DISCOVER YOURSELF
INSPIRE POSTERITY

ACCREDITATION
Higher Education Commission - HEC
Pakistan Engineering Council - PEC
Pakistan Medical & Dental Council - PMDC
Pakistan Bar Council - PBC
Pakistan Nursing Council - PNC
Pharmacy Council of Pakistan - PCP
Pakistan Council of Architects & Town Planners - PCATP
National Business Education Accreditation Council - NBEAC
National Computing Education Accreditation Council - NCEAC

Find Out More: www.uol.edu.pk
We welcome you all to visit and become part of the fastest growing private sector multi-discipline chartered university of Pakistan. The University of Lahore was established in 1999 and received its charter in 2002, since then, it has become the largest private sector University of Pakistan with more than 150 degree programs. The University offers a place for all who have the desire to learn the most contemporary programs available in Pakistan. The University holds a high international ranking with largest international student body from across 15 countries.

VISION

The University of Lahore aspires to become a nationally and internationally recognized university that distinguishes itself as an imbedding center for outstanding ethical and moral values, teaching quality, learning outcomes, and richness of the student experience. The University of Lahore envisions a transformative impact on society through its continual innovation in education, creativity, research, and entrepreneurship.

MISSION

The University of Lahore represents excellence in teaching, research, scholarship, creativity, and engagement. Its mission is to produce professionals outfitted with highest standards in creativity, transfer and application of knowledge dissemination to address issues of our time. The UOL sculpts its graduates to become future leaders in their fields to inspire the next generation and to advance ideas that benefit the world.
The University of Lahore believes in delivering excellence in research and learning. Our ability to add to your academic 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 entrepreneurship and have invested in the establishment of enterprises in order to ensure that our students gain 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 experiences that a student gains outside the classroom. We have extensive activities ranging from sports to cultural events, media and society events etc that 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 that experiences are shared both academically and intellectually. We also have the largest international community in a private sector university with students from 15 different countries currently enrolled with us.

We provide extensive support to our students including preparing for career, mentoring, personal 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

We take pride in ourselves on being a community where all staff and students are valued.

The University of Lahore offers you the best training in your chosen field whether you intend to become a teacher or a scientist, a medical doctor or a social worker, technologist or an engineer. At the UoL, you will be taught by dedicated professors who are determined that you become competent as a professional in order to assume a leadership role with qualities that should distinguish you from any graduate of any other university in the world. We believe that it is not enough that you are equipped with skills to do your duties professionally; you should also stand out among your peers as a professional who has confidence, courage and compassion to lead people in the workplace and the community at large. As a UoL graduate, you will be technologically connected to knowledge through the best available computer networks.

Whatever is the choice of your academic program I hope that you join us and we are sure that you will quickly feel part of our unique Student Community. We take pride in ourselves on being a community where all staff and students are valued. Together we seek both to recognize the vision and achievements of the past and to build imaginatively for the future.

I would like to assure the parents and our prospective students who are thinking to become the part of UOL family that their decision to join UOL will bear desired fruits in times ahead. You will always find the University management, faculty and the administrative staff to assist and guide you, not only during your stay at the campus but even after becoming the proud graduate of UOL.

Prof. Dr. Mujahid Kamran
Rector
The University of Lahore is the largest private sector university in Pakistan with more than 35,000 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, Sciences and Social Sciences. With strong emphasis on balanced progress and focus on human capital, the University has grown to 11 faculties and 40 departments.

The quality of the teaching facility and research excellence has also earned its international recognition, placing the university amongst the top 6 first Pakistani universities to be ranked in the 2012 QS Asia ranking.

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 also adds value to the Medical programs. 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 production skills. 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.

COMMERCIALIZATION 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 innovation centre in order the commercialize technologies developed at the University and learning for students. The premises will also encompass three technology parks.

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.

QUICK FACTS

- Students Body: 36,935
- Academic Faculty: 1700+
- Taught Courses: 3500+
- Degree Programs: 200+
- Academic Departments: 40
- Faculties: 11
- Research Centres: 02
- Technology Parks: 03
- Campuses: 07
- Alumni Network: 23,000+
The University’s Main Campus on Defence Road is built near the prime Defence Road area just 1 - KM Defence Road and consists of a purpose built facility spanning 100 Acres which houses the University College of Medicine & Dentistry, School of Nursing, Faculty of Pharmacy, Lahore Business School, Institute of Molecular Biology and Biotechnology, Faculty of Allied Health Sciences, Faculty of Law and School of Creative Arts.

The Campus on Raiwind Road spans 4 Acres & 7 Kannals and houses the Engineering Technology, Sciences, Social Sciences, Languages faculties and University College of Dentistry. The facility features a comprehensive library, a spacious cafeteria and fully equipped laboratories and IT infrastructure.

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 premises also encompass three technology parks.

- The Media Technology Park, The Creative Village (A premier facility for professional media content)
- Agri-Technology Park
- Biotechnology Park (CRiMM)

A beautiful mosque on campus which is an integral part of life for our students faculty and staff members. It is this diversity that makes it such a unique and interesting place to be. We have all the facilities of a modern, well-equipped mosque including separate prayer and washing facilities for male and female. The atmosphere of the mosque is also a suitable area for study for our students.

A comprehensive sports complex for male and female students is also available at the campus. Each year competitive sports for both male and female students are organized at inter-departmental and inter-university levels in a variety of sports indoor and outdoor like hockey, football, cricket, athletic, badminton, Volleyball, Chess, Snooker, etc. To encourage development of sports, scholarships are awarded to the outstanding players, and winners of the sporting events are awarded prizes, trophies and medals.
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, Management Sciences and Allied Health Sciences. The dedicated and competent faculty delivers the curriculum, both for technical and professional disciplines.

INFRASTRUCTURE
The University of Lahore started its operation in Islamabad at a Campus located at Jinnah Avenue, Blue Area. To achieve the vision, UOL has created its new educational faculty called New Campus (Sihala). The new Campus has purpose-built class rooms and laboratories for all disciplines of Engineering, Pharmacy, Physical Therapy and Medical Laboratory Sciences. At the Campus site, a hostel for 400 students, Gymnasium and Cafeteria is under construction.

STUDENT SERVICES
LABORATORIES
For Civil Engineering, Electrical Engineering, Mechanical Engineering, Pharmacy, Physical Therapy and Dietetic and Nutritional Sciences full equipped laboratories are built at the new Campus. These Labs are served by trained professional.

LIBRARY
Professional library staff are managing the libraries. The libraries contain more than 20,000 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 transport. The transport facility is also provided to hostel residents. A micro-bus/coaster is also available for the faculty members. Transport between the campuses is available to the students as a regular feature.

The following courses are being offered at Islamabad campus:

- **Electrical Engineering**
  - BS Electrical Engineering
  - MS Electrical Engineering
- **Civil Engineering**
  - BS Civil Engineering
- **Mechanical Engineering**
  - BS Mechanical Engineering
- **Electronics**
  - BS Electronic and Electrical Systems
  - MS Electronic and Electrical Systems (MSEE)
- **Computer Sciences**
  - BS Computer Science
  - BS Software Engineering
  - Master of Computer Science (MCS)
  - MS Computer Science (MSCS)
- **Management Sciences**
  - BBA (Hons.)
  - MBA (3.5 Years)
  - MBA Executive (1.5 to 2 Years) (Evening Program)
  - M.Phil Management Sciences
- **Pharmacy**
  - Doctor of Pharmacy (5 years)
  - M.Phil Pharmacy (Pharmaceutics)
- **Allied Health Sciences**
  - Doctor of Physical Therapy (5 Years)
  - Doctor of Dietetics & Nutritional Sciences (5 Years)
  - Doctor of Medical Laboratory Sciences (5 Years)
  - Doctor of Optometry (5 Years)

HOSTEL FACILITY
Boarding and lodging facilities for both the campuses are available at the hostels managed and administered by the University at Islamabad. Meanwhile, a new Hostel for 400 students is under construction at the new Campus.

IT SERVICES
State of the art IT Labs with free Internet service are available to the faculty and students at both Campuses.

CAMPUS LIFE
The Office of Student Affairs, a department in Islamabad Campus is a central provider of resources and experiences designed to supplement students’ classroom learning and to contribute significantly to their personal development. Through our programs, advising resources and services, and various forms of advocacy, OSA support students in their growth as leaders and builders of a strong UOL community.

The Office of Student Affairs serves as a primary source of information and advice about co-curricular opportunities and resources. Staff members assist the students in becoming involved in campus life, conduct leadership development programs, provide continuity for organizations from year to year, educate students about the University policies, mediate disputes, advise event planners, and help the students to put classroom learning into practice through the techniques of experiential education.
In this short span of time the university has created its name in the field of higher education at National and International level. In pursuit of excellence the university has developed its original core values at Sargodha Campus.

**INFRASTRUCTURE**

The University of Lahore started its operation in Islamabad at a Campus located at Jinnah Avenue, Blue Area. To achieve the vision, UOL has created its new educational faculty called New Campus (Sihala). The new Campus has purpose-built class rooms and laboratories for all disciplines of Engineering, Pharmacy, Physical Therapy and Medical Laboratory Sciences. At the Campus site, a hostel for 400 students, Gymnasium and Cafeteria is under construction.

**STUDENT SERVICES**

A professional librarian is managing the library. The library contains over 4,000 books covering all disciplines. In addition the library maintains book banks for use of the students on all subjects. An access to HEC digital library is also available.

**TRANSPORT**

The Sargodha Campus has an independent bus service to facilitate the students and faculty members from Sargodha City and surroundings.

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The following courses are being offered at Sargodha campus:

**Management Sciences**
- MBA
- MBA 3.5
- MBA 1.5
- MBA Executive - (2 Years)
- M Phil Management Sciences
- M Com
- M Com (2 Years)

**Economics**
- B Sc Economics
- M Sc Economics
- M Phil Economics

**Computer Sciences**
- B Sc CS
- B Sc IT
- B Sc SE
- M Sc CS
- M Sc IT
- M Sc SE

**Technology**
- B Sc Civil Technology
- B Sc Electronics Technology
- B Sc IT
- B Sc Telecommunication
- B Sc Software Engineering
- M Sc CS
- M Sc IT
- M Sc SE

**Management Sciences**
- BBA
- MBA 3.5
- MBA 1.5
- MBA Executive - (2 Years)
- M Phil Management Sciences
- M Com
- M Com (2 Years)

**Statistics**
- B Sc Statistics
- M Sc Statistics
- M Phil Statistics

**Environmental Sciences**
- B Sc Environmental Sciences
- M Sc Environmental Sciences
- M Phil Environmental Sciences

**Allied Health Sciences**
- Doctor of Physical Therapy (5 Years)
- Doctor of Osteopathy & Nutritional Sciences (3 Years)

**Sports Sciences**
- M Sc Sports Sciences
- M Phil Sports Sciences

**Psychology**
- B Sc Psychology
- M Sc Psychology
- M Phil Psychology
- M Sc Clinical Psychology

**Education**
- B Ed
- M Ed
- M Phil Education
- M Phil Special Education
- M Phil Special Education

**Urdu**
- M Phil Urdu

**English**
- B Sc English
- M A English
- M Phil English (Litterature, Linguistics)

**Islamic Studies**
- M A Islamic Studies
- M Phil Islamic Studies

**Social Sciences**
- M Phil Political Science
- M Phil International Relation
- M Phil Social Work

**Mathematics**
- B Sc Mathematics
- M Sc Mathematics
- M Phil Mathematics

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**HOSTEL FACILITY**

We have also hostel facilities for male and female students and faculty also.

**IT SERVICES**

The state of the art Information Technology Laboratories at the Gujrat campus are being manniated with top of the line computing systems and high speed internet facility. Furthermore, we are planning to add two more IT labs and 20 Mbps internet connection.

**CAMPUS LIFE**

The Office of Student Affairs is the central provider of resources and experiences designed to supplement students’ classroom learning and to contribute significantly to their personal development. Through our programs, advising resources and services, and various forms of advocacy, OSA support the students in their growth as leaders and builders of a strong UOL community.
The following courses are being offered at Pakpattan campus:

**Allied Health Sciences**
- Medical Imaging Doctor (5 Years)
- Doctor of Optometry (5 Years)
- Doctor of Physical Therapy (5 Years)
- Doctor of Diet & Nutritional Sciences (5 Years)
- Doctor of Medical Laboratory Sciences (5 Years)

**Computer Sciences**
- BS Computer Science
- BS Software Engineering
- Master of Computer Science (MCS)
- MS Computer Science

**Management Sciences**
- BBA (Hons.)
- MBA 3.5 Years
- M.Phil Management Sciences

**Mathematics**
- BS Mathematics
- MS Mathematics
- M. Phil Mathematics

**English**
- BS English Language Communication
- MA English Language Teaching & Linguistics (MAETL)
- M. Phil English (Literature, Applied Linguistics)

**Technology**
- BS Civil Technology

**Economics**
- M.Sc Economics
- M.Phil Economics

**Education**
- MA Education
- M.Phil Education

**Urdu**
- M.Phil Urdu

**Islamic Studies**
- M.Phil Islamic Studies

INFRASTRUCTURE
The Pakpattan Campus sits on 400 canals of land on main Pakpattan Sahiwal road having state of the art infrastructure, educational facilities and highly qualified faculty.

STUDENT SERVICES
LIBRARY
We have state of the art library having over 3500 books on different subjects. Furthermore, we are adding about 5000 more books covering all the subjects being offered at our campus.

TRANSPORT
Presently, we have 5 mini buses for transportation of the students and faculty members coming from adjacent areas of Pakpattan.

HOSTEL FACILITY
Presently, we have three hostels to facilitate our faculty and students (Male and Female). Also, we facilitate our students by providing accommodation for weekend classes.

IT SERVICES
We have state of the art three IT labs having the latest IT equipment, 20 Mbps internet connection available at the campus. Furthermore, we are planning to add more 20 Mbps internet connection.

CAMPUS LIFE
The Office of Student Affairs (OSA) serves as a primary source of information and advice about co-curricular opportunities and resources. OSA is the central provider of resources and experiences designed to supplement students’ classroom learning and to contribute significantly to their personal development. Through our programs, advising resources and services, and various forms of advocacy, OSA support students in their growth as leaders and builders of a strong UOL community.
GUJRAT CAMPUS

Since its establishment in 1999 as a degree-awarding institute, The University of Lahore has always been at the forefront of innovation. In a short span of time, it has played a proactive role in shaping and accelerating the modern day higher education spectacle in Pakistan. From the academic Year 2013-2014 Gujrat campus has started its classes. Served by an experienced and competent faculty and supported by the requisite infrastructure, the students are getting quality education at an affordable cost.

INFRASTRUCTURE

The Gujrat campus is spread over 3.5 acres of land with a purpose built area of over 75,000 sq-ft. The campus is in the heart of Gujranwala division and is less than one hour drive from all the districts, main cities and towns of the division, which is one of the most densely populated in our country.

STUDENT SERVICES

Library

We have state of the art library having 5000 books on different subjects. Furthermore, we are adding about 5000 more books covering all the subjects being offered at our campus.

Transport

Gujrat Campus is maintaining a fleet of modern busses to provide pick and drop facility to students and faculty members. Transport facility between the campus and adjacent cities and towns is available to the students as a regular feature.

The following courses are being offered at Gujrat campus:

Computer Sciences
- BS Computer Science (BSCS)
- BS Software Engineering (BSSE)
- BS Information Technology (BSIT)
- MS Computer Science (MSCS)
- MS Software Engineering (MSSE)
- MS Information Technology (MIST)

Management Sciences
- BBA-Hons
- MBA (1.5 Year, 3.5Years)
- MBA-Executive (2 Years)
- M.Phil Management Sciences
- M.Phil Accounting & Finance

Technology
- BS Civil Technology (BS Tech Civil)

Allied Health Sciences
- Doctor of Physical Therapy (DPT)
- Doctor of Dietetics & Nutritional Sciences (IDDNS)
- Doctor of Medical Laboratory Sciences (DMLS)
- Medical Imaging Doctor (MID)

Pharmacy
- Doctor of Pharmacy (Pharm-D)

English
- BEd English Language Communication
- MA English Language Teaching & Linguistics (MAETL)
- M.Phil English (Literature, Applied Linguistics)

Law
- Master of Laws (LLM)

Physics
- BS Physics
- M.S Physics
- M.Phil Physics

Mathematics
- BS Mathematics
- M.Sc Mathematics
- M.Phil Mathematics

CAMPUS LIFE

The Office of Student Affairs, a department in Gujrat Campus, serves as a primary source of information and advice about co-curricular opportunities and resources. Staff members assist students in becoming involved in campus life, conduct leadership development programs, provide continuity for organizations from year to year, educate students about University policies, mediate disputes, advise event planners, and help students put classroom learning into practice through the techniques of experiential education.

The Office of Student Affairs is a central provider of resources and experiences designed to supplement students’ classroom learning and to contribute significantly to their personal development. Through our programs, advising resources and services, and various forms of advocacy, OSA support students in their growth as leaders and builders of a strong UOL community.

HOSTEL FACILITY

Gujrat Campus is in the process of constructing hostels for male and female students and soon will be available to prospective students.

