching and learning, assessment methods, professionalism, quality of education, leadership and

management of educational institutes in a constructivist environment ton impact the educational skills to the candidates to make them educational leaders and agents of positive change. The programme primarily consists of face to face teaching and learning component and tutor marked assignments. Face to face teaching is done in six contact sessions (each consisting of ten days), spread over 18 months. Candidates are required to do essential reading and work on their assignment during the interval between the contact sessions.

#### Career **PROSPECTS**

After graduation the candidates can work fulltime in the health professions education departments of the educational institutes and lead and manage the educational system in large number of educational institutes in the country. Candidates with educational qualification get preference in promotions.



Program Length 2 Years

Entry Requirements Minimum MBBS or BDS

Location Raiwind Road Campus

#### Recognised **BY**

Pakistan Medical & Dental Council, Higher Education Commis<u>sion</u>



#### ALLIED HEALTH SCIENCES 147

# Certificate in **HEALTH PROFESSIONS EDUCATION PROGRAMME**

#### **INTRODUCTION**

Certificate in Health Education (CHPE) programme has been specially designed to introduce the basic concepts of teaching and learning to health professions education teachers in Pakistan. CHPE programme provides an opportunity to HPE teachers to learn the basics of health professions education, that are required to make them effective teachers through introducing the basic concepts about teaching and learning, curriculum design and assessment. The programme is targeted to doctors, nurses and allied health professionals involved in teaching and learning in medical, dental, nursing and allied health institutes. The concept of the programme revolves around Hardens' twelve roles of a medical teacher. The programme provides an opportunity to educators to develop a few skills required by a HPE teacher.

The idea of the programme is not new. The need for such programme has always been felt in different countries and various versions of such programmes are available in different countries. Association for Medical Educators in Europe (AMEE) regularly runs a three four days workshop with the name of Essentials Skills in Medical Education (ESME).

CHPE aims at introducing the basics and applied concepts of medical education to the Pakistani HPE teachers and improving their skills to perform the basic functions of a medical in a HPE institute.

# Learning **OUTCOMES**

By the end of CHPE course, the target audience should be able to achieve the following learning outcomes:

- Understanding trends, issues and challenges in HPE at the global, national and local levels.
- Understanding the significance and role of HPE in improving the quality of education.
- Recognize the changing role of a medical teacher beyond the boundaries of mere information provider.
- Develop skills as efficient and effective medical teachers.
- Explore different methods and strategies for teaching and learning in Pakistani medical education environment.
- Demonstrate basic
- communication skills pertinent to

#### Program **FACTS**

Program Length 8 days (64 hours)

#### Entry Requirements

Doctors (MBBS/BDS), Nurses & Allied health professionals involved in teaching

Location Raiwind Road Campus

#### Recognised BY Higher Education Commission

their roles as medical teacher.
Perform alignment of curriculum development with teaching, learning and assessment.
Identify his/her own professional development needs professionalize his/her practice as an educator and lifelong learner.

# University Institute of **PHYSICAL THERAPY** (UIPT)

and PhD in Physical Therapy also

launched by this department

1st ever in Pakistan under the

supervisors. Future programs

in other specialties of Physical

Therapy Insh-Allah. Recently

include MS and M.Phil programs

inaugurated "University Physical

Therapy & Rehabilitation Clinic

(UPTRC)" (Clinical project 1 out

of 5) is the state-of-the-art clinic

for affording and non-affording

place for clinical learning of UIPT

students. During last one and half

year, UIPT organized more than

8 CPD national and international

workshops/seminars in which

participants came through out

Pakistan. Another milestone

achieved by UIPT is the MoU

resources.

signed among UOL, KEMU and

TUF for mutual sharing of learning

patients and also a very good

supervision of international

#### Mission **STATEMENT**

Our Vision is to establish a stateof-the-art teaching, clinical & research Division of Physical Therapy & Rehabilitation at THE UNIVERSITY OF LAHORE for basic & advanced activities/training along with quality undergraduate and postgraduate physiotherapy education in line with current national & international higher standards.

### **INTRODUCTION**

University Institute of Physical Therapy (UIPT) is a newly established department under the umbrella of Faculty of Allied Health Sciences (FAHS). The date of birth of this department is 1st September, 2012. The launching milestone achieved by this department was the accommodation of so many migration students from other known universities. So it started its journey from four semesters and five classes with senior most batch of 4th semester. Now, the total number of students of this department is 657. The total permanent faculty of this department consists of 35 people along with 2 international and 3 national visiting faculty members so far. Just after start of three months, two new postgraduate

programs consisting of M.Phil

(Physical Therapy-Musculoskeletal)

Degrees **OFFERED** 

Doctor of Physical Therapy (DPT)

Master of Philosophy in Physical Therapy (Musculoskeletal)(M.Phil, PT- MSK)

Doctor of Philosophy in Physical Therapy (PhD- PT)

# Doctor of **PHYSICAL THERAPY** (DPT)

## **INTRODUCTION**

This degree is designed especially for those students who want to excel their career in the field of Physical Therapy. They will be Called "Physiotherapist" and will add "Doctor" as Prefix in their names and "Physiotherapist" as Suffix in their names. This Degree will provide professional skill to them and they will be in a position to get better jobs as a "Physiotherapist" in health settings. Physiotherapists can treat a wide range of disorders,

they are highly in demand today making career physiotherapy very attractive. Currently there is a lot of demand for physiotherapists in Pakistan as well as in USA, Canada, UK, Australia and in South Asia etc. It is estimated that one physiotherapist is required per 10,000 people. But the total number of physiotherapy professionals in Pakistan is only in hundreds.

#### Program **FACTS**

**Program Length** 5 years (10 Semesters) 172 Credit Hrs

**Entry Requirements** Minimum 50% F. Sc. (Pre- Medical)

Location

Defence Road Campus

Recognised **BY** Higher Education Commission



### Road MAP

SEMESTER 1	Cr Hr	SEMESTER 2	Cr Hr	SEMESTER 3	Cr Hr	SEMESTER 4	Cr Hr	SEMESTER 5	Cr Hr
Anatomy (I)	4	Anatomy (II)	4	English III (Technical Writing & Presentation Skills)	2	Anatomy IV	3	Pathology & Microbiology I	2
Physiology (I)	3	Physiology (II)	3	Introduction to Computer	3	Biomechanics & Ergonomics II	3	Pharmacology I	3
Kinesiology (I)	3	Kinesiology (II)	3	Anatomy III	3	Behavioural Sciences (Psychiatry & Psychology)	3	Physical Agents & Electrotherapy I	3
English I (Functional English)	2	English II (Communication Skills)	2	Physiology III	3	Biochemistry & Genetics II	2	Therapeutic Exercises & Techniques	¥ 3
Pakistan Studies	2	Islamic Studies / Ethics	2	Biomechanics & Ergonomics I	3	Exercise Physiology	3	Sociology	2
Bio-Statistics I / University Optional	3	Bio-Statistics II / University Optional	3	Biochemistry & Genetics I	2	Medical Physics	3	Health & Wellness	2
								Supervised Clinical	3

Practice I

SEMESTER 6	Cr Hr	SEMESTER 7	Cr Hr	SEMESTER 8	Cr Hr	SEMESTER 9	Cr Hr	SEMESTER 10	Cr Hr
Pathology & Microbiology II	3	Medicine I	3	Medicine II	3	Cardiopulmonary Physical Therapy	3	Obstetrics & Gynaecological Physical Therapy	2
Pharmacology II	2	Surgery I	3	Surgery II	3	Emergency Procedures & Primary Care in Physical Therapy	2	Paediatric Physical Therapy	2
Physical Agents & Electrotherapy II	3	Radiology & Diagnostic Imaging	3	Neurological Physical Therapy	3	Clinical Decision Making & Differential Diagnosis	3	Gerontology & Geriatric Physical Therapy	<sup>;</sup> 2
Manual Therapy	3	Musculoskeletal Physical Therapy	3	Evidence Bases Practice	3	Scientific Inquiry & Research Methodology	3	Sports Physical Therapy	2
Technical Methodology & Community Medicine	3	Human Growth, Developmen & Community Based Rehabilitation	nt 2	Prosthetics & Orthotics	2	Professional Practice (Law, Ethics, Administration)	2	Supervised Clinical Practice VI	4
Supervised Clinical Practice II	3	Supervised Clinical Practice III	3	Supervised Clinical Practice IV	3	Integumentry Physical Therapy	2	Research Project	6
						Supervised Clinical Practice V	3		

# Master of Philosophy in **PHYSICAL THERAPY** (MUSCULO-SKELETAL) (M.PHIL, PT-MSK)

#### **INTRODUCTION**

This degree is designed especially for those DPT graduates only who want to excel their career in the field of Physiotherapy education and teaching. This Degree will provide professional skills of teaching and research and M.Phil (MSK-PT) graduates will be in a position to get better jobs in rapidly growing and developing physical therapy institutions.



#### Program **FACTS**

#### Program Length

2 years (4 Semesters) 48 Credit Hours

#### **Entry Requirements**

•5 Years DPT or BS Honors degree (or minimum 16 years of education) recognized by HEC

• GAT/NTS-General Test – Minimum passing marks 50%

#### Location

Defence Road Campus

Recognised BY Higher Education Commission

### Road **MAP**

Cr Hr	SEMESTER 2	Cr Hr	SEMESTER 3	Cr Hr	SEMESTER 4	Cr Hr
4	Musculoskeletal disorders	3	Research / thesis	6	Research / thesis	6
3	Musculoskeletal assessments	3				
3	Physical agents in rehabilitation	3				
3	Exercise rehabilitations	3				
3	Plan of care and outcome measures in physical therapy	3	•			
2	Medical informatics and research methodology	3				
	Hr 4 3 3	Hr     SEIVESTER 2       4     Musculoskeletal disorders       3     Musculoskeletal assessments       3     Physical agents in rehabilitation       3     Exercise rehabilitations       3     Plan of care and outcome measures in physical therapy       2     Medical informatics and	HrSERVESTER 2Hr4Musculoskeletal disorders33Musculoskeletal assessments33Physical agents in rehabilitation33Exercise rehabilitations33Plan of care and outcome measures in physical therapy32Medical informatics and3	Hr     SERVIESTER 2     Hr     SERVIESTER 3       4     Musculoskeletal disorders     3     Research / thesis       3     Musculoskeletal assessments     3       3     Physical agents in rehabilitation     3       3     Exercise rehabilitations     3       3     Plan of care and outcome measures in physical therapy     3       2     Medical informatics and     2	Hr     SERVIESTER 2     Hr     SERVIESTER 3     Hr       4     Musculoskeletal disorders     3     Research / thesis     6       3     Musculoskeletal assessments     3     3       3     Physical agents in rehabilitation     3       3     Exercise rehabilitations     3       3     Plan of care and outcome measures in physical therapy     3       2     Medical informatics and     2	Hr     SERVIESTER 2     Hr     SERVIESTER 3     Hr     SERVIESTER 4       4     Musculoskeletal disorders     3     Research / thesis     6     Research / thesis       3     Musculoskeletal assessments     3       3     Physical agents in rehabilitation     3       3     Exercise rehabilitations     3       3     Plan of care and outcome measures in physical therapy     3       2     Medical informatics and     2

# Doctor of Philosophy in **PHYSICAL THERAPY** (PhD-PT)

#### **INTRODUCTION**

This degree is designed especially for M.Phil Physical Therapy graduates only who want to excel their career in the field of Physiotherapy as a specialized educationist.

#### **SEMESTER 1**

It includes 6 Core Modules Total of 18 Credit hours which will be taught in modular pattern by Local & international renowned PhD Scholars.

#### **SEMESTER 2 TO 10**

Second component encompasses all steps after approval of synopsis by UOL-PhD committee to the submission of thesis and its defense. Semester 2 to 6 (Field work, Data Collection and Analysis) Semester 6 to 10(Thesis Submission and Final Exam) Students will be encouraged and are expected to participate in national and/or international conferences, seminars, lectures and scientific peer reviewed publication process.

#### **PROPOSED PhD COMMITTEE**

It will be comprised of all module in-charges and assigned supervisors.

**SEMESTER 1:** (16 Weeks, 18 contact hours per week = 18 credit Hour)

#### Road **MAP**

Module No	911	912	913	914	915	916	
Credits	3	3	3	3	3	3	
Duration	3 weeks	3 weeks	2 weeks	3 weeks	2 weeks	3 weeks	
Title of Module	Advanced Biostatistics& Research Methodology	Genetics And Molecular Biology Of Muscle Adaptation	Science,Theory And Clinical Application In Orthopaedic Physical Therapy	Diagnostic Imaging In Rehabilitation	Sports Traumotology And Rehabilitation	Public Health And Physical Therapy	

**NOTE:** At the end of 1st Semester, there will be comprehensive examination and approval & submission of Synopsis.

## Program **FACTS**

#### **Program Length**

3-5 years (6- 10 Semesters) 48 Credit Hours

#### **Entry Requirements**

• M. Phil in Physical Therapy (M.Phil-PT) / MS-Physical Therapy (MS-PT) from HEC recognized university with ≥ CGPA 3.00.

• The candidates should specify their proposed research topic and its description along with the admission form (Not more than 7 pages).

#### Location

Defence Road Campus

Recognised **BY** 

# Department of HEALTH PROFESSIONAL TECHNOLOGIES (DHPT)

# OUR FACULTY

Col (R) Dr Abdul Qayyum HOD/ Asst Professor MBBS, H&HCM DIP, M Phil G US.



## Degrees **OFFERED**

Master of Non-Invasive Orthopedic Technology (MNIOT)

Post graduate Diploma in Non-Invasive Orthopedic**(PGDNIO)** 

Occupational Sciences (BSOS)

Master of Rehabilitation, Counseling & Psychology (MSRCP)

Bachelor of Respiratory Therapy **(BSRT)** 

Bachelor of Speech ,Language Therapy (BSRT)

Bachelor of Audiology (BSRT)

# Bachelor of **OCCUPATIONAL SCIENCES** (BSOS)

#### Program **FACTS**

Program Length 4 Years (8 semesters) 136 Credit Hours

Entry Requirements •Minimum 50 % F.Sc or Equivalent

Location Raiwind Road,Campus

Recognised BY Higher Education Commissio



# Master of NON-INVASIVE ORTHOPEDIC TECHNOLOGY (MNIOT)

#### Program FACTS

**Program Length** 2 years (4 Semesters) 36 Credit Hours

Entry Requirements

Minimum B.Sc/DPT/BSPT/MID

Location Defense Road, Campus

Recognised BY



# Post graduate Diploma in **NON-INVASIVE ORTHOPEDIC** (PGDNIO)

#### Program **FACTS**

**Program Length** One years (2 Semesters) 18 Credit Hours

Entry Requirements Minimum MBBS or Equivalent (Registered PM&DC) /DPT/BSPT Location Defense Road, Campus

Recognised BY Higher Education Commission

# Higher Education Commission Master of **REHABILITATION, COUNSELING & PSYCHOLOGY** (MSRCP)

#### Program **FACTS**

**Program Length** 2 Years (4 semesters) 68 Credit Hours

Entry Requirements Minimum 50 % BS Psycology /DPT/BSDPT

Location Raiwind Road,Campus

Recognised BY



# Bachelor of **RESPIRATORY THERAPY** (BSRT)

#### Program **FACTS**

Program Length4 Years (8 semesters) 136 Credit Hours

Entry Requirements Minimum 50 % F.Sc or Equivalent

Location Raiwind Road,Campus

Recognised BY



# Bachelor of **AUDIOLOGY** (BSAU)

## Program **FACTS**

Program Length 4 Years (8 semesters) 136 Credit Hours

Entry Requirements Minimum 50 % F.Sc or Equivalent

Location Raiwind Road,Campus

Recognised **BY** 

#### gher Education Commission

# Bachelor of SPEECH, LANGUAGE THERAPY (BSSLS)

#### Program **FACTS**

Program Length 4 Years (8 semesters) 136 Credit Hours

Entry Requirements Minimum 50 % F.Sc or Equivalent

Location Raiwind Road Campus`

Recognised BY Higher Education Commission

UNIVERSITY OF

LAHORE

# Department of **SPORTS SCIENCES** (DSS)

#### Mission **STATEMENT**

The Institute of Sports Sciences advances and integrates scientific research to provide educational and practical applications of exercise science and sports medicine. This is a new department established in the Campus of the University of Lahore to start the degree programmes in sports sciences & sports Medicines. The department will be fully equipped before starting the respective courses. The members of faculty are enriched with knowledge who will deliver according to the the

new paradigm.

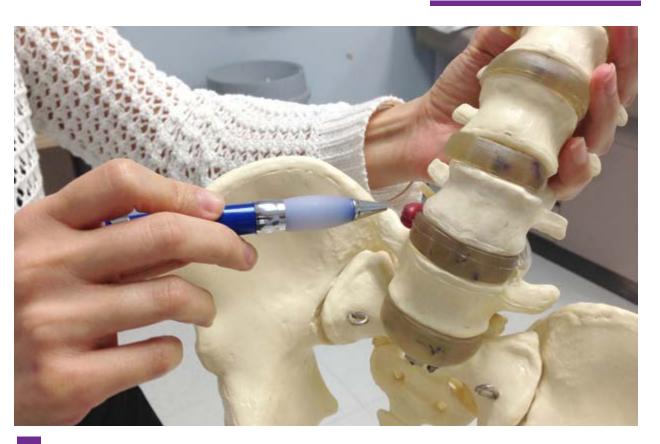
**INTRODUCTION** 

## Degrees **OFFERED**

Bachelor of Sports Sciences (BSSS)

Master of Sports Sciences (MSSS)

Master of Sports Medicine**(MSSM)** 





# Bachelor of **SPORTS SCIENCES** (BSSS)

## INTRODUCTION

The new program will take advantage of new technology to deliver an innovative program and to ensure that information is current, comprehensive, authoritative and accessible. The program operates under the academic oversight of department who will advise and will be responsible for all aspects of academic standards, including:

- Quality assurance of syllabus content
- Moderation of student assessme The programs are built on existing programs offered by leading Universities. The program will focus on the health and performance implications of participation in elite sport, but will also consider the role of physical activity, nutrition and other lifestyle factors in promoting good health
- The variety of teaching methods will include lectures in electronic format, web-based materials, paper-based reading, an online chat room and other Internetbased activities, and residential workshops.

Upon successful completion of all compulsory elements of the programme, including coursework, assignments and examinations, students are eligible to graduate with the UOL Diploma in Sports sciences. Individual parts of the Diploma programme.

#### Career **PROSPECTS**

Popular Career Options Typically, bachelor's degree programs in sports medicine are pre-professional options that prepare students for graduate programs. Most job opportunities in the field require that candidates to have at least a master's degree. However, some entry-level careers may be available to bachelor's degree holders, such as: • Coach

• Physical education teacher

 Personal trainer • Fitness instructor Some universities offers certifications for sports medicine professionals. Voluntary credentials help to validate a professional's education and expertise. Some of the certifications offered include the Certified Personal Trainer, Certified Group Exercise Instructor and Certified Health Fitness Specialist. Programme Dean, directors and Prof. are well known specialists in the fields of sports nutrition/ exercise, biochemistry and traumatology respectively. **Continuing Education** Some organizations require athletic trainers to obtain a state license and certification from

### Program **FACTS**

Program Length 4 Years (8 semesters) 136 Credit Hours

Entry Requirements •Minimum 50 % F.Sc or Equivalent

#### Location

Defence Road Campus

# Recognised **BY**

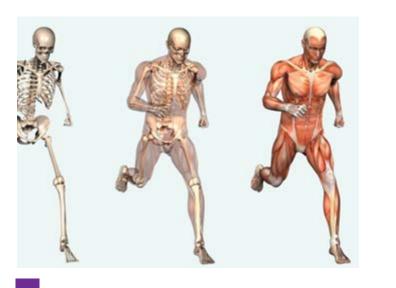
Higher Education Commission

the Board of Certification, Inc. If licensure or certification isn't required, athletic trainers can still earn voluntary board certification or get certified through other professional credentialing organizations, such as the National Academy of Sports Medicine. Master's degree holders can qualify to earn Registered Clinical Exercise Physiologist certification

# Master of **SPORTS SCIENCES** (MSSS)



# Master of **SPORTS MEDICINE** (MSSM)



### Program **FACTS**

Program Length 2 Years (4 semesters) 68 Credit Hours

Entry Requirements •Minimum 50 % BS/B.Sc(hon) sports sciences/DPT/BSDPT/MID

Location Defence Road Campus

> Recognised BY Higher Education Commission

#### Program **FACTS**

**Program Length** 

Minimum MBBS or Equivalent (Registered PM&DC) /DPT/BSPT/MID with 1 year clinical experience.

Entry Requirements •2 years (4 Semesters) 36 Credit Hours

Location Defence Road Campus

## Recognised **BY**

Higher Education Commission

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# University Institute of **CLINICAL LAB TECHNOLOGY** (UICLT)

#### Mission **STATEMENT**

The Vision of the Medical Laboratory technology department is to graduate competent and ethical clinical laboratory professionals equipped with knowledge and skills. At the Allied Health Sciences we produce professionals with advance knowledge, skill, attitude and clinical judgment required for competency as medical laboratory technologists and laboratory scientists. This program will prepare the student to independently perform wide array of more specialized and complex clinical tests in Histopathology, Hematology, Microbiology, Immunology, Chemical Pathology, Cytogenetic and Molecular Genetics diagnostic laboratories.

#### **INTRODUCTION**

In Sep 2012, we started working in the Main Campus of the University of Lahore.

At start we offer 4 years BS (Hons) in Medical Lab Technology and in the first year we have more than 100 students in our reputed department

Now we are offering Doctor of Medical Laboratory Sciences (DMLS) in the same field. In addition to these courses we are signing MOU's with some renowned international universities of the world.

The field of Medical Laboratory Technology is of vital importance as it is the backbone of all the Medical Sciences. It is a professional education without which a proper diagnosis of diseases is not possible. This department offers four years BS (honors) Medical Laboratory Technology course. Medical Laboratory Technologists are professionals who have the technical expertise necessary to perform a wide variety of routine and specialized tests on patient specimens. MLTs in various specialties collect and process specimens, analyze results, and interpret findings. The results of these tests provide important information. In fact, up to 85 per cent of all clinical decisions are based on laboratory testing data. The knowledge and expertise of the MLT contributes to innovation in the prevention, diagnosis and treatment of diseases and medical conditions. The aim of this course is to produce quality technologists for medical labs.

#### Degrees **OFFERED**

Doctor of Medical Laboratory Sciences (DMLS)



# Doctor of **MEDICAL LAB SCIENCES** (DMLS)

independents.

Hematology

Blood Banking

Microbiology

Chemical Pathology

for the student's community to

in the field of Laboratory

Technology worldwide. After

provide them the latest techniques

completing this program, they can

move further for Master & M.Phil

in Lab Technology or can work

Elective **SUBJECTS** 

#### INTRODUCTION

This program is introduced for the first time in Pakistan, keeping in view the need of a healthcare institutes in Pathology Department. This course will provide and enable students to cope with the rapid advancement in the field of Laboratory Technology.

### Career **PROSPECTS**

This professional program is

#### **ROAD MAP**

SEMESTER 1	Cr Hr	SEMESTER 2	Cr Hr	SEMESTER 3	Cr Hr	SEMESTER 4	Cr Hr
Basic Anatomy-I	3	Basic Anatomy-II	3	Haematology-I	6	Haematology-II	6
Basic Physiology-I	3	Basic Physiology -II	3	Blood Banking-I	6	Blood Banking -II	6
Basic Biochemistry-I	3	Basic Biochemistry -II	3	Histopathology & Cytopathology-I	6	Histopathology & Cytopathology-II	6
General Pathology-I	3	General Pathology -II	3	2			
Islamic Studies / Ethics	2	Pakistan Studies	2				
English	2	Behavioural Sciences	2				
Computer Education	2	Medical Laboratory Instrumentation	2				
SEMESTER 5	Cr Hr	SEMESTER 6	Cr Hr	SEMESTER 7	Cr Hr	SEMESTER 8	Cr Hr
Chemical Pathology-I	6	Chemical Pathology-II	6	Molecular Biology & Genetics-I	3	Molecular Biology & Genetics- II	3
Microbiology Including Parasitology-I	6	Microbiology Including Parasitology-II	6	Clinical Pathology -I	3	Clinical Pathology–II	3
Immunology and Serology-I	6	IImmunology and Serology-II	6	Laboratory Biosafety & Management-I	3	Laboratory Biosafety & Management-II	3
				Clinical Laboratory Rotations	5	Clinical Laboratory Rotations	5

SEMESTER 9	Cr Hr	SEMESTER 10	Cr Hr
Medical Statistics and Research Methods	5	Elective Subject *	2
Elective Subject *	5	Research Report	8

#### Program **FACTS**

#### Program Length 5 years Entry Requirements For F.Sc Pre Medical & Lab Technology with 50% Marks

Location Raiwind Road Campus

# Recognised **BY**

Higher Education Commission

# University Institute of **DIET & NUTRITIONAL SCIENCES** (UIDNS)

#### Mission **STATEMENT**

The Vision of the University Institute of Diet and Nutritional Sciences (UIDNS) offers a diverse range of challenges and opportunities which recognize the requirements of the 21st century. The main aim of the department is to produce manpower in the field of food science and human nutrition which will provide services in health departments, teaching and research, and to promote collaboration between national and international personnel in this specific field. The department's vision is to prepare manpower who will work cooperatively and professionally with other dietitians and nutritionists to develop innovative solutions to complex problems in the field of diet and nutritional sciences. It has also focused to provide a progressive and effective program that integrates theoretical and experiential learning to better prepare students for the challenges of the workplace; By consistent emphasis on experiential learning through laboratory studies, research-based learning, debate and presentations, designed to enhance the student's critical thinking, communication and collaboration, tackling of illdefined problems, development of individual learning objectives and self-evaluation of performance.

#### **INTRODUCTION**

The departmental faculty and management are continuously worked hard to take new steps for the betterment of the department in order to achieve the national and international standards of academic success. For this reason. currently a diploma program in the field of dietetics has been approved from PM&DC and it will launch in the year 2013. New faculty members have also been hired to enhance the quality of the department. The faculty also indulges in improving their knowledge and to play role in the practical advancement of nutrition field by doing efforts in publishing their research based work in the iournals. The students have been encouraged on continuous basis to fully participate in the academic and extracurricular activities. The students show their full potential in day to day academic activities such as presentations, quiz activities, surprise tests, active participation during lectures.

#### Degrees **OFFERED**

Bachelor of Sciences –Diet and Nutritional Sciences (DDNS)

Doctor of Dietetics & Nutritional Sciences (PGDD) 1 year

Post Graduate Diploma in Dietetics (PGDD) 1 year



# Doctor of DIETETICS & NUTRITIONAL SCIENCES (DDNS) 5 YEARS

#### INTRODUCTION

This program is already being offered by two Pakistani Universities. This course will provide and enable students to cope with the rapid advancement in the field of Diet & Nutritional Sciences.

#### Career **PROSPECTS**

This professional program is for the student's community to provide them the latest techniques in the field of Diet & Nutritional Sciences worldwide. After completing this program, they can move further for Master & M.Phil in Diet & Nutritional Sciences or can work independents.