IT SERVICES

We have state of the art IT lab having latest IT equipment. 10 Mbps internet connection available at the campus. Furthermore, we are planning to add two more IT labs and 20 Mbps internet connection.
Since its establishment in 1999 as a degree-awarding institute, The University of Lahore has always been at the forefront of innovation. In a short span of time, it has played.

**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 35,000 books catering to a wide range of subjects. The university also has access to 72 Mbps Pakistan Educational Research Network (PERN) facility, 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.

**IT FACILITIES**

**DATA CENTER**

The University of Lahore (UOL) becomes the first university in Pakistan’s Education Sector, public or private, to establish a redundant certified Tier-III Data Center, adding innovation and technology to its already well-established educational infrastructure. UOL pride itself with being at the forefront of innovation as a University and to enable that using technological advancements from across the world. This Data Centre is a step in the same direction, will be hosting not only Virtual Desktop Infrastructure for labs of 11 diverse Faculties and 40 Departments, Private Cloud for UOL’s over 30,000 students & 4,000 faculty member, and SAP-ERP including Student Life Cycle & Campus Management facilities. UOL also aspire to offer her services to various other academic institutions and commercial organization in near future through this Data Center.

The University boasts of excellent IT facilities with dedicated PC and Mac labs on premises. 72 Mbps internet is available to students in labs as well as the new wireless service on the Defence Road Campus. All students will get the following services:

- A dedicated computer login
- Student information login (SIS)
- University Email - ID

**SAP-ERP (Enterprise Resource Planning)**

SAP-ERP (Enterprise Resource Planning) at UOL is a business process management that allows the organization to use an integrated system to manage the business and automate many back-office functions related to technology, services and Applications of human resources. The latest version (SAP ERP 6.0) was made available in 2006, which has been deployed in University of Lahore with Enhancement Package (EHP7).

Having the SAP infrastructure in place has sped up any in-house development efforts because the SAP development tools are fairly easy to learn and there is a lot you can do to customize the system and build on extra functionality. Being able to do this has enhanced our return on investment in the SAP product. It has also simplified the technical support basis and account management for all these functions in one place. Our SAP system is extremely robust and we’ve had virtually no downtime during service hours since we implemented it.

SAP-ERP for making UOL a forerunner in modernizing student data management services within Pakistan.
CAMPUS LIFE

HOSTELS & ACCOMMODATION
The University of Lahore provides hostel facilities to both male and female students. The Defence road campus of the University features a facility of three hostels for females for over 1600 students in it.
- Razia Hall
- Fatima Hall
- Shahida Hall
The students are provided with accommodation, mess, high speed internet. The hostels have a gym and a swimming pool, where you will be able to benefit from expert fitness advice and take training classes.

TRANSPORT SERVICE
The University of Lahore (UOL) has its own large fleet of buses, mini buses and vans that provide pick and drop facility to its various campuses and around the city. The University also provides shuttle bus services to its staff & faculty members from one campus to another. A detailed transport plan along with specified routes can be obtained from the transport office of UOL. Transport facilities are also available to adjacent cities of Lahore.

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 35,000 books catering to a wide range of subjects.

CATERING & CAFETERIA
The University houses dedicated student center and four floors of self-service cafeteria serving delicious continental cuisine, snacks through kiosks at Defence Rood Campus. Events management, guest house dining and hostel dining is also provided by the food and lodging department.

SPORTS FACILITIES
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 is also being developed along with separate gymnasiums for both male & female students. Sports at the University are managed by a dedicated department of sports.

MEDICAL AND DENTAL HEALTH
The University of Lahore has invested in extensive health and dental facilities. This includes a 300 bed teaching hospital located at Defence Road Campus and a dental hospital located at Raiwind Road Campus. The University has a Teaching Hospital, Dental Hospital and a Physical Therapy and Radiology Diagnostic Centre situated at the Raiwind Road Campus with state of the art equipment and experts for facilitating the faculty and students.

CLUB UOL (Gym & Swimming Pool)
The University has an on campus gym, where you will be able to benefit from expert fitness advice & training classes at a much discounted rate only for students and faculty members at the University.
STUDENT LIFE AT UOL

UOL has more than 35,000 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. 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.

OSA is the student’s 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 accommodation and sports and gym facilities through OSA and get advice on careers and placements.

Within this portal you will find services, applications, and solution to your academic & non-academic issues during your time here at UOL. Academic services handle queries regarding student’s letters, semester freeze/withdrawal, issuance of interim/final transcript, examination, issuance of different certificates.

STUDENT CLUBS AND SOCIETIES

There are 35 societies currently registered and operated in UOL. The societies are performing well by executing events related to their respective fields.

SPORTS AND RECREATIONAL ACTIVITIES

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

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

CAREER SERVICES

The career service is here to help you find full-time work and internships as well as offering support with career planning.

FINANCIAL & SCHOLARSHIPS

Ibadat Educational Trust offers liberal scholarships for the benefit of needy students. UOL offers full scholarships to students from all across Pakistan with exceptional sports capabilities.

Note: Further information can be obtained from the finance office. Financial services will deal with the students who are seeking help on financial matters like semester fee installments, concession, fines, etc.
MISSION

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

We look forward to providing maximum help to our international students including their accommodation, visa & residential permit process and follow up till they graduate.

The University of Lahore is host to students from Palestine, Sudan, Yemen, Turkey, Syria, Somalia, Afghanistan, Nepal, Oman, Kingdom of Saudi Arabia, South Korea, Jordan, UAE, India, Uganda amongst others. The University of Lahore has a dedicated International Students Cell which manages the applications for study vacancies of the International students, processes their admission, HEC NOC, Visa processing as well as settling the International students into the cultural diversity of the University of Lahore. The University of Lahore believes in organizing healthy cultural activities for local as well as International Students.

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. Stalls at the event are also of great attraction to the guests and people.

INTERNATIONAL STUDENTS ADMISSIONS

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

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

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INTERNATIONALIZATION AT UNIVERSITY OF LAHORE

University of Lahore considers Internationalization as an important component of its operations. Internationalization at UoL offers the students to get global experience, awareness about different cultures and understanding of global markets.

We are exploring the potential of Internationalization through different channels in University of Lahore. Dean Faculty of Management Sciences team and Office of Students Affairs is managing the foreign collaborations related to Exchange Student Programs. Under this program UoL students are given the opportunity to travel to Malaysia/Singapore for study tours during the semester for two to four weeks.

Under the Exchange student programs from foreign universities to UoL, we work through local collaborations. In Lahore we are very closely working with office of Internationalization in UMT to welcome foreign students in Pakistan. In addition Honorable Chairman Board of Governors UoL has very generously awarded financial grants to all faculties to invite foreign scholars to teach and conduct research with the faculty and be part of the ongoing research projects.

The University is proud to have over 15 Nationalities currently studying in different departments.
The QEC since its establishment in May 2010 has been continuously making contributions in improving and enhancing the quality of education as well as services in all 7 campuses of the university. In view of the efforts and excellent performance shown made by QEC/UoL, the HEC has been granting it the highest category of “W” for the last 6 years.

Maintaining the momentum of Quality consciousness is crucial in Higher Education Institutions (HEIS). Quality Enhancement Cell in UoL provides an internal Quality Assurance and enhancement mechanism of the institution. It is tasked with planning, guiding and monitoring Quality Assurance (QA) and Quality Enhancement (QE) activities of the institution. It 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 to facilitate and encourage experimental incubations. The QEC plays a critical and important role in improving the UoL’s global, regional and national rankings. It also acts as the focal point of HEC and various professional councils (e.g. PEC, PMDC) and gateway for information flow into and out of UoL.

### SCOPE OF QEC

**Annual Monitoring and Evaluation of academic Program, Faculty and Students**

- Quality assurance of all undergraduate as well as postgraduate degree programs.
- Evaluation and analysis of quality standards of teaching and learning in each subject area.
- Build up program specifications and quality assurance processes.
- Evaluate department and institutional assessment.
- Developing Evaluation methods.
- Ensure the Quality and the standard of the degree awarded.
- Analyze and review academic affiliation with governing bodies and institutions.
- Ensure that the services provided at the HEI are compatible with the standards and the bench marks set forth by the university management.

**Six Steps to Continuous Improvement of Student Learning**

1. Identify Goals
2. Identify Objectives
3. Specify Measures
4. Share Results
5. Specify Improvements
6. Make Changes

A Guide to Support the Assessment Process
The University of Lahore has established Department of ORIC (Office Of Research Innovation and Commercialization) in Electrical Engineering EE Building Basement. It is at very initial stage and has started working. It will support and integrate the process of research, innovation and commercialization in all the departments of University of Lahore. ORIC aims at implementing HEC’s plan of developing a research culture in UOL & develop contacts with the corporate sector / market / industry to ensure compatibilities between research & requirements in order to increase its utility to the optimum.

AIMS AND OBJECTIVES OF ORIC

The objective is to develop, expand, enhance and manage the university’s research programs and to link research activities directly to the educational, social and economic priorities of the university and its broader community. The ORIC is also responsible for assuring that the quality of research reflects the highest international standards and advances the stature of the university at national and international stages.

ORIC shall try to guarantee that all research programs and policies reflect the core values of academic freedom, professional integrity and ethical conduct and full compliance with all policies, legal requirements and operational standards of the university.

• To ensure all research related activities are conducted within the legal and ethical framework.
• To improve integration of research and education at all levels of the institution.
• Translating research for the public benefit.
• To promote and improve multi-disciplinary research initiatives.
• Develop, maintain and communicate pre & post award administrative procedures for externally sponsored projects.
• Facilitate collaborations among faculty through identifying overlapping research interests and providing opportunities to communicate.
• Supporting the strategic research directions and policies of UOL.
• To bring funding opportunities from national/international donors/sponsors to the attention of faculties.
• To design, develop and deploy practicable and replicable models for sustainable economic and social development of the society.
• To provide tailored career counselling and placement services against one’s needs, goals, choices and future plans based on one’s hidden abilities, skill and talents.
• To provide quality mentorship and conducive environment to writers and scholars for research-based writing.
• To maintain, deepen and strengthen an enduring lifelong relationship between alumni and university through opportunities that promote interaction and engagement.
• Improving and strengthening university and industry relationship.
• Promoting entrepreneurship, technology-transfer and commercialization activities.
• Coordinate internal and external reporting needs, including maintenance of HEI’s database.
• Develop a structure for mentorship of junior faculty.
• Provide information about the grant process to faculty including study section procedures, interpreting reviews, and identifying appropriate funding mechanisms.
• Review and analyze all new invention disclosures.
• Identify and establish collaborations and/or licensing agreements associated with the Institute’s intellectual property rights.
• Track the success of university technology in the hands of licensees.
• Oversee any litigation that may arise related to Institute.
• Monetize royalty streams from licenses.
In 2005, the University of Lahore Relief (UOL Relief) worked in the wake of the earthquake in Mardan, part of the Khyber Pakhtunkhwa province, Pakistan. The mission was not to expel these miscreants but to assist them to cope with their lives. UOL Relief helped them establish a Shelter Home for children many of them were also mentally or physically handicapped and often abandoned by their poor families. This two years long project led to establishing of the Shelter Home in Lahore and with our planning, support and strategic advice it is now a fully self-sustained operation. Starting from 12 male and 5 female children today it is taking care of over 40 children.

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

2005 EARTHQUAKE

UOL Relief efforts in 2005 Earthquake not only made a strong network of the students but also showed to everyone involved what they are truly capable of doing. With 40 houses constructed, a functioning primary and higher secondary school, 3,000 temporary shelter tents, 12,500 family food packs, 8,510 quilts & blankets, 1,000 sets of kitchen utensils, and over 2,000 set of warm clothes, Medical Care centre, over 25,000 Kg cooking oil was distributed, 150 tents were weather insulated, 130 widows were taken care of in respect of food and shelter. This project finally concluded in 2006, but the medical camps have continued till 2012.

2010 FLOOD

This time UOL Relief decided to further test her capabilities and her young volunteers’ resolve by operating not only much larger geographical area but also in diverse locations. In the next two years UOL Relief took on a mammoth task of running operations in three different provinces at the same time. With Charsada in Khyber Pakhtunkhwa, Rajanpur in Punjab, Chisas, Tooto Valley, Trilay Nala at Khiplu in Gilgit Baltistan by providing food support, basic necessities of life, reconstruction support and material, a bridge, water channels and even a primary school still running under this day by the UOL Relief. Known as the super flood by the experts, it swept any infrastructure in its way. This is also when UOL Relief constructed infrastructure including a bridge to connect tourist destination of Fairy Meadows with the rest of the country. In 2011, where the country did not face any national catastrophe, UOL Relief while working in the area saw a tragedy unfold. Overnight an artificial dam formed on the river at Tala near Khanaka; and it started to swell up. Local youth stood near the dam keeping an eye on the foam. As it burst they started raising alarm on bugles which alerted the people of the village. Unfortunately two of the deaf inhabitants of the village lost their life. With almost all of the houses lost in this mud flood, UOL Relief took upon herself the responsibility to construct over 25 houses beside giving them cooking utensils and other basic necessities of life.

2009 IDPS CRISIS

Next test of this resolve and feeling came when the whole Swat valley was engulfed in flames of terrorism. This and the subsequent operation of the Pakistan Army to expel these miscreants led to the biggest Internally Displaced People (IDP) crisis Pakistan had ever seen. UOL Relief sprung into action to provide food support in Mardan district. Over 2,000 families were supported in this program of food and other basic supplies for over 3 months’ time at 15 days interval until the crisis subdued and the people started returning to their homes. The mission was not to insult their honour by neither turning them into beggars or treating them like ones, but to assist

BAIT-UL-NISHAT (SHELTER HOME 2012)

In 2012, UOL Relief brought her attention closer to home where it collaborated with a local NGO for Deaf and Dumb vulnerable children, Voice. UOL Relief helped them establish a Shelter Home for these children many of them were also mentally or physically handicapped and often abandoned by their poor families. This two years long project led to establishing of the Shelter Home in Lahore and with our planning, support and strategic advice it is now a fully self-sustained operation. Starting from 12 male and 5 female children today it is taking care of over 40 children.

UNARFARAM (GILGIT BALTISTAN 2013)

The UOL Relief provides shelter, food and Education Support Program to the families of Widows in Gilgit Baltistan. Apart from the UOL Relief initiative which heavily relies on support and volunteerism of our University students and alumni – UOL’s students are also engaged in various social initiatives inside & outside the University campuses. 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 2014

FLOOD 2014

Unfortunately tragedy again struck Pakistan with massive floods of 2014. A large area of the country was again under water. Instead of becoming part of the conversation to fix blame on poor management of flood water, UOL Relief decided to become part of the positive change again. It took on to providing for poorest of the poorest area by focusing on area on the Rohu, Sultan and Afhara Hazar on the South-Western side of River Chenab. What we witnessed there was heart breaking. When people told us about that they have lost nothing, the fact was they actually had nothing beside the pair of clothes they had on their body and two utensils for the food. UOL Relief took care of providing for the food, house construction, basic necessities and clothes. With slow speed of receding water, UOL Relief provided 5,000 mosquito nets to help avert some diseases in those desperate times. UOL Relief also constructed 25 houses while providing over 1,000 food packages to local families. UOL Relief is presently supporting the people affected by the October 2015 Earthquake in the area of Shangla Hills in Khyber Pakhtunkhwa.
One of the four teaching hospitals affiliated with the UCMC, the University of Lahore Teaching hospital is a state of the art modern hospital with 250 bed strength. Aesthetically designed, the unconventional ambience gives a sense of reassurance and satisfaction to the patients, visitors and staff. Backed by the most modern equipment, the highly qualified faculty and motivated staff provide a range of clinical services of international standards to the patients from all walks of life. Regular seminars, research and CME activities provide ample opportunities to the students & the medical staff to keep abreast with the latest developments in the medical field. Lifelong learning resource centre equipped with modern audiovisual aids and facilities for video transmission of live surgery directly from operation theatres and two way audio communication has provided a new and exciting approach to learning and student teacher interaction. “It is a joy to be part of this institution” is a regular feedback from students, faculty and clinical staff or other employees in any capacity.

The University of Lahore Dental Hospital provides comprehensive oral health services with a focus on specialized treatment needs. Services offered cover the diagnosis, prevention and treatment of all conditions affecting the mouth and associated structures, restoration and correction of dento-facial aesthetics and treatment of facial deformities and trauma as well as the repair of damaged oral tissues. All types of dental treatment are provided at subsidized rates. Our patient turnover ranges between 100-130 (new) patients per day, which is ample for student training.

The Dental Hospital is renowned for its specialist services, which include oral & maxillofacial diagnostics, radiology, preventive dentistry, paedodontics, periodontics, restorative dentistry, prosthodontics, implantology, orthodontics, oral and maxillofacial surgery. The hospital in collaboration with University Dental College maintains a strong commitment to Under Graduate and Post Graduate education through mentoring, scientific research and evidence based practices.
NAWAZ SHARIF SOCIAL SECURITY TEACHING HOSPITAL

Nawaz Sharif Social Security Teaching Hospital is the main teaching hospital for the training of undergraduate and postgraduate Medical & Dental students of University College of Medicine & Dentistry, The University of Lahore. Recognized by Pakistan Medical & Dental Council (PMDC) for the training of house officers and by The College of Physicians & Surgeons Pakistan (CPSP) for FCPs training in Cardiology & Cardiac Surgery, it ensures excellent education and training with the availability of modern resources, competent faculty and helpful hospital administration and support staff.