## Program **FACTS**

Program Length 5 years

Entry Requirements For F.Sc or Equivalent with 50% Marks

Location Raiwind Road Campus

Recognised BY Higher Education Commission

#### Road **MAP**

SEMESTER 1	Cr Hr	SEMESTER 2	Cr Hr	SEMESTER 3	Cr Hr	SEMESTER 4	Cr Hr
Fundamentals of human nutrition	4	Advanced Nutrition; Carbohydrates, Lipids And Proteins	3	Nutrition and life cycle	3	Dietetics (i)	3
PFS-802 Principles of food sciences	3	Advanced Human Nutrition; Vitamins And Minerals	3	Disease prevention through nutrition	3	Public health nutrition (i)	3
Basic anatomy	4	Medical Biochemistry	3	Metabolic endocrionology	3	Behavioral and social sciences	3
Cell biology and physiology (i)	3	Cell Biology And Physiology (Ii)	3	Food and drug laws	2	Meal planning and mangement	3
English comprehension (i)	2	English Comprehension (li)	2	Fundamentals of microbiology	3	Herbs, food and phytochemicals	3
Pakistan studies	2	Islamic Studies/Ethics	2	Epidimiology and public health	3	Drug-nutrient interaction	3

#### Road **MAP**

SEMESTER 5	Cr Hr	SEMESTER 6	Cr Hr	SEMESTER 7	Cr Hr	SEMESTER 8	Cr Hr
Dietetics (ii)	3	Advanced clinical nutrition	3	Nutrition education	3	Research methodology	3
Public health nutrition (ii)	3	Food processing and preservation	3	Nutrition assessment and menu planning	4	Principles of food service	3
Statistics for scientistis	3	Nutritional counselling and diet therapy	3	Nutraceuticals and functional foods	3	Principles of food service	3
Communication skills	2	Nutrition intervention planning	3	Recent advances in human nutrition	3	Controversies in the field of nutrition	3
Proteomics and nutrigenomics	3	Sports nutrition	3	Computer education and nutritional data base	4	Community nutrition	3
Food toxicology and additives	3	Sociocultural aspects of food	3				

SEMESTER 9	Cr Hr	SEMESTER 10	Cr Hr
Seminar	3	HOSPITAL BASED NUTRITIONAL PRACTICE	3
Nutritional report writting	4	Log Book	3
Institutional managment	3		
Practicle nutritional practices in clinical care	3		



# Centre of Research in Molecular Medicine(CRIMM) RADIOLOGY RESEARCH SECTION (RRS)

#### INTRODUCTION

There are four major divisions in Medical Imaging (Radiological Sciences) Diagnostic Radiography, Ultrasound, Nuclear Medicine and Radiation Therapy, Now a day's Medical Imaging realize heavily on computer controlled equipment's with of the image productions and processing emphasizing new technique i.e. digital image processing, picture archiving & communication system (PACS) etc. In addition, the Medical Diagnostic Ultrasound is believed to a diagnostic tool which is replacing the stethoscope of physician regardless of the field, the physician has chosen as his profession. Due to diversity of Medical Sciences there are different tracks. Even then the physicians cannot cope with rapid advancements in the computerized technologies unless they chose the option of upgrading their knowledge with upgraded knowledge including clinical as well as diagnostic advances. Medical Imaging (Radiological Sciences) especially Medical Diagnostic Ultrasound, CT and MRI Curriculum should be aligned with new technology and national or regional requirements. Radiology Research Section (RRS) has introduced Diploma in Medical Radiology (Diagnostic) DMRD.

#### Mission **STATEMENT**

• Enabling the students to develop the cognitive, effective and psychomotor skills needed by an entry level radiographer/ songrapher/sonologists, as prescribed in the professional curriculum.

Provide a liberal arts and sciences component which will broaden the student's knowledge and understanding into areas beyond the Radiology Curriculum
Provide an opportunity for students to achieve a high degree of information literacy, including the ability to seek and use information resources for problem-solving, critical thinking and professional values, such as those outlined in the American Society of Radiologists.

Practice Standards for
 Medical Imaging and Radiology
 Prepare students to

- Prepare students to pass the national certification examination and qualify for regional licensure.
- Demonstrate a high degree of student's success within curriculum, as evidenced by low attrition & high graduation rates.

## Degrees **OFFERED**

Radiology Research Section

PhD in Radiology (PhD)

MD Radiology

Diploma in Medical Radiology & Diagnostic (DMRD)

## Recognised **BY**

Higher Education Commission

# Diploma in **MEDICAL RADIOLOGY & DIAGNOSTIC** (DMRD)

#### INTRODUCTION

This program is introduced for the first time in Pakistan, keeping in view the need of a Radiology Dept. of healthcare institutes in Pakistan. This course will provide and enable students to cope with the rapid advancement in the field of Medical Diagnostic Ultrasound.

#### Career **PROSPECTS**

This professional program is for the Physicians community to provide them the latest techniques in the field of Medical Diagnostic Ultrasound worldwide. After completing this program, they can move further for PhD in the same field or can work independents.

## Program **FACTS**

#### **Program Length**

2 years (4 Semesters) 36 Credit Hours

#### **Entry Requirements** For MBBS/MD or Equivalent

Location **Raiwind Road Campus** 

Recognised **BY** HEC and PM&DC

#### Road **MAP**

SEMESTER 1	Cr Hr	SEMESTER 2	Cr Hr	SEMESTER 3	Cr Hr	SEMESTER 4	Cr Hr
Radiology Physics & Instrumentation	2	Cardiovascular Radiology	2	Musculoskeletal Ultrasound	1	Interventional Radiology	3
Applied Anatomy	1	Neuroradiology & ENT Radiology	1	Medical Ethics	1	Research/ Dissertation	6
Applied Pathology	1	Radiology in emergency medicine	1	Ultrasound in Fetal Medicine/ Gynaecological and Obstetrical USG	1		
Mammography & breast	1	Respiratory System Radiology	1	Research Methodology & Statistics.	2	•	
Basics of Ultrasound	1	Gastrointestinal Tract Radiology	1	Computed Tomography (CT)	1		
Color Doppler Ultrasound	1	Genitourinary System Radiology	1	Magnetic Resonance Imaging (MRI)	1		
General Radiology/ Digital Radiology	2	Musculoskeletal Radiology	2	Angiography	1	•	

Nuclear Medicine

1



# **MS IN DIAGNOSTIC** ULTRASOUND(MSDU)

#### INTRODUCTION

Career **PROSPECTS** 

This program is introduced for the first time in Pakistan, keeping in view the need of a Radiology Dept. of healthcare institutes in Pakistan. This course will provide and enable students to cope with the rapid advancement in the field of Medical Diagnostic Ultrasound.

#### This professional program is for the Physicians community to provide them the latest techniques in the field of Medical Diagnostic Ultrasound worldwide. After completing this program, they can move further for PhD in the same field or can work independents.

#### Program **FACTS**

**Program Length** 6 Months, Morning / Afternoon Session

#### **Entry Requirements** For MBBS/MD or Equivalent

Location **Raiwind Road Campus** 

#### Recognised **BY** Higher Education Commission

# **MS IN GENERAL ULTRASOUND** (MSGU)

#### Road **MAP**

SEMESTER 1	Cr Hr	SEMESTER 2	Cr Hr	SEMESTER 3	Cr Hr	SEMESTER 4	Cr Hr
Ultrasound Physics & Instrumentation	3	Applied Doppler	2	Research M. & Statistics.	1	RESEARCH	6
Abdominal Ultrasound	2	Vascular Ultrasound	3	RESEARCH	5		
MSSP -612 Small Parts Ultrasound	2	Musculoskeletal Ultrasound	2				
Gynaecological Ultrasound	2	Fetal Medicine Ultrasound	1				
Obstetrical Ultrasound	3	Advances in Ultrasound	2				
		3D & 4D Ultrasound	2				

# Master of Science in **VASCULAR ULTRASOUND**

#### Road **MAP**

SEMESTER 1	Cr Hr	SEMESTER 2	Cr Hr	SEMESTER 3	Cr Hr	SEMESTER 4	Cr Hr
Ultrasound Physics & Instrumentation	3	Peripheral Vessels & Neck Vessels	3	Research M. & Statistics.	1	RESEARCH	6
Abdominal Ultrasound	2	Doppler in Obstetrics & Gynaecology	3	RESEARCH	5		
Abdominal Ultrasound	2	Abdominal Doppler	2			-	
Small Parts Ultrasound	2	Advances in Ultrasound	2	-			
Gynaecological Ultrasound	2	Colour Doppler in small Parts & Musculoskeletal Ultrasound	2				
Obstetrical Ultrasound	3						

# Master in **OBSTETRICAL & GYNECOLOGICAL (OBGYN) ULTRASOUND**

#### Road **MAP**

SEMESTER 1	Cr Hr	SEMESTER 2	Cr Hr	SEMESTER 3	Cr Hr	SEMESTER	4	Cr Hr
Ultrasound Physics & Instrumentation	3	First Trimester ultrasound	2	Research M. & Statistics.	1	RESEARCH		6
Abdominal Ultrasound	2	Second Trimester ultrasound	2	RESEARCH	5			
Small Parts Ultrasound	2	Advances Gynecological ultrasound	2					
Gynaecological Ultrasound	2	Advances Obstetrical ultrasound	2	-				
Gynaecological Ultrasound	3	Fetal Anomaly ultrasound	1	-				
		Fetal Medicine	1	-				
		Interventional procedures in ObGyn	2	-			THE	
				ALLI	ED HEA	LTH SCIENCES	UNIV	TERSITY OF

# ALLIED HEALTH SCIEN

# **MD RADIOLOGY**(MD R)

#### INTRODUCTION

## Career **PROSPECTS**

This program is introduced for the first time in Pakistan, keeping in view the need of a Radiology Dept. of healthcare institutes in Pakistan. This course will provide and enable students to cope with the rapid advancement in the field of Medical Diagnostic Ultrasound. This professional program is for the Physicians community to provide them the latest techniques in the field of Medical Diagnostic Ultrasound worldwide. After completing this program, they can move further for PhD in the same field or can work independents.

#### Program **FACTS**

Program Length 5 Years

#### Entry Requirements

For MBBS, MD, DMRD or Equivalent

#### Location

Raiwind Road Campus

# Recognised **BY**

Higher Education Commission

#### **CURRICULUM/STATUTES & REGULATIONS -MD RADIOLOGY**

#### Road **MAP**

Course Structure	Components	Examination
Part I	Basic medical sciences     Anatomy, Physiology, Biochemistry,     Pathology, Pharmacology, Behavioral     Sciences and Biostatistics & Research     Methodology.	Part-I examination at the end of 1st year of MD Radiology program. • Written: Paper I: MCQs Paper II: SEQs
Part II	Fundamental Concepts in Internal Medicine: Training in clinical techniques of Internal Medicine with compulsory rotations for two years starting from the first day of enrollment	Part-II examination at the end of 2nd year of MD Radiology program. • Written: Papers 1 & 2: Problem-based questions in Internal Medicine • Oral & Practical/ Clinical Examination • OSCE • Clinical Examination (Long case, Short cases) • Log Book
Part III	Clinical component of Part III • Professional Education in Radiology Training in Radiology during 3rd, 4th and 5th years of MD program Three years of training with compulsory/ optional rotations in related fields Research component of Part III • Research and Thesis Writing: Research work/Thesis writing project must be completed and thesis be submitted before the end of training	Part-III examination in specialized components of Radiology at the end of 5th year of MD program • Written: Paper 1 & 2: Problem-based questions in the subject • Oral & Practical / Clinical Examination • OSCE • Clinical Examination (Long case, Short cases ) • Log Book Part-III thesis examination with defense at the end of fifth (5th) year of MD Radiology program

# PhD in **RADIOLOGY**

#### INTRODUCTION

This program is introduced for the first time in Pakistan, keeping in view the need of a Radiology Dept. of healthcare institutes in Pakistan. This course will provide and enable students to cope with the rapid advancement in the field of Medical Diagnostic Ultrasound.

## Road MAP

#### semester 1 & 2

These are divided into four shared courses:

- Each course has 3 credit hours • Radiology Physics
- Biostatistics
- General Radiology
- Research Methodology

#### Elective **MODULES**

• Stereotactic Radiotherapy and Stereotactic Procedures

- -Radiology; Principles and Practice of Clinical & Applied
   -Radiology
- Interventional -Radiology
- Otorhinolaryngology (ENT Radiology)
- Role of Radiology in Surgical Management
- Emergency Radiology
- Experimental -Radiology
- Basics of Clinical -Radiology
- Basics of Pathology & -Physiology
  Angiography (Whole Body)
- Basic Sciences Related to
- -Radiology
- Anaesthesia & Emergency Management.

#### Career **PROSPECTS**

This professional program is for the Physicians community to provide them the latest techniques in the field of Medical Diagnostic Ultrasound worldwide. After completing this program, they can move further for PhD in the same field or can work independents.

## NOTE:

Compulsory Selection of any 3 Elective Modules of 2 Credit Hours each (Total 6 Credit Hours) Road MAP

#### semester 3

The third component consists of scientific study skill workshops are designed to strengthen the students'soft research skills, i.e. scientific writing. presentation, management of research consortia, team building and teamwork, and more. The candidate is expected to submit synopsis of his/her Research latest by the end of third semester to the UOL-PhD committee after approval from principal supervisor .: Each course has 3 credit hours • Bibliographic Reference Management

• Leadership and Management skills

- Literature search methods
- Scientific writing
- Presentation skills and methods
- Teaching skills and methods

### Program **FACTS**

Program Length 3-4 years (6-8 Semesters)

#### Entry Requirements For MBBS, MD & DMRD or Equivalent

Location Raiwind Road Campus

## Recognised **BY**

Higher Education Commission

- Building and managing research teams
- Research grant and scientific proposal writing

#### Road MAP semester 4

Fourth component encompasses all steps after approval of synopsis by UOL-PhD committee to the submission of thesis and its defence.

Semester 4 to 7 (Field work, Data Collection and Analysis) Semester 7 to 10 (Thesis Submission and Final Exam) Students will be encouraged and are expected to participate in national and/or international conferences, seminars, lectures and scientific peer reviewed publication process

# Faculty of **MANAGEMENT** SCIENCES





# LAHORE BUSINESS SCHOOL Faculty of Management Sciences

### Mission STATEMENT IN

### INTRODUCTION

LBS will become the center of excellence in business education, research and case study development with our experience of over ten years in offering business education, research and successful graduate placement profiles. We are confident and motivated to offer our educational services to an ever widenning audience.

We are committed to imparting industry relevant business education that will benefit both students and industry. We understand the significance of academic and industry liaison, and will ensure that this cooperation is maintained to benefit our students.

Lahore Business School has served the students of Business Administration for the last 10 years. Our undergraduate, post graduate and research degrees are best certified for students who wish to develop a professional career. Our aim is to develop competent managers and business leaders with creative direction through our programs. LBS is a creative hub of management thinking and an inspirational place to study where students are encouraged and motivated to find and achieve their potential. We employ a modern and highly creative curriculum to suite the aspirations and strengths of our students' future employers.

Our graduate professionals are able to make a direct impact not just on the businesses or consumers they serve, but also to society in general. Students are able to develop a creative yet critical thinking approach, inspire people, be decisive and respond to change. Professors at LBS engage the students to promote their unique skills and abilities, pushing them to maximize their potential. It's our aim to make students employable or inspire them to set up their own business. We equip students with all the right soft skills which enable them to

perform better at a personal level as well. It is this approach that has allowed us to develop our own unique style of teaching, which inspires our students to make their dreams become reality.

Learning happens best in a supportive environment, and at LBS, we aim to provide students with that friendly and supportive environment.Our staff is classed as friendly, accessible and supportive in our recent student survey. The LBS campus is a purpose built, air conditioned class rooms with all modern equipment of the 24thcentury. The LBS library has over 8000 titles, 20 international journals and magazines in a comfortable environment for learning and research. State of the art student café building and facility offers an impressive range of food, beverages and seating

Our degree programs are not generic; they have been designed to prepare students for a career in today's fast paced world of business, management and design. Lahore Business School degrees is also equip you to start your own business. Our degree programs offer our students the skills and confidence to develop a business, be creative, innovate, manage people and resources, and write and implement business plans. Students can also take part in

Enterprise, Innovation & Research (EIR) events, to help them develop key skills for business management. Students get all the help they need from the staff at LBS to help them make their ideas reality. Alternatively, students may opt for further studies. LBS has a number of programs from Bachelors to Research Degrees. Our specialization portfolio includes a wide range of courses that build specialized skills for industry. Our research degrees are designed to develop enquiry and research skills, before students embark upon research in their

#### Degrees **OFFERED**

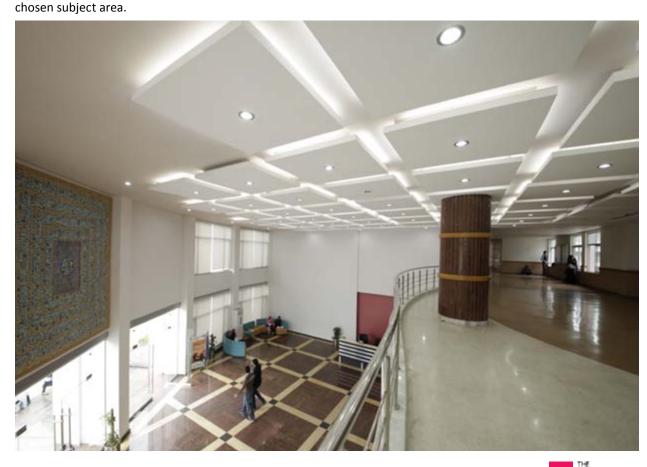
Bachelor of Business Admin (BBA-Hons)

Master of Business Admin. (MBA 3.5 Yr)

Master of Business Admin. (MBA 1.5 Yr)Master of Business Admin. (MBA 2 Yr) Master of Business Admin (MBA Executive)

M. Phil in Management Sciences (M. Phil Management Sc)

Ph.D in Management -



# LAHORE BUSINESS SCHOOL

# Bachelor of BUSINESS ADMINISTRATION HONORS (BBA - HONS)

#### INTRODUCTION

The Bachelors of Business Administration is designed to give students a general business degree with the option of specialization in the chosen area of interest. Year one will introduce students to the fundamental management principles and how these are applied in a working environment. Year two will introduce students to marketing, Human Resource Management and finance principles. With year three and four focusing on specialization, and more advanced courses in management, marketing, finance and enterprise. Specialization options currently include Finance, Marketing & Human Resource. You will have an opportunity to deepen you understanding

of business ventures in the Entrepreneurship course, which introduces setting up of a business. their understanding of business ventures in the Entrepreneurship course, which introduces the setting up of a business.

## Career **PROSPECTS**

Graduates of the BBA (Hons) program tend to work their way up in organizations, joining at junior management/management trainee positions. A degree in business can be applied to any industry and can be used to help you start your own business. Many of our students also choose to carry on completing a MBA. You may wish to specialize with a MBA program in your chosen area of interest.

#### Program **FACTS**

Program Length Full-time, 4 Years

#### Entry Requirements Minimum 2nd division in F.A / FSc. / I.Com or equivalentGCE, A Level with at least three subjects, with an average of C grade, from HEC recognized university / college.

Location

Defence Road Campus

Internship

4

Recognised BY Higher Education Commission

### COURSES

#### FINANCE

- Corporate Finance
- Financial Statement AnalysisFinancial Reporting
- Investment Analysis & Portfolio
- Management
- Islamic Financial Instruments
- Islamic Banking,Theory and Practice
- Essential of Banking Finance
- International Financial Management
   Financial Markets & Institutions

#### MARKETING

- Strategic Brand Management
- New Product Management
- Integrated Marketing communication
- Advertising& Promotional Strategy
- Media Marketing
- Industrial Marketing

#### HUMAN RESOURCE MANAGEMENT

- Change Management
- Compensation Management
- Training in Job Skills
- Labor Law In Pakistan
- Performance Management
- Organization Development & Employee Management
- Organization Behavior

#### SUPPLY CHAIN MANAGEMENT

- Logistics Management
- Procurement Management
- Demand & Inventory Management
- Storage & Warehouse Techniques
- Transportation Techniques &

Management

Semester 5	Cr Hr	Semester 6	Cr Hr	Semester 7	Cr Hr	Semester 8	Cr Hr
Procurement Fundamentals	3	Fundamentals of Project Management	3	Business Ethics & Social Responsibility	3	Entrepreneurship	3
Service Marketing	3	Management for Business Excellence	3	Public Speaking	3	Skill Development Workshop	3
-inancial Management	3	Qualitative & Quantitative Research Methods	3	Elective I	3	Elective III	3
Managerial Economics	3	Banking & Finance	3	Elective II	3	Elective IV	3
Nanagement Information ystem	3	Business law & Taxation	3				
ntroduction to Research lethods	3	Total Quality Management	3				

#### Road MAP

Semester 1	Cr Hr	Semester 2	Cr Hr	Semester 3	Cr Hr	Semester 4	Cr Hr
Introduction to Business	3	Principles of Management	3	Human Resource Management	3	Operation Management	3
Introduction to Behavior	3	Psychology	3	Marketing	3	Supply Chain Management	3
Accounting I	3	Accounting II	3	Cost Accounting	3	Sociology	3
Business English I	3	Micro Economics	3	Macro Economics	3	Consumer Behavior	3
Business Computing	3	Business English II	3	Business Communication	3	Business Finance	3
Islamiyat	3	Pakistan Studies	3	Business Mathematics	3	Business Statistics	3

# Master of **BUSINESS ADMINISTRATION** (MBA 3.5Yr)

#### INTRODUCTION

The MBA program develops business leaders through knowledge and key skills that form part of the course. MBAs are therefore able to give strategic direction, influence people and make good use of financial, technical and human resources. The Lahore Business School MBA program will help you develop creative thinking that will enable you to challenge your abilities, and realize your maximum potential. You will benefit from the experience of our staff, which are practitioners and consultants in the field, and will share their experiences of management and organizational cultures, and prepare you for the challenging corporate environment.

#### Career **PROSPECTS** The Master of Business

Administration is one of the most sought after qualification in the industry. Professionals in the field of engineering, science, arts, commerce, doctors aspire for this gualification. MBA is widely recognized qualification in management and business, and will help you launch a successful career. MBA is designed to equip students with managerial and leadership skills, and enhance the skills required by business firms. MBA graduates are generally required by organizations for entry-level as well middle management positions in finance, human resource management and marketing departments.

### Program **FACTS**

Program Length Full-time, 3.5 Years

#### **Entry Requirements**

Applicants with a minimum of 2nd division in a 2/3 years BBA / BS / BA / B.Com or equivalent degree from HEC recognized university / college.

#### Location

Defence Road Campus

# Recognised **BY**

**Higher Education Commission** 

#### **COURSES**

#### FINANCE

- Strategic Finance
- Micro Finance and Micro leasing
- Financial Risk Management
- Corporate & Forensic Reporting Corporate Restructuring Mergers &Acquisitions Behavioral Finance

#### MARKETING

- Social Marketing
- Tourism, Sports& Leisure Marketing
- Online Marketing & Web Analytics International Marketing
- Marketing Planning & Program
- Entertainment Marketing

#### **HUMAN RESOURCE** MANAGEMENT

- Organizational Dynamics
- Job Analysis Practices
- Strategic Human Resource
- Management
- Union Management, Labor Relations

#### & HR Administration

- International HR Management
- HR System Development
- Industrial Relations

#### SUPPLY CHAIN MANAGEMENT

- Supply chain Planning & Control
- Globalization & Outsourcing
- Lean Operations
- Supply Chain Integration
- Business Modeling & Simulation In Supply Chain
- Supply Chain Risk Analysis/
- Management
- Distribution Center Design

#### Road **MAP**

Semester 1	Cr Hr	Semester 2	Cr Hr	Semester 3	Cr Hr	Semester 4	Cr Hr
Principles of Management	3	Human Resource Management	3	Supply Chain Management	3	Organization Theory & Design	3
Financial Accounting	3	Marketing	3	Marketing Management	3	Procurement Fundamentals	3
Business Communication	3	Cost Accounting	3	Financial Management	3	Advance Financial Management	3
Business Computing	3	Micro EconomicsAnalysis	3	Macro Economics Analysis	3	Presentation & Interview Skills	3
Business Mathematics	3	Business Statistics	3	Research Methods	3	Calculus	3

			_		_
Semester 5	Cr Hr	Semester 6		Semester 7	Cr Hr
Entrepreneurship	3	Business Policy	3	Sales Management	3
Consumer Behavior	3	Development Economics	3	Corporate Law & Taxation	3
Management Information System	3	Elective-II	3	Electives-IV	3
Advance Research Methods	3	Elective-III	3	Thesis-II	3
Elective-I	3	Thesis-I	3		

- Retail Marketing Strategy

# Master of **BUSINESS ADMINISTRATION** (MBA 1.5Yr)

#### INTRODUCTION

The MBA, after 4 years bachelors in business studies or commerce, is designed to develop business administration skills in students. The MBA program develops busi-ness leaders, through knowledge and key skills that form part of the course. MBAs are therefore able to give strategic direction, influence people and make good use of financial, technical and human resources.

Career **PROSPECTS** 

The Master of Business Administration is one of the most sought after qualification in the industry. Professionals in the field of engineering, science, arts, commerce, doctors aspire for this qualification. MBA is widely recognized qualification in

management and business, and will help you launch a successful career. MBA is designed to equip students with managerial and leadership skills, and enhance the skills required by business firms. MBA graduates are generally required by organizations for entry-level as well middle management positions in finance, human resource management and marketing departments.

#### Program **FACTS**

Program Length Full-time, 1.5 Years

#### **Entry Requirements**

Applicants with a minimum CGPA 2.50 or2nd division in 4 years BBA / B.Com or equivalent business studies or commerce degree from HEC recognized university / college.

#### Location

Defence Road Campus

# Recognised **BY**

**COURSES** 

• Micro Finance and Micro leasing

Corporate & Forensic Reporting

Corporate Restructuring Mergers

Tourism, Sports& Leisure Marketing

Online Marketing & Web Analytics

Marketing Planning & Program

Financial Risk Management

FINANCE

&Acquisitions

MARKETING

Social Marketing

International Marketing

Retail Marketing Strategy

• Entertainment Marketing

Behavioral Finance

• Strategic Finance

#### **HUMAN RESOURCE** MANAGEMENT

- Organizational Dynamics
- Job Analysis Practices
- Strategic Human Resource
- Management
- Union Management, Labor Relations & HR Administration
- International HR Management
- HR System Development
- Industrial Relations

#### SUPPLY CHAIN MANAGEMENT

- Supply chain Planning & Control
- Globalization & Outsourcing
- Lean Operations
- Supply chain Integration
- Business Modeling & Simulation In Supply chain



Distribution Center Design





AHORE BUSINESS SCI

#### Road **MAP**

Semester 1	Cr Hr	Semester 2	Cr Hr	Semester 3	Cr Hr
Organization Theory & Design	3	Business Analysis	3	Electives-II	3
Sales Management	3	Advance Financial Management	3	Electives-III	3
Advance Supply Chain Management	3	Advance Research Methods	3	DISSERTATION/BUSINESS PLAN	6
Advance Project Management	3	Elective I	3		



**Higher Education Commission** 

# Master of **BUSINESS ADMINISTRATION (MBA 2Yr)**

#### INTRODUCTION

The MBA after 4 years bachelors is designed to develop advanced skills in students. The MBA program develops business leaders, through knowledge and key skills that form part of the course. MBAs are therefore able to give strategic direction, influence people and make good use of financial, technical and human resources.

#### Career **PROSPECTS** The Master of Business

Administration is one of the most sought after qualification in the industry. Professionals in the field of engineering, science, arts, commerce, doctors aspire for this qualification. MBA is widely recognized qualification in management and business, and will help you launch a successful career. MBA is designed to equip students with managerial and leadership skills, and enhance the skills required by business firms. MBA graduates are generally required by organizations for entry-level as well middle management positions in finance, human resource management and marketing departments.

### Program **FACTS**

Program Length Full-time, 2 Years, After 16 years Non commerce

Applicants with a minimum CGPA 2.50 or2nd division in 4 years BA / BS / BSc non-business or noncommerceequivalent degree from HEC recognized university / college.

Location Defence Road Campus

## Recognised **BY**

Higher Education Commission

#### FINANCE

- Strategic Finance
- Micro Finance and Micro leasing

**COURSES** 

- Financial Risk ManagementCorporate & Forensic Reporting
- Corporate Restructuring Mergers
   &Acquisitions
- Behavioral Finance

#### MARKETING

- Social MarketingTourism, Sports& Leisure Marketing
- Online Marketing & Web Analytics
- International Marketing
- Marketing Planning & Program
- Retail Marketing Strategy
- Entertainment Marketing

- HUMAN RESOURCE MANAGEMENT
- Organizational Dynamics
- Job Analysis Practices
- Strategic Human Resource
- Management
- Union Management, Labor Relations
- & HR Administration
- International HR Management
- HR System Development
- Industrial Relations

#### SUPPLY CHAIN MANAGEMENT

- Supply chain Planning & Control
- Globalization & Outsourcing
- Lean Operations
- Supply chain Integration
- Business Modeling & Simulation In Supply Chain



#### Road **MAP**

Semester 1	Cr Hr	Semester 2	Cr Hr	Semester 3	Cr Hr	Semester 4	Cr Hr
Principles of Management	3	Human Resource Management	3	Strategic Management	3	Entrepreneurship	3
Marketing Management	3	Financial Management	3	Business Law & Taxation	3	Elective-III	3
Financial Accounting	3	Development Economics	3	Advance Research Methods	3	Elective-IV	3
Business Economics	3	Business Communication	3	Electives-I	3	Thesis	3
Business Mathematics & Statistics	3	Research Methods	3	Electives-II	3		

#### Summer

184

Strategic Marketing

Financial Reporting & Analysis • Supply Chain Risk Analysis/

Distribution Center Design

Management

3

3

## Master of BUSINESS ADMINISTRATION EXECUTIVE (MBA EXECUTIVE)

#### INTRODUCTION

#### Career **PROSPECTS**

The MBA Executive program gives working executives an opportunity to complete MBA in 2 years, while working full time. The MBA Executive is designed for those who already have some exposure to man-agement in industry or other organizations. MBA Executive develops skills to deliver strategic direc-tion, understand people skills and utilize financial, technical and human resourc-es in the best possible way to achieve departmental or organizational targets. Our experience shows that majority of working executives, who earn an Executive MBA, benefit with career advancement, compensation, promotions, increased responsibility and immediate benefits. The program provides graduates with strategic vision and skills that can be applied immediately to their current position and result in professional advantage.

#### Program **FACTS**

Program Length Full-Time 2-Years

#### **Entry Requirements**

At leastfouryear of working experience. A minimum of 2nd division in a 2/3 year BBA / BS / BA / B.Com or 14 years of education or equivalent degree from HEC recognized university / college.

#### Location

Defence Road Campus

### Recognised **BY**

Higher Education Commission

Cr

Ĥr

3

3

6

#### Road **MAP** Cr Hr Cr Hr Cr Hr Semester 1 Semester 2 Semester 3 Semester 4 Human Resource Principles of Management 3 Entrepreneurship 3 Business Policy 3 Management **Business Law & Taxation** Marketing Management 3 **Business Communication** 3 3 Electives-III **Financial Accounting** 3 Financial Management 3 Sales Management 3 Thesis **Business Economics Development Economics** Electives-I 3 3 З Computing & Research **Business Mathematics**& 3 Electives-II 3 3 Methods Statistics

Summer

Strategic Marketing

3

3

Financial Reporting & Analysis

### COURSES

#### FINANCE

- Strategic Finance
- Micro Finance and Micro leasing
- Financial Risk Management
- Corporate & Forensic Reporting
  Corporate Restructuring Mergers
- &AcquisitionsBehavioral Finance

#### MARKETING

#### Social Marketing

- Tourism, Sports& Leisure Marketing
- Online Marketing & Web Analytics
- International Marketing
- Marketing Planning & Program
- Retail Marketing Strategy
- Entertainment Marketing

#### HUMAN RESOURCE MANAGEMENT

- Organizational Dynamics
- Job Analysis Practices
- Strategic Human Resource
- Management
   Union Management, Labor Relations
- & HR Administration
- International HR Management
- HR System Development
- Industrial Relations

Supply chain Planning & ControlGlobalization & Outsourcing

SUPPLY CHAIN MANAGEMENT

- Lean Operations
- Supply chain Integration
- Business Modeling & Simulation In Supply chain
- Supply Chain Risk Analysis/ Management
- Distribution Center Design





# Master of Philosophy in **MANAGEMENT SCIENCES**

#### INTRODUCTION

The M. Phil program has been designed to ensure that students develop strong research and analytical skills, that would help them, not only carry future research but also think critically. The first year of the M. Phil program introduces students to the key concepts in management research, research methods, business history and strategic development. Focus in the second year is on the student carrying out supervised research in their area of interest. The objective is to develop research and analytical skills in students that will help them in conducting independent research in different areas.

#### Career **PROSPECTS**

M. Phil graduates usually pursue academic career and go on for PhD in their area of interest. There are opportunities in the corporate sector for the graduates, and recent industry trends show that organizations are now interested in hiring M. Phil graduates and personnel with higher qualifications.

#### Program **FACTS**

**Program Length** Full-Time 2-Years Evening

#### Entry Requirements

MBA / MS degree in business administration or management sciences or marketing / management / quality management / Statistics / Mathematics or economics, from a chartered university with a minimum of 1st division or 3.0 CGPA

#### Location

Defence Road Campus

Recognised BY Higher Education Commission

### Road **MAP**

Semester 1	Cr Hr	Semester 2	Cr Hr	Semester 3	Cr Hr	Semester 4	Cr Hr
Economic Foundations of Management	3	Contemporary Methods in Data Analysis	3	Thesis	3	Thesis	6
Research Methods in Management	3	Elective – I	3				
Organizational Theory & Design	3	Elective II	3				
Qualitative Research Methods and Grounded Theory	3	Elective III	3				
Applied Statistics for Management Research	3	Elective – IV	3				

### COURSES

#### Finance

- Asset Pricing Theory
- Financial Econometrics & Modeling
- Options & Derivatives
- Corporate Governance
- Behavioral Finance
- Risk Management Theories and Practices
- Seminar in Financial Markets
- Seminar in Applied Corporate Finance
- Micro Finance and Micro leasing

### Marketing

- Brand Management Research
- Strategic Marketing Management Research
- Behavioral Theory-I
- Behavioral Theory-II
- Models for Marketing Strategy

#### Management

- Managing Change in organization
- Seminar in Social Psychology
- Seminar in Micro-Organizational Behavior
- Seminar in Macro-Organizational Behavior
- Seminar in Corporate Strategy
- Corporate Social Responsibility
- Corporate Sustainability



# Ph.D in **MANAGEMENT (3 YEARS)**

#### **INTRODUCTION**

LBS PhD in Management program concentrates on defining and preparing professionals for management thinking. The research of degree focuses on developing skills and resourcefulness to generate concepts and ideas for new and emerging challenges. The research degree offers outstanding students an opportunity to make a significant and lasting contribution to the field of management research. The program is challenging and opens the door to intellectual fulfillment and exciting career opportunities in research and teaching. PhD students are expected to meet the challenges of research and will work directly with distinguished faculty members, and become part of a vibrant, academic community that is committed to creating new business management knowledge. Doctoral students will be engaged in serious research with faculty after completion of course work and will be required to publish articles in approved academic journals. The research degrees require course work of 21 credit hours, followed by comprehensive examination. He first year will be devoted to course work, presented in the form of a series of weekly seminars. On successful completion of comprehensive exam after year one, candidates

will be allowed to submit research proposals for thesis. Doctoral candidates will be required to publish at least two research papers in an HEC approved journal.

#### Career **PROSPECTS**

PhD in Management is focused on developing research skills as well as in depth knowledge and practice in the management field. The focus of PhD program is on fundamental and applied research in management and organizations. Participants will be educated in academic, writing skills, literature review, methodology and scientific theories. PhD education research are aimed at providing an innovative contribution to changing an organizational responsibilities in the emerging economic environment. For admission in PhD program. Applicants are also required to appear in LBS admission test for admission in PhD program.

#### Program **FACTS**

Program Length Full-Time 3-Years Evening

#### Entry Requirements

M. Phil / MS degree or 18 years of education in business administration/management sciences/marketing/management/ quality management/economics/ statistics, from a chartered university with a minimum of 1st division or 3.0 CGPA.

#### Location

Defence Road Campus

Recognised BY Higher Education Commission

#### COURSES

#### Finance

- Structure of Financial Markets
- Formation and Behavior of Financial Asset
- Corporate Governance & Financial Decisions
  International Financial Markets & Diversified Investment
- Technique • Banking and Monetary Systems
- Advance Research Topics in Finance

#### Marketing

- Data Mining& Knowledge System
- Advance Research Topics in Marketing
- Multi Variate Modeling in Marketing
- Marketing Policy & Social Change
- Brand Marketing Research
- Consumer Behavior Research

#### Management

- Seminar in Innovation & Entrepreneurship
- Seminar in organization Behavior
- Seminar in corporate Strategy
- Seminar in international Business
- Corporate Social Responsibility & Sustainability
- Business Strategy for the base of Pyramid
- Social Entrepreneurship

#### Road **MAP**

Semester 1	Cr Hr	Semester 2	Cr Hr
Seminar in Economics and Finance	3	Inferential Statistics and Data Analysis	3
Qualitative and Quantitative Research Methods in Research	3	Elective – I	3
Seminar in Organizational Theory	3	Elective – II	3
Psychological & Sociological Foundations of Research in Management	3		

Year 2 & 3	Cr Hr
Thesis	30

# Faculty of **ARTS AND ARTS AND ARCHITECTURE**





# School of **CREATIVE ARTS**

Mission **STATEMENT** To create a talent pool of socially oriented and professionally aware creative media practitioners who will serve as the change agents in areas of their professional calling; individuals who, as much by their personal virtue as their acquired professional skills scale new heights, create new frontiers and set new benchmarks, advancing the state of their art and contribute to the betterment of society.

#### **INTRODUCTION**

With the broadening of modern communications media, the world has come together as a global community sharing thoughts and ideas like never before thus making it increasingly important for nations to represent their culture and identity through effective media content.

Field of Media & Communications in Pakistan has grown into a recognized field of study with focus on acquiring skills for strategic and critical thinking, communications, and different forms of production. Due to the immense potential in this evolving field there is also the need of highly skilled and motivated individuals who can address the questions presented by different mass media from broadcast and print to new media as well as cinema and theatre.

The School of Creative Arts, thus, offers intensive interdisciplinary undergraduate teaching through a combination of vocational training and first-degree programmes. The School aims to undertake research at the interface between social and technological change, seeking a critical and contextual understanding of the dynamics of the emerging digital world in liaison with academia, government and industrial organizations.

The school is committed to developing individual talent within a collaborative working environment by imparting highest standard of education/training with professionally active faculty and a broad spectrum of visiting professionals.

We also offer a wide range of options for pre-professional experience through strong internship programmes with allied partners.

The school aims to provide venues for the presentation and promotion of student

#### Degrees **OFFERED**

Bachelor of Science in Media and Communication (BSMC)

Bachelor of Arts in Film and Television **(BAFT)** 

Bachelor of Arts in Mass Communication (BSMCM-Hons)



work and to advise and assist students regarding national and international festivals and opportunities.

The School of Creative Arts will also facilitate the Creative Village by providing theoretical frameworks and expertise to guide the practical production being conducted at the Creative Village Studio while also providing competent human resource through its student base to conduct the aforementioned.





# Bachelor of Science in MEDIA & COMMUNICATION (BSMC - HONS)

### **INTRODUCTION**

The Bachelor of Science (Hons) in Media and Communication Studies is characterized by its progressive structure, which allows for increasing specialization through the programme.

The course has been designed as a rigorous yet interactive approach towards both theory and practical subjects. Specific studio courses, which are open ended in their approach are designed to give the student a chance to interact with the faculty according to general agendas to discuss and develop new ideas. The core courses provide the student with the capability to harness the concepts and technologies according to their

#### needs. A wide array of elective and summer courses have also been designed to further facilitate the students towards a better understanding of their curriculum and the field of media and communication. In general terms, the Bachelor of Science (Hons) in Media and Communication aims to provide the following opportunities for students.

#### Career **PROSPECTS**

The students of this course will acquire the training and skills required for exceeding in the fields of print, television, radio and online journalism, corporate communications, media theory, media regulation and public policy, and media and public relations.

#### Program **FACTS**

Program Length Full-time, 4 Years

**Entry Requirements** Intermediate (Minimum 50%), A Levels

#### Location Defence Road Campus (Creative Village)

# Recognised **BY**

**Higher Education Commission** 



Semester 5	Cr Hr	Semester 6	Cr Hr	Semester 7	Cr Hr	Semester 8	Cr Hr
Media Law & Ethics	3	Advertising and Promotion	3	Research Methodologies	3	Major Production Sessions II (studio)	6
Broadcast media	3	News Reporting II	3	Major Production Sessions I (studio)	6	Thesis/Dissertation II (studio)	6
Documentary I	3	Documentary II	3	Thesis/Dissertation I (studio)	6		
News Reporting I	3	News and Current Affairs Production	3	Video Editing	3		
Media & Audience	3	News Editing	3				
News & Current Affairs	3	Radio Broadcasting	3				

## Road **MAP**

Semester 1	Cr Hr	Semester 2	Cr Hr	Semester 3	Cr Hr	Semester 4	Cr Hr
Introduction to Cinema	3	Introduction to Visual Communication Theories	3	Media and Communication Theories	3	Introduction to Psychology	2
Introduction to Media	3	Readings in Urdu Literature	3	Pakistan Studies	2	Introduction to Sociology	2
Introduction to Television	3	Readings in English Literature	3	Political Science	2	Islamic Studies	2
Introduction to Audio/Video Technologies I	3	Introduction to Audio/Video Technologies II	3	Philosophy	2	Statistics	3
Photography I	3	Photography II	3	Creative Writing	3	Film Theory	3
English and Communication	3	Introduction to Performance Making	3	Film Aesthetics	3	Introduction to Print & Broadcast Media	3
				South Asian Cinema	3	Introduction to New Media	3

South Asian Cinema 3 Introduction to New Media

## Bachelor of Arts in **FILM AND TELEVISION** (BAFT - HONS)

## INTRODUCTION

The degree offers the state of the art and unrivalled combination of academic, theoretical and professional training in the field of Film and Television in Pakistan. BAFT promotes intellectual analysis of film, television, video and digital media arts, developing knowledge, understanding, and key skills for film and television industries in Pakistan.

The program provides a variable & progressive structure in which students are able to gain knowledge and understanding of film and television studies. It helps developing a mature understanding of the history, scope and socio-cultural impact

## Road **MAP**

Semester 1	Cr Hr	Semester 2	Cr Hr	Semester 3	Cr Hr	Semester 4	Cr Hr
Introduction to Cinema	3	Introduction to Visual Communication Theories	3	Media and Communication Theories	3	Introduction to Psychology	2
Introduction to Media	3	Readings in Urdu Literature	3	Pakistan Studies	2	Introduction to Sociology	2
Introduction to Television	3	Readings in English Literature	3	Political Science	2	Islamic Studies	2
Introduction to Audio/Video Technologies I	3	Introduction to Audio/Video Technologies II	3	Philosophy	2	Statistics	3
Photography I	3	Photography II	3	Creative Writing	3	Film Theory	3
English and Communication	3	Introduction to Performance Making	3	Film Aesthetics	3	Introduction to Print & Broadcast Media	3
				South Asian Cinema	3	Introduction to New Media	3

of Film, Cinema and Television

in Pakistan and Globally. BAFT

offers extensive experience in the

production of Film and Television

content required for new trends

degree enables Development of

knowledge, understanding and

key skills required to produce or

research new trends in Film and

Career **PROSPECTS** 

in media and communication

industries in Pakistan. The

Television in Pakistan.

The students will acquire

the training & skills required

for exceeding in the fields of

infotainment, entertainment,

cinema and television in Pakistan.

theories of media, communication,

Understanding & application of

#### Program **FACTS**

Program Length Full-time, 4 Years

Entry Requirements Intermediate (Minimum 50% ), A Levels

#### Location

Defence Road Campus (Creative Village)

#### Recognised **BY**

Higher Education Commission

film, television & other forms of audio & visual media.



Semester 5	Cr Hr	Semester 6	Cr Hr	Semester 7	Cr Hr	Semester 8	Cr Hr
Sound	3	Advertising and Promotion	3	Research Methodologies	3	Major Production Sessions II (studio)	6
Direction I	3	Cinematography II	3	Major Production Sessions I (studio)	6	Thesis/Dissertation II (studio)	6
Cinematography I	3	Editing II	3	Thesis/Dissertation I (studio)	6		
Editing I	3	Fiction Film	3	Production Design	3		
Documentary I	3	Direction II	3				
Screen Writing	3						

# Bachelor in MASS COMMUNICATION (BSMCM - HONS)

## PROSPECTS

The degree offers the state of the art and unrivalled combination of academic, theoretical and professional training in the field of Mass Communication in Pakistan. BsMcM promotes intellectual analysis of film, television, video and digital media arts, developing knowledge, understanding, and key skills for film and television industries in Pakistan.

The program provides a variable & progressive structure in which students are able to gain knowledge and understanding of film and television studies. It helps developing a mature understanding of the history, scope and socio-cultural impact

Road MAP

#### Pakistan and Globally. Bs McM offers extensive experience in the production of Mass Communication content required for new trends in media and communication industries in Pakistan. The degree enables Development of knowledge, understanding and key skills required to produce or research new trends in Mass Communication in Pakistan.

of Film, Cinema and Television in

## Career **PROSPECTS**

The students will acquire the training & skills required for exceeding in the fields of infotainment, entertainment, cinema and television in Pakistan. Understanding & application of

#### Program **FACTS**

Program Length Full-time, 4 Years

Entry Requirements Intermediate (Minimum 50% ), A Levels

#### Location

Defence Road Campus (Creative Village)

## Recognised **BY**

Higher Education Commission

theories of media, communication, film, television & other forms of audio & visual media.

Semester 1	Cr Hr	Semester 2	Cr Hr	Semester 3	Cr Hr	Semester 4	Cr Hr
Introduction to Cinema	3	Introduction to Visual Communication Theories	3	Media and Communication Theories	3	Introduction to Psychology	2
Introduction to Media	3	Readings in Urdu Literature	3	Pakistan Studies	2	Introduction to Sociology	2
Introduction to Television	3	Readings in English Literature	3	Political Science	2	Islamic Studies	2
Introduction to Audio/Video Technologies I	3	Introduction to Audio/Video Technologies II	3	Philosophy	2	Statistics	3
Photography I	3	Photography II	3	Creative Writing	3	Film Theory	3
English and Communication	3	Introduction to Performance Making	3	Film Aesthetics	3	Introduction to Print & Broadcast Media	3
				South Asian Cinema	3	Introduction to New Media	3



# **FACILITIES AT SCHOOL OF CREATIVE ARTS**

"A community of creative people working towards a common goal of improving quality of media content, human resource and media infrastructure in Pakistan."

Media in Pakistan is a burgeoning industry, which employs more than 100,000 professionals. However, it still lacks the necessary infrastructure and creative human resource to produce innovative content. In essence, it lacks the institutions necessary to facilitate best practices while educating professionals in the latest media techniques. The University of Lahore has taken the initiative to fill this void by pioneering The School of Creative Arts (SoCA).

The School of Creative Arts is bringing together industry expertise and media practitioners alongside cutting edge facilities and technology through studio facilities. School of Creative Arts is a purpose built media production entity consisting of fully equipped studio floors and allied post and sound production facilities.

The studio is aimed to assist in the creation of creative, traditional and new media content while also focusing on developing strong industry links through content production for a diverse spectrum of the media industry. Our scope of work is focused on: • Broadcast Media

- Television
- Radio

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- Pring Media
- Newspapers
- AdvertisingAnimation
- New Media
  Mobile
- Internet

also focus on imparting practical media expertise and theoretical knowledge with a research oriented approach towards curriculum design. The School will harness strong industry links by creating internship and placement opportunities while also acting as a center for specialized training for already established professionals in the industry. The Centre for Media research at SoCA will focus on merging the practical aspect with theoretical research.

With these unique and diverse entities working towards the aforementioned goals of the School of Creative Arts, the University of Lahore will foster an entirely new generation of media professionals equipped with the resources at their disposal to bring about a creative and cultural renaissance.



## The **STUDIO**

The Creative Village studio combines industry expertise with purpose built television and film production studios consisting of two international standard production floors and dedicated post production, sound production and animation facilities.

The studio brings together professionals with both regional and international experience and together with the School of Creative Arts, ensures that students at the school receive professional experience while projects undertaken meet exceptional quality standards.

### Facilities

- 45000 sq. feet purpose built facility
- Two dedicated production floors
- Studio A: 60x100x30 feet
- Studio B: 50x60x30 feet
- Complete light grid and light and sound equipment
- High end broadcast and RED cameras
- Latest HDV cameras
- HD studio cameras
- Green rooms
- Chroma facility
- Fully equipped post production & animation facility
- Dedicated sound studio
- High end audio/video editing labs



School of Creative Arts



# **RESEARCH & DEVELOPMENT CENTRE**

#### INTRODUCTION

The purpose of Research and Development Centre is to elaborate the importance, impact and the need for a focused, intellectual and scholarly research centre in the field of media and communication in Pakistan.

The School of Creative Arts aims to develop itself as a leader in scholarly and intellectual research in the field of media and communication in Pakistan. Our aim is to only to bring media & communication into the serious realm of research and development locally, but also to establish our research and Development section as a recognized and significant contributor internationally as well.

The R&D Centre will focus on the

establishment of a Research and Development Centre at the School of Creative Arts, University of Lahore.

The field of media and communication or media studies is a relatively new interdiscipline, roughly dating back to 1920's as a set of studies and the fifites as a "formal discipline" internationally.

However, the growth in media and communication in form of broadcast media in Pakistan is fairly recent. With a wide array of private news and entertainment channels, the broadcast media in Pakistan has seen exponential growth in the last decade.

However, this poses a great challenge as the international realm of media is gradually migrating to "New Media" (Internet, WWW etc), and the collaboration of old and new media is becoming more evident day by day. Pakistan, on the other hand is witnessing the growth of both broadcast and new media simultaneously, which gives rise to the need for focused research and development in the ever expanding field of media and communication.

The Centre will focus on Research & Development in the following capacities:

- Curriculum Development & Training
- Research and Development of Audio/Visual Content
- Research and Development in Published Form - Research Journal

# THE SPECTACLE

#### INTRODUCTION

A 'spectacle' refers to an event that creates impact and is extraordinary for the appearance it creates. This is exactly what the students at the School of Creative Arts, University of Lahore aim to achieve through the bi-monthly newsletter "The Spectacle". The 1st edition of the bi-monthly newsletter "The Spectacle" conceived and accomplished through months of hard-work and perseverance by Foundation Year students at the School of Creative Arts, University of Lahore.

The Spectacle will not only cover events, news, reviews and editorials from the University of Lahore but also cover Domestic and internationals entertainment, sports and business news. The Spectacle is not just another newsletter that focuses just on news, the editorial staff will focus on issues centered around the students of University of Lahore and other educational institutes in Pakistan. The student staff of The Spectacle will facilitates the students of University of Lahore with educational tips regarding their studies and will also highlight opportunities available for students in the specific industry in Pakistan. The Spectacle team comprises of talented and dedicated Foundation Year students of Media & Communication and Film & Television 4-year Bachelor degrees offered by the School of Creative Arts, University of Lahore. Foundation Year students of School of Creative Arts took up this challenging initiative and the results achieved by them are truly laudable. They are responsible for the complete content gathering

and writing, news reporting and the eye catching design of this newsletter. Their efforts clearly show their dedication, guided by the Faculty of the School of Creative Arts along with encouragement and support by the management of University of Lahore.

The Spectacle team strives to bring to the students of University of Lahore a wide array of information, news and entertainment while highlighting the quality of education at this rising and reputable University. The team hopes that the Faculty and students of University of Lahore will not only read this newsletter but will also contribute their valuable suggestions and content to make this newsletter the best and most widely read student publication in Pakistan.





# Bachelor in **ARCHITECTURE**

#### Mission **STATEMENT**

The School of Architecture prepares future architects to make vital contributions to humanity through the creation of architecture. The School focuses its program in architecture to prepare and inspire students for the professional leadership roles and responsibilities required to shape the physical environment and to have a positive impact on the social, economic and cultural qualities of life in Pakistan and the entire international context.

The School of Architecture endeavors to instill in each individual sensitivity to human needs, a genuine concern for quality, integrity and high ideals, a positive attitude for life-long learning, and an appreciation for one's own self-esteem.

### INTRODUCTION

The School of Architecture at The University of Lahore aims to evolve into a center of excellence in architectural education focusing on the human, socio-cultural, environmental, scientific and technological, aesthetic and philosophical values. The academic program of the School follows the framework of curriculum developed by the Higher Education **Commission and Pakistan Council** of Architects & Planners . The five-year Bachelor of Architecture curriculum balances the acquisition of knowledge with the development of skills. The core components of the curriculum are Architectural Design, History and Theory, Building Sciences, and Professional Development. The School is located on the top floor of the newly built Engineering Tower, in Defence Road Campus, Lahore. The school consists of the state of the art workshops, lecture rooms, Computer laboratory, Studios, Library and other allied facilities.



Bachelor of Architecture (B.Arch)



Recognised BY Higher Education Commission



## ARCHITECTURE

### Bachelor in **ARCHITECTURE** (B. ARCH.)

#### INTRODUCTION

The B.Arch. program balances the intensity of a professional education with opportunities to use the resources of a worldclass university. The faculty of the department of architecture has developed a highly structured and intensive curriculum, one that emphasizes design, as well as theory, history, technology, representation, and structures. Basic conceptual skills are emphasized early on, along with introducing the fundamental skills of architecture. Students learn to communicate ideas through models and drawings, working fluidly and seamlessly between all modes of both analog and digital representation. All students spend their first three years following a core curriculum designed to lay a

strong foundation for architectural education and beyond. During the final four semesters, students are encouraged to work across disciplines focusing on an intellectually rigorous and speculative course of study.

#### Career **PROSPECTS**

Career opportunities for professionally trained and qualified architects are immense. They can seek employment in both public and private sectors. They are frequently employed in consultancy and private architectural firms, teaching institutions, real estate development firms etc. The most privileged scope in the field of architecture is private practice. With some years of experience in an organization, the architects

#### Program FACTS

#### **Program Length** Full Time, 5 Years Entry Requirements (Minimum 50%), intermediate with math. A level with math. Intermediate. A level with combination of any three (03) of the following subjects ; Math Phy., Chem., Computer sciences, Statistics, Fine Arts, Economics, Psychology and Sociology.