Spread over an area of 98 kanals, the hospital has 650 beds, 12 modern operation theatres, ICU, CCU, Cardiac Surgery ICU, Neonatal Nursery and NICU. Regular appraisal, educational activities, audit of the services and implementation of the recommendations ensures consistently high levels of patient satisfaction by delivering patient care of the highest standards. Hospital provides a friendly and comfortable environment for learning and consistently scores highly on medical and Dental students’ satisfaction scale.

AL-KHIDMAT HOSPITAL, LAHORE

The Al-Khidmat Hospital, Multan Road is a 170 bedded Teaching Hospital having state of the art facilities for medical treatment and medical teaching. It is equipped with fully functional Emergency, Medical, Surgical & Pediatric ICU, Operation theatres and Outdoor & Indoor services providing latest medical, obstetric, gynaecological, pediatric, surgical, orthopedic, mental health, neonatal, allied health, anesthetic, physiotherapy intensive care services to the community round the clock.
• Electrical Engineering
• Mechanical Engineering
• Civil Engineering
• Computer Engineering
• Technology
• Electronics and Electrical System
DEPARTMENT OF ELECTRICAL ENGINEERING

DEGREES OFFERED

- BS Electrical Engineering
- MS Electrical Engineering
- Ph.D Electrical Engineering

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 breadth in electrical engineering and in-depth knowledge and training in one or more of the areas such as power and electrical machines, electronics, computer, communications, signal processing, control system and industrial automation.

INTRODUCTION

The Department of Electrical Engineering was established in year 2000. Our undergraduate program, BS 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 credit hours while keeping teaching quality high and student-teacher ratio within a recommended limit. In year 2008, the department launched MS Electrical Engineering program also under the guideline of HEC. This is a two year evening program with thesis. In Spring-2014 semester, the department launched its PhD (Electrical Engineering Program). This is again evening program 48 credit hours (with thesis 30 credit hours).
ELECTRICAL ENGINEERING

INTRODUCTION
The undergraduate electrical engineering program focuses on building a solid foundation in mathematics, physical sciences, and computer programming to ensure the students are equipped with professional skills, rational critical thinking, analytical skills and lifelong learning techniques. The program provides a broad engineering knowledge that enables the students to communicate and interact effectively with other engineers and technologist who have specialized in different technical discipline and to make decisions with confidence. On successful completion of the degree program, the students will possess the ability to understand, identify problems and formulate their solutions 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, and overseas. The major employment areas include electrical power generation, supply and distribution, power systems, 

RECOGNIZED BY
Higher Education Commission, Pakistan Engineering Council

ROAD MAP

<table>
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<tr>
<th>SEMESTER 1</th>
<th>Cr. Hr.</th>
<th>SEMESTER 2</th>
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<th>SEMESTER 3</th>
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<th>SEMESTER 4</th>
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<td>Applied Calculus</td>
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<td>Basic Mechanical Engineering</td>
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<td>Applied Thermodynamics</td>
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<td>DC &amp; AC Machines</td>
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<tr>
<td>Circuits Analysis - I</td>
<td>4</td>
<td>Computer Programming</td>
<td>3</td>
<td>Complex Variables &amp; Transforms</td>
<td>3</td>
<td>Digital Design Lab</td>
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<td>Communication Skills</td>
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<td>Applied Physics</td>
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<td>Data Structures</td>
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<td>Introduction to Computing</td>
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<td>Linear Algebra</td>
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<td>Electrical Engineering Workshop</td>
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<td>Signals &amp; Systems</td>
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<td>Islamic and Pakistani Studies</td>
<td>3</td>
<td>Differential Equations</td>
<td>3</td>
<td>Logic Design &amp; Switching Theory</td>
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<td>Solid State Geometry and Multivariate Calculus</td>
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<td>Mechanical Engineering Workshop</td>
<td>1</td>
<td>Circuits Analysis - IV</td>
<td>4</td>
<td>Social Science</td>
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<td>Electronic Devices &amp; Circuits</td>
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<td>Network Analysis</td>
<td>4</td>
<td>Technical Report Writing</td>
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<th>SEMESTER 5</th>
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<th>SEMESTER 8</th>
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<tr>
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<td>3</td>
<td>Communication Systems</td>
<td>4</td>
<td>Technical Elective II (Power Electronics)</td>
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<td>ECE Design Project/ Final Project</td>
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<tr>
<td>Microprocessor Based Embedded Systems</td>
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<td>Control Systems</td>
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<td>Entrepreneurship</td>
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<td>Technical Elective-V</td>
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<td>Engineering Economics &amp; Management</td>
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<td>Numerical Analysis</td>
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<td>Technical Elective-III</td>
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<tr>
<td>Probability &amp; Stochastic Processes</td>
<td>3</td>
<td>Breadth Core II</td>
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<td>Technical Elective IV</td>
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<td>Breadth Core I</td>
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<td>Instrumentation and Measurements (Breadth Core II)</td>
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<td>Digital Electronics</td>
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<th>COMMUNICATION ENGINEERING ELECTIVES</th>
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<tr>
<td>Power Distribution and Utilization (Breadth Core I)</td>
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<tr>
<td>Instrumentation and Measurements (Breadth Core II)</td>
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<td>Advanced Electrical Machines</td>
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<td>Power System Analysis</td>
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<td>Electrical Power Transmission</td>
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<td>Power Electronics</td>
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<td>Power System Protection</td>
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<td>Power System Stability &amp; Control</td>
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<td>High Voltage Engineering</td>
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<td>Digital Signal Processing</td>
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<td>Digital Control Systems</td>
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<td>Integrated Electronic Circuits</td>
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<td>Smart Grid</td>
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<td>Computer Communication Networks (Breadth Core I)</td>
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<td>Information Theory and Coding</td>
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<td>Transmission and Switching Systems</td>
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<td>RF and Microwave Engineering</td>
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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 areas of power engineering and 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 6 credit hours. The detail of the program is given in the curriculum.

CAREER PROSPECTS
This program enhances the strength of the students in the area of their choice and makes them prepared to compete in higher intellectual and academic pursuits such as PhD programs.

POWER SYSTEM

CORE COURSES
- Mathematical Methods for Engineering
- Power Quality
- Advanced Power System Protection
- Advanced High Voltage Engineering

ELECTIVES
- Optimization Techniques
- Power System Circuit
- Breakers and Substations
- Power System Operation and Control
- Power System Modeling and Analysis
- Power System Distribution
- Power System Reliability
- Power System Planning
- Load Flow Analysis and System Stability
- Renewable Energy Systems

- Control of DC Machines and Drives
- Control of AC Machines and Drives
- Industrial Drives
- Advanced Power Electronics
- Modeling and Simulation of Converters
- Switch-Mode Power Supplies
- Transients in Power Systems
- Smart Grids
- Photovoltaic Conversion
- Advanced Communication Systems
- Advanced Control Systems
- Linear Control Systems
- Non-Linear Control Systems
- Control System Optimization
- Optimal Control Systems
- Adaptive Control Systems
- Digital Control Systems
- Robotics and Control
- System Identification
- Power System Optimization

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ELECTRONICS & COMMUNICATION

CORE COURSES
- Mathematical Methods for Engineering
- Stochastic Processes
- Advanced Digital Signal Processing
- Advanced Digital Signal Processing
- Advanced Digital Communication
- Advanced Communication Systems
- Information Theory and Coding
- Error Control Coding
- Advanced Computer & Communication Networks
- Advanced Wireless Communications
- Signal Detection and Estimation
- Advanced Optical Communication
- Advanced Satellite Communications
- Cryptography and Security
- Wireless Sensor Networks
- Compressed Sensing Theory and Applications
- Real-Time Embedded Systems

ELECTIVES
- Optimization Techniques
- Advanced Communication Systems
- Information Theory and Coding
- Error Control Coding
- Advanced Computer & Communication Networks
- Advanced Wireless Communications
- Signal Detection and Estimation
- Advanced Optical Communication
- Advanced Satellite Communications
- Cryptography and Security
- Wireless Sensor Networks
- Compressed Sensing Theory and Applications
- Real-Time Embedded Systems

PROGRAM FACTS
- Program Duration: 2 Years
- Timing: Weekend 9:00 AM - 6:00 PM (Saturday & Sunday)
- Entry Requirements:
  - 16 Years of Education, BS (Electrical Engg, Electronics Engg, Telecom Engg, Computer Engg, Communication Engg) with 2.5 GPA (Semester System) or 60% Annual System from HEC/PEC recognized university/institute.
  - UOL Interview and entry test & GAT validity two years arranged by NTS.
- Location:
  - Defence Road Campus, Lahore.

ROAD MAP

Total Semesters 4 Total Credit Hours 30

SEMMESTER 1  Cr. Hr.  SEMMESTER 2  Cr. Hr.  SEMMESTER 3  Cr. Hr.  SEMMESTER 4  Cr. Hr.
Core Courses - 1  3  Core Courses - 3  3  Elective Course - 1  3  Elective Course - 3  3
Core Courses - 2  3  Core Courses - 4  3  Elective Course - 2  3  Elective Course - 4  3
Research Thesis  6

DOCTOR OF PHILOSOPHY IN ELECTRICAL ENGINEERING (Ph.D.)

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 into 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 will find position primarily in academic institutions and universities research institutes, research laboratories, consulting companies also employ graduate with this degree.

COURSES LIST
- Advanced Digital Communication
- Advanced Digital Signal Processing
- Advanced Power System Protection
- Advanced High Voltage Engineering
- Advanced Power Electronics
- Advanced Optical Communication
- Advanced Control Systems
- Advanced Wireless Communications
- Control of DC Machines and Drives
- Control of AC Machines and Drives
- Digital Integrated Circuit Design
- Digital Control Systems
- Non-Linear Control Systems
- Smart Grids
- Smart Grids
- Stochastic Control
- Renewable Energy Systems
- Research Thesis 15

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Higher Education Commission

PROGRAM FACTS
- Program Duration: 3-5 Years
- Timing: Weekend 9:00 AM - 6:00 PM (Saturday & Sunday)
- Entry Requirements:
  - 16 Years of Education, BS (Electrical Engg, Electronics Engg, Telecom Engg, Computer Engg, Communication Engg) with GPA of 3.0 out of 4.0 (Semester System) or 60% and above Annual System from HEC/PEC recognized university/institute.
  - UOL Interview and entry test or GAT validity two years arranged by NTS are mandatory.
- Location:
  - Defence Road Campus, Lahore.

ROAD MAP

Total Semesters 6 Total Credit Hours 48

SEMMESTER 1  Cr. Hr.  SEMMESTER 2  Cr. Hr.  SEMMESTER 3  Cr. Hr.  SEMMESTER 4  Cr. Hr.
Course - 1  3  Research methods in Electrical Engineering  0  Course - 4  3  Course - 6  3
Course - 2  3  Course - 3  3  Course - 5  3

SEMMESTER 5  Cr. Hr.  SEMMESTER 6  Cr. Hr.
Research Thesis  15  Research Thesis  15
DEPARTMENT OF
MECHANICAL ENGINEERING

DEGREES OFFERED
• BS Mechanical Engineering
• MS Mechanical Engineer
• Ph.D Mechanical Engineering

MISSION STATEMENT
Department is committed to prepare graduates who can work cooperatively and professionally with other scientists and engineers to develop innovative solutions to complex problems in the field of engineering. Mission is to serve the profession by providing high quality education. Intersection of science and technology has always been sole objective of the Department.

INTRODUCTION
Department of Mechanical Engineering was permitted to induct its 1st batch in 2008 by Pakistan Engineering Council (PEC). Accreditation has been granted from PEC for Batches 2008-2012. In fall 2014, Department started its MS and Ph.D. Programs which were approved in November-2013 by the Academic Council of the University. Department provides a sound foundation in Science, Computational skills and Mathematics to solve engineering problems in areas such as Thermodynamics, Fluid Mechanics, Applied Mechanics, Design, Manufacturing Systems and Engineering Management & Economics.
INTRODUCTION

BSME at the University of Lahore emphasizes 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. Moreover, the program also includes the industrial tours, schedule of prestigious industries and organizations of public/private sectors, to enhance student exposure and experience. The curriculum includes Analytical tools, Creative Thought, Communication Skills and their applications in engineering to solve the engineering problems of the real world.

CAREER PROSPECTS

Mechanical Engineering has a diversity of applications in almost all industries in any part of the world. In Pakistan, different kinds of industries and organizations need mechanical engineers abundantly e.g. Heavy Mechanical Complex, NDC, different kinds of industries and organizations of public/private sectors, to enhance student exposure and experience. The curriculum includes Analytical tools, Creative Thought, Communication Skills and their applications in engineering to solve the engineering problems of the real world.

RECOGNIZED BY

Higher Education Commission, Pakistan Engineering Council

ROAD MAP

Total Semesters 8
Total Credit Hours 140

<table>
<thead>
<tr>
<th>SEMESTER 1</th>
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<tbody>
<tr>
<td>Applied Chemistry</td>
<td>3</td>
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<tr>
<td>Calculus and Analytical Geometry</td>
<td>3</td>
</tr>
<tr>
<td>Applied Physics</td>
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<tr>
<td>Computer System &amp; Programming</td>
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</tr>
<tr>
<td>Engineering Drawing &amp; Graphics</td>
<td>3</td>
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<tr>
<td>English</td>
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<table>
<thead>
<tr>
<th>SEMESTER 2</th>
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<tbody>
<tr>
<td>Linear Algebra and Differential Equations</td>
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<tr>
<td>Communication Skills</td>
<td>2</td>
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<td>Engineering Materials</td>
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<td>Engineering Statics</td>
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<tr>
<td>Islamic Studies</td>
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<tr>
<td>Thermodynamics I</td>
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<thead>
<tr>
<th>SEMESTER 3</th>
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<tbody>
<tr>
<td>Electrical Engineering</td>
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<tr>
<td>Engineering Dynamics</td>
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<td>Fluid Mechanics</td>
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<td>Fluid Mechanics I</td>
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<td>Complex Variables and Transforms</td>
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<td>Electronics</td>
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<tr>
<td>Fluid Mechanics II</td>
<td>4</td>
</tr>
<tr>
<td>Machine Design &amp; CAD I</td>
<td>3</td>
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<tr>
<td>Mechanical Vibration</td>
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<tr>
<td>Total Quality Management</td>
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<thead>
<tr>
<th>SEMESTER 5</th>
<th>Cr. Hr.</th>
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</thead>
<tbody>
<tr>
<td>Heat and Mass Transfer</td>
<td>4</td>
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<tr>
<td>Manufacturing Processes I</td>
<td>4</td>
</tr>
<tr>
<td>Precision Engineering &amp; Metrology</td>
<td>3</td>
</tr>
<tr>
<td>Technical Writing &amp; Presentation Skills</td>
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<table>
<thead>
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<th>SEMESTER 6</th>
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<tr>
<td>Engineering Economics</td>
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<td>Manufacturing Processes II</td>
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</tr>
<tr>
<td>Mechanics of Machines</td>
<td>3</td>
</tr>
<tr>
<td>Refrigeration &amp; Air Conditioning</td>
<td>4</td>
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<table>
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<th>SEMESTER 7</th>
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<td>Power Plant Engineering</td>
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<tr>
<td>Mechanical Vibration</td>
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<tr>
<td>Renewable Energy Resources</td>
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<tr>
<td>Total Quality Management</td>
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<table>
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<tr>
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<tbody>
<tr>
<td>Internal Combustion Engines</td>
<td>3</td>
</tr>
<tr>
<td>Power Plant Engineering</td>
<td>3</td>
</tr>
<tr>
<td>Mechatronics</td>
<td>3</td>
</tr>
<tr>
<td>Project</td>
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</tbody>
</table>

CORE COURSES

- Applied Chemistry
- Calculus and Analytical Geometry
- Applied Physics
- Computer System & Programming
- Engineering Drawing & Graphics
- English
- Linear Algebra and Differential Equations
- Communication Skills
- Engineering Materials
- Engineering Statics
- Islamic Studies
- Thermodynamics I
- Workshop Practice
- Electrical Engineering
- Engineering Dynamics
- Fluid Mechanics I
- Mechanics of Materials I
- Pakistan Studies
- Thermodynamics II
- Complex Variables and Transforms
- Electronics
- Fluid Mechanics II
- Machine Design & CAD I
- Mechanics of Materials II
- Psychology & Human Behavior
- Numerical Analysis
- Heat and Mass Transfer
- Machine Design & CAD II
- Precision Engineering & Metrology
- Technical Writing & Presentation Skills
- Control Engineering
- Engineering Statistics
- Manufacturing Processes I
- Mechanics of Machines
- Refrigeration & Air Conditioning
- Engineering Economics
- Manufacturing Processes II
- Mechanical Vibration
- Internal Combustion Engines
- Project

ELECTIVES

LIST TECHNICAL

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

LIST MANAGEMENT

- Total Quality Management
- Industrial Management
- Project Management
- Operations Management
- Business & Entrepreneurship
- Safety, Health & Environment Management

ELECTIVES

- Numerical Analysis
- Engineering Statics
- Manufacturing Processes I
- Precision Engineering & Metrology
- Technical Writing & Presentation Skills
- Refrigeration & Air Conditioning
- Project

THE UNIVERSITY OF LAHORE
INTRODUCTION

MSME is specifically designed for the professionals working in the industry willing to boost their technical skills and knowledge for their career advancements. It also serves the individuals concerned in harnessing their potential for PhD studies. The degree program primarily focuses on developing advance modeling skills and enhancing engineering knowledge in the areas of Thermal & Fluid Sciences, Manufacturing, Production, and Mechanical Design & Analysis. For the program minimum credit hours earned by a student shall be 30, with minimum 06 credit hours requirement of research, and 24 credit hours (i.e. 3 credit hours per course) for coursework.