DEA in Architecture/ Civil Engineering

#### Location **Defence Road Campus**

can set up their own business. International market particularly the Gulf countries offer attractive career for architecture professionals.

#### Road **MAP**

Semester 1	Cr Hr	Semester 2	Cr Hr	Semester 3	Cr Hr	Semester 4	Cr Hr
Basic Design -i	6	Basic Design -ii	6	Architectural Design -i	6	Architectural Design -ii	6
Visual Communication – I (Free Hand)	3	Visual Communication – ii (Modelling)	3	Visual Communication-iii (Presentation Techniques)	3	Computer Applications – I (CAD 2D)	3
Survey of Architectural History - i	2	Survey of Architectural History - ii	2	History of Architecture in South Asia	2	Building Materials & Construction -iii	2
Building Mat. & Construction -i	2	Structural Concepts in Architecture	2	Building Materials & Construction -ii	2	Structure For Architects -ii	2
English (Functional English)	2	Building Physics	2	Structure For architects –i	2	Building Services-i	2
Islamic Studies	2	Pak. Studies	2	English (Communication Skills and Technical Writing)	2	Creative Problem Solving	2

#### **COURSES**

- Basic Design –i
- Visual Communication I (Free Hand)
- Survey of Architectural History i Building Mat. & Construction –i
- Basic Design-ii
- Visual Communication ii (Modelling)
- Survey of Architectural History ii
- Structural Concepts in Architecture
- Building Physics
- Architectural Design-i
- Visual Communication-iii (Presentation Techniques) • History of Architecture in South Asia
- Building Materials & Construction -ii
- Structure For architects –i
- Architectural Design-ii
- Computer Applications I (CAD 2D)
- Building Materials & Construction -iii
- Structure For Architects -- ii
- Building Services-i

- Architectural Design-iii
- Visual Communication-iii
- (Presentation Techniques)
- History of Architecture in South Asia
- Building Materials & Construction –ii
- Structure For architects -i
- Architectural Design-iv
- Computer Applications iii (Rendering)
- Theory of Architecture-ii (Contemporary)
- Working Drawings
- Architectural Design-v
- Structure for Architects-iv
- Urban Design
- Parametric Modelling
- Architectural Design-vi
- Landscape Architecture
- Research Methods
  - Services in Tall Buildings
  - Architecture Design-vii

- Design Thesis-i
- Computer Simulation
- Design Thesis-ii
- Professional Practice & Ethics
- Construction Management

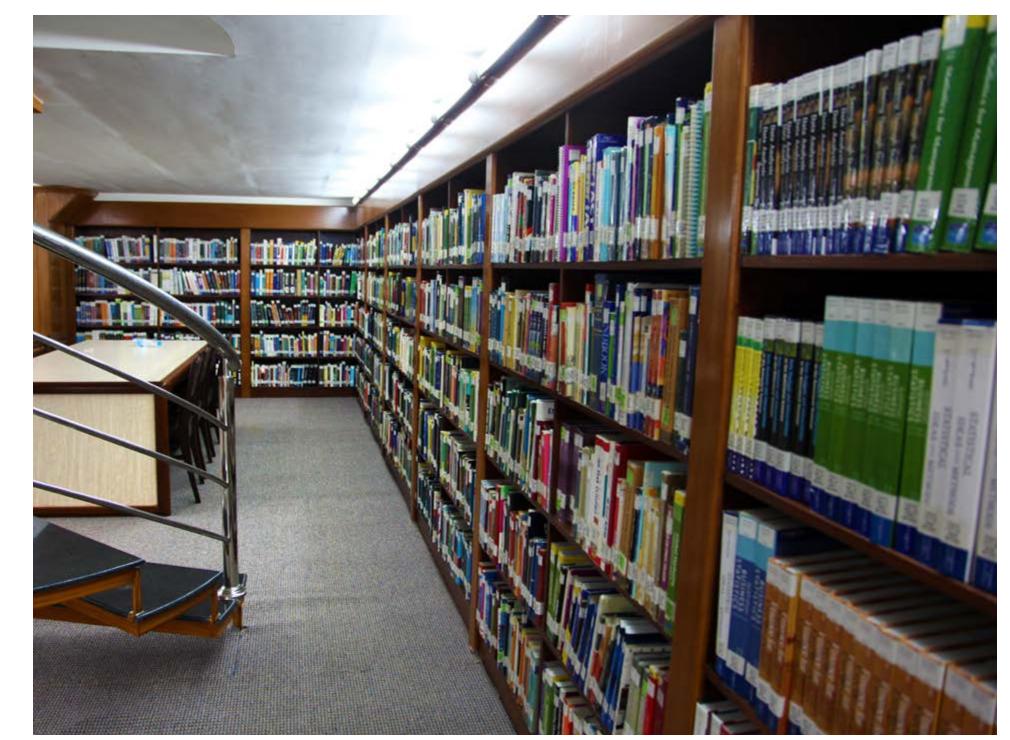
#### Elective **COURSES**

- Architectural Photography &
- Journalism
- Interior Design
- Techniques of Model making
- Environmental Psychology
- Estimation & Specifications
- Sustainable Design Strategies
- Architectural Conservation
- Urban Conservation
- · Housing Issues in Pakistan
- Universal Design
- Cities in History & Theory
- Disaster Resistant Buildings

				-		-	
Semester 4	Cr Hr	Semester 6	Cr Hr	Semester 7	Cr Hr	Semester 8	Cr Hr
Architectural Design -iii	8	Architectural Design -iv	8	Architectural Design-v	8	Architectural Design -vi	8
Computer Applications-ii (3D Modelling)	2	Computer Applications – iii (Rendering)	2	Structure for Architects-iv	2	Landscape Architecture	2
Theory of Architecture – i (Modernism)	2	Theory of Architecture-ii (Contemporary)	2	Urban Design	2	Research Methods	2
Building Materials & Construction -iii	2	Theory of Architecture-ii (Contemporary)	2	Parametric Modelling	3	Services in Tall Buildings	3
Structure For Architects -iii	2	Working Drawings	2	Elective	2	Elective	2
Building Services –ii	2	*Electives	2				
Semester 9	Cr Hr	Semester 10	Cr Hr				
Architectural Design -vii	8	Thesis Design- ii	10				
Design Thesis-i	4	Professional Practice & Ethics	2				
Computer Simulation	3	Construction Management	2				
Elective	2	Elective	2				

# Faculty of **LANGUAGE AND LITERATURE**

ENGLISH LANGUAGE AND LITERATURE



# Department of **ENGLISH LANGUAGE AND** LITERATURE

#### **Faculty of Language and Literature**

#### Mission **STATEMENT**

The Mission of the Program is to ensure that each second Language learner develops linguistically, academically, and cognitively within a socially and culturally supportive environment.

#### INTRODUCTION

The Department of English offers a professional, yet congenial environment to teach and promote an understanding of both the significance and the history of British and American literatures and to foster an appreciation of the richness and variety of texts in the language.

The department values commit teaching and supervision in an atmosphere of vigorous search and provide students with a flexible program of study.

Our main goal is to create a dynamic learning environment that promotes student's thinking capabilities, language and interpersonal skills. Moreover, our department emphasizes freedom of academic expression with the students. We also try

to sustain highest standards of academic excellence, professional performance and ethical conduct.

Degrees of Master in English language & Einglish Literature are Considered as stepping stones and a boon in taking PMS, CSS and other competitive exams. The Department is run by a senior DMG officer under whose guidance students are prepared by providing proper approach and strategies, for these deciding factors and turning points of the bright careers of their dreams.

Degrees of Master in English Language and English Literature are considered as stepping stones and a boon for appearing in MS,CSS and other competitive exams. The department is run by a retired DMG officer, under whose guidance, students are prepared for these deciding factors and turning points of the bright careers of their dreams.

Our academic staff comprises carefully selected teachers who are committed to support the students academically and socially. Students are prepared to face the competitive world. Since

#### Degrees OFFERED

BS (HONS.) in English Language and communication) (BSELC)

Bachelor in Science (Simple)

Master of Arts in English Literature (MAEL)

Master of Arts in English Language Teaching & Linguistics (MAETL)

M.Phil in Literature (M.Phil)

M.Phil in Applied Linguistics (M.Phil)

our inception, we are aiming at imparting quality education to the students.

Extra-curricular activities are part of our academics and we believe in fostering the appreciation of critical thinking and analytical approach in our students.



# ENGLISH LANGUAGE AND LITERATURE

### Bachelor of Science in ENGLISH LANGUAGE & COMMUNICATION (BSELC)

#### INTRODUCTION

This is an integrated degree of both English Language and Literature Courses with an extra edge of a wide range of courses from social sciences and business and commerce. Social sciences are the backbone of national cohesion and development in terms of social and economic competitiveness. High-quality and vocationally relevant courses at UOL prepare graduates for a wide range of career opportunities.

#### Career **PROSPECTS** This may include key positions in

the civil services, judiciary, and top management in business and industry. Similarly, top positions in print and electronic media, NGOs, INGOs, multinational organizations and civil society organizations are open to graduates with their degree in English Language and communication. Social sciences impart a strong knowledge base to establish institutions for service to humanity or business for selfemployment.

#### Program **FACTS**

#### Program Length

Full-time, 4 Years, Credit Hrs: 132

#### **Entry Requirements**

F.A./F.Sc./ I.Com / ICS/ A-Level Certificate or equivalent

with minimum 45% marks.

Location

Raiwind Road Campus

Recognised BY Higher Education Commission

#### Road **MAP**

Semester 1	Cr Hr	Semester 2	Cr Hr	Semester 3	Cr Hr	Semester 4	Cr Hr
Gen .English-I	3	Gen .English-II	3	Communication Skills	3	Academic Reading and Writing (ADVANCED)	3
Pak Studies	3	Islamic Studies	3	Intro to Computers	3	Citizenship Education( Human Rights)	3
Psychology	3	gender studies	3	Entrepreneurship	3	Intro to Literature-IV : Prose	3
Philosophy	3	Pol. Sciences	3	Environmental Sciences	3	Morphology and syntax	3
History of Literature	3	Intro to Literature-II : Poetry & one act play	3	English Fiction	3	Anthropology	3
Intro to Linguistic-I	3	Intro to Linguistic-II (Methods & Approaches)	3	Phonetics & English Phonology	3		

#### **CORE COURSES**

- Gen .English-I
  Pak Studies
- Gen English-II
- Islamic Studies
- Communication Skills
- Intro to ComputersAcademic Reading and Writing (Advanced)
- Academic Reading and Writing (Advan
   Citizenship Education (Human Rights)
- Literary Criticism-I
- Literary Criticism-II
- Visionary Discourse
- 20th Century Literature (Poetry & Drama)
- American Literature
- South Asian literature
- Teaching of Literature
- Literary Stylistics
- Literary Discourse & Journalistic Writing
  Language Teaching Methodologies
- Pragmatics
- Pragmatics
  Research Methods in Linguistics

#### Road **MAP**

•	Syllabus Designing & Testing
٠	Stylistics
•	Language, Culture & Identity

Research Proposal & Thesis

**ELECTIVE COURSES** 

Intro to literature-II: Poetry & One Act play

Discourse Analysis

· History of Literature

Intro to Linguistic-I

Entrepreneurship

English Fiction

Anthropology

Classical Poetry

Environmental Sciences

Morphology and Syntax

Gender Studies

Pol. Sciences

Psychology

Philosophy

- Psycho-Linguistics
  Socio-Linguistic
  - Socio-Linguistic
     Literary Movements
    - Classical Drama
    - Pakistan Literature in English
    - Intro to Linguistics-II: (Methods
    - &Approaches
       Phonetics & English Phonology
    - Intro to Literature-IV: Prose
    - Intro to Energine TV. Prose
       Intro to Research Methodology
    - American Drama
    - English Novel
    - Science Fiction & Fantasy
    - Translation Studies
    - World English
    - English for Specific Purposes

Semester 5	Cr Hr	Semester 6	Cr Hr	Semester 7	Cr Hr	Semester 8	Cr Hr
Intro to Research Methodology	3	Literary Movements	3	20th Century Literature (Poetry & Drama)	3	Teaching of Literature	3
Literary Criticism-I	3	Classical Drama	3	20th Century Literature (Poetry & Drama)	3	Literary Stylistics	3
Classical Poetry	3	Literary Criticism-II	3	South Asian literature	3	Literary Discourse & Journalistic Writing	3
Psycho – Linguistics	3	Pakistan Literature in English	3	American Drama	3	Science Fiction & Fantasy	3
Socio – Linguistic	3	Discourse Analysis	3	English Novel	3	Research Project	3
Visionary Discourse	3						

For Language (Major)	Cr Hr	For Language (Major)	Cr Hr
Language Teaching Methodologies	3	Syllabus Designing & Testing	3
Pragmatics	3	Stylistics	3
Research Methods in Linguistics	3	Language, Culture & Identity	3
Translation Studies	3	Research Project	3
World English	3	English for Specific Purposes	3

# Master of Arts in **ENGLISH LITERATURE (MAEL)**

#### INTRODUCTION

This programme consists of 69 credit hours with 20 courses. The emphasis is laid on an understanding of both the significance and the history of British and American literatures and to foster an appreciation of the richness and variety of texts in the language. We offer rigorous training in interpretive thinking and precise expression, teaching students to develop ideas, organise them, draw deductions and make connections to new ideas, and articulate them in eloquent and convincing ways. The English Post Graduate programme features the study of imaginative language, rhetoric, and the poetic and narrative arts whilst it focuses on the roles imaginative writing and presentation play in almost every aspect of human experience.

#### Career **PROSPECTS**

This programme will prepare students for competitive examinations, the application of English in practical life, as well as helping them acquire sufficient competence in English to study abroad.

#### **CORE COURSES**

- Contemporary Fiction
   Elizabethan Drama
   Novel
   History of English Literature (Victorian/ Modern)
   Prose
- Victorian Novel
- Creative Non Fiction
- Introduction to contemporary Literature
   Modern Drama
- Modern Drama
- Post Colonial Literature
- Romantic Poetry
- American Drama
- American Novel
  Literature and Politics
- Research Methods
- Classical Poetry
- Greek Drama
- History of English Literature
- Literary Criticism
  Research Project/ Thesis

#### Road **MAP**

Semester 1	Cr Hr	Semester 2	Cr Hr	Semester 3	Cr Hr	Semester 4	Cr Hr
Classical Poetry	3	Contemporary Fiction	3	Creative Non Fiction	3	American Drama	3
Greek Drama	3	Elizabethan Drama	3	Introduction to contemporary Literature	3	American Novel	3
History of English Literature	4	History of English Literature (Victorian/Modern)	4	Modern Drama	3	Literature and Politics	3
Literary Criticism	4	Prose	4	Post Colonial Literature	4	Research Methods	4
Novel	3	Victorian Novel	3	Romantic Poetry	3	Research Project/ Thesis	6
							-

#### Program **FACTS**

Program Length Full-time, 2 Years

Entry Requirements 2nd Division B.A/B.Com

#### Location

Raiwind Road Campus

Recognised **BY** 

Higher Education Commission

### Master of Arts in ENGLISH LANGUAGE TEACHING & LINGUISTICS (MAETL)

5.Presentation skills

accents.

experience.

Acquisition

Development

· Language and Media

**CORE COURSES** 

6.Understanding diverse English

Career **PROSPECTS** 

This programme will prepare

students for examinations, the

application of English language

in practical life as well as helping

them acquire the competence in

English to study abroad. It also

aims at producing professional

teachers equipped with the latest

instructional technology and opens

new vistas of research in language

Approaches to Foreign Language

Appeasement of Language Skills

· Teaching English for Specific Purposes

Computer and Language Teaching

Curriculum Designing and Material

Morphology and English Syntax

· Pragmatics and Semantics

#### INTRODUCTION

This is a dual Masters Degree programme consisting of 69 credit hours with 21 courses. Keeping in view the need of Postgraduate students, the English Department is putting English language learning skills tutorials & seminar sessions into the main stream of the MA English teaching course. The tutorial sessions will cover the following skills:

1.Intensive and extensive reading2.Speed reading and readingcomprehension

3.Writing, brainstorming,
organisation of material, writing
for specific purposes and creative
writing
4.Stress patterns and intonation

patterns

#### Road **MAP**

Cr Hr Cr Hr Cr Hr Cr Hr Semester 1 Semester 2 Semester 3 Semester 4 Computer and Language Teaching Approaches to Foreign Intercultural Communication 3 3 Critical Thinking Δ anguage Acquisition Assessment of Language Curriculum Designing and Intercultural Communication З Error Analysis 3 3 Material Development Phonetics and English Morphology and English 3 4 Language and Media 3 Semiotics Δ Phonology Syntax Student Teaching and **Psycho and Sociolinguistics Pragmatics and Semantics Research Methods** 2 3 3 3 Observation Teaching English for Specific 3 Stylistics Translation Studies Descriptive Syntax 4 Λ 3 Purposes

Research Project/Thesis

4

#### Program **FACTS**

Program Length Full-time, 2 Years

Entry Requirements 2nd Division B.A/B.Com

Location Raiwind Road Campus

#### Recognised **BY**

Higher Education Commission

- Research Methods
- Stylistics
- Critical Thinking
- Error Analysis
- Semiotics
- Student Teaching and Observation
- Translation Studies
- Intercultural Communication
- Intro to LinguisticsPhonetics and English Phonology
- Pronetics and English Phonology
   Psycho and Sociolinguistics
- Research Project/Thesis

# M. Phil in **APPLIED LINGUISTICS (M. PHIL)**

#### **INTRODUCTION**

An M. Phil program in Applied Linguistics is also offered in the department of English language and literature at the UOL. The aim of the program is to investigate a wide range of issues around language in contemporary society. Among these, the most prominent issues -- and the central topics of the M. Phil in Applied Linguistics -- are those surrounding second and foreign language education. Current research centers surround: bilingualism and multilingualism; child language development; second language acquisition; sociolinguistics; cross-cultural pragmatics; discourse and conversation analysis; intercultural communication; language teaching; and translation theory.

#### Career **PROSPECTS**

Basic requirement for Lectureship in different universities, For the purpose of advanced studies and research

#### **CORE COURSES**

- Issues in Syntax
- Research Methodology in Linguistics
- Applied Linguistics
- Theories of Language Description
- Critical Discourse Analysis
- Cross Cultural CommunicationThesis I
- Thesis I

#### **ELECTIVE COURSES**

- Translation Studies
- Pragmatics
- Critical Discourse Analysis
   Cross Cultural Communication

#### Program **FACTS**

Program Length Full-time, 2 Years

#### **Entry Requirements**

16 years of Education, 3 CGPA (Semester System), 2nd Div. Minimum (Annual System), GAT 50 % Score, There is no age limit

#### Location

Raiwind Road Campus

#### Recognised **BY**

Higher Education Commission

# M. Phil in **LITERATURE (M. PHIL)**

#### INTRODUCTION

The Department is commencing an M.Phil Programme in English Literature. This two year programme intends at a all-inclusive analysis of English, American, Continental and Post-Colonial Literatures in English and is divided into three teaching semesters and a research dissertation. The students will be exposed to literature from different genres of Literature. The fundamental concern in launching the M.Phil. Programme is to train competent teachers for the teaching of literature in English.

#### Career **PROSPECTS**

Basic requirement for Lectureship in different universities, For the purpose of advanced studies and research.

#### CORE COURSES

- Research Methodology
- Literary Theory
- Thesis I
- Thesis II

#### **ELECTIVE COURSES**

- Comparative Literature
  Elizabethan and Restoration
- Literature
- American Literature
- Modern and Contemporary Literature
- American Literature II (Drama and Poetry)
- Post Colonial Studies

#### Program **FACTS**

Program Length

Full-time, 2 Years

#### **Entry Requirements**

16 years of Education, 3 CGPA (Semester System), 2nd Div. Minimum (Annual System), GAT 50 % Score, There is no age limit.

#### Location Raiwind Road Campus

Recognised BY Higher Education Commission

#### Road **MAP**

Semester 1	Cr Hr	Semester 2	Cr Hr	Semester 3	Cr Hr	Semester 4	Cr Hr
Issues in Syntax	3	Applied Linguistics	3	Critical Discourse Analysis	3	Thesis II	3
Research Methodology in Linguistics	3	Pragmatics	3	Cross Cultural Communication	3		
Translation Studies	3	Theories of Language Description	3	Thesis I	3		

#### Road **MAP**

Semester 1	Cr Hr	Semester 2	Cr Hr	Semester 3	Cr Hr	Semester 4	Cr Hr
Comparative Literature	3	American Literature	3	American Literature II (Drama and Poetry)	3	Thesis II	3
Elizabethan and Restoration Literature	3	Literary Theory	3	Post Colonial Studies Post Colonial Studies	3		
Research Methodology	3	Modern and Contemporary Literature	3	Thesis I	3		

### Faculty of **SOCIAL SOCIAL SCIENCES** DEPARTMENT OF MATHEMATICS PHYSICS DEPARTMENT DEPARTMENT OF OF **ECONOMICS EDUCATION** DEPARTMENT **OF ISLAMIC STUDIES**



## Department of **PHYSICS** Faculty of Social Sciences

#### Mission **STATEMENT**

The Department of Physics imparts high quality education in the disciplines of Physics, Computational Physics, and Engineering Physics etc. It aims to produce well groomed graduates who are self-assured in their abilities and have good understanding of physical concepts. The Faculty of Science will also promote research and creative activities of the faculty and students. The Faculty will inculcate wider understanding of the nature of physical and allied sciences through quality teaching, technical expertise and research.

#### INTRODUCTION Department of Physics offers

undergraduate and graduate degree programs in the subjects of Pure and Applied domains of Physics. Special focus is placed on preparing trained manpower equipped with basic concepts and hands-on laboratory training at undergraduate level. This will enable them to richly contribute to the human resource of the country. Students will be specially exposed to practical training in the scientific organizations and Industry through a meaningful internship programme. They will be fully equipped to join the job market as valuable asset and to take up further study without any difficulty. Post graduate teaching and research programmes cover fundamental and applied fields incorporating recent trends in various specializations of Physics.

#### Degrees **OFFERED**

#### BS Physics

**BS** Physics (Computational Physics)

**BS** Physics (Engineering physics)

#### M.Phil Physics

Ph.D Physics.

## Bachelor of Science in **PHYSICS**

#### INTRODUCTION

The aim of BS Physics is to provide students with essential skills necessary for professional work as a physicist, and is the first step to graduate work in physics. This degree can lead to various other fields interconnected with Physics such as medical physics, solid state physics, nuclear physics etc.During the study of this period students learn new ways and techniques to solve problems that were thought not to be solve able some time ago and also predict the behavior of various systems.

#### Career **PROSPECTS**

Depending of concentration that a student's selects during study, various job opportunities are available after degree competition. Some of most visible ones are Forensic Science, Medical Physicist, Education Sector, Consultants and many more.

#### Program **FACTS**

Program Length Full-time, 4 Years

#### Entry Requirements

2nd Division F.Sc (Pre-Engineering) or equivalent

#### Location

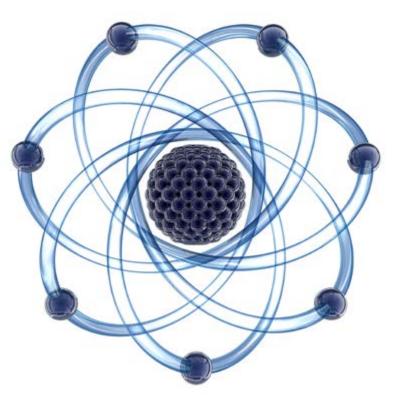
Raiwind Road Campus

#### Road **MAP**

Semester 1	Cr Hr	Semester 2	Cr Hr	Semester 3	Cr Hr	Semester 4	Cr Hr
Mechanics-I	3	Mechanics-II	3	Electricity & Magnetism-I	3	Electricity & Magnetism-II	3
Waves and Oscillations	3	Thermodynamics & Statistical Mechanics	3	Electronics & Modern Physics	3	Modern Physics	3
Intro to Computing	4	Linear Algebra	4	Computer Programming	4	Infinite series and sequence	2
Differential Calculus	4	Analytical Geometry, Integral Calculus	4	Vector Algebra and Analysis	3	Statistics and Probability	3
LAB -I	2	LAB -II	2	LAB -III	2	LAB -IV	2
Islamic Study	2	English Comprehension I	2	Communication Skill II	2	Communication Skill III	2

Pakistan Study

2



Semester 5	Cr Hr	Semester 6	Cr Hr	Semester 7	Cr Hr	Semester 8	Cr Hr
Electronics	3	Quantum Mechanics II	3	Nuclear Physics	3	Computational Physics	3
Classical Mechanics	3	Electrodynamics	3	Solid State Physics I	3	Solid State Physics II	3
Quantum Mechanics I	3	Thermal & Statistical Physics	3	Atomic & Molecular Physics	3	OPTINAL -I	3
Applied Differential Equations	4	Mathematical Method I	4	Mathematical Method II	4	OPTIONAL -II	3
LAB -V	2	LAB -VI	2	LAB -VII	2	Project	3

# Bachelor of Science in **PHYSICS (COMPUTATIONAL PHYSICS)**

#### INTRODUCTION

**Computational Physics extends** theoretical physics beyond the limitation of analytic techniques. This extension has become essential to advance in many different subfields of physics as system of interest have become complex. Moving from a few degrees of freedom to many degree of freedom. During the study of this period students learn new ways and techniques to solve problems that were thought not to be solve able some time ago and also predict the behavior of various systems. This degree focuses on use of Computational Techniques to aid the solution of theoretical problems and analysis

#### Road **MAP**

Semester 1	Cr Hr	Semester 2	Cr Hr	Semester 3	Cr Hr	Semester 4	Cr Hr
General Physics I	4	General Physics II	4	General Physics III	4	General Physics IV	4
Differential Calculus	4	General Physics Lab I	2	General Physics Lab II	2	General Physics Lab III	2
Linear Algebra	3	Analytical Geometry, Integral Calculus	3	Infinite Series And Sequences	2	Electronics	3
Introduction to Computer	3	Vector Algebra and Analysis	3	Discrete Mathematics	3	Electronics Lab	1
English Comprehension I	2	Introduction to Computer programming	3	Communication Skill III	2	Applied Differential Equations	3
Islamic Study	2	Statistics and Probability	2	Object Oriented Programming	3	Data Base Systems	3
		Communication Skill II	2			Pakistan Study	2

in detail various factors. Students

gain extensive programming skills

and at the end of degree they

are able to develop their own

data models.

many more.

computational applications and

Career **PROSPECTS** 

Depending of concentration that

a student's selects during study,

available after degree competition.

various job opportunities are

Some of most visible ones are

Development, Medical Physicist,

Education Sector, Consultants and

Forensic Science, Software

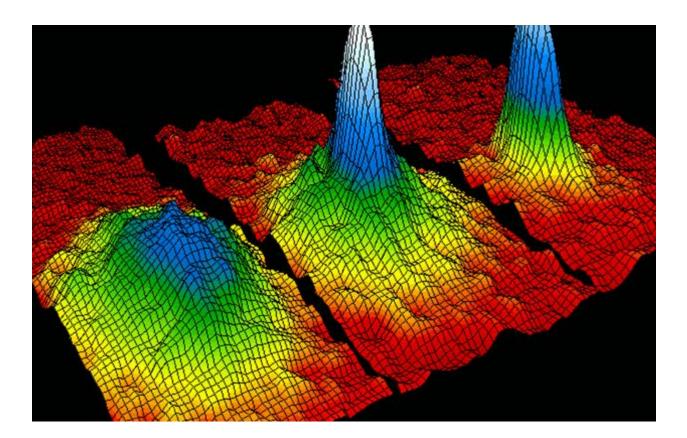
#### Program **FACTS**

Program Length 4- years

#### Entry Requirements

2nd Division F.Sc (Pre-Engineering) or equivalent

Location Raiwind Road Campus



Semester 5	Cr Hr	Semester 6	Cr Hr	Semester 7	Cr Hr	Semester 8	Cr Hr
Classical Mechanics	3	Waves and Optics	3	Electrodynamics	3	Applied Nuclear and Particle Physics	3
Quantum Mechanics I	3	Digital Electronics	3	Thermal and Statistical Physics	4	Solid State Physics II	3
General Physics Lab IV	2	Digital Electronics Lab II	1	Solid State Physics I	3	Computational Physics Simulations II	3
Numerical Linear Algebra	3	Quantum Mechanics II	3	Scientific Computation	4	Computational Physics Simulations Lab II	1
Algorithm Analysis	3	General Physics Lab V	2	Computational Physics Simulations I	3	Medical Physics	3
Mathematical Method I	3	Numerical Analysis	3	Computational Physics Simulations Lab I	1	PROJECT	3
		Mathematical Method II	3				

### Bachelor of Science in **PHYSICS** (ENGINEERING PHYSICS)

#### INTRODUCTION

Engineering Physics offers you an opportunity to develop a deeper understanding of the fundamentals of rapidly changing technology through an extensive physics and mathematics program in an engineering context. With electives and laboratory courses, you can easily combine this enhanced knowledge with the practical aspects of conventional engineering disciplines. This degree emphasizes the basic physics underlying most engineering developments, and

Road **MAP** 

Cr Hr Cr Hr Cr Hr Cr Hr Semester 2 Semester 3 Semester 4 Semester 1 General Physics I General Physics II 4 General Physics III General Physics IV 4 4 4 **Differential Calculus** 4 General Physics Lab I 2 General Physics Lab II 2 General Physics Lab III 2 Analytical Geometry, Integral Calculus 3 Infinite Series And Sequences 2 Electronics 3 3 Linear Algebra **Engineering Drawing** Vector Algebra and Analysis **Discrete Mathematics** Electronics Lab 3 3 3 1 **English Comprehension I** Communication Skill III Applied Differential Equations 3 Engineering Computer 2 2 З **ENGR Circuits &** ENGR Computer programming 3 3 Islamic Study 2 Statistics and Probability 2 Instrumentation ENGR Circuits & Instrumentation Lab Pakistan Study 2 Communication Skill II 2 1

mathematical tools vital to all engineers and scientists. The program is challenging, designed to stretch the mind.

#### Career **PROSPECTS**

In view of the versatile nature of this degree, graduate will be able to fill up the gap as industry with better understanding of Physics / Sciences. They will be suitable for job-market in teaching, research organization as well as industry. They will also be welcome for higher studies in foreign universities. In view of the growing needs, more than 20 American universities are offering this degree.

#### Program **FACTS**

Program Length Full-time, 4 Years

#### **Entry Requirements**

2nd Division F.Sc (Pre-Engineering) or equivalent

#### Location Raiwind Road Campus

	_						_
Semester 5	Cr Hr	Semester 6	emester 6 <sup>Cr</sup> Hr Se		Cr Hr	Semester 8	Cr Hr
Classical Mechanics	3	Waves and Optics	3	Electrodynamics	3	Applied Nuclear and Particle Physics	3
Quantum Mechanics I	3	Engineering Concentration I	4	Thermal and Statistical Physics	4	Solid State Physics II	3
General Physics Lab IV	2	Quantum Mechanics II	3	Solid State Physics I	3	Engineering Concentration III	4
Instrumentation and Signal Analysis Lab	3	General Physics Lab V	2	Engineering Concentration III	4	Engineering Physics Project and Seminar	3
Engineering Concentration I	3	Engineering Concentration II	4	Engineering Physics Lab II	4	PROJECT	3
Mathematical Method I	3	Mathematical Method II	3				

### M.Phil / Ph.D **PHYSICS INTRODUCTION**

This course is designed to provide students facility to concentrate on their research area and gain expertise. The teaching culture developed at graduate level is highly research oriented. Students are taught research methodology which helps them perform research effectively. The department of Physics have internationally recognized faculty with vast exposure in latest trends in research in their respective domains. Students are encouraged to participate in conferences and

present their research work. On average passing out students publish at least one research paper in internationally recognized journals.

#### Career **PROSPECTS**

Depending of concentration that a student's selects during study, various job opportunities are available after degree competition. Some of most visible ones are Forensic Science, Software Development, Medical Physicist, Education Sector, Consultants and many more.

Program Length Full-time, 2 Years (M.Phil) 3 Years (Ph.D)

**Entry Requirements** 2nd Division M.Sc (Physics) or

equivalent, or 2.5/4 CGPA as per HEC Rules

For (Ph.D) 3/4 CGPA as per HEC Rules

Location **Raiwind Road Campus** 

#### M.PHIL(semester 1 & 2)

Compulsary courses

- Advanced Mathematical Methods • Techniques in Experimental Physics
- Six Courses to be selected from the list of elective courses

#### **M.PHIL**(semester 3 & 4) • Research Thesis as per HEC Rules

#### Elective **COURSES**

- Group Theoretical Methods in Physics
- Particle Physics
- Advanced Quantum Mechanics
- Computational Physics
- Quantum Field Theory
- Condensed Matter Physics
- Applied Nuclear Physics Accelerator Physics
- Detector Physics
- Diagnostic Imaging Systems
- Physics of Nuclear Medicine
- Advanced Scientific Computation
- Advanced Numerical Analysis

 Modeling and Simulations Diagrammatic Approach in QCD and its Models Perturbative Calculations in Electroweak Theory • Lattice Gauge Theory Advanced Quantum Field Theory Models of hadrons Electroweak Phenomenology Lattice Quantum Chromodynamics Supersymmetry String Theory General Relativity Differential Geometry Lie Groups in Particle Physics Integral Equations

Data Analysis Techniques

E-beam Physics

Charmonium Decays

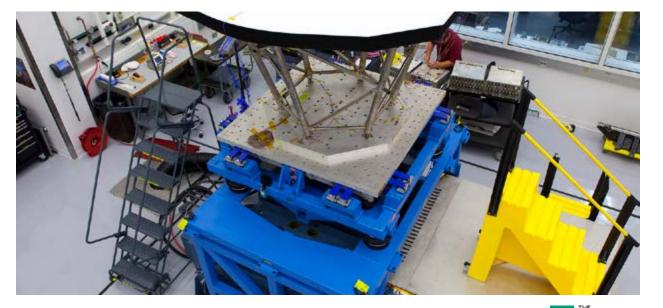
Analysis Tools

- Laser Physics Radiation. Interaction and Detection **Diagnostic Imaging Systems** Physics of Nuclear Medicine
- Physics of Radiotherapy Magnetic Resonance Imaging (MRI) **Radiation Protection Cloud Physics**

 Nanophysics & Nanotechnologies High Temperature Superconductivity Fractal Analysis Photonics & Optoelectronics Superconductivity **Environmental Physics** Advanced Plasma Physics Techniques & Applications Advanced Lasers & Techniques Parallel Processing Techniques Applied Meteorology Physics of Advanced Materials Atmospheric Electricity Advanced Electronics Fluid Mechanics Astrophysics Robotics • Drone Technology • Satellite Technology Aeronautics

#### PH.D

• The Degree will comprise of course work and research thesis as per HEC Rules.



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### Department of **MATHEMATICS & STATISTICS Faculty of Social Sciences**

#### Mission **STATEMENT**

#### **INTRODUCTION** The Department of Mathematics is

The Department of Mathematics is established to train the students to become competent professionals and researchers by earning M.Phil/Ph.D. degree in Mathematics through the eminent faculty, state of the art facilities and infrastructure of international standards. We are committed to provide outstanding education to our research scholars in accordance with principles of the University mission. The research activities are planned in modern areas of mathematics to find solutions of current mathematical problems.

one of the primary departments of the University of Lahore. Its initial setup was laid down and class work started when this university opened her gates for her students to learn and grow. The Department realizes its responsibility to ensure long term vitality of mathematical sciences; that it should foster the development of mathematical scientists as future scholars, teachers, researchers and organizational leaders. The BS (HONS.), M.Phil. and Ph.D. program is launched afresh with highly qualified faculty members. It fulfills all the curriculum requirements for BS (HONS.), M.Phil. and Ph.D. degree recommended by HEC. Our teaching methods comply with international standards and meet all mandatory requirements of HEC.

#### Degrees **OFFERED**

BS (HONS.) in Mathematics.

M.Phil in Mathematics.

Ph.D. in Mathematics.

### Bachelor of Science in **MATHEMATICS** (BS (HONS.))

#### INTRODUCTION

The BS (hons.) program in Mathematics is four year program that gives academically successful undergraduates the opportunity to pursue M.Phil. Degree in Mathematics and Statistics.

#### Career **PROSPECTS**

Mathematics BS (hons.) student may choose a career as a teacher or industry. Mathematical graduates are in high demand across the world and can obtain extremely well paid work in many areas, including investment banking and finance; the civil

#### Road MAP

service; the pharmaceutical industry; and medicine statistics. Mathematics graduates are highly employable due to the advanced problem-solving, analytical skills and higher level numeracy skills developed by studying this subject. There is a strong demand for financial, business, IT and education sectors.

#### Program **FACTS**

**Program Length** Full-time, 4 Years crd hours 142

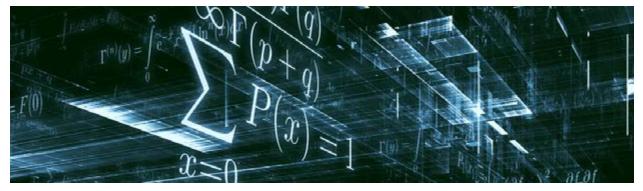
#### **Entry Requirements**

F.sc (Math, Physics and Chemistry) OR Equalent DAE Telecom, DAE Electronics, DAE Instrumentation, DAE Electrical with Minimum 60%, Entrance Test.

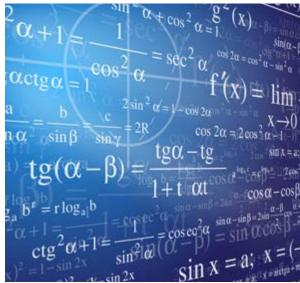
Location Raiwind Road Campus

Recognised **BY** Higher Education Commission

Semester 1	Cr Hr	Semester 2	Cr Hr	Semester 3	Cr Hr	Semester 4	Cr Hr
Islamiat/Ethics	2	Pakistan Studies	2	English-III (Communication Skill)	3	English-IV (English for Practical Aims)	3
English-I (Language in Use	3	English-II (Academic Reading and Writing)	3	Mathematics A-III [Linear Algebra]	3	Mathematics A-IV [Ordinary Differential Equations]	3
Computer (Introduction and Application)	3	Analytic Geometry] Mathematics A-II [Plane Curves &	4	Mathematics B-III [Calculus (II)]	4	CIntroduction to Sociology	4
Mathematics A-I [Calculus (I)]	4	Mathematics B-II [ Mechanics (II)	4	Graph Theory	4	Introduction to Sociolog	2
Mathematics B-I [Vectors & Mechanics (I)]	4	Discrete Mathematics	2	Statistics-III	4	Elementary Number Theory	3
Statistics-I	3	Statistics-II	3	Statistics Lab-III	3	Statistics-IV	3
Statistics Lab-I	1	Statistics Lab-II	1	Physics-III	4	Statistics Lab-IV	4
Statistics Lab-I	3	Physics-II	3	Physics Lab-III	4	Physics-IV	2
Physics Lab-I	1	Physics Lab-II	1			Physics Lab-IV	3
						1946	



Semester 5	Cr Hr	Semester 6	Cr Hr	Semester 7	Cr Hr	Semester 8	Cr Hr
Real Analysis-I	3	Real Analysis-II	4	Set Theory	3	Measure Theory and Lebesgue Integration	3
Group Theory-I	4	Rings and Vector Spaces	3	Partial Differential Equations	3	Methods of Mathematical Physics	3
Complex Analysis-I	4	Complex Analysis-II	4	Numerical Analysis-I	3	Numerical Analysis-II	3
Vector and Tensor Analysis	4	Mechanics	3	Mathematical Statistics-I	3	Mathematical Statistics-II	2
Topology	3	Functional Analysis-I	3	Fortran Programming	3	Computer Applications	3
Differential Geometry	3	Ordinary Differential Equations	4	Group Theory-II	2	Group Theory-III	3



3	Mathematical Statistics-II	2
3	Computer Applications	3
2	Group Theory-III	3
3	Theory of Modules	3
3	Number Theory-II	3
3	Quantum Mechanics-II	2
3	Special Theory f Relativity	3
2	Electromagnetic Theory-II	2
3	Operations Research-II	3
3	Theory of Approximation and Splines-II	3
3	Functional Analysis-III	3
2	Fluid Mechanics-II	2
	3 2 3 3 3 3 3 3 3 3 3 3 3	<ul> <li>3 Computer Applications</li> <li>2 Group Theory-III</li> <li>3 Theory of Modules</li> <li>3 Number Theory-II</li> <li>3 Quantum Mechanics-II</li> <li>3 Special Theory f Relativity</li> <li>2 Electromagnetic Theory-II</li> <li>3 Operations Research-II</li> <li>3 Theory of Approximation and Splines-II</li> <li>3 Functional Analysis-III</li> </ul>

#### COURSES

#### **CORE COURSES**

- Islamiat/Ethics
- English-I (Language in Use
- Computer (Introduction and Application)
  Mathematics A-I [Calculus (I)]
- Mathematics A-I [Calculus (I)]
   Mathematics B-I [Vectors & Mechanics (I)]
- Pakistan Studies
- English-II (Academic Reading and Writing)
- Mathematics A-II [Plane Curves & Analytic Geometry]
- Mathematics B-II [ Mechanics (II)
- Discrete Mathematics
- English-III (Communication Skill)
- Mathematics A-III [Linear Algebra]
- Mathematics B-III [Calculus (II)]
- Graph Theory
- English-IV (English for Practical Aims)
- Mathematics A-IV [Ordinary Differential Equations]
- Mathematics B-IV [Metric Spaces & Group Theory]
- Introduction to Sociology
- Elementary Number Theory
- Real Analysis-I
- Group Theory-I
- Complex Analysis-I
- Vector and Tensor Analysis
- Topology
- Differential Geometry
- Real Analysis-II
- Rings and Vector Spaces
- Complex Analysis-II
- Mechanics
- Functional Analysis-I
- Ordinary Differential Equations
- Set Theory
- Partial Differential Equations
- Numerical Analysis-I
- Measure Theory and Lebesgue Integration
- Methods of Mathematical Physics
- Numerical Analysis-II

#### **ELECTIVE COURSES**

- Mathematical Statistics-I
- Fortran Programming
- Group Theory-II
- Ring Theory
- Number Theory-I
- Quantum Mechanics-I
- Analytical Dynamics
- Electromagnetic Theory-I
- Operations Research-I
- Theory of Approximation and Splines-I
- Functional Analysis-II
- Fluid Mechanics-I
- Mathematical Statistics-II
- Computer Applications
- Group Theory-III
- Theory of Modules
- Number Theory-II
- Quantum Mechanics-II
- Special Theory f Relativity
- Electromagnetic Theory-II
- Operations Research-II
- Theory of Approximation and Splines-II
- Functional Analysis-III
- Fluid Mechanics-II
- Statistics-I
- Statistics Lab-I
- Physics-I
- Statistics-II
- Statistics Lab-II
- Physics-II
- Physics Lab-II
- Statistics-III
- Statistics Lab-III
- Physics-III
- Physics Lab-III
- Statistics-IV
- Statistics Lab-IV
- Physics-IVPhysics Lab-IV

### M.Phil MATHEMATICS

#### **INTRODUCTION**

The purpose is to offer students who hold degree M.Sc or BS (hons.) Mathematics to broaden their knowledge in several field of Mathematics

#### Career **PROSPECTS**

The program is designed to prepare graduates for teaching at the college level or Universities. The use of Mathematics is in modern industry, so Mathematics is found in almost every sector of the job market

#### Program **FACTS**

Program Length 2 years, 18 Credit hours and One year Research

#### **Entry Requirements**

BS degree of 4 years duration with CGPA > 2.5 or MSc GAT examination conducted by NTS

Location Raiwind Road Campus

#### Recognised BY Higher Education Commission

• Field Extensions & Galois Theory

• Linear Groups & Group Representations

• Advanced Theory of Rings and Modules

Spectral Theory in Hilbert spaces-I

Spectral Theory in Hilbert spaces-II

#### Higher Education Commis

· General Topology

Homotopy Theory

BCK Algebra

BCL Algebra

Homological Theory

Harmonic Analysis

Combinatorics

Advanced Measure Theory

Advanced Number Theory

Representation Theory

- **CORE COURSES** • Group Theory
- Functional Analysis

COURSES

- Riemannian Geometry
- Mathematical Techniques
- ODEs and Computational Linear Algebra
- Partial Differential Equations
- Integral Equations
- Advanced Mathematical Physics
- Advanced Numerical Analysis
- Mathematical Modeling-I

#### **ELECTIVE COURSES**

#### **APPLIED MATHEMATICS**

- Fluid Dynamics
- Relativistic Astrophysics
- Classical Field Theory
- Quantum Field Theory
- Electrodynamics-I
- Electrodynamics-II
- General Relativity-I
- General Relativity-II
- Cosmology
- Elastodynamics
- Plasma Dynamics

- Advanced Course in Plasma Physics
  Magneto hydrodynamics-I
  Coperator Theory
  Lie Algebras & Lie Groups
- Magneto hydrodynamics-I
  Magneto hydrodynamics-II
- magneto nyurouynamics-fi

#### **COMPUTATIONAL MATHEMATICS**

- Graph Theory
- Design Theory
- Theory of Spline Functions I
- Theory of Spline Functions II
- Theory of Spline Functions III
- Subdivision Schemes
- Approximation Theory
- Numerical Solution of PDEs
- Mathematical Modeling-II
- Minimal Surfaces
- Computer Graphics
- Computer Graphics

#### **COMPUTATIONAL MATHEMATICS**

- Lattice Theory
- Topological Groups
- Banach Algebras-I
- Banach Algebras-II
- Rings and Modules

# Doctor of **MATHEMATICS** PH.D.

#### INTRODUCTION

The program is designed to develop advanced understanding of specific fields of Mathematics and a through understanding of one major field of interest. We offer a broad variety of research in different areas if Mathematics.

#### Career **PROSPECTS**

The aim of the doctoral program in Mathematics is to prepare graduates for productive careers in research, education and industry in general.

### Program **FACTS**

#### **Program Length**

3 year. 18 Credit Hours and Minimum 2 years Research work

#### **Entry Requirements**

M.Phil. degree of 2 years duration in
Mathematics with CGPA ≥3.0 in the
course/research work examination.
GAT examination conducted by NTS
50% Marks are required in GAT Subject
(Mathematics).

#### Location

Raiwind Road Campus

#### Recognised **BY**

Higher Education Commission

- Lie Algebras & Lie Groups
- Field Extensions & Galois Theory
- Linear Groups & Group Representations
- General Topology
- Homology Theory
- Homological Theory
- Representation Theory
- BCK Algebra
- BCL Algebra
- Advanced Theory of Rings and Modules
- Spectral Theory in Hilbert spaces-I
- Spectral Theory in Hilbert spaces-II
- Harmonic Analysis
- Advanced Measure Theory
- Advanced Number Theory
- Combinatoric

### Functional Analysis Riemannian Geometry Mathematical Techniques

**COURSES** 

**CORE COURSES** 

Group Theory

- ODEs and Computational Linear Algebra COMPUTATIONAL MATHEMATICS
- Partial Differential Equations
- Integral Equations
- Advanced Mathematical Physics
  Advanced Numerical Analysis
- Mathematical Modeling-I

#### ELECTIVE COURSES

#### APPLIED MATHEMATICS

Fluid Dynamics Relativistic Astrophysics Classical Field Theory Quantum Field Theory Electrodynamics-I Electrodynamics-II General Relativity-I General Relativity-II Cosmology Elastodynamics Plasma Dynamics Advanced Course in Plasma Physics Magneto hydrodynamics-I Magneto hydrodynamics-II

Graph Theory

Design Theory

Theory of Spline Functions I

Theory of Spline Functions II

Theory of Spline Functions III

Numerical Solution of PDEs

**COMPUTATIONAL MATHEMATICS** 

Mathematical Modeling-II

Subdivision Schemes

Approximation Theory

Minimal Surfaces

Lattice Theory

Computer Graphics

Topological Groups

Banach Algebras-I

Banach Algebras-II

· Rings and Modules

Operator Theory

# Department of **ECONOMICS**Faculty of Social Sciences

#### Mission **STATE** MENT

"The department offers quality education with a focus on research excellence. develops fruitful ethical norms, respects diversified culture, creates and disseminate contermporary knowledge of economics. Equal importance is given to enhance analytical ability of students to elucidate contemporary economic problems, impart independent and creative thinking to enable students for lifetime learning. The students are prepared to make valuable contributions at national, as well as, international level in the economics sphere. Our graduates are envisaged to lead the nation in their areas of specialization, and professional ethics."

#### **INTRODUCTION**

There is an intense awakening that sound economic policies for any country require the services of highly trained economists, having sound analytical ability and problem solving skills. Also, it is a well-recognized fact that application of new ideas and economic theory leads to create new knowledge; one of the main objectives and contributions of universities for which these institutions are meant for. The Department of Economics ensures development of the skills needed for variety of services in the education sector, international institutions and public sector. We have introduced postgraduate programs which meet market demands and also enhance intellectual ability of our students. The department is build to foster advanced education and training in Economics. For this purpose, M.Sc. in Economics, M. Phil, in Applied Economics and Ph.D. in Economics

programs have been introduced. We assure a purposeful academic and social life at "The University of Lahore" and students feel proud of investing their precious time and energy for their bright career. We have opened a window of opportunity to fulfill dreams by having quality education. The department intends and keeps its doors open to attract top economists and professional experts to impart quality education and training. The department has all major state of the art facilities. Now, students may benefit from it and get ready to embrace the challenge needed to achieve their goals.

#### Degrees **OFFERED**

M. Sc. Economics

M. Phil. In Applied Economics

Ph. D. Economics

# Ph.D in **ECONOMICS**

#### INTRODUCTION

Ph.D. program in Economics provides graduate students an opportunity to enhance advanced knowledge in Economics and learn tools & skills for the application of econometrics. Furthermore, this program will also enable students to conduct quality research in their specialized fields of interest in economics. The major areas offered for specializations are: Development Economics, International Economics, Applied Econometrics, Environmental Economics, Monetary Economics, Applied Macroeconomics, Microeconomics. Public Sector **Economics and Human Resource** Development.

#### Career **PROSPECTS**

The PhD program is designed to cater for growing market demand and prepare students for academic and research oriented jobs. Once you have completed this degree, you will have many career paths to choose from. However, your

#### Road **MAP**

Semester 1	Cr Hr	Semester 2	Cr Hr	Semester 3	Cr Hr	Semester 4	Cr Hr	Semester 5	Cr Hr	Semester 6	Cr Hr
Advanced Topics in Microeconomics	4	Advanced Econometrics	4	Ph.D. Dissertation	6						
Advanced Topics in Macroeconomics	4	Contemporary Economic Issues in Pakistan	4								
One Optional Course	3	Two Optional Courses (3 Cr. Hrs. each)	6								

choice will be based on what your interests are and your area of specialization. Career prospects are many including Researcher, Educationist, Econometrician, Advisor, Policy Analyst, Market research analyst, Central Banks' expert, and career in public sector and international organizations/ financial institutions and NGO's.

#### **CORE COURSES**

- Advanced Topics in Microeconomics
- Advanced Topics in Macroeconomics
- Advanced Econometrics
- Contemporary Economic Issues in Pakistan

• Ph.D. Dissertation (06 Credit Hrs. in each semester, after course work)

#### **ELECTIVE COURSES**

- Advanced Topics in Public Sector
- Economics and Application
- Advanced Topics in Environmental
- Economics
- Advanced Topics in Labor Economics and Human Resource Development
- Advanced Topics in Monetary Economics
- · Selected Issues in Development
- Economics
- Issues in Population DynamicsAdvanced Topics in International
- Economics
- Research Methodology and Computer
   Application



Program **FACTS** 

Weekends / Evening, Credit Hours 49

MS\*/M.Phil. Equivalent Degree in

Economics. 3.0/4.0 CGPA or 60%

marks in the last required degree

\*Must have done Research Thesis.

GAT-Subject with 60% marks

Raiwind Road Campus

Program Length

**Entry Requirements** 

Note:

Location

# M. Phil in **APPLIED ECONOMICS**

#### INTRODUCTION

M.Phil.in Applied Economics program offers to provide a solid background in economic theory and applications appropriate to the needs of economists involved in policy formulation, planning, research, forecasting and analysis of welfare projects. This program emphasizes on applied economics and caters to the growing market demand for economic analysts. Major focus is on developing analytical and creative ability of students who can embark upon advanced research and offer quality training in Economics. Another objective is also to prepare students for further advanced studies.

#### Career **PROSPECTS**

The M. Phil. in Applied Economics is an ideal program for students who wish to pursue advanced studies. If your ambitions are to look for an academic career in economics, then this degree is also the best choice for you. Not only does it provide you training to carry out independent

Cr

3

3

Semester 2

Pakistan Economy

Credit Hrs. each)

**Topics in International** 

Economics and Finance

Two Optional Courses (03

Major Economic Issues in

#### Road **MAP**

Advanced Microeconomics

Advanced Macroeconomics

Semester 1

and Application

and Application

Advanced Applied

**One Optional Course** 

Econometrics

research, but it also provides an excellent stepping stone to embark upon further higher studies in Economics. Completion of the degree will equip you with the tools and skills to make you capable to conduct independent research. Besides, it opens up doors for jobs in the public and private sectors, teaching and research institutions, banking sector, various ministries at the federal and provincial level; particularly in the ministries/ departments of planning and development, finance, commerce and NGO's etc. Furthermore, it strengthens careers in professional institutions of Management, Consultancy, Insurance, and

#### Corporate Sector etc. **CORE COURSES**

Advanced Microeconomics and Application

- Advanced Macroeconomics and Application
- Advanced Applied EconometricsMajor Economic Issues in Pakistan
- Economy

  Topics in International Economics and
- FinanceThesis (06 Credit Hrs. each semester)

4

3

Thesis (06 Credit Hrs. each semester)

Semester 3

4 M.Phil. Thesis Dissertation

#### Program **FACTS**

Program Length Weekends / Evening, 2 Years, Credit Hours 40

#### Entry Requirements

BS (honors)/M.A/M.Sc. Economics GAT-General with 60% marks

#### Location

**Raiwind Road Campus** 

#### **ELECTIVE COURSES**

• Topics in Monetary Economics and Application

- Institutional Economics
- Topics in Environmental Economics and
- Application

  Topics in Public Sector Economics and
- Application
- Project Analysis and Investment decision
  Making
- WTO, Globalization, International Trade and Integration
- Applied Welfare Economics

Cr Hr

 Independent Study (Research Paper and Empirical Investigation)

Semester 4

6 M.Phil. Thesis

Cr

Hr

6

## Master in **ECONOMICS** (M.SC)

#### INTRODUCTION

M.Sc. Economics program is designed to develop sound theoretical knowledge of the subject. This program helps the students to equip them with tools and skills for advanced studies leading to M.Phil. and Ph.D. degrees. Furthermore, it aims at to disseminate comprehensive knowledge focused at quantitative skills and develop analytical ability. It also helps to develop lifetime learning Habit among students.