CAREER PROSPECTS

The students of graduate program will be well-equipped with the knowledge of modeling, analyzing and solving Mechanical Engineering problems, and are expected to be an active part of R & D sector of government organizations and private industries. They will be capable enough to develop their own consultancy firms, be engaged with research centers, and will provide consultancy services to public and private sectors. The program focuses to enhance the research skills of students, and makes them better prepared for pursuing higher studies (i.e. PhD) at the prestigious national and/or international universities.

PROGRAM FACTS

- Program Duration: 2 Years
- Timing: Evenings 8:00 AM - 6:00 PM (Friday, Saturday & Sunday)
- Entry Requirements: 16 Years of Education, BS (Mechanical Engineering) with 2.5 CGPA (Semester System) or 60% Annual System from HEC/PEC recognized university. UOL Interview and entry test & GAT validity two years arranged by NTS.
- Location: Raiwind Road Campus, Lahore.

RECOGNIZED BY

Higher Education Commission

CORE COURSES

- Advanced Numerical analysis
- Advanced Engineering Materials
- Advanced CAD/CAM
- Finite Element Analysis
- Computer Integrated Manufacturing
- Theory of Elasticity
- Experimental Stress Analysis
- Product Design & development
- Advance Mechanical Vibration
- Engineering Design Optimization
- Robotics
- Advanced Thermodynamics
- Advance Fluid Mechanics
- Advance Heat Transfer
- Experimental Methods in Fluid mechanics
- Operations Research
- Advanced Metal Forming
- Human Factor Engineering
- Advanced Stress Analysis
- Modal Analysis
- Theory of Elasticity
- Experimental Stress Analysis
- Total Quality Management
- Advanced Automatic Control Systems
- Product Design & development
- Advance Mechanical Vibration
- Engineering Design Optimization
- Robotics
- Advanced Thermodynamics
- Advance Fluid Mechanics
- Experimental Methods in Fluid mechanics
- Operations Research
- Advanced Metal Forming

CAREER PROSPECTS

The graduate of this program will primarily find position in the academic universities of public and/or private sectors. Moreover, Government R & D institutions and consultancy firms also employ graduate of this program.

ROAD MAP

<table>
<thead>
<tr>
<th>TOTAL SEMESTERS 6</th>
<th>TOTAL CREDIT HOURS 48</th>
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</thead>
<tbody>
<tr>
<td>SEMESTER 1</td>
<td>SEMESTER 2</td>
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<tr>
<td>Advanced Numerical Analysis  3</td>
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<td>Elective Course - 3  3</td>
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<td>Total Credit Hours 30</td>
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DOCTOR OF PHILOSOPHY IN MECHANICAL ENGINEERING (Ph.D)

INTRODUCTION

Ph.D degree is the highest degree program offered by the Mechanical Engineering Department, in compliance with HEC guidelines; and is recognized by HEC. Currently PhD program is being offered in Mechanical Engineering emphasizing the fields of Thermal & Fluid Sciences, Manufacturing & Production and Mechanical Design & Analysis. The program of 48 credit hours requires completion of 18 credit hours (i.e. 3 credit hours per course) of coursework work along with passing of a comprehensive examination, and 30 credit hours of research dissertation.

CAREER PROSPECTS

The graduate of this program will primarily find position in the academic universities of public and/or private sectors. Moreover, Government R & D institutions and consultancy firms also employ graduate of this program.

PROGRAM FACTS

- Program Duration: 3 Years, (Credit Hours 48)
- Timing: Evening 8:00 AM - 6:00 PM (Friday, Saturday & Sunday)
- Entry Requirements: 16 Years of Education, MS/M.Sc. Mechanical Engineering degree from HEC/PEC recognized university with minimum 3.0 CGPA out of 4.0 (Semester System) or First Division (Annual System). UOL Interview and entry test are mandatory. University Departmental Committee may conduct the test at par with GAT subject test, and qualifying score for this will be 70%. Note: NTS or ETS, USA with the area of specialization subject test must be cleared. In the case of GAT Subject test minimum of 60% marks is required to pass the test. In the case GAT subject test, the minimum percentile score of 60% will be accepted.

LOCATION

Raiwind Road Campus, Lahore.

RECOGNIZED BY

Higher Education Commission

CORE COURSES

- Advanced Numerical analysis
- Advanced Engineering Materials
- Advanced CAD/CAM
- Finite Element Analysis
- Computer Integrated Manufacturing
- Theory of Elasticity
- Experimental Stress Analysis
- Total Quality Management
- Advanced Automatic Control Systems
- Product Design & development
- Advance Mechanical Vibration
- Engineering Design Optimization
- Robotics
- Advanced Thermodynamics
- Advance Fluid Mechanics
- Experimental Methods in Fluid mechanics
- Operations Research
- Advanced Metal Forming

ROAD MAP

<table>
<thead>
<tr>
<th>TOTAL SEMESTERS 6</th>
<th>TOTAL CREDIT HOURS 48</th>
</tr>
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<tbody>
<tr>
<td>SEMESTER 1</td>
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<tr>
<td>Advanced Numerical Analysis  3</td>
<td>Finite Element Analysis  3</td>
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<td>Elective Course - 2  3</td>
<td>Elective Course - 4  3</td>
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<td>Elective Course - 3  3</td>
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<tr>
<td>Total Credit Hours 30</td>
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</tbody>
</table>
DEPARTMENT OF CIVIL ENGINEERING

DEGREES OFFERED

• BS Civil Engineering
• MS Civil Engineering
• Ph.D Civil Engineering

MISSION STATEMENT

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

INTRODUCTION

The department has internationally trained faculty, well equipped labs and infrastructure facilities, in line with the Pakistan Engineering Council (PEC) and Higher Education Commission (HEC) requirements.

The Civil Engineering program is fully accredited by Pakistan Engineering Council (PEC). The two batches of students have graduated and the forth batch will be graduating, Insha Allah, in July, 2016. Having worked for more than 40 years with international organizations and institutions (e.g. World Health Organization) in various capacities such as Director, Advisor, Professor and Researcher it is my utmost desire and hope to make this department, as one of the best in the country, known for its academic excellence and high quality graduates.
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 faced 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 knowledge and skills are instilled in students by utilizing state of the art lab equipment to learn the engineering profession and utilize it in the development of the society.

CAREER PROSPECTS
The Civil Engineering graduates can look for jobs in various projects i.e. roads, buildings, sewerage/water supply, consultancy firms, testing laboratories or housing societies. Civil Engineers have good prospects of finding a job in Government departments, private and public-sector industries, research and teaching institutions etc. Civil Engineer will always be needed to maintain and repair existing facilities and to construct new ones in the fields of coastal, environmental, structural, transport, urban and water resources engineering. Civil Engineers are employed in all major construction projects carried out by the municipalities, city governments, provincial or central government, private construction companies, military engineering services and project management. Civil Engineering graduates can also go in for research and take up teaching or they can open their own independent firms for consultancy or construction services.

BACHELOR OF SCIENCE IN CIVIL ENGINEERING (BSCE)

PROGRAM FACTS
- Program Duration: 4 Years
- Timing: Morning 8:00 AM - 5:00 PM (Monday to Friday)
- Entry Requirements: 12 Years of Education, FSc (Math, Physics and Chemistry), DAE (Civil), A-Level or Equivalent with Minimum 60% Marks, Matriculation with Minimum 60% Marks, UOL Entry Test is mandatory
- Location: Raiwind Road Campus, Lahore.

RECOGNIZED BY
Higher Education Commission Pakistan, Engineering Council

ROAD MAP

<table>
<thead>
<tr>
<th>SEMESTER 1 Cr. Hr.</th>
<th>SEMESTER 2 Cr. Hr.</th>
<th>SEMESTER 3 Cr. Hr.</th>
<th>SEMESTER 4 Cr. Hr.</th>
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<tbody>
<tr>
<td>Civil Engineering Materials 3</td>
<td>Computer Programming 3</td>
<td>Engineering Geology 3</td>
<td>Quantity Surveying &amp; Estimation 3</td>
</tr>
<tr>
<td>Engineering Drawing 4</td>
<td>Engineering Mechanics 4</td>
<td>Advanced Engineering Surveying 3</td>
<td>Structural Analysis-I 3</td>
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<tr>
<td>English Language Skills 3</td>
<td>Engineering Surveying 4</td>
<td>Mechanics of Solids-I 4</td>
<td>Soil Mechanics 4</td>
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<tr>
<td>Applied Calculus (Math-I) 3</td>
<td>Basic Electro Mechanical Engineering 4</td>
<td>Fluid Mechanics 4</td>
<td>Communication Skills &amp; Technical Writing 2</td>
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<tr>
<td>Islamic &amp; Pakistan Studies 3</td>
<td>Differential Equation (Math-I) 3</td>
<td>Numerical Analysis (Math-II) 3</td>
<td>Civil Engineering Drawing &amp; Graphics 3</td>
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<th>SEMESTER 5 Cr. Hr.</th>
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<th>SEMESTER 7 Cr. Hr.</th>
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<td>Probability Method in Engineering (Math-IV) 3</td>
<td>Plain &amp; Reinforced Concrete-I 4</td>
<td>Architecture &amp; Town Planning 3</td>
<td>Structural Engineering 3</td>
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<tr>
<td>Transportation Planning and Engineering 2</td>
<td>Mechanics of Solids-II 3</td>
<td>Geo-Informatics 2</td>
<td>Hydraulics &amp; Irrigation Engineering 4</td>
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<tr>
<td>Steel Structures 3</td>
<td>Social Sciences 2</td>
<td>Geotechnical and Foundation Engineering 3</td>
<td>Disaster Management 2</td>
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<tr>
<td>Structural Analysis-II 3</td>
<td>Environmental Engineering – I 4</td>
<td>Plain &amp; Reinforced Concrete-II 4</td>
<td>Highway &amp; Traffic Engineering 3</td>
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<tr>
<td>Construction Management &amp; Engineering Economics 3</td>
<td>Project (Part-A) 3</td>
<td>Project (Part-B) 3</td>
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</table>

PROGRAM FACTS
- Program Duration: 4 Years
- Timing: Morning 8:00 AM - 5:00 PM (Monday to Friday)
- Entry Requirements: 12 Years of Education, FSc (Math, Physics and Chemistry), DAE (Civil), A-Level or Equivalent with Minimum 60% Marks, Matriculation with Minimum 60% Marks, UOL Entry Test is mandatory
- Location: Raiwind Road Campus, Lahore.

RECOGNIZED BY
Higher Education Commission Pakistan, Engineering Council
MASTER OF SCIENCE IN CIVIL ENGINEERING (MSCS)

INTRODUCTION

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

- Structures
- Geotechnical
- Hydraulics and Irrigation
- Environmental

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 program shall have a minimum of three year supervised research period that may be extended to a maximum of seven years arranged by NTS case basis. UOL Interview and entry test & GAT validity two years arranged by NTS.

RECOGNIZED BY

Higher Education Commission

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, industries, research centers and technical institutions. They will be capable enough to develop their own firms, research centers and also provide consultancy services to Government and Private sectors.

ROAD MAP

<table>
<thead>
<tr>
<th>Total Semesters</th>
<th>Total Credit Hours</th>
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<tbody>
<tr>
<td>6</td>
<td>30</td>
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</table>

**SEMIESTER 1**

- Core Course - 1 3
- Elective Course - 1 3

**SEMIESTER 2**

- Core Course - 2 3
- Elective Course - 2 3

**SEMIESTER 3**

- Core Course - 3 3
- Elective Course - 3 3

**SEMIESTER 4**

- Core Course - 4 3
- Elective Course - 4 3

**SEMIESTER 5**

- Dissertation / Research Thesis - 1 3

**SEMIESTER 6**

- Dissertation / Research Thesis - 2 3

**PROGRAM FACTS**

- Program Duration: 2-3 Years
- Timing: Evening 5:00 PM - 9:00 PM (Monday to Friday)
- Entry Requirements: 16 years of Education, BSc (Civil Engineering) from PEC recognized university with 2.5 CGPA (Semester System) or 60% Annual System. However for the Environmental Engineering program, students with Bachelor’s degree in engineering from other disciplines such as environmental, chemical and other related may be considered on case-to-case basis. UDL Entrance and entry test & GAT validity: two years arranged by NTS.
- Location: Raiwind Road Campus, Lahore.

**AREAS OF SPECIALIZATION**

**STRUCTURES**

**CORE COURSES** (Minimum any Four of the following)
- Structural Analysis
- Reinforced Concrete Structures
- Properties of Structural Materials
- Prestressed Concrete Steel Structures
- Prestressing Design of Structures
- Structural Mechanics
- Stability of Structures

**ELECTIVES** (Maximum any Four of the following)
- Bridge Engineering
- Design of Structures
- Theory of Plates and Shells
- Structural Dynamics
- Seismicity and Earthquake Engineering
- Seismic Design of Masonry Structures
- Structural Optimization
- Municipal and Suburban Engineering
- Reinforced Concrete Technology-I
- Advanced Concrete Technology-II
- Advanced Concrete Technology-IV
- Advanced Soil Mechanics
- Foundation Engineering-I
- Foundation Engineering-II
- Geotechnical Investigation
- Environmental Geo-techniques
- Numerical Methods in Engineering
- Hydraulic Structures
- Pressure Diffusing Engineering
- Irrigation Engineering and Practice
- Application of RS & GIS in Civil Engineering
- Environmental Management and Impact Assessment
- Industrial and Hazardous Waste Management
- Water Supply and Wastewater Collection System
- Environmental Health and Safety
- Environmental Pollution Control

**GEOTECHNICAL**

**CORE COURSES** (Minimum any Four of the following)
- Advanced Soil Mechanics
- Foundation Engineering-I
- Foundation Engineering-II
- Dam Engineering
- Geotechnical Investigation
- Soil Improvement Techniques
- Earth Retaining Structures
- Environmental Geo-techniques
- Hydraulic Structures
- Applied Hydrology
- Sediment Transport
- Fluid Mechanics
- Application of RS & GIS in Civil Engineering

**ELECTIVES** (Maximum any Four of the following)
- Rock Engineering
- Soil Dynamics
- Numerical 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
- Environmental Geo-techniques
- Solid Waste Management

**ENVIRONMENTAL**

**CORE COURSES** (Minimum any Four of the following)
- Environmental Management and Impact Assessment
- Physico-Chemical Process in Environmental System
- Wastewater Treatment and Design
- Experimental Methods in Environmental Engineering
- Industrial Hazardous Waste Management
- Water Supply and Wastewater Collection System
- Environmental Chemistry and Microbiology
- Solid Waste Management

**ELECTIVES** (Maximum any Four of the following)
- Air and Noise Pollution Control
- Ecology and Risk Assessment
- Environmental Health and Safety
- Water Quality Modeling
- Marine Pollution and Control
- Modeling of Environmental System
- Agricultural Pollution and Control
- Environmental Pollution Control
- Hydraulic Structures
- Applied Hydrology
- Soil Improvement Techniques
- Environmental Geo-techniques
- Property of Structural Materials
- Numerical Methods in Engineering
- Environmental Management and Impact Assessment
- Industrial and Hazardous Waste Management
- Water Supply and Wastewater Collection System
- Environmental Health and Safety
- Environmental Pollution Control

**HYDRAULIC & IRRIGATION**

**CORE COURSES** (Minimum any Four of the following)
- Hydraulic Structures
- Advanced Friction Hydraulics
- Hydro Power Engineering
- Irrigation Engineering and Practice
- Applied Hydrology
- Sediment Transport
- Fluid Mechanics
- Application of RS & GIS in Civil Engineering

**ELECTIVES** (Maximum any Four of the following)
- 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
- Bridge Engineering
- Advanced Soil Mechanics
- Foundation Engineering-I
- Dam Engineering
- Geotechnical Investigations
- Soil Improvement Techniques
- Earth Retaining Structures
- Environmental Geo-techniques
- Numerical Methods in Engineering
- Environmental Management and Impact Assessment
- Industrial and Hazardous Waste Management
- Water Supply and Wastewater Collection System
- Environmental Health and Safety
- Environmental Pollution Control
DOCTOR OF PHILOSOPHY IN CIVIL ENGINEERING (Ph.D)

INTRODUCTION

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

- Structures
- Geotechnical
- Hydraulics and Irrigation
- Environmental

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 Ph.D. comprehensive exam, otherwise the candidate will not be eligible to continue further Ph.D. research studies. The student must follow the Higher Education Commission (HEC) Rules and Regulations.