#### Career **PROSPECTS**

The completion of the program leads to open up doors for careers in government agencies, financial institutions, banks, economic consulting firms, and non-governmental organizations. Students often secure full-time employment with organizations where they had internships or part-time employment.

#### CORE COURSES

- Micro-economic Theory-I
- Macro-economic Theory-I
- Mathematical Economics-I
- Statistics for Economists
- Applied Econometrics –I
- Research Methodology and Computer Application
- Islamic Economics
- Micro-economics-II
- Macro-economic-II
- International Economics: Trade Theory& Finance
- Development Economics
- Issues in Pakistan Economy

#### **ELECTIVE COURSES**

- Managerial Economics
- Human Resource Development and Management
- History of Economic Thought
- Environmental Economics
- Institutional Economics
- Monetary Theory and Policy
- Independent Study
- Mathematical Economics-II
- Applied Econometrics-II
- Dynamic Macroeconomics
- Public Sector Economics
- Seminar in Applied Economics & Term Paper
  M.Sc. Thesis

#### Road **MAP**

	_						_
Semester 1	Cr Hr	Semester 2		Semester 3	Cr Hr	Semester 4	Cr Hr
Micro-economic Theory-I	4	Applied Econometrics –I	4	Micro-economics-II	4	Public Sector Economics	3
Macro-economic Theory-I	4	Research Methodology and Computer Application	4	Macro-economic-II	4	Development Economics	3
Mathematical Economics I	3	Islamic Economics	3	International Economics: Trade Theory& Finance	4	Issues in Pakistan Economy	4
Statistics for Economists	3	Two Optional Courses (03 Credit Hrs. each)	6	Two Optional Courses(03 Credit Hrs. each)	6	Two Optional Courses or M.Sc. Thesis	6
						THE	

#### Entry Requirements B.A/B.Sc./B.Com with Economics as an Elective subject

Full-time, 2 Years, Credit Hours 65

Program **FACTS** 

**Program Length** 

#### Location

**Raiwind Road Campus** 



• General Equilibrium and welfare Economics

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## Department of **EDUCATION** Faculty of Social Sciences

#### Mission **STATE** MENT

Produce such learned scholars for society who have grip on the tradition and may have a mature understanding of the contemporary issues with a clear and perfect skill in the modern thoughts and academic approaches.

#### **INTRODUCTION**

Generally it is believed that no nation can develop without a good education system and "No system is better than its teachers." We also believe that teachers are agents for change and meaningful change can only be brought in Pakistani Education System through well versed teachers. The teachers who can develop

coop with educational reforms. Primary objective of this faculty is dissemination of the professional skills and knowledge in the way that is ultimately needed for development o our country. Here we provide an inspiring environment to improve practices of teaching and examination. We are also committed to provide academic leadership which can contribute to the policies and practices in education according to our social, psychological and ideological needs. Our qualified and skilled faculty is able to use their knowledge and experience to contribute to prepare teachers who can serve to bring reforms in classroom teaching, curriculum development and examination practices.

creative educational material and

#### Degrees **OFFERED**

B.Ed (1 year)

M.A in Early Childhood Education

- M.A in Leadership Management
- M.A in Special Education

M.Phil in Education

#### Ph.D in Education

# B.Ed in **EARLY CHILDHOOD EDUCATION**

#### INTRODUCTION

The benefits of early childhood education have been established through research. Long-term benefits result only from high-quality early childhood development programs, characterized by a child development curriculum, trained teaching staff, administrative leadership and curriculum support, small classes with a teacher and a teaching assistant, and systematic efforts to involve parents as partners. For those people who like to be around children, a career in Early Childhood Education can be a labor of love. BEd Early Childhood Education program at the University of Lahore encompasses a spectrum of

courses necessary to handle young children. Students learn about the education of children and study early childhood development, nutrition, first aid, children's literature and child psychology. Practical experience is another significant part of the program.

#### Core **COURSES**

- Introduction to Early Childhood Education
- Child Growth and Development
- Children's Literature and Drama
- Designing Learning Environment
- Introduction to Pre-School Assessment
- Early Years Science and Maths
- Young Children's Art and Crafts
- Early Childhood Curriculum and Activities
- Play as a Learning Tool
- ICT in Children's Learning
- Teaching Practice.



#### Program Length

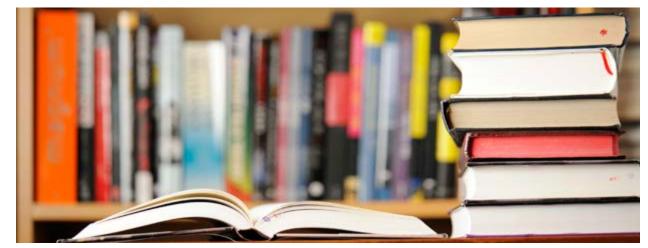
1 Year

#### Entry Requirements

Minimum of 2nd division in bachelor degree, BA/BSc/BSc Home Economics/BFA from HEC recognized university/institutes.

#### Location

Raiwind Road Campus





# Master in **EARLY CHILDHOOD EDUCATION** (M.A ECA)

#### **INTRODUCTION**

The field of Early Childhood Education is concerned with the development and learning of children from birth through age eight. A master's degree in early childhood education (ECE) is designed for professionals seeking expertise in this critical and highly specialized field. Our program focuses on early children education through a theoretical orientation which places early childhood education within broader social, historical, political, and cultural contexts. Coursework provides a context for students to critically examine early education and child care. Themes of bilingual and multicultural education and care, critical thinking, and reflective

teaching are infused throughout the Early Childhood coursework. Early Childhood Education is an exciting and dynamic field in which standards for teachers are being raised and career opportunities are constantly developing. For those people who like to be around children, a career in Early Childhood Education can be a labor of love.

M.A in Early Childhood Education program at the University of Lahore encompasses a spectrum of courses necessary to handle young children. Students learn about the education of children and study early childhood development, nutrition, first aid, children's literature and child psychology. Practical experience is another significant part of the program.

#### Program **FACTS**

#### Program Length 2 Years,

Entry Requirements Minimum of 2nd division in bachelor degree, BA/BSc/BSc Home Economics/BFA from HEC recognized university/institutes

Location Raiwind Road Campus

### Master in LEADERSHIP MANAGEMENT (M.A.LM)

#### INTRODUCTION

The Master of Leadership and Management in Education program at the University of Lahore is a cutting edge, practically oriented, highly relevant master's degree program for education of leaders and managers. This program is designed to develop your education leadership skills and equip you to work effectively in the 21st century international environment. The program integrates practical knowledge, conceptual frameworks and stateof-the-art research.

Graduates may find opportunities in the following areas: Head

### Master in SPECIAL EDUCATION (м.а se)

#### INTRODUCTION

The University of Lahore's Master of Special Education offers you, as an educator, the opportunity to build your skills and experience in the challenging and rewarding field of special education. Providing you with the gualifications to teach children with special needs Graduates may find opportunities in the following areas: Head or Leading Special Teacher positions; Assistant or Deputy Principal Positions; School Principal positions; Special Educational Administrators: Special Education Academic Managers; Training Head positions; and Special Education Curriculum leaders, among others.

or Leading Teacher positions; Assistant or Deputy Principal Positions; School Principal positions; Educational Administrators; Academic Managers; Training Head positions; and Curriculum leaders, among others.

#### Core **COURSES**

- Foundations of Leadership and Management
- Educational Leadership and ICT
- Contemporary Issues in Educational Leadership
- Leading and Managing Educational Change
- School Leadership Research
- Supervision and Mentoring of Teachers

#### Program **FACTS**

Program Length 2 Years,

#### **Entry Requirements**

Minimum of 2nd division in bachelor degree, BA/BSc/BSc Home Economics/BFA from HEC recognized university/institutes.

#### Location

Raiwind Road Campus

- School and Community Partnerships
- Data Managing for School Leaders

- Core **COURSES**
- Instructional strategies in early childhood education
- Material development in early childhood education
- Foundations of Early Childhood
- Children Literature in early years
- The impact of family and cultural diversity on early childhood
- Theories of early childhood development
- Trends and Issues in early childhood education
- Psycho-Social development in early childhood education
- Learning Environments: Curriculum and Technology
- Assessment, Observation, and Evaluation in Early Childhood Education
- Teaching Mathematics/Science in Early Childhood Education
- Teaching of Urdu/English in Early Childhood Education
- Teaching of Arts and Crafts in Early childhood education

#### Core **COURSES**

- Orientation To Special Education
- Professional Communications
   Orientation to Children with Special Needs
- Models, Theories And Instructional Strategies For Special children
- Special Education Teaching Methods
- Special Education Assessment And Interpretation
- Characteristics Of Learning Disabilities
- Characteristics Of Intellectual/ developmental Disabilities
- Characteristics Of Emotional & Behavioral Disorders
- Characteristics Of Physical & Health Disabilities
- Inclusion Strategies Of The Special Educator
- Assessment in Special education
- Advance Legal issues in Special

#### Program **FACTS**

Program Length 2 Years,

#### Entry Requirements

Minimum of 2nd division in bachelor degree, BA/BSc/BSc Home Economics/BFA from HEC recognized university/institutes

#### Location

Raiwind Road Campus

Education • Computer Application in Special Education

### DUCATION

# M. Phil in **EDUCATION**

#### INTRODUCTION

M.Phil in Education program is for individuals who aspire to positions of professional educational leadership or to a career in educational research. The program focuses on extending knowledge and research expertise of students through scientific inquiry. To accomplish these objectives, the program offers challenging curricula, a variety of teachinglearning methodologies and a supportive academic environment. Here we provide an inspiring environment to improve practices of teaching and examination. We are also committed to provide academic leadership which can contribute to the policies and

practices in education according to our social, psychological and ideological needs. Our qualified and skilled faculty is able to use their knowledge and experience to contribute in preparing teachers who can serve to bring reforms in classroom teaching, curriculum development and examination practices

#### Program **FACTS**

Program Length 2 Years,

#### **Entry Requirements**

B.Ed (04 year) , BS (Hons.) in Education / M.Ed /. M.A. in Educational Leadership and Management and Education, Master's degree (16 years of education) in the discipline of Education from HEC recognized University with 2.5 CGPA or at least 60% marks under semester system or 2nd Division (50% marks) under annual system.

Location Raiwind Road Campus

# Doctor of **EDUCATION (PH.D)**

#### INTRODUCTION

PhD in Education program is for individuals who aspire to positions of professional educational leadership or to a career in educational research. The program focuses on extending knowledge and research expertise of students through scientific inquiry. To accomplish these objectives, the program offers challenging curricula, a variety of teachinglearning methodologies and a supportive academic environment. Here we provide an inspiring environment to improve practices of teaching and examination. We are also committed to provide academic leadership which can contribute to the policies and practices in education according to our social, psychological and ideological needs. Our qualified and skilled faculty is able to use their knowledge and experience to

#### Road **MAP**

Semester 1	Cr Hr	Semester 2	Cr Hr	Semester 3	Cr Hr	Semester 4
Philosophical Paradigms of Education	3	Quality Assurance in Education	3	Research Work	6	Research Work
Qualitative Research in Education	3	Modern Trends and Issues in Education	3			
Policy and Planning in Education	3	Topical Seminar in Research Design	3			
Semester 5	Cr Hr	Semester 6	Cr Hr			
Research Work	6	Research Work	6			

contribute in preparing teachers

in classroom teaching, curriculum

who can serve to bring reforms

development and examination

practices.

#### Program **FACTS**

Program Length 3 Years,

Entry Requirements M.Phil in Education (with any area of specialization) or Master degree in Education (18 years of education) in relevant discipline from HEC recognized University with 3.0 (4.0) CGPA or least 60% marks under semester system or 1st Division (60% marks) under annual system

#### Location Raiwind Road Campus

Road **MAP** 

Semester 1	Cr Hr	Semester 2	Cr Hr	Semester 3	Cr Hr	Semester 4	Cr Hr
Educational Research	3	Educational Measurement and Evaluation	3	Cognition, Learning and Assessment	3	Dissertation/ Two Courses	6
Curriculum Models and Theories	3	Comparative Teacher Education	3	Computers and Information Technology in Education	3		
Educational Leadership and Management	3	Statistics in Education	3				

# Department of **ISLAMIC STUDIES**Faculty of Social Sciences

Mission STATE MENT Produce such learned scholars for society who have grip on the tradition and may have a mature understanding of the contemporary issues with a clear and perfect skill in the modern thoughts and academic approaches.

#### **INTRODUCTION**

Modern times have brought many new challenges for humanity and especially for Muslim world. These challenges are both at home and at international level. But it is unfortunate that traditional institutions have

failed in genuine contribution for the solution of prevalent problems and proper response to the contemporary challenges. Furthermore, the traditional religious institutions have created a divide in the society. The new generation educated through modern educational institutes and universities and those who are trained in traditional religious madrassas are poles apart in their understanding of Islamic teachings and their approach towards contemporary issues too. A comprehensive course which may have merits of both of these systems can bridge the gap. The University of Lahore has established the Department

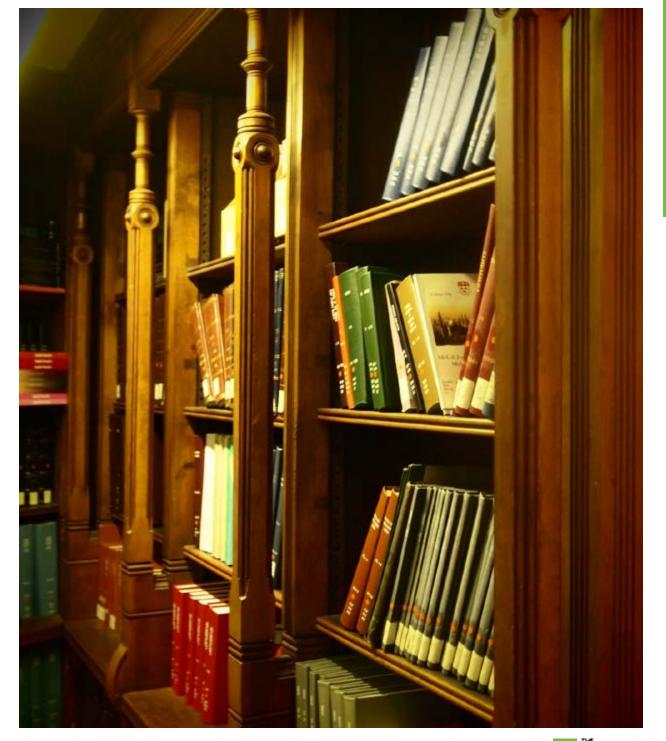
#### Degrees **OFFERED**

M. Phil. In Islamic Studies

#### Ph. D. In Islamic Studies

of Islamic Studies with the same vision and objectives that we may produce such learned scholars for society who have grip on the tradition and may have a mature understanding of the contemporary issues with a clear and perfect skill in the modern thoughts and academic approaches. These scholars will be able to present Islam in accordance with its real spirit before society.





# M. Phil in **ISLAMIC STUDIES**

#### INTRODUCTION

Islam is a religion of peace, moderation and progression, but the Western media paints a negative image of our faith and is presenting it as synonymous with terrorism. Muslim seminarieswhere learners are exposed to the classical Islam cut off from the contemporary world—have not risen to the challenge. It is against this backdrop of rigidity of the religious class that this university proposes to acquaint students with Islam teachings in a moderate environment so that they may portray the belief appropriately. MPhil & PhD in Islamic Studies is an intensive programme that gives us a thorough understanding of Islamic teachings and thoughts. It encourages learners to be inquisitive by engaging in Islamic research projects. The department aims at realizing the long cherished dream of striking a balance between the pristine

#### values of Islam as outlined in the Holy Qur'an and the Sunnah, and the practical challenges of modern times. We try to cultivate a spirit of dispassionate research bringing about chiselled minds firm in belief but endowed with tolerance without, of course, being apologetic. The highly qualified academicians have been engaged to focus on achieving excellence in education-cum-research. The faculty will contribute to the intellectual, cultural and social development of the institution.

#### Program **FACTS**

Program Length 2 Years,

#### **Entry Requirements**

Eligibility: BS (Arabic) 04 years with Shariah Subjects/Al-Shahadat ul Aalamiyya. Master degree in (Islamic Studies)/BS(Islamic Studies) degree (16 years of education) in relevant discipline from HEC recognized University with at 2.5 CGPA or least 60%marks under semester system or 2nd Division (50% marks) under annual system.

#### Location Raiwind Road Campus



# Doctor of **ISLAMIC STUDIES** (PH.D)

#### INTRODUCTION

Islam is a religion of peace, moderation and progression, but the Western media paints a negative image of our faith and is presenting it as synonymous with terrorism. Muslim seminarieswhere learners are exposed to the classical Islam cut off from the contemporary world—have not risen to the challenge. It is against this backdrop of rigidity of the religious class that this university proposes to acquaint students with Islam teachings in a moderate environment so that they may portray the belief appropriately. MPhil & PhD in Islamic Studies is an intensive programme that gives us a thorough understanding of Islamic teachings and thoughts. It encourages learners to be inquisitive by engaging in Islamic research projects. The department aims at realizing the long cherished dream of striking a balance between the pristine

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#### Program **FACTS**

Program Length 3 Years,

#### **Entry Requirements**

M. Phil (Islamic Studies)/M.S. (Islamic Studies)/other equivalent with M. Phil degrees (18 years of education) in relevant discipline from HEC recognized University with at 3.0 (4.0) CGPA or least 60% marks under semester system or 1st Division (60% marks) under annual system.

#### Location Raiwind Road Campus

#### Road **MAP**

Semester 1	Cr Hr	Semester 2	Cr Hr	Semester 3	Cr Hr	Semester 4	Cr Hr
Quranic Sciences	3	Hadith Science	3	Research Work	6	Research Work	6
Islamic Jurisprudence & History	3	Study of Sira and Tasawwuf	3				
Functional English	3	Islam & Modern Thoughts	3				
Research Methodology	3	Arabic Language and Literature	3				

#### Road **MAP**

Semester 1	Cr Hr	Semester 2	Cr Hr	Semester 3	Cr Hr	Semester 4	Cr Hr
Research Principles & Methodology	3	Hadith Sciences	3	Research Work	6	Research Work	6
Quranic Sciences	3	History of Muslim Thought	3				
Principles of Islamic Jurisprudence	3	Contemporary Issues and Islam	3				
Semester 5	Cr Hr	Semester 6	Cr Hr				
Research Work	6	Research Work	6			THE	

EDUCATION 249



Faculty of

COLLEGE OF LAW

# College of

#### Mission STATEMENT

To cultivate a new generation of lawyers who will help the stagnant legal society to evolve, to match the high international standards and revolutionize the legal profession with their acquired knowledge and skills. They will not only build a bright future for themselves but will also help the country as well by providing up to date guidance to the government and the ordinary people. Suitable for industry executives, bank executives, engineers, health service professionals, public departments and educationist who seek to complement their existing degrees with a PG Diploma, B.Com or M.Com. These degrees will ensure career advancement and provide an understanding of the changing business environment.

#### INTRODUCTION

Law is a field, which is in a state of constant evolution, given the frequent changes in the mindsets and ideas throughout the world. Given its fluid nature, it becomes a highly competitive arena.

Lawyers are expected to be highly adaptive to new situations and their problem-solving skills ought to be exemplary. These skills obviously do not come to them naturally; rather they have to be acquired through the legal knowledge gained through education.

College of Law, through its Bachelors program, aims to give this knowledge to young minds, if they seek to pursue a career in the legal profession. Pakistan's legal society is large only the most hard-working and able minded prevail over the others and for them, there are no limits to what they can achieve through this profession. The extensive courses offered by the College of Law focus on not only giving the young scholars the necessary tools to begin a legal career but are also designed to add to their knowledge so that their vision increases vis-à-vis other aspects of life. given the fact that law is inextricably intertwined with all other fields of activity.

The College proposes to achieve this goal in the highest standard with the help of senior practitioners of Law who will not only teach the students but also offer their personal expertise to help them to understand law and its practice much more effectively.

#### Degrees **OFFERED**

Bachelor of Laws - BA-LLB (5 Years)

#### Career **PROSPECTS**

To become a part of the esteemed legal profession as a lawyer or the part of the judiciary and change the face of the field in Pakistan. Graduates may also choose to expand their horizons to legal professions outside the country.



LAW

# Bachelor of **LAWS (BALLB - 5YR)**

#### **INTRODUCTION**

Our LLB degree is in accordance with the guidelines and requirements of the HEC and Pakistan Bar Council. This will be an academic as well as professional degree in law and legal studies. The courses recommended by the Pakistan Bar Council as basic courses for joining legal profession are part of the curriculum.

#### Elective **COURSES**

- Consumer Protection Laws : 3 Cr Hr
- Islamic Commercial Laws : 3 Cr Hr
- Labor Laws : 3 Cr Hr
- Civil Service Laws In Pakistan : 3 Cr Hr

Program **FACTS** 

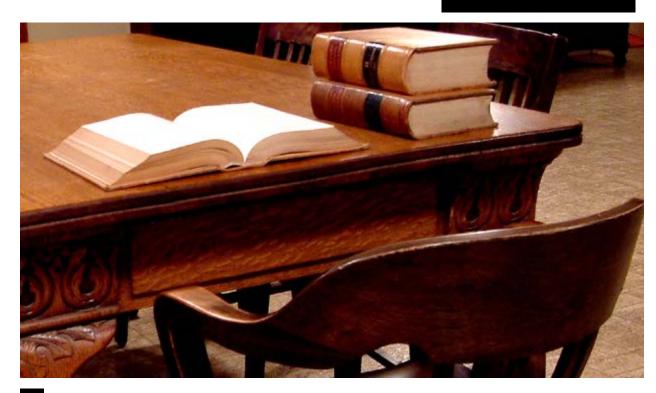
Program Length Full-time, 5 Years

Entry Requirements FA /FSC or GCE A-Levels or Equivalent, Min 2nd Div. & Interview

Location Defence Road Campus

Defence Road Campus

Recognised BY Higher Education Commission Pakistan Bar Council



Semester 1	Cr Hr	Semester 2	Cr Hr	Semester 3	Cr Hr	Semester 4	Cr Hr
English-I	3	English-II	3	English-III	3	human rights law	3
Pakistan Studies	2	Islamic Studies/Ethics	2	Introduction to European Union Laws	3	Constitutional Law-I (Comparative)	3
Sociology	3	Political Science	3	Islamic Jurisprudence-I	3	Law Of Contract-II	3
Fundamentals Of Economics	3	Legal System Of Pakistan	3	Law Of Torts	3	Islamic Jurisprudence-II	3
Introduction To Law	3	History (South Asia)	3	Law Of Contract-I	3	Comparative Religions	3
Skills Development-I	3	Research Methodology	3	political science-11	3		
Semester 5	Cr Hr	Semester 6	Cr Hr	Semester 7	Cr	Semester 8	Cr
	Hr	•••••••	Hr	Jennester /	Ĥr	Jennester o	Hr
Jurisprudence-I	Hr 3	Jurisprudence-II	<u>Hr</u> 3	Public International Law-I	<b>Hr</b> 3	Public International Law-II	Hr 3
Jurisprudence-I Constitutional Law-II (Pakistan)							
Constitutional Law-II	3	Jurisprudence-II	3	Public International Law-I	3	Public International Law-II	3
Constitutional Law-II (Pakistan)	3	Jurisprudence-II Corporate Law	3	Public International Law-I Constitutional History of Pakistan	3	Public International Law-II Equity And Specific Relief	3
Constitutional Law-II (Pakistan) Islamic Personal Law-I	3 3 3	Jurisprudence-II Corporate Law Islamic Personal Law-II	3 3 3	Public International Law-I Constitutional History of Pakistan Civil Procedure-I	3 3 3	Public International Law-II Equity And Specific Relief Civil Procedure-II	3 3 3
Constitutional Law-II (Pakistan) Islamic Personal Law-I Criminal Law-I	3 3 3 3	Jurisprudence-II Corporate Law Islamic Personal Law-II Criminal Law-II	3 3 3 3 3	Public International Law-I Constitutional History of Pakistan Civil Procedure-I Criminal Procedure-I	3 3 3 3	Public International Law-II Equity And Specific Relief Civil Procedure-II Criminal Procedure-II	3 3 3 3 3

Semester 9		Semester 10	Cr Hr
Administrative Law-I	3	Administrative Law-II	3
Legal Ethics	3	Interpretation Of Statutes	3
Elective-I*	3	Research Project	3
Elective-II*	3	Elective-III *	3
Moot Cases And Role Playing	3	Elective- IV *	3

LAW

# University **Rulgs** policies

# UNIVERSITY RULES AND POLICIES

### **ADMISSION POLICY**

The University of Lahore admits students whose educational background is sound and who can achieve success in higher education. Applications received for admission in various programmes are reviewed by the concerned departments. The applicants are required to appear in admission test and interview. The final merit is determined on the basis of past academic performance, score obtained in the admission test and performance in the interview.

The test pattern is of the same standard as of scholastic aptitude test (SAT) for undergraduate studies and graduate record examination (GRE) for graduate studies.

The academic programmes are spread over two semesters during each year. Total undergraduate programme is spread over eight semesters (four years). Graduate programs are taught for 2-4 years, keeping in view the type of degree. Each semester comprises of 18 – 20 weeks, which includes one week of examinations. A short summer semester of 8 weeks is usually offered to cover special courses.

Students who have completed all the formalities and deposited their fees and other dues on the prescribed date are eligible for registration. Each student, admitted on merit, is expected to take the full load of courses prescribed for the semester.

#### **ADMISSION**

(a) Application for admission shall be entertained only on a prescribed form, which is part of the prospectus. Applications received through "e mail' shall be entertained only if they are followed by a pay order in the name of The University of Lahore and should reach UOL up to last date announced for the admission.

(b) Admission shall be granted on the basis of eligibility criteria mentioned for each programme and after passing the admission test & interview arranged by the admission committee of the department.

(c) Applicants, who have appeared in inter / degree level or pre-requisite level examination prescribed for admission in a programme and are awaiting results will be allowed to apply for admission, but they will be given admission only after they have submitted the attested copies of their certificates / degrees within three weeks of commencement of the semester. They will also be required to submit an undertaking that they understand the rules/ policy of the admissions and that if they fail to submit the required documents within the prescribed

time, they will not be given admission.

(d) For eligibility criteria reference may be made to each relevant programme / degree.

(e) Each successful applicant will be issued "Admission Letter" by the concerned department.

Registration & Enrolment Policy (a) After completing admission formalities and having paid the semester dues the applicants will be registered as bonafide students of UOL.

(b) At the time of registration the applicants will be required to produce their original certificates, which will be returned to the student after making entries in his/ her file that the originals having been verified.

(c) The applicants will be allocated the University Registration Number and will be issued the University Registration Card by the Registrar Office. This will allow the students to get enrolled in different courses offered by the concerned departments.

(d) In each semester students should enroll in the courses as per "degree / program road map" issued by the concerned department and shall not enroll in advance courses unless they have passed the prerequisite course. (e) Students in undergraduate programs shall not enroll in less than 3 courses and more than 4 courses in a regular semester.

(f) Student in graduate programs shall not enroll in less than 2 courses and more than 4 courses in a regular semester.

(g) In summer semester students can enroll up to two courses.

#### **Transfer & Equivalence Courses**

(a) The department concerned shall admit students who wish to transfer their credits earned from an HEC recognized institution (university or college) to UOL on the recommendation of the departmental equivalence committee.

(b) He/she shall be required to fill the migration form available with registrar office.

(c) Affiliated college student may be required to produce parent institution's transcript and NOC.

(d) Transfer of credit will be communicated to the registrar office for issue of notification on case to case basis by each department.

(e) The equivalence committee of the department is authorized to review and approve the equivalence of courses completed at another recognized degree awarding institutions.

(f) The course completed at another accredited institution will be shown as exempted along with credit hours of each course. Their grades will not be shown on UOL transcript.

(g) Exemption shall only be granted by the equivalence committee of the concerned department.

(h) Exempted courses will not be shown on interim transcript.

#### Exemptions

(a) Students who wish to transfer their credits to UOL LBS be granted exemptions up to a maxim of 50% course of the program/degree, even if he/she had completed most of the courses of that program of the previous institution.

(b) Exemption in courses(s) shall be granted according to the following criterions.

 Course and credit hours should conform to the programs outline of UOL department.
 Course having less than 'B' grade for graduate programs and less than 'C' grade for undergraduate programs will not be considered
 Satisfactory performance in test\interview.

#### **The Semester System**

The classes for different programs are conducted on the pattern of semester system. This system is based on instructional autonomy resting with the department and aims at progressive development of student's information level, skills and competence.

#### **Academic Calendar**

The academic calendar consists of two regular semesters i.e. winter and fall. Each semester runs over 18 to 20 weeks, out of which 16 weeks are reserved for regular classes, one week for final examinations and one week for course review. A short semester called summer semester of 8 weeks is arranged for the students to overcome their deficiencies.

#### Attendance Policy

(a) The following attendance criteria will be applied:

1. The minimum requirement for a student to complete the semester is 75% attendance in each course. The department will determine the exceptions to this rule if any.

(b) Students with poor attendance record will be issued a written warning at any time during a semester. The department reserves the right to inform the student's parents or guardian through a letter of the possible consequences including withdrawal from the course or admission cancellation.



### ADMISSION POLICY (CONT.)

(c) In case a student joins a course after it has started, he/she will be responsible to make up the deficiencies for any quizzes, assignments and attendance requirements.

#### Fee Concession and Financial Aid

(a) Students who want to avail the facility of financial assistance or fee concession shall obtain the prescribed form from Accounts office and after completion submit the same along with their application. The application will be reviewed by the Director Finance.

(b) Fee concession / financial aid is subject to maintaining a semester GPA of 3.00 in each semester. Failure to do so may lead to complete withdrawal or reduction of fee concession as decided by the Director Finance.

(c) Tuition fee etc. shall not be refunded, but will be adjusted in the next semester in accordance with the conditions prescribed for this purpose.

(d) Students may be allowed to pay their fee in installments with the permission of departmental head and Director Finance.

(e) The fee shall be paid on the dates as notified from time to time.

(f) A fine of Rs 50/- per day will be charged in case of late deposit of fee.

(g) A Student will be automatically de-registered if he/she fails to clear the dues within two weeks after the notified date.

#### **Fee Policy**

University reserves the right to change the fee structure at any time.







### **EXAMINATION RULES**

a) In addition to mid-term test(s) and final examination, the department can require students to take quizzes, projects, assignments, case studies, term papers and presentations in accordance with course requirements.

**b)** Final examination will cover entire course content.

c) Student's results will be formulated by the teacher on the basis of attendance, quizzes, project, assignments, case studies, term papers and presentation, mid term test and final examination and after fulfilling any other evaluation criteria required by the Department.

d) The Department, on completion of final examination shall send under a covering letter signed by the Head of Department or by an official nominated by him, student's consolidated results in each subject/course on a Marks Sheet to CE Office within three weeks of the final examination.

e) If a students who wishes to have their Semester result reviewed are to be dealt with by the HOD according to the policy of the University.

f) Any student scoring a semester GPA less than 1.0 in a semester will repeat those courses in which he/ she earned less than 'C' grade of that semester. g) On completion of program, student (s) will be required to appear in a comprehensive examination where it is required. It shall encompass all the subjects the student has studied and passed in that program.

h) Computation & review of result should be completed by the Department within three weeks of the final examination. CE will compile and declare the overall semester result in Semester Grade Points Average (GPA) and Cumulative Grade Points Average (CGPA) on the Following basis:

A: 85-100 % 4.00 (Exceptionally Outstanding)

A-: 80-84 % 3.75 (Outstanding)

B+: 75-79 % 3.50 (Excellent)

**B:** 70-74 % 3.00 (Very good/High pass)

C+: 65-69 % 2.50 (Good/Pass)

C: 60-64 % 2.00 (Satisfactory / Acceptable)

D+: 55-59 % 1.50 (Poor but not fail)

D: 50-54 % 1.00 (Unsatisfactory, but not fail)

F: Below 50% 0.00 (Fail)

I: Incomplete

W: Official withdrawal

GPA = Sum (Points Earned in Course) / Sum of Credit Hours

Points Earned in Course = Numerical Value of Grade Earned x Course Credit Hour

"I"- Incomplete: A temporary course grade 'I' is granted by an instructor when necessary absence, or other reasons prevent completion of course requirements by the end of the semester and the instructor believes that the student's performance in the course generally has been satisfactory. An "I" is not given as a substitute for failing or obtaining low grade. Incomplete grades will automatically convert to an "F" if not removed within one semester from the date of declaration of the result.

#### "W"- Official Withdrawal

A grade of "W" is given in a course when a student officially withdraws from the course or from the university atleast one day prior to the final examination.

**"Probation**"If a student earns a CGPA of less than 2.00 in the subsequent semesters than he will be placed on probation till he obtains CGPA of 2.00 and above.

"Good Standing" If a student earns a CGPA of 2.00 or above he shall be placed on "good standing".

#### **Re-Examinations**

If a student does not appear in the final Examinations due to viable reason (s), he may make a written request for re-examination within one week of final examination. The student will pay examination fee 500/- per course. The Chairman BOG/Rector will examine the student request on the recommendation of the HOD and decide for re-examination or otherwise.

#### Warning

Whenever the CGPA of a student is less than as that prescribed above the Head of the Department will issue warning to him/her and place him/her on probation.

#### **Removal from Probation**

When the conditions of Good Standing are restored, probation will be removed.

#### **Cancellation of Admission:**

The admission of students who, after having been placed on probation, fail to make good standing in next two consecutive semesters, will be cancelled.

#### Appeal against Cancellation of Admission

A student can appeal against cancellation of his/her admission on academic grounds. In such case the department has the discretion to recommend status to the Rector whether or not to change the applicant's admission from Cancellation to Continuation on probation for an additional semester by considering the applicant's commitment to studies and other relevant academic factors.

#### Time Limit for Course Drop

(a) A student can drop a course only within first two weeks of the commencement of semester with carry forward of fee already deposited. After this period no carry forward on the fee paid for the subjects will be allowed except for circumstances enunciated in sub Para (b) below.

(b) Dropping of a course within two weeks of commencement of semester is allowed in exceptional circumstances, like; clash in the time table or for reason of sickness beyond one's control and duly certified by a registered medical practitioner.

#### **Course Drop or Semester Freeze**

Due to unforeseen circumstances and personal situations beyond student's control, he may be allowed to drop course(s) or freeze the semester as per following conditions:

a) If the course(s) are dropped or semester freeze is applied within two weeks of the commencement of the semester then no dues will be charged and if the fee has been paid, the same shall be adjusted in the next semester.

b) If the student is not enrolled and applies for semester freeze within two weeks of commencement of semester then no fee will be charged. c) In case the student is not enrolled in that semester and applies for semester freeze after two weeks till the end of that semester then semester freeze fee of Rs. 5000/-

d) In case the student does not apply for semester freeze within that semester then he/she shall deposit semester freeze fee of Rs. 10,000/- per semester.

e) After enrollment a student is ineligible to apply for drop of a course (s) or freeze the semester after two weeks of commencement of the semester and shall pay full fee and dues of that semester.

f) If a student fails to enroll in three consecutive semesters or fails to apply semester freeze for three consecutive semesters (excluding summer semesters) the student shall be automatically deregistered.

g) In case a student rejoins the program after de-registration he/ she shall pay the re-registration fee as laid down and semester freeze fee mentioned above for the number of semesters he/she has missed.

#### Supply of Semester Grade Report

1. Statement on a printed form, showing the grade obtained by a Student in each head of subject shall be delivered to the Students through the department concerned.



### **EXAMINATION RULES** (Cont.)

2. Applications from Students for an inquiry into the correctness of their result shall be submitted to the Head of Department and must be accompanied in each case with a fee of Rs. 1000/- for each subject. The inquiry shall deal only with the correctness of results and shall not include re-examination of the Students answer books. No such application will be accepted unless it reaches the Head of the Department within 30 days from the date of publication of the result.

3. All answers books of the Students will be destroyed after 120 days (one hundred and twenty days) after declaration of the Results.

#### **Award of Degree**

1. A minimum CGPA of 2.00 without any 'F' grade for the total semester of a degree program shall be required for the award of degree. Each student shall also be required to (1) complete laid down duration, pass number of courses as well as prescribed by respective department (2) clear all dues and that (3) has no disciplinary action is pending against him/her.

2. If a student on completion of his program fails to achieve a CGPA less than 2.00 will only be provided with a transcript of incomplete program showing the grades he has obtained and the CGPA only. He will not be eligible to receive the degree of that Program.

**3.** Each successful Student at the completion of the program shall receive from the CE a transcript signed by him on the prescribed form.

4. Each successful student scoring CGPA of 2.00 under graduate, 2.50 graduate and 3.00 M.Phil leading to Ph.D or more at a degree conferred on him in the prescribed form. Chairman Board of Governors the Rector, the Registrar and the CE shall sign the Degree. The degree of successful students not present at the convocation shall be issued to them on payment of the prescribed fee.

**5.** The degree may be issued to a successful student before the convocation on payment of prescribed fee.

#### Miscellaneous

1. Not withstanding anything to the contrary contained in these rules, no student shall be admitted to an examination after the expiry of seven academic years.

Provided that a student who obtained by a student in each is admitted directly to a higher class in the university, the period already spent by him in studying the relevant discipline shall be excluded from the aforesaid period.



application and will forward it to

student affairs department. Such

transfers can be performed as per

following policy. This policy applies

programs offered by Medical and

systems. It does not apply on

Dental departments.

to programs offered under semester

# **POLICY FOR EXTERNAL AND INTERNAL STUDENT TRANSFER**

#### **OBJECTIVE**

a) To introduce a transparent and a candid system of degree transfer within various faculties of the University as well as within different campuses.

b) Ensure that a transfer application is processed in a minimal time

c) Ensuring that all relevant areas/ aspects are catered in the system to find a reliable transaction trail as and when required.

#### REQUIREMENTS OF ADMISSION FOR TRANSFERRED STUDENT

1. The applicant can get admission in the same program that he was studying in the previous institution if available with the university

2. Student must complete the program within maximum applicable program duration starting from the admission date in previous institution (e.g. seven years for four years undergraduate program)

3. The applicant must provide following documents in addition to the regular admission requirements:

• Copy of transcript (original to be verified by admission officer) from the degree awarding institution

(not from affiliated colleges etc.)

• No Objection Certificate (NOC) from the degree awarding institution (not from affiliated colleges, institutions etc.) and further applicant must not have been expelled from the previous institution based upon academics or disciplinary ground.

• Proof that the degree awarding institute is recognized by the HEC

• If the applicant seeking admission in a program that is accredited by a council, the applicant must provide proof that his admission in previous institution is recognized by the relevant council

Character Certificate (in current date)

#### COURSE EXEMPTION CRITERIA

After fulfilling admission requirements the applicant may be granted course exemptions as per following criteria:

• Course contents and credit hours conforming to the relevant course for the program i.e. a course can be exempted if course contents are similar and the studied credit hours are equal or higher than that of the course being exempted • Course can only be exempted if its sub parts are also passed e.g. a course with mandatory lab can be exempted if the candidate has passed both theory and lab at previous institution.

• Courses exempted shall have a minimum percentage or grades as per university rule which is currently "C" for undergraduate and "B" grade for post graduate programs. The department may set a higher grade as required.

- One course can be exempted against one or more courses studied at previous institution depending upon the course contents distribution, but not otherwise.
- Courses studied in an undergraduate program shall not be
- exempted in a graduate program. • Specialization and final project or
- thesis shall not be exempted.
- If the Committee is not satisfied with the academic attainment of a course (s) completed at another institution, the university may offer a challenge test in the course(s).
  Maximum number of course exemption is as per university rules.

#### **COURSE EXEMPTION FEE**

Course exemption/transfer fee will be charged as per the university rules at the time of transfer/exemption, which is currently Rs.2500/- per exempted course.

#### **PROCEDURE FOR COURSE**

EXEMPTION

• The Head of the Department will constitute an admission committee for the admission of transferred students headed by the HOD. • The selected applicant will submit documents required for the assessment of course exemption as described in section 1.2. • The committee will review documents and approve courses for exemptions and will forward the decision to the registrar for notification before the commencement of classes. • If the Committee is not satisfied with the academic attainment of a course (s) completed at the previous institution, the

test in the course(s).
The Registrar will verify the documents and other legal issues and policies and will notify the exemptions forwarded by the department.

committee may offer a challenge

• The Registrar will issue the Registration Number. Student's

batch will be the batch in which student's gets admission.

- If there are any discrepancies found, the Registrar will ask to review the decision and provide rationale for this.
- The applicant may be granted admission and exemptions provisionally after the approval of the HOD. Exemptions will be confirmed after the notification issued by the Registrar.
   In case of MBRS/RDS\_Pro-Rector

• In case of MBBS/BDS, Pro-Rector (Academics)/Chairman BOG will be the final authority to approve transfer of new admission with Zero Credit Hours.

#### INTRA UNIVERSITY CAMPUS AND PROGRAM TRANSFERS

Any student with fee status pending/clear can apply for degree transfer. If student fulfill admission/merit criteria and seats are available in the transferee/ recipient department, the Head of department (HOD) of receiving department will approve the

#### **DEGREE TRANSFER SCENARIOS**

Following can be the Degree transfer scenarios that have been dealt hereunder:

Category	Transferor Department	Transferee Department	Transferor Degree	Transferor Degree
Inter Department Transfer	Α	Α	Program A	Program B
Other Department Transfer	Α	В	Program A	Program B
From Other Campus – Same Program	N/A	N/A	Program A	Program B
From Other Campus – Other Program	N/A	N/A	Program A	Program B
From Other University-Same Program	N/A	N/A	Program A	Program B
From Other University-Other Program	N/A	N/A	Program A	Program B



### • Applicable on all degrees under regulatory bodies like engineering,

#### 2) NEW ADMISSION CANCELLED -FAIL TO MEET ELIGIBILITY CRITERIA

is issued, then registration number

student registration form and new

registration number will be issued

on same applicant number after

will be marked cancelled on

selection.

MBBS/BDS.

• Student should provide complete documents/equivalence before MID Term exams to secure admission. In case admission is cancelled student will have to pay re registration fee.

• A student can not apply for fee transfer to next session in case of ineligibility however applying for refund in case of ineligibility will be after declaration of result within the time limit prescribed by HEC and the University.

 This policy is not applicable on MBBS/BDS students.

**REQUIREMENTS OF INTRA UNIVERSITY TRANSFERS** 

#### **CATEGORY - NEW ADMISSIONS**

Transfer of a new admission from one campus to other campus including degree transfer can be with following status.

• The student must apply for transfer to another department within 3 weeks of class start at the accepting campus or program. Student will be liable for payment of differential in registration fee and tuition fee, if any, due to this change however any excess payment paid in transferor campus will not be refunded or adjusted against transferee campus dues. No intra university transfers will be allowed after 3 weeks of commencement of classes and student will have to complete the semester.

 The student must be able to complete his program within maximum applicable program duration starting from the admission date in his previous program (e.g. seven years for four years undergraduate program). • The student must provide No Object Certificate (NOC) from the HOD of existing program and must get written acceptance from the HOD of accepting program of campus where the student wants to be transferred.

#### **COURSE ACCEPTANCE** CRITERIA

 Course contents and credit hours conforming to the relevant course

for the program i.e. a course can be exempted if course contents are similar and the studied credit hours are equal or higher than that of the course being exempted. • One course can be accepted against one or more courses studied at previous campus or program depending upon the course contents distribution. but not otherwise.

 Courses studied in an undergraduate program shall not be accepted in a graduate program.

• All the passed courses may be accepted in case of campus transfer in the same program regardless of the grade.

#### MANAGING REGISTRATION NUMBER

• The registrar office will issue a unique Student registration number to a student who submits registration fee for first time regardless of the campus or program.

• The registrar office will issue program/campus specific applicant number while registration number will be issued as per batch in which student was enrolled/admitted. • If a student changes program/

campus, the registrar office will issue a new program/campus specific registration number with traceability of old number available with new registration number.

• If student has paid fee before requesting the transfer then the fee will be transferred from UOL degree (studying) to UOL degree (transferred).

 Students who have taken admission on self finance basis can apply for degree transfer and on transfer from one degree to other where there is difference of fee for respective degree, UOL will refund self finance fee deposited. Tuition fee will be charged according to new selected degree program.

#### MANAGING FINANCES

- Every student will have a separate account that will have all the details of financial transactions relating to such student.
- The student will be charged applicable transfer fee, however admissions approved with 100% fee waiver will be processed and student account updated at zero.
- The student must pay the tuition fee at the campus where he/she will be transferred or in case student has paid fee at the transferor campus. relevant fee will be credited to the transferee campus by finance section.
- Fees will have to be paid by due date, any delay therein will be levied with late payment charges.

• If a student wants to change degree program in 1st semester then fee applicable and in effect at that time will be charged as degree transfer fee. He/she will forward application to HOD and approval from both department heads is required. Previous registration no will be cancelled and registrar office will issue new registration number on same applicant number. In case of difference in fee package, difference will be charged.

• If a student wants to transfer to another department and apply

within 3 weeks of class start he will submit application to HOD. Application should be approved by both department Heads. Registration fee & tuition fee will exist and difference fee shall be charged/adjusted by accounts department.

• If student apply after 3 weeks of class start, registration fee will be transferred to new registration number and tuition fee will be forfeited. In this case refund will not be allowed.

- If student apply for degree transfer after completing one semester then applicable transfer fee in effect at that time will be charged. Difference of fee will be charged/adjusted to student account.
- Student should seek new admission if opting new degree after 5 semesters and No relevance/exemption of course studied in new program.

#### **CAMPUS TRANSFER-SAME** DEGREE **MANAGING EXAMS &** RESULTS

• In case student changes the campus only, all the courses studied in previous campus will be acceptable with result notified by the controller. In case the curriculum is different for the same program, the HOD of accepting department will review the courses and accept the courses matching the curriculum.

• In case of change of program, the HOD of accepting department will review the courses and accept the

courses matching the curriculum.

• The courses not accepted for the transfer by the department, will be considered Non-credit Courses and will not have any effect on the GPA. These courses may be mentioned as Non-credit Courses on transcript or may be given as separate to the students who completes the program or leaves the university with in-complete program status.

#### PROCEDURE

• The student must apply for transfer before starting of the classes at the accepting department/Campus.

• The student should consult and get written permission of transfer to that department of accepting campus from the HOD.

• The HOD will send approved requests to the Registrar who will notify the transfer and will issue a new program/campus specific registration number under the Student ID.

• The student will be charged for applicable transfer fee.

• If student get registered in some degree program by mistake then HOD will verify and confirm the mistake and registrar will issue new registration number.

#### 1) NEW ADMISSION **TRANSFER - 1ST SEMESTER**

 Recipient HOD after approval will forward case to student affairs department who will forward it to the Registrar office.

• If Fee status is pending on provisional registration number

UNIVERSITY OF LAHORE

**STUDENTS CONDUCT & DISCIPLINE POLICIES** 

Students are expected to demonstrate ethical and moral values up held by the University. For this purpose student(s) will be required to observe disciplinary rules framed by the Board of Governors of the University. A copy of these rules can be obtained from the Office of the Registrar. While filling in application form, the students are required to sign an affidavit that they will maintain discipline as required under the discipline rules. The affidavit form is a part of the application form. In case of breach of discipline on any account specified in the discipline rules, the matter will be reported to the "Discipline Committee", for the final decision in accordance with the norms of justice and keeping in view the evidence available thereof.

#### **GENERAL DISCIPLINE RULES** FOR STUDENTS

1. The students are required to refrain from:

 Indulging in acts or behavior that threatens other students, faculty or staff members, including disruption of teaching and training in the university, cheating in the examination/ tests and disruption of normal operation of the other essentials functions of the University;

• Participating in any unauthorized

assembly and function: • Keeping fire arms or other weapons, even if licensed; • Involving in fighting or use of abusive language;

• Damaging or breaking any University property or others in the Premises of the University; • Performing any act contrary to law

2. Violation of these rules will lead to strict disciplinary action including rustication or expulsion from the rolls of the University, in addition to any other action under law that may accrue against the defaulters.

3. All the students are required to wear modest and tidy dress. Violation of this rule will lead to a fine. Student may also be asked to leave the University Campus until he/she comes with a reasonable dress.

a. Male Students should wear shirts with trousers, Shalwar Qameez or Kurta, suits and dress shoes with socks. b. Female Students must also be decently dressed. Following dress code is to be followed by the female students:

 Clothing must be modest and within the norms of modesty • Tight fitted clothes should be avoided. Loose and unrevealing clothes should be worn. Boldly designed dresses are not allowed • Flashing clothes, jewelry, pazebs etc are not allowed.

4. Smoking is not allowed on the

University campus or inside the University vehicles except in the reserved area.

5. Use of the mobile phone is strictly prohibited in the University libraries, class rooms and laboratories. Defaulter will be fined Rs. 500/-. 6. Drinks and eatables can be taken only inside the cafeteria and

not the University lawns. Eating or drinking at all other places is prohibited.

7. Male and female students should sit at the places reserved for them in the cafeteria and other part of the University.

8. Since there is a co-education system in the University the students must observe the following in combined gatherings. • A reasonable distance between

boys and girls is expected at all times.

 Touching between boys and girls, holding hands etc are not permitted on the University grounds, in the buildings, buses or at any University function. • Sitting as individual couples in corners and in hidden areas of the

University are not allowed. 9. Students are allowed to celebrate their birthday and other parties in the cafeteria only. 10. Photography / movie making of any type is prohibited by camera, handi-cam and mobile phones without prior approval from the University authorities. 11. Listening of music of all types including ring-tones of mobile phones is prohibited.

12. All students must carry their university identity cards with them while they are on the University campus. These I.D. Cards are required for entering the University premises, entering in the class rooms, laboratories, studios, libraries and for boarding a University vehicle. A Student may be penalized for not carrying or displaying his/her I.D. card. 13. Outsiders, friends of the students are not allowed to visit or be entertained within the University premises. 14. Students are not allowed to organize or participate in any unauthorized political, religious or

sectarian activity/group. This will lead to instant expulsion from the University.

15. Suspended, rusticated or expelled students shall no longer have the right to enter the University premises and may be handed over to the civil authorities if found trespassing.

#### **STUDENT DISCIPLINE RULES** (Revised February 2009)

The Discipline Rules have been formulated under the University Ordinance No LXI of 2002 The purpose of these rules is to streamline the discipline among the students of the University. These rules are a revision of 2006 of University of Lahore Discipline Rules and the amendments made herewith, with effect from February 18, 2009, approved by the Rector and Chairman BoG.

These Rules will come into force with immediate effect.

#### **Every Student**

a) Shall be faithful in his/her religious duties and respect the convictions of others in matters of religion and customs.

b) Shall be faithful and honest in his/her dealing with all people.

c) Shall be loyal to his/her country and refrain from doing anything which might damage his/her honor and prestige.

d) Shall respect the elders and be polite to all.

e) Shall respect the teachers and others in authority in the University.

f) Shall keep himself/herself clean in body and mind standing for clean speech and clean habits.

**q**) Shall help his/her fellow being especially those in distress.

h) Shall devote himself/herself faithfully to his studies.

i) Shall protect the property of the University.

#### 1.0 Definition

In these Rules, unless the contest other wise requires, the following expressions shall have the meaning hereby respectively assigned to them. "University Discipline Committee" the Committee constituted by Board of Governor

discipline in University and among the students. "Department Discipline Committee" the Committee constituted by Board of Governor for the purpose of maintaining discipline in Department and among the students.

for the purpose of maintaining

"Appellate Authority" means the University Discipline Committee, Rector UOL and Chairman Board of Governors and other teachers/ officers of the University to whom the powers may have been delegated.

a) "Rector" means the Rector of the University.

b) "Chairman" means the Chairman of the Board of Governors of the University

c) "Chairman of the Committee" means the Chairman of University Discipline Committee appointed by the Board of Governors.

d) "HoD/Director/Dean" means the head of the Department Discipline Committee appointed by the Rector and/or Chairman BoG.

e) "Member" means the members of the Discipline Committee approved by the Rector and/or Chairman BoG.

e) "Students" means the students of the University.

2.0 Introduction

The University believes that



q) Organizes or takes part in any function within the University campus or a hall of residence or organize any club or society of students which is detrimental to the objectives of the university.
4.2 The faculty or officer may take action life of a students in the students is a student of the student

**p**) Frames any political association

with any political party.

take action, if a student commits general misconduct and the officer or employee concerned has reasonable cause to believe that such order or direction is necessary to ensure the safety of any person;

 a) To prevent damage to or destruction of the property;

 b) For the performance of the officer's or employees duties in relation to the custody, maintenance or use of the property;

c) Refuses or fails to provide identification when requested to do so by an officer or faculty or employee of the university acting in the course of official duties, provided that when making such a request the officer or employee concerned produces identification to the student;

d) Interferes with the orderly conduct of a teaching group or ceremony of the university or a meeting of the board of directors, committee, subcommittee or any body constituted by or under

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student conduct is an important personality trait and as such expects its students to act in an ethical and moral way. Student behavior is a major issue for everybody who works in a campus. Anti-social or criminal behavior usually damages people emotionally as well as physically, be it the students, staff or teachers. It results in a great deal of unintended worry and distress for the victims and their families. The University has zero tolerance for such acts or the consequences resulting from behavioral

misconduct.

2.1 Student Discipline

The University has a disciplinary

system, the purpose of which is to

protect the University community

and to deter those who interfere

with its work and activities.

students. Parents, staff and

Students agree to abide by the

University rules at the time they

register themselves as University

students all expect the University

University takes this very seriously.

Committee shall be formed by the

Rector UOL and shall be headed by

the Chairman University Discipline

**Discipline Committee shall consist** 

designation of HoD/Director/Dean.