The program shall have a minimum of three year supervised study period that may be extended to a maximum of 5 years towards successful completion of all requirements and award of Ph.D. Degree.

CAREER PROSPECTS

The graduates will be fully equipped with the skills and knowledge in various areas of Civil Engineering to deal with issues and challenges in research, industries, etc. in both public and private sector within and outside Pakistan. They will be capable to develop their own think tanks, research centers and academic institutions as well as make positive contribution to national development through practical and innovative solutions.

PROGRAM FACTS

- Program Duration
  - 3-5 Years
- Timing
  - Evenings 09:00 PM to 09:00 PM (Monday to Friday)
- Entry Requirements
  - 18 Years of Education, MS/ML.Sc. Civil Engineering degree from PEC recognized university with minimum 3.0 CGPA (Semester System) or First Division (Annual System).
- Core courses and entry test are mandatory. University Departmental Committee may conduct the test at par with GAT subject test, and qualifying score for this will be 60%.
- The subject test conducted by the National Testing Service (NTS) or ETS, USA in the area of specialization chosen at the PhD level must be cleared. In the case of GAT subject test (http://www.nts.org.pk/GAT), a subject test is required to pass the test. In the case of CPE subject test, the minimum percentage score of 60% will be accepted.

- Location
  - Raiwind Road Campus, Lahore.

RECOGNIZED BY

Higher Education Commission

ROAD MAP

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<thead>
<tr>
<th>SEMESTER 1</th>
<th>Cr. Hr.</th>
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<th>Cr. Hr.</th>
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<td>Dissertation / Research Thesis 1</td>
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<th>SEMESTER 5</th>
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</thead>
</table>

AREAS OF SPECIALIZATION

STRUCTURES

Six courses from the following list not previously studied:

- 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
- Computer Aided Design of Hydraulic Structure
- Foundation Engineering I
- Foundation Engineering II
- Dam Engineering
- Geotechnical Investigation
- Earth Retaining Structures
- Rock Engineering
- Environmental Management and Impact Assessment

HYDRAULIC AND IRRIGATION

Six courses from the following list not previously studied:

- Design of Hydraulic Structures
- Advanced Fluid Hydraulics
- Hydrodynamic Engineering
- Irrigation Engineering and Practices
- Applied Hydrology
- Sediment Transport
- Fluid Mechanics
- Application of GIS in Civil Engineering
- Drainage Engineering
- Computer Aided Design of Hydraulic Structure
- 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
- Reinforced Concrete Structures
- Seismic Design of Structures
- Bridge Engineering
- Coastal Engineering
- Environmental Engineering
- Environmental Management and Impact Assessment

ENVIRONMENTAL

Six courses from the following list not previously studied:

- Environmental Management and Impact Assessment
- Environmental 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 Collection System
- Environmental Chemistry and Microbiology
- Solid Waste Management
- Air and Noise Pollution Control
- Ecology and Risk Assessment
- Environmental Health and Safety
- Water Quality Modeling
- Marine Pollution and Control
- Modeling of Environmental Systems
- Agricultural Pollution and Control
- Environmental Pollution and Control

GEO-TECHNICAL

Six courses from the following list not previously studied:

- Advanced Soil Mechanics
- Foundation Engineering I
- Foundation Engineering II
- Dam Engineering
- Geotechnical Investigation
- Soil Improvement Techniques
- Earth Retaining Structures
- Environmental Geotechnics
- Rock Engineering
- Soil Dynamics
- Numerical Method In Engineering
- Geotechnical Engineering
- Professional practice
- Properties of Structural Materials
- Seismic Design of Structures
- Stability of Structures
- Bridge Engineering
- Seismology and Earthquake Engineering
- Coastal Engineering
- Advanced Materials of Construction
- Environmental Management and Impact Assessment

THE UNIVERSITY OF LAHORE
DEPARTMENT OF
COMPUTER ENGINEERING

DEGREE OFFERED
• BS Computer Engineering

MISSION STATEMENT
The mission of the Department of Computer Engineering is to construct and sustain a high quality and broad-based teaching and research program for the graduates so that they may maximize their potential, develop their skills and improve their performance for successful professional careers and to provide service to the community.

INTRODUCTION
The Department of Computer Engineering is offering Bachelors of Science in Computer Engineering. The curriculum formulated by HEC and PEC is followed. The department actively organizes special lectures, seminars, trainings, tutorials, and workshops for its students. The Department of Computer Engineering is dedicated towards providing the students the best quality of teaching, state of the art lab facilities, and research and development environment. Our main incentive is to improve and develop the professional and technical skills of our students.
INTRODUCTION
The Bachelor of Science in Computer Engineering provides students with opportunities to achieve comprehensive Engineering Skills to design, construct, implement and perform maintenance of software and hardware components of computer systems and computer controlled equipment. By properly choosing electives in Computer Engineering programs, students can specialize in knowledge areas such as Computer Architecture, System Programming, Robotics, Digital Signal Processing, Real-Time Embedded Systems, Intelligent Systems, Data and Communication Systems, Control Systems, System and Network Programming, Cyber Security, Simulation and Modeling, Micro/Nano Technology and Electronics. Computer Engineers are well prepared to create the wide array of computing systems and devices designed to carry out specific functions in real-time, which operate automobiles, aircrafts, cell phones, security alarm systems, vending machines and medical equipment.

CAREER PROSPECTS
After completion of the degree, the graduating Engineers will have bright careers in industry, academia and banking in areas of Computer Controlled System, Engineering Project Management, System Programming, Software Quality Assurance and Testing, Automation and Robotics, Embedded Systems and Computer Networks, Mobile and Web Computing, Biomedical, Telecommunication and Electronics.

ELECTIVES
• Introduction to Mechatronics
• FPGA-Based System Design
• Embedded System Design
• VLSI Design
• Digital System Design
• Digital Control System
• Linear Control Systems
• Compiler Design
• Parallel and Distributed Computing
• Fault Tolerant Computing
• Software Quality Assurance
• Introduction to Cloud Computing
• Neural Networks and Fuzzy Logic
• Software Project Management
• Machine Interaction and Learning
• Computer and Network Security
• Multimedia Communication
• Wireless and Mobile Communication
• Introduction to MEMS
• Electrical Machines
• Instrumentation & Measurements
• RF and Microwave Engineering
• Wave propagation and Antennas
• Optical Fiber Communication
• Introduction to Nano Technology
• Power Distribution and Utilization
• Electromagnetic Field Theory
• Medical Electronics
• Opto-Electronics
• Introduction to Telecommunications

ROAD MAP

- **SEMESTER 1**
  - Cr. Hr.
  - Applied Physics 4
  - Calculus and Analytical Geometry 3
  - Engineering Drawing 1
  - Digital Signal Processing 4
  - Computer Programming 3
  - Computer Architecture and Organization 4
  - Digital Logic Design 4
  - Data Structures and Algorithms 4
  - Computer Networks 3
  - Microprocessor and Microcontroller Systems 4

- **SEMESTER 2**
  - Cr. Hr.
  - Electrical Network Analysis 4
  - Elective 1 Object Oriented Programming 4
  - WorkShop Practice 1
  - Signals and Systems 4

- **SEMESTER 3**
  -ICENSE 2 Islamic and Pakistan Studies 3
  - Workshop Practice 1
  - Signals and Systems 4

- **SEMESTER 4**
  - Linear Circuit Analysis 4
  - Linear Algebra 3
  - Probability Methods in Engineering 3

- **SEMESTER 5**
  - Linear Algebra 3
  - Probability Methods in Engineering 3

- **SEMESTER 6**
  - Linear Algebra 3
  - Probability Methods in Engineering 3

- **SEMESTER 7**
  - Final Year Project 6
  - Technical Writing and Presentation Skills 3

- **SEMESTER 8**
  - Principles of Management 3
  - Technical Writing and Presentation Skills 3

**TOTAL SEMESTERS 8**

**TOTAL CREDIT HOURS 136**
DEPARTMENT OF TECHNOLOGY

DEGREES OFFERED

• BS Mechanical Technology
• BS Civil Technology
• BS Electrical Technology

MISSION STATEMENT

To produce hands-on skills technical manpower for meeting the current and future demands of industry to recognize education and research in close interaction with industry with emphasis on the development of leadership qualities in aspirants. To generate innovative knowledge by engaging in cutting-edge research and to promote academic growth by offering state-of-the-art undergraduates and postgraduate programs.

INTRODUCTION

The BS-Tech program is an offshoot of general engineering in Electrical, Mechanical and Civil sectors and is geared towards production and catering for the needs of the industry. The design of technology courses is oriented towards learning professional skills. Realizing continuous improvement of existing standards, the department has remodeled its curriculum and other facilities. In this regard, a new strategy is devised for learning process by providing exclusive industrial training to the students. 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.
INTRODUCTION

The mechanical development is a measure of progress of a country. With an ever increasing complexities of technologies, the world is facing an acute shortage of able technologists. The BS-Tech Mechanical program 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.

CAREER PROSPECTS

This course is designed to prepare students for a career as technologists within a broad range of mechanical and manufacturing industries. Employers of our graduates include consultancy services, small enterprise companies and large volume manufacturers. Students are encouraged to undertake projects according to the current industrial needs. The Department organizes project exhibitions for technological exposure which are highly appreciated by the students and visitors from industry.

PROGRAM FACTS

- **Program Duration**: 4 Years
- **Timing**: Morning 08:00 AM to 05:00 PM (Monday-Friday) 
  Evening 05:00 PM to 10:00 PM (Monday-Friday)
- **Entry Requirements**: 12 Years of Education, F.Sc (Pre-Engineering), D.A.E (Mechanical), D.A.E (Production), D.A.E (Refrigeraion and Air Conditioning), D.A.E (Auto Diesel), D.A.E (Metallurgy) 
  A-Level or Equivalent with Minimum 50% Marks. UOL Entry Test is mandatory
- **Location**: Raiwind Road Campus, Lahore.

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ROAD MAP

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<tr>
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<td>Engineering Drawing II</td>
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<td>Machine Design I</td>
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<th>Cr. Hr.</th>
<th>SEMESTER 8</th>
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<td>Heat Transfer</td>
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<td>Machine Design II</td>
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<td>Introduction to Mechantronics</td>
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<td>Metal Cutting and Machinery Tools</td>
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<td>Power Plant Engineering and Energy Resources</td>
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<td>Advance Thermodynamics</td>
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<td>Installation, Testing and Maintenance of Machine</td>
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<td>Environmental Technology for Industries</td>
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<td>Mechanical Vibration</td>
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<td>Refrigeration and Air Conditioning</td>
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<td>Automation and Control</td>
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<td>Islamic and Pakistan Studies</td>
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<td>Industrial Management</td>
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<td>Quality Control and Assurance</td>
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<td>Project</td>
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<td>Occupational Health Safety and Environment</td>
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<td>Training Program 2</td>
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</table>

Total Semesters: 8  
Total Credit Hours: 133

BACHELOR OF SCIENCE IN MECHANICAL TECHNOLOGY (BS-TECH MECHANICAL)
INTRODUCTION
The main emphasis of BS Civil Technology Program is to provide the students with a sound foundation of mathematics and other sciences to utilize their knowledge in solving problems of structure, irrigation and hydraulics, soil mechanics, foundations, highways transportation and environmental engineering. It enables the students to know about the operation and maintenance of projects and gives them on-job training to work independently as well as team member on projects like infrastructure development and repair works of civil engineering. Our students are also trained to use the modern engineering softwares for construction industry.

CAREER PROSPECTS
Students are educated in manner to face various challenges of the modern construction industry utilizing techniques, skills, latest equipment and softwares. Graduated technologists of the department are able to apply their knowledge in firms providing consultancy, construction and designing services. Our graduates are in great demand in local as well as foreign construction projects.

PROGRAM FACTS
- **Program Duration**: 4 Years
- **Timing**: Morning 08:00 AM to 05:00 PM (Monday-Friday) Evening 05:00 PM to 10:00 PM (Monday-Friday)
- **Entry Requirements**: 12 Years of Education, F.Sc (Pre-Engineering), DAE, (Mining / Civil /Architecture), A Level or Equivalent with Minimum 50% Marks. UOL Entry Test is mandatory
- **Location**: Raiwind Road Campus, Lahore.

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Higher Education Commission

BACHELOR OF SCIENCE IN CIVIL TECHNOLOGY (BS-TECH CIVIL)

ROAD MAP

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<th>SEMESTER 3</th>
<th>Cr. Hr.</th>
<th>SEMESTER 4</th>
<th>Cr. Hr.</th>
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<td>Repair and Maintenance of Structures</td>
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<td>Structural Mechanics</td>
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<tr>
<td>Materials and Methods of Construction</td>
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<td>Engineering Geology</td>
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<td>Fluid Mechanics</td>
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<td>Soil Mechanics</td>
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<th>SEMESTER 7</th>
<th>Cr. Hr.</th>
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<td>Irrigation and Hydraulic Structures</td>
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<td>Traffic Engineering</td>
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<td>Steel Structures</td>
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<td>Foundation and Pavement Technology</td>
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<td>Application of GIS in Civil</td>
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<td>Architecture and Town Planning</td>
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<td>Pre-stressed and Pre-cast Concrete Technology</td>
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<td>Computer Aided Analysis and Design</td>
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<td>Project Management</td>
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<td>Final Year Project</td>
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| Training Program 1 | 4 | | | | | | |
INTRODUCTION
The undergraduate BS-Tech Electrical program is based on a solid foundation of all electrical, computer, and electronics 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
BS-Technology (Electrical) is suited to those wishing to pursue a career in telecommunication, power, networking, and other sub categories of these fields. The electrical technologists are in great demand with employers within Pakistan and abroad. Within Electrical Technology, the main employment areas include Electrical Power (generation, transmission and distribution), Power Systems, Electrical Machinery (installation and design), Telecommunication industry, Media like TV and Radio.

PROGRAM FACTS
- **Program Duration**: 4 Years
- **Timing**: Morning 08:00 AM to 05:00 PM (Monday-Friday) Evening 05:00 PM to 10:00 PM (Monday-Friday)
- **Entry Requirements**: 12 Years of Education, F. Sc. (Pre-Engineering), DAE (Electronics, Electrical, Instrumentation, Telecommunication, Computer Technology) A-Level or Equivalent with Minimum 50% Marks. UOL Entry Test is mandatory.
- **Location**: Raiwind Road Campus, Lahore.

RECOGNIZED BY
Higher Education Commission

ROAD MAP

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<th>Total Semesters 8</th>
<th>Total Credit Hours 132</th>
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<tr>
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<td>Applied Calculus</td>
<td>Linear Algebra and Differential Equations</td>
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<td>Computer Fundamentals</td>
<td>Network Analysis I</td>
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<td>Communication Systems I</td>
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<td>Electromagnetic Field Theory</td>
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<td>Advance Electronics</td>
<td>Power Transmission and Distribution</td>
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<td>Power Generation and Utilization</td>
<td>Total Quality Management</td>
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<td>Electrical Machines</td>
<td>Occupational Health Safety and Environment</td>
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<td>Foundation of Engineering</td>
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DEPARTMENT OF ELECTRONICS AND ELECTRICAL SYSTEMS

DEGREES OFFERED

• BS Electronics and Electrical Systems
• BS Power and Energy Systems
• BS Electronics and Communication
• BS Communication and Information Technology
• MS Electronics and Electrical Systems

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 gate 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 top-notch faculty is well-versed in their respective fields and our teaching methods comply with international standards.
INTRODUCTION
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.

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

CAREER PROSPECTS
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.

BACHELOR OF SCIENCE IN ELECTRONICS AND ELECTRICAL SYSTEMS (BSEES)

PROGRESS FACTS
- Program Duration: 4 Years
- Timing: Morning 08:00 AM to 05:00 PM (Monday-Friday)
- Entry Requirements: 12 Years of Education, F. Sc. (Pre-Engineering), DAE (Electronics, Electrical, Instrumentation, Telecommunication, Computer Technology) A-Level or Equivalent with Minimum 45% Marks. UOL Entry Test is mandatory
- Location: Raiwind Road Campus, Lahore.

RECOGNIZED BY
Higher Education Commission

ROAD MAP

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<th>SEMESTER</th>
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COURSES LIST

COMMUNICATION
- 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

POWER
- Power systems
- Power system protection
- Power system analysis
- High voltage engineering
- Industrial electric power systems
- Electric power quality
- Power system stability
- Power system dynamics
- Power plants
- Nuclear power systems
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 different infrastructures, demands and opportunities regarding power and energy systems. 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. 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. Bachelor of Science in Power and Energy prepares students for professional careers across the country.