This committee shall supervise and

Committees as and when required.

guide the department Discipline

of members not below the rank/

to maintain a safe, orderly and

peaceful environment – the

2.2 University Discipline

The University Discipline

Committee. The University

Committee

#### 2.3 Department Discipline Committee

To expedite discipline cases, the Rector has authorized the departments to constitute Department Disciplinary Committees for the purpose of efficient processing of the disciplinary cases. The HoD and Director of Department or Dean of the Faculty shall constitute a Departmental Disciplinary Committee to handle discipline cases and give decision according to the UOL Discipline Policy.

#### 3.0 Procedure

For the purposes of this policy, the following guideline may be followed:

**3.1** The HoD/Director/Dean shall designate their staff / faculty members to communicate the rules/policy of student conduct to the students, and also assure or take steps to watch the general conduct of the students during their presence at the department / University. It is strongly recommended that a faculty member or staff may be designated to keep watch on the students from time to time.

**3.2** The HoD/Director/Dean shall put up a general notice which shall communicate to the students that all complaints must be brought to the notice of the HoD/Director/Dean.

3.3 The students must submit
 a written complaint in the
 department. The department shall

also ask the accused to submit a written reply in response to the complaint. Applications of witnesses shall also be collected and maintained for record.

**3.4** The department committee shall schedule a meeting and ask both parties to the disciplinary hearing, and shall record their attendance as well as minutes of the meeting.

**3.5** The department shall make effort to review the applications and statements of the witnesses, and give their decision on the day of the hearing. A copy of the decision shall be sent to the Chairman UOL Discipline Committee, Rector and to the Registrar's Office.

**3.6** A student who is under investigation by the department discipline committee shall be suspended from attending classes, till the time a decision has been taken by the committee.

**3.7** A student who is punished by the discipline committee shall not be allowed to attend the university. In case of rustication, the student ceases to be a student of the University or campuses of University.

**3.8** A student who is suspended from the university remains a student but is not allowed to pursue a course of study in either the university or other departments of University during the period of suspension.

#### 4.0 General Guideline on Misconduct

An act of misconduct by a student is an offence and falls under the preview of the discipline rules/policy. Guideline on this misconduct is displayed for information.

**4.1** A student commits an act of general misconduct if the student, within the university

a) Attacks, harasses or threatens to attack or harass any person;

b) Intimidates or attempts to intimidate any person; willfully, recklessly or negligently engages in conduct which causes or is to cause bodily injury to any person;

c) Engages in conduct which involves unauthorized or unjustified use of force or interference.

d) Which causes or is likely to cause injury or damage to; or denies or obstructs or is likely to deny or obstruct the rightful use of any property of the university or of any person.

e) Disobeys any reasonable order or direction given to the student by a faculty member, officer or employee of the university in relation to the use of any property of the university.

f) Smokes in the University premises or class rooms, laboratories, library and Examination Hall. g) Consumes alcohol/liquor or other intoxication drugs within the University Campus, classrooms, laboratories, and library or during instructional tours.

h) Uses mobile phone with camera in the premises of the University in the classrooms, University library, laboratories, examination hall and studio.

i) Collects any money or receive donation or pecuniary assistance from or on behalf of the University except with the permission of the Rector.

j) Stages, incites or participates in or abet a walk out or strike or other form of agitation against the University or its teacher and officers.

k) Behaves in a non ethical and unsocial manner in the University premises.

I) Indulges in fighting and uses fire arms, daggers and knives.

**m)** Call relatives/friends for fighting in the premises of the University.

n) Involves in activities that are against the University discipline like playing music in cars, drive the car noisily, or play the alarm signal consistently.

 o) Behaves improperly on educational trips or other cocurricular activities within the University or in ground/stadium organized by the University

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the university's charter, policies, regulations or appointed by any body so constituted;

e) In an examination, is in possession of material contrary to the instructions for the examination;

f) Copies or attempts to copy computer software without the permission of the university and or in breach of the Copyright Act of the Government of Pakistan;

**g**) Without appropriate authority, enters a file belonging to another person,

 h) The file being on a computer which is the property of the university; or

 i) Breaches any laws, by-laws, enactments, statutes, policies, rules, regulations, directives and/ or otherwise enforced by the proper authorities and/or

j) The University, including (without limitation to the aforesaid) where the student promotes a political party or agenda or tries to make a party with the intention of promoting the political party's agenda.

**k)** Any society, club, etc., without the permission of the competent authority of the university.

**4.3** The misconduct is categorized into minor and major offence. These may be noted as follows;

**4.3.1** Major Case of Misconduct

a) Misbehavior with a teacher/ officer of the University.

b) Fighting incidents.

**c)** Use of alcohol in the premises of the University.

d) Teasing the girl students.

#### e) Strike/protest etc.

f) Theft/damage to University property.

**g)** Promotion of political party/ agenda/unions.

**h)** Any other incident/misconduct which the committee feels falls in the preview of major offence.

4.3.2 Minor Case of Misconduct

a) Exchange of arguments among students.

b) Making noise in the University.

c) Playing music in cars.

d) Late coming in class, playing cricket on University roads.

e) Smoking in the University.

**f)** Any other incident/misconduct which the committee feels falls in the preview of minor offence.

#### 5.0 Punishments on breach of Discipline Rules

**5.1** In the major cases, the Discipline Committee shall be authorized to rusticate or expel a student at fault. But before the punishment is announced the student at fault shall be given a chance to defend himself/herself in writing and a chance of personal hearing by the Committee.

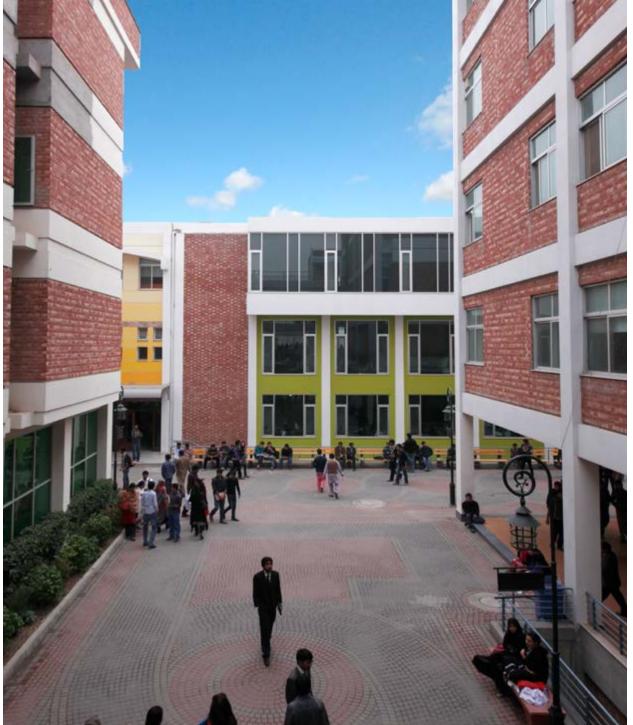
**5.2** In Minor cases, the Head of department is expected to suspend the student from his/her classes for not more than seven consecutive days or fine him up to a minimum of Rs. 5000/- or more keeping in view the gravity of the offence.

**5.3** The concerned teacher may fine a student up to a maximum of Rs. 1000/- or he may expel the student from the class

#### 6.0 Right of Appeal

6.1 The student shall have the right of appeal to Board of Governors against the punishment awarded by the Discipline Committee, if he/she puts up the appeal within fifteen days of date of decision. The appeal may, however, be disposed off by the Rector subject to the approval of the Board of Governors.

**6.2** The Board of Governor after due consideration may take such decision as may be considered appropriate according to the merit of case.



#### May wear prescribed dress-gown • Give power point presentation in classes on student Discipline Rules and Regulations, students Code

from utilized of other facilities

• At the same time a letter by

courier services shall be sent by

Chief Proctor to the student at

the address given by him in the

admission form with a copy to his

parents. The letter shall contain

the student to appear before the

Standing Proctor Committee and

the detailed allegation and ask

defend his case on a specified

The student should be given

his case. However, the student

his case by a lawyer or any

of the Standing Committee.

will not be allowed to represent

other person at the proceeding

The committee may if consider

of the case to be present in the

meeting at the time holding the

responsibility to record minutes

of the proceeding of the meeting

to any member of the committee,

who shall record the statement

witness if any, about incidence

in writing and get the signature

of students and witness on their

• The Standing Proctor Committee

of the concern student and other

• The Chief Proctor shall give

enquiry.

statements.

necessary require the complainant

against the student and witnesses

reasonable opportunity to defend

date, time and place.

provided to him by the University.

#### 9.0 Right of Appeal

Dean, HOD's, etc.

**9.1** The student has the right to appeal in writing to the Appellant Committee against the decision of the Standing Committee. The Appellant Committee after due consideration may decide to concur or enhance or reduce the punishment.

#### **10.0 Cognizable Infraction of Student Code of Conduct**

**10.1** The following are serious infraction of the Student Code of Conduct and are subject to disciplinary sanction by the University of Lahore.

 Misuse of Alcoholic Beverages, Drug and other Controlled Substances, Smoking.

- Assault, Injury and Threat
- Indecent Exposure, Violation of prescribed dress code, wearing tight, Jeans
- Sexual Misconduct, Sexual Assault, Sexual Harassment Hazing
- Disruption of Rights
- Public Disorder, Group Violence and Mass Disturbance
- Contempt
- Endangerment
- Fire and Safety Regulations
- Possession and Misuse of Weapons
- Theft or Damage to Property or Services
- Bribery and Extortion
- Gambling
- Misuse of Computers

• Ragging, Zero Tolerance shall be following. shown towards Ragging

• Punishable ingredient of Ragging • Take regular rounds of campus a) Abetment to Ragging in groups for maintaining peaceful

atmosphere.

violations.

each campus.

and proctor badge.

of Conduct including penalties for

• They will not be required to

appear before the Discipline

Committee as witnesses etc.

Note: There will be a Chief

**Proctor along with Proctors at** 

- b) Unlawful Assembly and rioting while Ragging c) Public nuisance created during
- Ragging d) Violation of decency and morals
- while Ragging
- e) Injury to body, causing hurt or grievous hurt f) Wrongful restraint or

confinemen

g) Use of excessive force or Assault

#### **11.0 Punishment for Infractions**

**11.1** The Chief proctor, Standing Proctor Committee and Proctor can impose following punishment on student committing violation given above.

- Suspend student violator for fifteen days from attending classes, and utilizing university facilities, memberships and scholarship etc.
- Impose a fine of up to Rs. 10.000/-
- spotted by them and report major cases to the Discipline Committee. The Proctor individually may impose a fine of Rs. 1000/- on student violating Student Code of Conduct.

**11.2** The Chief Proctor, Standing be required to undertake the

established whereby faculty members are appointed as proctors from each department. They remain vigilant and alert primarily aims to promote, project for taking, on spot cognizance of and maintain a peaceful academic violation of Rules and Regulation and Code of Conduct.

7.0 Student Discipline on the

7.1 The University of Lahore

environment that is conducive

knowledge and learning, pursuit

of truth, intellectual growth and

7.2 In order to achieve these aims

and goals the University strives to

guide the educational community

**Disciplinary Rules and Regulations** 

and Student Code of Conduct for

promotion of individual and social

7.3 Accordingly the University of

Lahore has set up Unfair Means

Committee, Students Discipline

Committee along with their

Appellate Committees. These

Committees while dealing with

cases of violation of rules and

regulation follow recognized

judicial and legal principles and

7.4 Reasonable opportunity is

available to accused student to

defend himself, call witness and

present material evidence in his

support before being penalized or

exonerated. Right of appeal is also

available to penalized students for

waiver or reduction of penalty.

8.0 Proctor System

development of its students as

scholars and citizens.

by establishing Students

responsibility.

procedures.

to equitable transmission of

Campus

**8.2** They take immediate administrative action against violators by imposing fines, other penalties and by reporting major offenses to the Discipline Committee.

8.3 The Proctor System is headed by a Chief Proctor.

#### 1) Appointment of Chief Proctor

The Chief Proctor will be appointed from amongst the Deans or Head of Department and will be at least of the status of a professor.

2) At least two proctors will be appointed from each department with the status not less than Assistant Professor.

#### 3) Standing Proctor Committee

The Chief Proctor will constitute a committee comprising of not less than proctors representing different departments for holding hearing of minor violations of discipline and student conduct rules. He may require the concerned student to appear before the committee on date and time and place intimated to the student. No adjournment of the meeting shall ordinarily be allowed to the student.

8.1 Proctor System has also been

after due consideration of the whole matter should recommend suitable punishment that shall be notified by the Registrar after approval of the Rector with copies

• The Chief Proctor may suspend

to the student and his parents,

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**INIVERSITY OF** AHORE

Hear cases of minor offences

Proctor Committee and Proctors besides performing the above functions. duties and responsibilities shall also

#### 13. Staging sit-ins, lockups, occupying Hostels wardens or other administrative offices.

**11.** Causing willful damage and/

vandalism, removing or damaging

or causing damage by acts of

Hostels or University property.

12. Barricading stairs, corridors,

Hostels/ campus of general use.

gates and other area in the

14. Use of abusive languages towards other residents and/ or University authorities and employees.

15. Use of Hostels rooms or premises for group parties, political assemblies and for purposes other than those for which they are meant.

**16.** Inviting outsiders to address Hostels residents is strictly prohibited.

17. Pasting of posters/chalking on Hostels or other campus buildings, premises or compound walls or any portion thereof.

18. Inciting parochial, linguistic, sectarian or religious feeling among Hostels residents.

**19.** Staying away from the Hostels premises after 8p.m. in the Winter and 9:00 pm in the summer prior permission from Hostels authorities is not allowed

20. Late comers or those leaving the Hostels early will be required



**ACCOMMODATION RULES AND POLICIES** 

For the purpose of admission to the Hostels, allotment of accommodation, maintaining discipline and conduct, arranging and organizing messes, the following rules and regulations as laid down hereinafter shall be followed.

#### **Conditions Of Allotment For Accommodation In The Hostels**

1. Allotment in the Hostels shall not be claimed as a matter of right even when a person is a bonafide student of the University.

2. Allotment for accommodation in the Hostels will be considered only after the Allotment Committee/ authorized person has scrutinized the application and satisfied itself of the merit and eligibility of the student and that his/her stay in the Hostels shall in no way be prejudicial to the interest of other residents in Hostels in particular and the University in general.

**3.** The Hostels facility is available to all UOL students. Passing out students may also apply for extension of stay.

**4.** A student can reside in the hostels till completion of his/her course of studies. However, the University reserves the right to cancel allotment at any time.

#### **Conditions of Ineligibility**

The following shall be ineligible for allotment of accommodation in

the Hostels:-

1. A student rusticated, expelled or debarred from the University or any other educational University inside or outside Pakistan.

2. A student wanted by the police or any other law-enforcement agency(ies) in criminal case(s), or against whom case(s) is/are pending in any court of law of the country on account of antistate or anti-social activities or for criminal offense(s) involving moral turpitude or has been or has remained under detention under any preventive law.

3. In case of the above, care will be taken that the mere pending of a criminal case against a student in a court of law shall not render him ineligible for admission in the Hostels. It will also be ensured that on honorable acquittal by the court, the student so declared ineligible, be reconsidered for admission in the Hostels and may be so admitted if otherwise found eligible.

4. A student whose presence in the Hostels is deemed to be detrimental or prejudicial to the peace, tranquility and academic atmosphere of the Hostels or University and the interest of the residents of Hostels and campus.

5. Resident once expelled from the Hostels.

#### **Allotment Procedure**

1. Application for allotment of accommodation in the Hostels be made by the bonafide student of the University on prescribed form accompanied by undertaking from parent/guardian certifying good character of the student and intime payment of hostels dues.

2. The form shall be placed before the Hostels allotment committee which will consider the application for allotment on the basis of criteria fixed by it. The allotment committee shall have the right to reject or accept any application without assigning any reason.

3. Previous residents may also apply afresh each academic semester on the prescribed form.

4. After the names of the successful candidates are announced, they shall comply with the allotment requirements to the Hostels within the prescribed time limit or their names shall be taken

5. Guests shall not be allowed to stay in the Hostels.

6. The allotment of

7. The applicant shall have to furnish a written undertaking in the prescribed form from his/her parents/ guardian holding him/her responsible for payment of Hostels dues in case his/her ward fails to make the payment.

3. Shifting to a seat/room other

resident without prior permission

than the one allotted to the

of the Allotment Committee.

**4.** Sub-letting the room/seat

allotted to the resident or any

5. Non-handing over vacant

allotment was made.

possession of the room/seat at

the end of the period for which

6. Non-payment of Hostels dues

during the period of the year for

which allotment was made in the

7. Keeping or making use of illicit

authorized medical attendants on

account of any illness suffered by

8. Keeping electric appliances such

as refrigerator, air conditioner,

television, oven, burner, heater

etc., in the room. If a Hostels

resident wishes to have an air-

the prevalent electricity rates.

9. Engaging in any immoral or

agitational and violent activities

or creating nuisance or disturbing

10. The parents/guardians cannot

see the students in their rooms

except the designated places.

the peace and tranquility in the

University campus.

conditioner, she will be charged at

drugs or other intoxicants, not

including drugs prescribed by

the Hostels resident.

reasons.

Hostels.

other room lying vacant due to any

8. Residents shall sign a receipt of Hostels property/assets in their rooms and shall be responsible for any loss or damage thereto.

Residents shall strictly abide by all the rules of discipline, conduct and regulations that may be enforced in the Hostels from time to time.

#### **Hostels Fees**

Applicants are supposed to deposit Rs. 9,000/- per month up to 11,000/- and registration fee 5000/- non refundable at the time of admission.

#### **Conduct & Discipline**

The following in addition to rules of conduct which may be prescribed from time to time shall constitute acts of indiscipline and violation of Hostels discipline for which action may be taken against the Hostels resident(s) concerned by the officers as prescribed in clause I:

1. Keeping firearms and other lethal weapons or any other material not necessary for academic pursuits in the Hostels even if licensed.

2. Keeping unauthorized persons in the room/seat allotted to a resident.

off the allotment list.

accommodation will be made after the candidate has produced the payment receipt of the fees/dues against him.

### ACCOMMODATION RULES AND POLICIES (CONT.)

to sign the register at the Hostels gate or reception stating the reasons for late coming or early departure.

**21.** The Hostels authorities shall reserve the right to search the personal belongings and baggage of the residents at the time of entering the Hostels or while residing in the allotted accommodation.

**22.** Cooking in the Hostels rooms is strictly prohibited.

**23.** The University administration is not responsible for the loss of any property of the Hostels residents.

**24.** All damages will be repaired at the expense of the boarder responsible.

**25.** Student shall take due care of the bathrooms and taps and shall not allow them to run to waste. Anyone found doing this intentionally will be liable to punishment.

**26.** Defacing walls and fixtures is strictly prohibited, moreover the furniture or fixtures will not be moved from one room to another and the residents are particularly warned against removing furniture from the mess and Common Room.

**27.** Students must keep their rooms, clean and tidy. The beds should properly be arranged and a bed cover used. Dirty clothes should be stored separately.

 Spitting in public or private rooms verandah or on stairs is prohibited.

**29.** All waste papers and garbage must be placed in receptacles provided for the purpose.

**32.** Every part of the Hostels premises shall be freely open for inspection by the Superintendent or warden at all times.

**30.** No religious ceremony likely to injure the feelings of other boarders shall be arranged in the Hostels.

**31.** No boarder shall indulge in any amusement that disturbs other boarders.

#### Action Against Indiscipline

Depending upon the severity of the indisciplinary act/omission on the part of the resident(s) of the Hostels, the authority to impose punishment, fine, penalty shall be used by the Pro-vost/Wardens/ Allotment Committee to the extent given below:-

1. The Warden(s) shall have the authority to impose fine up to 5000/- for each single act of

#### indiscipline.

2. The Allotment Committee may in case of the gravity of an offense provisionally cancel allotment of accommodation in the Hostels and also refer the matter to the University discipline committee with the recommendation for further necessary action leading to cancelation of allotment or rustication from the University.

3. In case of loss due to acts(s) of vandalism, the matter relating to assessment of damage/ loss will be referred to the Hostels Allotment Committee who while assessing the loss will also fix the responsibility and extent of loss on the person(s) liable for the act from whom recovery should be made. In the absence of evidence leading to fixation of individual responsibility, the Hostels Allotment Committee may decide to order recovery from all the residents or such of the residents as may be held liable.

#### Visitors

Visitors will only be allowed to meet the residents between 08:00 am. - 08:00 p.m. The Visitor will have to record his/her name, address, signature, time of arrival and departure in the register kept at reception.





### **LIBRARY RULES AND POLICIES**

#### Library Timings

• Library will remain open from 08:00 am. to 08:00 p.m. from Monday to Friday.

• There will be a break of Jumma Prayer & lunch from 01:00 p.m. to 02:30 p.m. on Friday.

• Timing for Circulation Section & Archive Section will be from 8:30 am. 04:45 pm.

#### **General Rules**

• Only registered library users can use the library.

• Complete silence should be observed in the library.

- Drinks and eatables are not allowed in the library.
- Smoking is strictly prohibited.
- Discussions / meetings are not allowed in the library.

• Please use library locker for your personal belongings (such as personal books, briefcases, handbags, etc.)

• Library and UOL disclaims any liability for loss or damage of any member (s) personal belongings.

• Any book or object should be shown for Inspection, so requested by library staff at any time.

• Please do not write, underline or mark any library book / material

• Books are carefully examined on return and the borrower will be held responsible for the damage.

• Library books should be left on the reading tables, library staff will re-shelf them.

#### • If any library user disturbs the study environment for other library users, he/she will be given one verbal warning, if despite the warning, the user repeats the same attitude, he/she will be debarred from entering the library premises for the same day.

• Books are liable to be recalled before the date, if required for some special purpose.

• All library rules are displayed on library notice board, library administration will not be responsible for ignorant of rules.

• Mobile phone usage is not allowed in the library.

• Do not change configuration of computer or any other equipment in the library.

#### • A security deposited under any of the foregoing regulation shall lapse to the university if it will remain unclaimed for a period of one year from the date on a borrower ceases to be student of the university.

• The Librarian is authorized to withdraw library facilities from any

member who is found misusing the library material or facilities.

• Every Library Member is advised to inspect the library books or material at the time of Issue.

#### Library Membership

• To enjoy the facilities offered by the "Central Library", the faculty staff & students should submit Membership/Registration Form (duty filled) for library membership.

• Students members are advised to keep their university cards with them while using the library.

• Change of address telephone number, e-mail address must be reported to the Librarian immediately.

#### Loan Privilege

The following categories will be allowed borrowing the library material as per rules.

#### Borrowing Limit and Period

HOD 8 books for 45 days

#### Professor

6 books for 45 days

#### Faculty

4 books for 30 days

Visiting Faculty 2 books for 25 days

#### **Staff** 2 books for 14 days

**Student** 2 books for 14 days

#### Lending Rules for Students

I. Students are entitled to borrow up to Two Books for a period of 14 days. Books may be renewed for further 14 days if another user has not reserved the desired book.

II. Overdue books will not be reissued until the fine is not paid.

III. Reference Material and CDs, may only be issued for one day as per special necessity.

IV. Annual Reports, Projects, Thesis, Pamphlets, Periodicals and Newspapers cannot be checkedout, and can only be consulted within the library.

V. Books already checked-out by some other user can be reserved. If the books are not collected within 2 days, the reservation will be cancelled.

- VI. Presentation of Library Membership University Card is must for any checkout at the Circulation Sec-8 Archive Section.
- VII. If a member misplaces a book library material and cannot find it after a thorough search, he / she must report to the Librarian immediately to avoid overdue fine.

VIII. Mutilation of library material is a matter of disciplinary action. Books accidentally damaged should be reported so that suitable assessment can be made & damages paid.

#### Fines

Violation of the library lending rules may result in following fines:

I. A borrower who fails to return the library book/s or any material on due date, shall have to pay a fine of Rs.10/- per day per book.

II. In the case of book loss or defacement by a user, he/she will be charged two times double the current price of the book or replace the book.

III. The Librarian shall decide the price of rare special books. Member shall not mutilate, or damages by writing or marking on pages, any book or publication, nor shall they trace or perform mechanical reproduction of a material belonging to library without formal permission of the Librarian, violation of this rule shall require replacement of damaged volume or payment of its price specified under the rule.

IV. If one volume of a set Series is damaged and it is not available separately, the whole set shall have to be replaced or paid by the member as specified in the rules.

V. The amount received from a member as cost of lost or damaged books or materials or for not returning the books after due date may be spent on the welfare or development of library.

#### Disabling Fine

• Rs.500/- on 1st violation. Rs.1000/- on 2nd violation. Case could be reported to disciplinary Committee on 3rd violation.

• All kind of fine will be paid on account office receipts. Library account will be blocked in case of non-payment of fine.

#### **Library Clearance**

• The result of students, having library membership will not be declared unless they provide a Clearance Certificate issued from the library. The Librarian will notify to the Controller of Examination the list of defaulters.

• Clearance from the library for leaving students will be requisite and shall be granted after checking the record of the library regarding the following;

1. Whether any book is out standing with the student.

2. Any fine is payable by the student.

**3.** Any legal action pending against student.

• Other Library Members will have to clear their 'Library Accounts" to have Library Clearance by returning all the borrowed book/s or library material.

• Library clearance shall be given only by the Librarian.





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#### ENTRY TEST ROLL NUMBER

#### **PERSONAL** DETAILS

Name:	
Father's/Guardian's Name:	
NIC No:	In case you do not have CNIC provide Parent's NIC details.
Date of Birth: (DD MM YYYY)	Gender: M F
Place of Birth:	Nationality:
Postal Address:	
Phone No:	Mobile No:
Email:	

#### PREVIOUS QUALIFICATIONS

Certificate/Degree/Specialization	Year	Board/University	Marks	Div/Grade

#### **UNDERTAKINGS**

#### Candidates awaiting results are required to sign the following undertaking:

I undertake to submit attested photocopy of my Intermediate/A-Level/DAE/Bachelors/Masters/MPhil result as soon as it is declared. In case, if the result is declared, I will submit it within 3 weeks from the date of admission. If I fail to fulfill the eligibility criteria for admission, The University of Lahore has the right to cancel my admission.

Signature of Applicant: \_\_\_\_\_ Date: \_\_\_\_\_ Date: \_\_\_\_\_

PREFERENCES	5
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Program Appli	ed For:	
1st Choice:		
2nd Choice:		
3rd Choice:		
4th Choice:		Photo

I have read the prospectus of the University and understood the contents thereof. The particulars given above are correct to the best of my knowledge. If found otherwise, I shall be liable to any action as per policy of the University. If admitted, I will observe the rules and regulations of the University as prescribed in prospectus. I shall sincerely devote myself to my studies and uphold the dignity and prestige of the University and shall be liable to penalty imposed by the University Authorities in case of violation on my part.

Signature of Applicant: \_\_\_\_\_ Date: \_\_\_\_\_

#### OTHER INFORMATION

All applicants are required to bring the following:

a) Attested photo copies of all academics degrees/result cards.

b) Two recent passport sized colour photographs in blue background.

c) Photo copy of CNIC or Form B.

d) In case of A Level/ GCE, IBCC EQUAVALENCE Certificate is required.

Applicant's Signature	FOR OFFICIAL USE ONLY         Imatric/
Received by: Admission Granted	FA/FSc-I/
Admission Rejected	Date Application Received Approved by Head of the Department