PROGRAM FACTS

- **Program Duration**: 4 Years
- **Timing**: Morning 08:00 AM to 05:00 PM (Monday-Friday)
- **Entry Requirements**: 12 Years of Education, F. Sc. (Pre-Engineering), DAE (Electronics, Electrical, Instrumentation, Telecommunication, Computer Technology) A-Level or Equivalent with Minimum 45% Marks. UOL Entry Test is mandatory
- **Location**: Rawwind Road Campus, Lahore.

RECOGNIZED BY
Higher Education Commission

ROAD MAP

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<tr>
<th>SEMESTER 1</th>
<th>Cr. Hr.</th>
<th>SEMESTER 2</th>
<th>Cr. Hr.</th>
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<th>Cr. Hr.</th>
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<td>Instrumentation and Measurement</td>
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- **Total Semesters**: 8
- **Total Credit Hours**: 135

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<td>Alternate Energy Resources</td>
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COURSES LIST

**POWER SYSTEM**
- Industrial electric power systems
- Electric power quality
- Power system stability
- Power system dynamics
- Smart grids
- Nuclear power systems
- High voltage engineering

**ENERGY SYSTEM**
- Hybrid Energy Systems
- Air Pollution And Global Warming
- Geothermal Reservoirs Systems
- Emerging Energy Technologies
- Fuel Cell Fundamentals

THE UNIVERSITY OF LAHORE
INTRODUCTION

This program is a unique blend of Electronics and Communication curricula. The aim of this program is to equip students with state of the 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 based as well as hardware based solutions to the vast industry of Electronics, Automation (Control Systems and Embedded Systems Design) and Communication.

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.

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COURSES LIST

ELECTRONICS & COMMUNICATION

• Digital Communication
• Introduction to Telecom Systems
• Antenna Engineering
• Optical Fiber Communication
• Telecom Switching
• Advance Networks
• Mobile Communication
• Embedded Systems Design
• Microwave Engineering-I
• Microwave Engineering-II
• Wireless Communication
• Digital Image Processing
• Medical Electronics
INTRODUCTION
The Bachelor of Science in Communication and Information Technology is a professional four-year degree 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, integrate and innovate.

CAREER PROSPECTS
As 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, systems developer, and information systems manager.

BACHELOR OF SCIENCE IN COMMUNICATION AND INFORMATION TECHNOLOGY (BSCIT)

PROGRAM FACTS
• Program Duration 4 Years
• Timing Morning 08:00 AM to 05:00 PM (Monday-Friday)
• Entry Requirements
  12 Years of Education, F. Sc. (Pre-Engineering), ICS (Math and Physics), DAE (Electronics, Electrical, Instrumentation, Telecommunication, Computer Technology) A-Level or Equivalent with Minimum 45% Marks. UOL Entry Test is mandatory
• Location Raiwind Road Campus, Lahore.

RECOGNIZED BY
Higher Education Commission

COURSES LIST
COMMUNICATION
• Wireless communication
• Telecom switching
• Mobile communication
• Optical fiber communications
• Microwave engineering I
• Microwave engineering II
• Digital communication
• Medical electronics
• Introduction to telecom systems

INFORMATION TECHNOLOGY
• Distributed database systems
• Artificial intelligence
• Mobile application development
• Web programming
• Advance networks
• Embedded system design
• Object oriented analysis and design
• System programming

ROAD MAP
Total Semesters 8 Total Credit Hours 136

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<tr>
<th>SEMESTER 1</th>
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<td>Discrete Structures</td>
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THE UNIVERSITY OF LAHORE
INTRODUCTION
The MSEES program offered at the University of Lahore has been designed for professionals working in the industry willing to enhance their technical skills and knowledge for career advancement. It prepares individuals to apply advanced Mathematical and Scientific principles to the design, development and operational evaluation of electronics and communication systems. The degree program focuses on developing the skills required to design electronics & communication solutions that meet industrial, military and international technical standards. Students are required to design, manufacture and deliver a working product that meets these industry standards.

CAREER PROSPECTS
After completing the degree, student can work in Mobile Services Provider, Internet Services Providers, Network Operators, R.F Planning and Optimization, TV Channels, Research and Development Organizations.

MASTER OF SCIENCE IN ELECTRONICS AND ELECTRICAL SYSTEMS (MSEES)

PROGRAM FACTS
- Program Duration: 2 Years
- Timing: Evening 6:00 PM - 9:00 PM (Monday to Friday)
- Entry Requirements:
  - 16 Years of Education, BS (Electrical Engg. Electronics Engg. Telecom Engg. Computer Engg. Communication Engg) BS Electronics / BS Telecom / B.Tech (Hons)/BS Computer Science from HEC recognized university with 2.5 CGPA (Semester System) or 60% Annual System.
  - UOL Interview and entry test & GAT validity two years arranged by NTS
- Location: Raiwind Road Campus, Lahore.

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Higher Education Commission

CORE COURSES
COMMUNICATION
- Mathematical methods for engineers
- Stochastic processes
- Digital communication system
- Advanced digital signal processing
- Advanced computer network
- Research thesis

POWER SYSTEM
- Mathematical methods for engineers
- Advanced power system protection
- Power system quality, reliability and planning
- Power circuit breakers and substations
- Advanced high voltage engineering
- Research thesis

ELECTIVES
COMMUNICATION
- 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

POWER SYSTEM
- 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 & control

ROAD MAP

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<th>TOTAL CREDIT HOURS 30</th>
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DEPARTMENT OF
COMPUTER SCIENCE & INFORMATION TECHNOLOGY

DEGREES OFFERED
• BS Computer Science
• BS Software Engineering
• BS Information Technology
• MS Computer Science
• Ph.D Computer Science

MISSION STATEMENT
Our mission is to provide outstanding education to 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 at competitive positions in market. Moreover, we ensure that our students acquire detailed knowledge with analysis capability that 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, E-Governance, Software Engineering & networking etc.
INTRODUCTION

The Bachelor of Science in Computer Science is a professional degree program aimed at producing the graduates for the job market as software engineers, entrepreneur and academia professionals. This program is tailored to introduce, prepare, develop and ingrain the understanding of computing discipline 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 problem-solving abilities for both the industry and government sector. It enables students to analyse the real life problems and transform them into a suitable abstract model, design an optimal algorithm and successfully implement them using latest tools and technologies.

CAREER PROSPECTS

This program is designed to prepare our students for a career as Software Engineers, Database Designers and Administrators, Web Engineers, Software Quality Assurance, and Computer Professionals in various government or private organizations.

ELECTIVES

- Advance Software Engineering
- Java Software Paradigm
- Software Testing and Implementation
- Software Project Management
- Data Warehousing and Data Mining
- Database Application Design
- Distributed Database Systems
- Database Operations and Maintenance
- Data and Network Security
- Wireless Networks
- Internet Architecture and 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
- Principle of Marketing
- Economics
- Psychology
- International Relations
- Foreign/Regional Language (French, German, Sindhi, Punjabi, Urdu etc.)
- Philosophy
- Principle of Management
- Organization Behavior and Culture
- Geographical Information Systems
- Introduction to Graph Theory
- Business Intelligence
- Enterprise Resource Planning
- Entrepreneurship
- Financial Accounting
- Financial Management
- Software Design and Architecture
- Introduction to Semantic Technologies
- Data Mining

PROGRAM FACTS

- **Program Duration**: 4 Years
- **Timing**: Morning 08:00 AM to 05:00 PM (Monday-Friday)
- **Entry Requirements**: 12 Years of Education, Intermediate, F.Sc / ICS / I.Com, A-Levels, DAE or equivalent (Minimum 50% marks)
- **Location**: Defence Road Campus, Lahore.

RECOGNIZED BY

Higher Education Commission
National Computing Education & Accreditation Council (NCEAC)

ROAD MAP

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TOTAL SEMESTERS 8 | TOTAL CREDIT HOURS 134
INTRODUCTION

The Bachelor of Science in Software Engineering program is a professional degree program aimed at producing the graduates with the complete understanding of the systematic and disciplined approach to develop software. It applies both computer science and engineering principles for the creation, operation, and maintenance of software systems. We offer market-oriented courses as indicated in the program course description. To achieve the objective of producing highly talented software engineers, our program inculcates in the students the ability to advance the technologies, expertise, skills and get them equipped with creative brilliance. It enables students to apply and bring together the theoretical and practical work found in a software industry. Moreover, it develops creative and innovative ideas and present their utility through trial applications and prototypes.

CAREER PROSPECTS

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

ELECTIVES

- Software Metrics
- Software Engineering Economics
- Information System
- Business Process
- Design Patterns
- Software Testing & Implementation
- Formal Methods
- PSP and TSP
- Distributed Computing
- Introduction to Soft Computing
- Real-time Systems
- Data Warehousing and Data Mining
- Artificial Intelligence
- Data Security and Encryption
- Automata Theory and Formal Languages
- Microprocessor Interfacing
- Analysis of Algorithms
- Principles of Programming Languages
- Computer Graphics
- Artificial Neural Networks
- Advanced Database Management Systems
- Bio-Informatics
- Web-Engineering
- Advanced Calculus
- Numerical and Symbolic Computing
- Stochastic Processes
- Physics-II (Mechanics)
- Bio-Chemistry
- Biological genetics
- Digital Electronics
- Computational Linear Algebra
- Mathematical Tools for Software Engineering
- Operation Research
- Simulation and Modeling
- Natural Language Processing
- Computer Organization and Assembly Language
- Theory of Automata & Formal Languages
- Design and Analysis of Algorithms
- Computer Architecture
- Compiler Construction
- Advanced Software Development
- Java Software Development Paradigm
- Distributed Database Systems
- Database Operations & Maintenance
- Database Application Design
- Data & Network Security
- Wireless Networks
- Internet Architecture & Protocol
- Digital Image Processing
- Expert Systems
- Intelligent Systems
- Mobile Application Development
- Financial Accounting
- Financial Management
- Human Resource Management
- Principles of Marketing
- Economics
- Psychology
- International Relations
- Foreign/Regional Language (French, German, Sindhi, Punjabi, Urdu etc.)
- Philosophy
- Principles of Management
- Organization Behavior and Culture
- Geographical Information Systems
- Introduction to Graph Theory
- Business Intelligence
- Entrepreneurship
- Personal Growth & Development

ROAD MAP

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<th>SEMESTER</th>
<th>Cr. Hr.</th>
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<td>Programming Fundamentals-II</td>
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<td>Supporting Electives - I</td>
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<td>Linear Algebra</td>
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<td>English Composition &amp; Comprehension</td>
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<td>Communication Skills</td>
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<td>Supporting Electives - I</td>
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<td>University Elective-I</td>
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<td>University Elective-II</td>
<td>3</td>
<td>University Elective-III</td>
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<td>Database Systems</td>
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<td>Software Architecture &amp; Design</td>
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<td>Software Verification &amp; Validation</td>
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<td>Software Requirement &amp; Specification</td>
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<td>SE Application Domain Elective - II</td>
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<td>University Elective-IV</td>
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<td>Management Systems</td>
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<td>Principles of Marketing</td>
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<td>Economics</td>
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<td>Principles of Management</td>
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<td>Philosophy</td>
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<td>Organization Behavior and Culture</td>
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<td>Geographical Information Systems</td>
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<td>Introduction to Graph Theory</td>
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<td>Business Intelligence</td>
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<td>Entrepreneurship</td>
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<td>Personal Growth &amp; Development</td>
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<td>Total Semesters</td>
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<td>Total Credit Hours</td>
<td>136</td>
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</table>

PROGRAM FACTS

- Program Duration: 4 Years
- Timing: Morning 08:00 AM to 05:00 PM (Monday-Friday)
- Entry Requirements: 12 Years of Education, Intermediate, F.Sc / ICS / I.Com, A-Levels, DAE or equivalent (Minimum 50% marks)
- Location: Defence Road Campus, Lahore.
INTRODUCTION
The Bachelor of Science in Information Technology program is a professional degree program aimed at producing the graduates with the necessary skills in information security, network architecture, database administration, systems administration and computer support. We offer market-oriented courses as indicated in the program course description. To achieve the objective of producing highly talented IT professionals, our program inculcates in the students to stay up-to-date of new technology and they must be familiar with how to use operating systems, networks, servers and software. It enables students to apply and bring together the theoretical and practical work found in an IT industry. Moreover, it develops creative and innovative ideas and present their utility in installing and using enterprise software systems, administrator databases, and maintain networks.

CAREER PROSPECTS
This program is designed to prepare our students for a career as IT Managers, IT Consultants; System Analysts, Software Architects, Network and Database Administrator, and Project Managers. IT professionals will help in the development, operation, maintenance, and up-gradation of IT infrastructure of an organization in private or government sector.

PROGRAM FACTS
- Program Duration: 4 Years
- Timing: Morning 08:00 AM to 05:00 PM (Monday-Friday)
- Entry Requirements: 12 Years of Education, Intermediate, F.Sc / ICS / I.Com, A-Levels, DAE, FA with Math or equivalent (Minimum 50% marks)
- Location: Defence Road Campus, Lahore.

RECOGNIZED BY
Higher Education Commission

BACHELOR OF SCIENCE IN INFORMATION TECHNOLOGY (BSIT)

ROAD MAP

<table>
<thead>
<tr>
<th>SEMESTER 1</th>
<th>Cr. Hr.</th>
<th>SEMESTER 2</th>
<th>Cr. Hr.</th>
<th>SEMESTER 3</th>
<th>Cr. Hr.</th>
<th>SEMESTER 4</th>
<th>Cr. Hr.</th>
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</thead>
<tbody>
<tr>
<td>Programming Fundamentals</td>
<td>4</td>
<td>Basic Electronics</td>
<td>3</td>
<td>Object Oriented Programming</td>
<td>4</td>
<td>Data Structures and Algorithms</td>
<td>3</td>
</tr>
<tr>
<td>Calculus and Analytical Geometry</td>
<td>3</td>
<td>Technical &amp; Business Writing</td>
<td>3</td>
<td>Computer Communication &amp; Networks</td>
<td>3</td>
<td>Internet Architecture &amp; Protocols</td>
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</tr>
<tr>
<td>Information &amp; Communication Technology</td>
<td>3</td>
<td>Linear Algebra</td>
<td>3</td>
<td>Discrete Structures</td>
<td>3</td>
<td>Multimedia Systems &amp; Design</td>
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<tr>
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<td>Pakistan Studies</td>
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<td>Information Systems</td>
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<td>University Elective-III</td>
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<td>English Composition &amp; Comprehension</td>
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<td>Computer Communication &amp; Networks</td>
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<td>Digital Logic Design</td>
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<td>University Elective-III</td>
<td>3</td>
</tr>
</tbody>
</table>

**ELECTIVES**
- Telecommunication Systems
- Routing & Switching
- Network Design and Management
- Network Programming
- Computer Game Development
- Multimedia Technologies
- 3D Modeling & Animation
- Mobile Computing
- Software Agents Technology
- E-Commerce Applications Development
- Enterprise Application Development
- Distributed Computing
- Mobile Application Development
- Web Engineering
- Data Warehousing
- Data Mining
- Business Intelligence and Analytics
- Distributed Database Systems
- Enterprise Resource Planning Systems
- Information Systems Auditing and Assurance
- Business Process Management
- Knowledge Management
- Artificial Intelligence
- Formal Methods in Software Engineering
- Software Requirement Engineering
- Software Design and Architecture
- Software Quality Engineering
- Software CASE Tools & Applications
- Software Construction
- Software Engineering Economics
- Design Patterns
- Service-Oriented Architecture
- Computer Graphics
- Biostatistics
- Biometric Systems

**TOTAL SEMESTERS 8**

**TOTAL CREDIT HOURS 137**
INTRODUCTION

This program is designed to produce graduates with specialized knowledge in Computer Science. Therefore, the masters program in Advanced Computer Sciences covers the major topics in Computer Science. The course work is a right mix of theoretical and practical work which is aimed at providing its graduates the necessary skills in Computer Sciences to excel in their professional lives. It is our mission that the department must serve a wide stream of students, which will undoubtedly be arriving with varying backgrounds and objectives. For this reason, the program 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 the 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 engineer, database administrators and designers, e-commerce specialists, network specialists, and software project managers.

DOCTOR OF PHILOSOPHY IN COMPUTER SCIENCE (Ph.D)

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.

CORE COURSES

- Advanced Algorithm Analysis
- Advanced Theory of Computation

ELECTIVES

- Software System Design & Architecture
- Topics in Software Engineering
- Object Oriented Software Engineering
- Software Quality Assurance
- Advanced Computer Networks
- Network Security & Cryptography
- Internet Technologies & Protocols
- Advanced Databases
- Object Oriented Databases
- Data Mining
- Advanced Wireless Networks
- Software Evolution & Maintenance
- Advanced Software Engineering
- Advanced Operating Systems
- Research Methods
- Advanced Requirement Engineering
- Theory of Programming Languages
- Machine Learning
- Semantic Technologies
- Advanced Artificial Intelligence
- Advanced Human Computer Interaction
- Human Factors and Ergonomics
- Multimedia Information Processing
- Computer Ethics
- Advanced Computer Architecture

PROGRAM FACTS

- Program Duration: 3 Years
- Timing: 06:00 pm – 09:00 pm (Monday to Friday)
- Entry Requirements: 16 years of education. MS/M.Phil degree in the relevant field (with at least 6 credit hours thesis) from HEC recognized University/Institute. CGPA 3.0 (out of 4.0 in the Semester System) or First Division (in the Annual System)
- Location: Defence Road Campus, Lahore.

RECOGNIZED BY

Higher Education Commission

THE UNIVERSITY OF LAHORE

THE UNIVERSITY OF LAHORE

COMPUTER SCIENCE

DOCTOR OF PHILOSOPHY IN

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THE UNIVERSITY OF LAHORE

- Lahore Business School
- Lahore School of Professional Studies
- Lahore School of Aviation

MANAGEMENT SCIENCES
LAHORE BUSINESS SCHOOL (LBS)

DEGREES OFFERED

BBA (4 Years)
Specialization
- Marketing
- Finance
- Human Resource Management
- Supply Chain Management

MBA (3.5 Years)
Specialization
- Marketing
- Finance
- Human Resource Management
- Supply Chain Management
- Consulting Management & Strategy
- Project Management
- Innovation & Entrepreneurship

MBA (2.5 Years)
Specialization
- Marketing
- Finance
- Human Resource Management
- Supply Chain Management
- Consulting Management & Strategy
- Project Management
- Innovation & Entrepreneurship

MBA Executive (2 Years) - Evening
Specialization
- Marketing
- Finance
- Human Resource Management
- Supply Chain Management
- Consulting Management & Strategy
- Project Management
- Innovation & Entrepreneurship

M. Phil Management Sciences

Ph.D Management Sciences

Note for M.Phil & Ph.D:
The student can write the thesis in any field of management with the permission of synopsis committee / the supervisor

MISSION STATEMENT

The School’s approach holds a sharp focus on coaching our business graduates to innovate and handle complexity in a changing business landscape. We build capacities of future leaders in character and values by inculcating personal and shared ethics. Our prime and distinct endeavor is to foster students with a holistic pursuit of excellence by leveraging teaching, research, and entrepreneurial orientation for innovative productivity gains in all areas of education, social and economic domains.

INTRODUCTION

We welcome you to Lahore Business School (LBS) at the University of Lahore. Since its establishment in 1999, LBS has achieved impressive milestones by producing accomplished professionals who have made a best fit with public and corporate world in a highly professional manner. We, at LBS, believe in applied learning experience and development of hands-on problem solving skills, which make our degree programs challenging, interesting, and rewarding. All degrees at LBS are accredited by National Business Education Accreditation Council (NBEAC). We have a state-of-the-art library with 16,000 books and a sizable quantity of academic journals. In addition, we have access to the best on-line research portals to help our students in their research. LBS has strength of over 1500 students in undergraduate, graduate and postgraduate business and research programs. We have professional and highly qualified faculty with academic and industrial experience. We are committed to academic excellence in transforming the business education and preparing our students to briskly fit into a variety of emerging leadership roles with a knack to tackle critical issues that intrigue the management arena in the contemporary business world. We invite you to come in LBS and see what we are doing for excellence of our youth. We also welcome you in this journey of learning for joining hands with us to bring prosperity to our nation.
INTRODUCTION
The Bachelor 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 introduces 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 entrepreneurship. Specialization options currently include Finance, Marketing & Human Resource. You will have an opportunity to deepen your understanding of business ventures in the Entrepreneurship course, which introduces setting up new 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 MBA.

PROGRAM FACTS
- Program Duration: 4 Years
- Timing: 08:00 AM to 05:00 PM (Monday-Friday)
- Entry Requirements: 12 Years of Education, F.A / FSc. / I.Com or equivalent GCE, A Level with at least three subjects, with an average of C grade, from HEC recognized university / college Minimum 2nd division
- Location: Defence Road Campus, Lahore.

RECOGNIZED BY
Higher Education Commission
National Business Accreditation Council

ROAD MAP
Total Semesters 8
Total Credit Hours 136

SEMMESTER 1
Cr. Hr.
Introduction to Business 3
Psychology 3
Human Resource Management 3
SEMMESTER 2
Cr. Hr.
Principles of Management 3
Organization Behavior 3
Sociology 3
SEMMESTER 3
Cr. Hr.
Accounting I 3
Accounting II 3
Cost Accounting 3
SEMMESTER 4
Cr. Hr.
Business English I 3
Micro Economics 3
Macro Economics 3
SEMMESTER 5
Cr. Hr.
Business Computing 3
Business English II 3
Quantitative Techniques in Research Methods 3
SEMMESTER 6
Cr. Hr.
Business Mathematics 3
Business Statistics 3
Principles of Marketing 3
SEMMESTER 7
Cr. Hr.
Environmental Sciences 3
Fundamentals of Project Management 3
SEMMESTER 8
Cr. Hr.
Development Economics 3
Business law & Taxation 3

ELECTIVES
AREAS OF SPECIALIZATION
HUMAN RESOURCE MANAGEMENT
- Leadership and Change Management
- Reward and Compensation Management
- Labor Law and Legal Issues in HR
- Training and Employee Development
- Organization Behavior
- Human Resource Information System
- Employee Performance Management
- Conflict Management
- Negotiation and Counselling

MARKETING
- Brand Management
- New Product Development
- Advertising and Promotional Strategy
- Product and Pricing Strategy
- Media Marketing
- International Marketing
- Industrial Marketing
- Entertainment Marketing

FINANCE
- Corporate Finance
- Financial Statement Analysis
- Portfolio Theory and Management
- Financial Markets and Institutions
- Islamic Banking and Finance
- International Finance
- Financial Risk Management
- Security Analysis
- Entrepreneurial Finance
- Audit and Assurance
- Performance Management

SUPPLY CHAIN MANAGEMENT
- Logistics and Shipping Management
- Procurement Management
- Storage and Warehousing Techniques
- Material Handling and Inventory Planning
- Transportation Techniques and Management
- Distribution Network Designing
- Globalization and Outsourcing
- Supply Chain Design and Performance

Note: Summer Semester Internship (Credit Hours 4)
The Master of Business Administration is one of the most sought-after qualifications in the industry. Professionals in the field of engineering, science, arts, commerce, medical, etc. aspire for this qualification. 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 as middle management positions in finance, human resource management, and marketing and operations departments.

**CAREER PROSPECTS**

You will receive a comprehensive business education and develop critical and creative thinking skills that enable you to challenge your abilities, and realize your maximum potential. The 3.5 years MBA program helps students develop knowledge and key business skills. MBAs are therefore able to give strategic insights and be leaders of their organizations.

**INTRODUCTION**

The 3.5 years MBA program helps students develop knowledge and key business skills. MBAs are therefore able to give strategic direction, influence people and make good use of financial, technical, and human resources. Our MBA program will help you develop critical and creative thinking skills that enable you to challenge your abilities, and realize your maximum potential. You will receive a comprehensive business education and choose a core business area of specialization.

**ROAD MAP**

<table>
<thead>
<tr>
<th>SEMESTER 1</th>
<th>Cr. Hr.</th>
<th>SEMESTER 2</th>
<th>Cr. Hr.</th>
<th>SEMESTER 3</th>
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<th>SEMESTER 4</th>
<th>Cr. Hr.</th>
<th>SEMESTER 5</th>
<th>Cr. Hr.</th>
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</thead>
<tbody>
<tr>
<td>Principles of Management</td>
<td>3</td>
<td>Leadership &amp; Organizational Behavior</td>
<td>3</td>
<td>Business Decision Analysis</td>
<td>3</td>
<td>Consumer Behavior</td>
<td>3</td>
<td>Project Management</td>
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<tr>
<td>Financial Accounting</td>
<td>3</td>
<td>Marketing</td>
<td>3</td>
<td>Business Finance</td>
<td>3</td>
<td>Innovation &amp; Entrepreneurship</td>
<td>3</td>
<td>Corporate Law &amp; Taxation</td>
<td>3</td>
</tr>
</tbody>
</table>

**ELECTIVES**

- **MARKETING**
  - Integrated Marketing Communication
  - Marketing Planning and Program
- **FINANCE**
  - Strategic Finance
  - Risk Management and Derivatives
- **SUPPLY CHAIN MANAGEMENT**
  - Supply Chain Quality Assurance
  - Shipping and Maritime Management

**AREAS OF SPECIALIZATION**

**HUMAN RESOURCE MANAGEMENT**

- Organizational Dynamics
- Job Analysis Practices
- Industrial Relations
- Human Resource System Development
- Industrial Psychology
- Global Human Resource Management
- Human Resource Analytics—Investing in People
- Safety and Health Management at Workplace

**MARKETING**

- Integrated Marketing Communication
- Marketing Planning and Program
- Retail Marketing
- Strategic Brand Management
- Real Estate Marketing
- Global Marketing
- Online and Social Media Marketing
- Tourism, Sports and Leisure Marketing

**FINANCE**

- Strategic Finance
- Risk Management and Derivatives
- Issues in Financial Reporting
- International Financial Management
- Behavioral Finance
- Valuation
- Investment Analysis & Portfolio Management
- Mergers and Acquisitions
- Advance Audit and Assurance
- Advance Performance Management
- Finance for Entrepreneurs

**SUPPLY CHAIN MANAGEMENT**

- Supply Chain Quality Assurance
- Shipping and Maritime Management
- Strategic Distribution Networks
- Logistics Management
- Vendor Management

**INNOVATION AND ENTREPRENEURSHIP**

- Social Entrepreneurship
- Entrepreneurship Technology and Non-Technology Streams
- Intrapreneurship
- New Venture Valuation
- Business Incubation and Innovation

**CONSULTING MANAGEMENT AND STRATEGY**

- Strategic Human Resource Management
- Multinational National Enterprises and Trading Environment
- E-Business Strategy
- Intellectual Property and Business Strategy
- Entrepreneurial Financial Management

**PROJECT MANAGEMENT**

- Leading and Managing Project Teams
- Project and Portfolio Management in Organizations
- Planning for Risk, Uncertainty and Complexity
- Project Cost and Benefit Analysis
- Project Total Quality Management
- Project Appraisals and Selection
- Spreadsheet Modelling and Advanced Decision Analysis
- Project Monitoring and Evaluation
BUSINESS ADMINISTRATION

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, medical, etc aspire for this qualification. MBA graduates are generally required by organizations for entry-level as well as middle management positions in finance, human resource management, marketing, Supply Chain departments.

PROGRAM FACTS
- **Program Duration**: 2.5 Years
- **Timing**: 08:30 AM to 05:00 PM (Monday-Friday)
- **Entry Requirements**: 16 Years of Education, 4 year BA / BS / BSc non-business or non-commerce or equivalent degree from HEC recognized university / college. Minimum CGPA 2.50 or 1st division
- **Location**: Defence Road Campus, Lahore.

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Higher Education Commission
National Business Accreditation Council

ELECTIVES

AREAS OF SPECIALIZATION

HUMAN RESOURCE MANAGEMENT
- Organizational Dynamics
- Job Analysis Practices
- Industrial Relations
- Human Resource System Development
- Industrial Psychology
- Global Human Resource Management
- Human Resource Analytics-Investing in People
- Safety and Health Management at Workplace

MARKETING
- Integrated Marketing Communication
- Marketing Planning and Program
- Retail Marketing
- Strategic Brand Management
- Real Estate Marketing
- Global Marketing
- Online and Social Media Marketing
- Tourism, Sports and Leisure Marketing

FINANCE
- Strategic Finance
- Risk Management and Derivatives
- Issues in Financial Reporting
- International Financial Management
- Behavioral Finance
- Valuation
- Investment Analysis & Portfolio Management
- Mergers and Acquisitions
- Advance Audit and Assurance
- Advance Performance Management
- Finance for Entrepreneurs

INNOVATION AND ENTREPRENEURSHIP
- Social Entrepreneurship
- Innovation and Entrepreneurship
- Technology and Non-Technology Ventures
- Intrapreneurship
- New Venture Valuation
- Business Incubation and Innovation

SUPPLY CHAIN MANAGEMENT AND STRATEGY
- Supply Chain Quality Assurance
- Shipping and Maritime Management
- Strategic Distribution Networks
- Logistics Management
- Vendor Management
- Strategic Supply Chain
- Demand Operations and Inventory Planning
- Lean Operations

PROJECT MANAGEMENT
- Leading and Managing Project Teams
- Project and Portfolio Management in Organizations
- Planning for Risk, Uncertainty and Complexity
- Project Cost and Benefit Analysis
- Project Total Quality Management
- Project Appraisals and Selection
- Spreadsheet Modeling and Advance Decision Analysis
- Project Monitoring and Evaluation

ROAD MAP

<table>
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<th>SEMESTER</th>
<th>Cr. Hr.</th>
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<td>Project Management 3</td>
<td>Strategic Marketing 3</td>
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<td>Cost Accounting 3</td>
<td>Financial Management 3</td>
<td>Corporate Law &amp; Taxation 3</td>
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<td>Business Economics 3</td>
<td>Research Methods 3</td>
<td>Supply Chain Management 3</td>
<td>Electives-I 3</td>
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<td>Innovations &amp; Entrepreneurship 3</td>
<td>Consulting Management 3</td>
<td>Electives-II 3</td>
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<td>Elective-III 3</td>
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<tr>
<td>Elective-IV 3</td>
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</table>
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 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 MBA 1.5 years is an extensive course driven degree program that can lead to Ph.D. It is designed to equip students with advanced knowledge of core areas of management, HRM, marketing and finance. Graduates of this program find themselves at the upper management positions.

AREAS OF SPECIALIZATION

**ELECTIVES**

**HUMAN RESOURCE MANAGEMENT**
- Organizational Dynamics
- Job Analysis Practices
- Industrial Relations
- Human Resource System Development
- Industrial Psychology
- Global Human Resource Management
- Human Resource Analytics-
  Investing in People
- Safety and Health Management at Workplace

**MARKETING**
- Integrated Marketing Communication
- Marketing Planning and Program
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**FINANCE**
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- Issues in Financial Reporting
- International Financial Management
- Behavioral Finance
- Valuation
- Investment Analysis & Portfolio Management
- Mergers and Acquisitions
- Advance Audit and Assurance
- Advance Performance Management
- Finance for Entrepreneurs

**SUPPLY CHAIN MANAGEMENT**
- Supply Chain Quality Assurance
- Shipping and Maritime Management
- Strategic Distribution Networks
- Logistics Management
- Vendor Management
- Strategic Supply Chain
  Demand Operations and Inventory Planning
- Lean Operations

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<thead>
<tr>
<th>SEMESTER 1</th>
<th>Cr. Hr.</th>
<th>SEMESTER 2</th>
<th>Cr. Hr.</th>
<th>SEMESTER 3</th>
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<td>Supply Chain Applications</td>
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<td>Interview &amp; Presentation Skills</td>
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<td>Dissertation/Business Project</td>
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**TOTAL SEMESTERS 3**

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<tr>
<td>Advance Financial Management</td>
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<td>Strategic Marketing</td>
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<tr>
<td>Supply Chain Applications</td>
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<tr>
<td>Knowledge Management</td>
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</tbody>
</table>

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**PROGRAM FACTS**

**FINANCE**
- Strategic Finance
- Risk Management & Derivatives
- Issues in Financial Reporting
- International Financial Management
- Behavioral Finance
- Valuation
- Investment Analysis & Portfolio Management
- Mergers and Acquisitions
- Advance Audit and Assurance
- Advance Performance Management
- Finance for Entrepreneurs

**SUPPLY CHAIN MANAGEMENT**
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**ELECTIVES**

- Integrated Marketing Communication
- Marketing Planning and Program
- Retail Marketing
- Strategic Brand Management
- Real Estate Marketing
- Global Marketing
- Online and Social Media Marketing
- Tourism, Sports and Leisure Marketing

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**MASTER OF BUSINESS ADMINISTRATION (MBA 1.5 YEARS)**

**INTRODUCTION**

The program aims to help students build skills and learn methodologies for designing and implementing organizational transformation projects. Students will have a portfolio of much sought-after recognized skills highly-valued in today's business world. The goal of this specialized Master is to train students in corporate consulting and intervention professions.

Those responsible for planning and implementing large-scale projects for businesses must have both organizational and managerial expertise, and also the capacity to build a clear strategic vision for the company in an innovative context. The Strategy Concentration is designed to equip students with the core concepts, frameworks and techniques of strategic management that are essential to a career in consulting and beneficial to a leadership role in any field. Courses are analytical and focus on senior management decisions that enhance profit maximization while taking into account the competitive response to those decisions.

**CAREER PROSPECTS**

This program is designed for future consultants in manufacturing and service industries. Management consulting is a broad profession and the range of services provided by consultants is spread across diverse areas of management such as general and strategic management, human resource management, operations management, performance management, change management and organizational development. The program provides students with the skills to analyze strategic barriers and drive change from within and outside organizations, building on core knowledge in corporate strategy, economic analysis and logistical processes. The program will develop your talent to achieve lasting career success in a rapidly changing world.

**ROAD MAP**

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<thead>
<tr>
<th>SEMESTER 1</th>
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**PROGRAM FACTS**

**FINANCE**
- Strategic Finance
- Risk Management & Derivatives
- Issues in Financial Reporting
- International Financial Management
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- Investment Analysis & Portfolio Management
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**ELECTIVES**

- Integrated Marketing Communication
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- Tourism, Sports and Leisure Marketing

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**THE UNIVERSITY OF LAHORE**
INTRODUCTION

The fundamentals of entrepreneurship and innovation are the vital tools to succeed in the business world. This program provides students with a valuable insight into the theory and practice of entrepreneurship and innovation, consulting management, project management, entrepreneurial finance and research. Additionally, students will also cover applicable elements to starting their own ventures, ranging from the idea generation to commercialization. The goal of this program is for the students to learn, create, build and operate profitable and feasible business ideas.

CAREER PROSPECTS

The program prepares students for successful careers in innovation-related roles in established organizations, entrepreneurial finance, or in the creation of new ventures. The top executives from the leading companies recognize the need for the employees who can evaluate opportunities and manage the process of innovation in positions such as strategic marketing, product marketing, business development, engineering, research and development (R&D), and project management. The program develops your capacity to start, accelerate and maintain innovation in organizations, from entrepreneurial start-ups to multi-national market leaders. In addition to a rigorous curriculum and an exceptional classroom entrepreneurial start-ups to multi-national market leaders. In addition to a rigorous curriculum and an exceptional classroom entrepreneurial start-ups to multi-national market leaders.

The program educates students in planning for and achieving innovation-related roles in established organizations, entrepreneurial finance, or in the creation of new ventures. The top executives from the leading companies recognize the need for the employees who can evaluate opportunities and manage the process of innovation in positions such as strategic marketing, product marketing, business development, engineering, research and development (R&D), and project management. The program develops your capacity to start, accelerate and maintain innovation in organizations, from entrepreneurial start-ups to multi-national market leaders. In addition to a rigorous curriculum and an exceptional classroom entrepreneurial start-ups to multi-national market leaders.

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CAREER PROSPECTS

An MBA in Project Management is a good degree option for a number of reasons. It is particularly attractive for employers in engineering, information technology, healthcare, pharmaceuticals, marketing, construction, to name a few. An MBA in Project Management indicates a valuable skill set to any corporate team building and business analysis. A degree in Project Management provides students with a valuable insight into the theory and practice of entrepreneurship and innovation, consulting management, project management, entrepreneurial finance and research. Additionally, students will also cover applicable elements to starting their own ventures, ranging from the idea generation to commercialization. The goal of this program is for the students to learn, create, build and operate profitable and feasible business ideas.

CAREER PROSPECTS

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INTRODUCTION
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 management in industry or other organizations. MBA Executive develops skills to deliver strategic direction, understand people skills and utilize financial, technical and human resources in the best possible way to achieve departmental or organizational targets.

CAREER PROSPECTS
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 Duration**: 2 Years
- **Timing**: Evening 6:00 PM - 9:00 PM (Monday to Friday)
- **Entry Requirements**: 14 years of education, at least four year of job/work experience at Managerial Cadre. A minimum of 2nd division in a 2/3 year BBA/BS/BA/B.Com or equivalent degree from HEC recognized university/college
- **Location**: Defence Road Campus, Lahore.

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Higher Education Commission
National Business Accreditation Council

ROAD MAP

<table>
<thead>
<tr>
<th>SEMESTER 1</th>
<th>Cr. Hr.</th>
<th>SEMESTER 2</th>
<th>Cr. Hr.</th>
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<td>Principles of Management</td>
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<td>Human Resource Management</td>
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<td>Business Policy</td>
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<td>Entrepreneurship</td>
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<td>Marketing Management</td>
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<td>Business Communication</td>
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<td>Business Law &amp; Taxation</td>
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<td>Electives-III</td>
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<td>Financial Accounting</td>
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SUMMER SEMESTER

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<tr>
<td>Strategic Marketing</td>
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</table>

ELECTIVES

AREAS OF SPECIALIZATION

HUMAN RESOURCE MANAGEMENT
- Organizational Dynamics
- Job Analysis Practices
- Industrial Relations
- Human Resource System Development
- Industrial Psychology
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FINANCE
- Strategic Finance
- Risk Management and Derivatives
- Issues in Financial Reporting
- International Financial Management
- Behavioral Finance
- Valuation
- Investment Analysis & Portfolio Management
- Mergers and Acquisitions
- Advance Audit and Assurance
- Advance Performance Management
- Finance for Entrepreneurs
INTRODUCTION

The M. Phil program is designed to ensure that students develop strong research and analytical skills that would not only help them carry out future research but also think and act critically. The first year of the M. Phil program introduces students to the key concepts in management research, research methods, business strategies and theoretical development. Focus in the second year is on the student’s development and analytical skills in the areas of research that will help them in conducting independent research in different management related areas for effective decision making.

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 that have acquired deeper insight into management research, strategies, structures, and processes.

Note: The students can write thesis in any field of management in consultation and permission of synopsis committee / supervisor.

PROGRAM FACTS

- Program Duration: 2 Years
- Timing: Evening 6:00 PM-9:00 PM (Monday to Friday)
- Entry Requirements: 16 years of education, BBA (Honors) / MBA / Business Administration/Management Sciences from HEC recognized university with a minimum of 2nd division in annual system or 2.50 CGPA (out of 4.00) in semester system.
- Location: Defence Road Campus, Lahore.

RECOGNIZED BY

Higher Education Commission

ROAD MAP

<table>
<thead>
<tr>
<th>SEMESTER 1</th>
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<th>Cr. Hr.</th>
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<tbody>
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<td>Research Workshop</td>
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<td>Statistical Inferences &amp; Data Analysis</td>
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<td>Advanced Research Methodology</td>
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<td>Elective – I</td>
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<td>Organization Theory</td>
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<tr>
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<td>Philosophy of Management</td>
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<td>Elective – II</td>
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<tr>
<td>Contemporary Methods in Data Analysis</td>
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<th>SEMESTER 3 to 6</th>
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<tbody>
<tr>
<td>Research Work / Thesis</td>
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DOCTOR OF PHILOSOPHY IN MANAGEMENT SCIENCES (Ph.D)

INTRODUCTION

LBS PhD in Management program concentrates on defining and preparing professionals for management thinking. The research program focuses on developing skills and resourcefulness to generate concepts and ideas for new and emerging challenges. The research degree offers outstanding scholars 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 scholars 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 scholars 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 degree requires course work of 18 credit hours followed by research proposal writing, comprehensive examination, and a dissertation of 30 credit hours. The 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 dissertation.

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 and methodology and management theories. PhD research degree is aimed at providing an innovative contribution to changing organizational responsibilities in the ever-changing business environment.

PROGRAM FACTS

- Program Duration: 3-5 Years
- Timing: Evening 6:00 PM-9:00 PM (Monday to Friday)
- Entry Requirements: 18 years of education, MBA 3.5 years with thesis, M. Phil / MS degree in business with thesis in administration/management sciences from HEC recognized university with a minimum of 1st division or 3.0 CGPA.
- Location: Defence Road Campus, Lahore.

RECOGNIZED BY

Higher Education Commission

ROAD MAP

<table>
<thead>
<tr>
<th>SEMESTER 1</th>
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Note: The students can write thesis in any field of management in consultation and permission of synopsis committee / supervisor.
LAHORE SCHOOL OF PROFESSIONAL STUDIES

DEGREES OFFERED

- M.Sc Project Management
- MS Project Management
- MS Engineering Management
- M.Sc Psychology
- MS Clinical Psychology

MISSION STATEMENT

The mission of The Lahore School of Management is to create and maintain programs of excellence in the areas of research, education and public outreach. It endeavors to be a nationally-recognized model for educating and graduating students prepared to compete in and contribute to the ever-changing, technology-centered world of the 21st century.

INTRODUCTION

A unique value based motivational learning environment, most conducive to absorb emerging ideas & keen to add life skills in you. World class education in a most flexible, convenient and conducive, yet intellectually stimulating manner with unique educational culture. LSM takes pride in giving its students the most enriching, inspiring & motivating academic environment, which enables learning simplified, more user friendly through technological interventions to provide world class education. Our graduates are equipped with strong problem solving and decision making tools, well prepared to add value and able to greatly enhance organizational effectiveness and over all competitiveness of nation with due regard to great human values and ethics. While enhancing the capacity of delivery, we firmly believe change in an organization is only possible, when we break the self-imposed limiting belief and add self-inspiration for learning through technology driven innovative means of hybrid learning while greatly enhancing their flexibility through IT enabled environment.
# PROJECT MANAGEMENT

## Master of Science in Project Management (M.Sc)

### Introduction

Our M.Sc in Project Management is designed for those who wish to move into project management, either in their current technical and business field, or into a new field of their expertise. Participation on this program can have a very wide range of academic and professional backgrounds. It is suitable for those with prior work experience as well as those with little or no background in business.

### Career Prospects

Graduates who pursue academic career continue for M.Phil and PhD in their area of interest. There are opportunities in the corporate sector also for the graduates, and recent industry trends show that organizations are now interested in hiring graduates and personnel that have acquired deeper insight into management research, strategies, structure, and processes.

### Electives

- Strategy for Technology Based Ventures
- Technology and Industrial Competitiveness
- Life Skills & People Management
- Project Contract Management
- Leadership and Management of Change
- Project Risk Management
- Project Management Professional (PMP) Version
- Professional Ethics in Project Management
- Global Supply Chain Management
- Procurement And Sourcing
- Logistics Management
- Warehousing and Inventory Management
- Research Methods
- Chinese Language
- Project Management Industrial Project
- Project Communication and Human Resources Management
- Marketing for Technology
- World Trade Organization and Globalization of Economies
- Managing Innovation And Entrepreneurship

### Road Map

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<td>Project Monitoring &amp; Evaluation</td>
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<td>Project Financial Management</td>
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<td>Computer Application in Project Management</td>
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<td>Business Communication</td>
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### Program Facts

- **Program Duration**: 2 Years
- **Timing**: Evening 06:00 PM to 09:00 PM (Monday-Saturday)
- **Weekend**: 09:00 AM to 06:00 PM (Sunday)
- **Entry Requirements**: Minimum 45% marks from HEC Recognized University. UOL Admission Test / Interview
- **Location**: Raiwind Road Campus, Lahore.

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Higher Education Commission

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# Project Management

## Master of Science in Project Management (MSPM)

### Introduction

The Master of Science in Project Management at LSM-UOL is a unique opportunity to combine a broad knowledge of business and management principles with a specific knowledge of successful project-based strategies. Students with a broad spectrum of professional responsibilities ranging from working on complex projects for global companies to designing IT infrastructure to completing consulting contracts—will benefit from this detailed examination of a project’s conception, planning, budgeting, resource allocation, and implementation. Master of Science in Project Management will enable students to achieve success at the highest levels of management by preparing graduates to manage complex projects, facilitate communication between the project team and clients, and balance competing demands among scope, time, cost, and quality.

### Career Prospects

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 that have acquired deeper insight into management research, strategies, structures, and processes.

### Electives

- Project Financial Management
- Computer Applications in Project Management
- Life Skills & People Management
- Project Contract Management
- Leadership and Management of Change
- Project Risk Management
- Professional Ethics in Project Management
- Computer Applications in Management
- Project Financial Management
- Global Supply Chain Management
- Procurement And Sourcing
- Logistics Management
- Warehousing and Inventory Management
- Research Methods
- Chinese Language
- Project Management Industrial Project
- Project Communication and Human Resources Management
- Marketing for Technology
- World Trade Organization and Globalization of Economies
- Managing Innovation And Entrepreneurship

### Road Map

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<td>Project Feasibility and Planning</td>
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<td>Project Management - Industrial Project</td>
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INTRODUCTION
An Engineering Management degree offers a double scope curriculum in business management and technical systems. The coursework emphasizes the discipline of planning, organizing and managing resources to bring about the successful completion of specific project goals and objectives with a project management emphasis.

CAREER PROSPECTS
Abundant career opportunities exist for students wishing to pursue either academic career by going 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 who have acquired deeper insight into management research, strategies, structures and processes.

ELECTIVES
- Strategy for Technology Based Ventures
- Project Financial Management
- Computer Applications in Project Management
- Life Skills & People Management
- Project Contract Management
- Leadership and Management of Change
- Project Risk Management
- Project Monitoring & Evaluation
- Project Management Professional (PMP Version)
- Project Communication and Human Resources Management
- Professional Ethics in Project Management
- Construction Management

PROGRAM FACTS
- Program Duration
  2 Years
- Timing
  Evening 06:00 PM to 09:00 PM (Monday-Saturday)
  Weekend 09:00 AM to 06:00 PM (Sunday)
- Entry Requirements
  16 years of formal education in Technical/Engineering/ or Hard Sciences/Management/ Business/MS/IT with minimum second division or equivalent CGPA, from an HEC recognized Institution. UOL Admission Test / Interview
- Location
  Raiwind Road Campus, Lahore.

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ROAD MAP

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INTRODUCTION

The MSc Psychology program covers major areas of Psychology and emphasizes theories and principles of Psychology applied in understanding real-life human behavior.

CAREER PROSPECTS

Graduates usually pursue academic career and go on for MPhil and PhD in their area of interest. There are also 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 that have acquired deeper insight into psychology research, strategies and processes.

ELECTIVES

- Clinical Psychology
- Positive Psychology
- Health Psychology
- Social Psychology
- Gender and Psychology
- Forensic Psychology
- Statistics in Psychology
- Religion Psychology
- Organizational Psychology
- Professional and Ethical Issues in Clinical Psychology
- Human Resource Management
- Developmental Psychology
- Sports Psychology
- Educational Psychology
- Culture and Psychology

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PROGRAM FACTS

- **Program Duration**: 2 Years
- **Timing**: Evening 06:00 PM to 09:00 PM (Monday-Saturday)
  Weekend 09:00 AM to 06:00 PM (Sunday)
- **Entry Requirements**: 14 years of Formal Education BA & B.SC, Minimum 49% marks from HEC Recognized University/Institute. UOL Admission Test / Interview
- **Location**: Raiwind Road Campus, Lahore.

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<td>Experimental Psychology</td>
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<td>Elective 7</td>
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INTRODUCTION

The Clinical Psychologists go through rigorous trainings in administering psychological tests, interpreting the results and diagnosing patients. This training includes writing and learning how to evaluate reports and referrals. They are further trained for conducting therapeutic sessions using the various theories of Psychotherapy (like Psychoanalytic, Cognitive Behavioral, Humanistic etc) focusing on techniques and styles especially designed for the treatment of specific disorders. The students practice through role plays, behavioral rehearsals, modeling and content analysis of their sessions. They are provided with expert supervision by practicing psychologists and professors with years of clinical and supervisory experience.

CAREER PROSPECTS

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 who have acquired deeper insight into psychological research, strategies and processes.

ELECTIVES

- Muslim Approaches to Psychotherapy
- Family/Systemic Therapy
- Motivation: Theory and Practice
- Human Resource Management
- Personality and Behavior Change
- Positive Psychology
- Staff Counseling
- Research Methods
- Forensic Psychology
- Professional and Ethical Issues in Psychology
- Health Psychology

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PROGRAM FACTS

- **Program Duration**: 2 Years
- **Timing**: Evening 06:00 PM to 09:00 PM (Monday-Saturday)
  Weekend 09:00 AM to 06:00 PM (Sunday)
- **Entry Requirements**: 16 years of formal education in M.Sc. Psychology or BS (Hons) Psychology with marks of 50% in psychology course and 2.5 CGPA. From an HEC Recognized Institution. UOL Admission Test / Interview
- **Location**: Raiwind Road Campus, Lahore.

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<td>Neuropsychology and Psychopharmacology</td>
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MASTER OF SCIENCE IN CLINICAL PSYCHOLOGY (MS)

PSYCHOLOGY

MASTER OF SCIENCE IN CLINICAL PSYCHOLOGY (MS)

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MISSION STATEMENT

The mission of the Lahore School of Aviation is:

To pursue excellence in providing quality education for our students and to prepare students to meet the demands of the national aviation system by preparing them academically and intellectually, by exposing them to real world experiences, and by introducing them to the people who can provide them with real world information.

To engage in applied aviation research and scholarly endeavors that may benefit government, industry, general aviation, the public and our students. To provide leadership, expertise, and professional development opportunities for aviation professionals and to promote a greater understanding of aviation among the general public.

INTRODUCTION

The University of Lahore visions to achieve excellence in Higher Education, is dedicated to expand its academic programs through introducing new programs that are high demanding and having a great impact on the sustainable development of Pakistan. As a result, we are privileged to offer our aspiring students, our future leaders a new program, Bachelor of Science in Aviation Management that will help them to lead their way to their ambitions and goals. If the sky is the limit for your ambition, we are there to help you manage your career and way to the limit. As a student, you are a valuable asset of our program and we care about your professional as well as personal development.

Lahore School of Aviation is committed to excellence and meeting your Aviation needs. Our Faculty comes from a variety of Aviation backgrounds, including retired Pakistan Air Force Instructors, Senior Airline professionals, Air-traffic Controllers, foreign trained Aviation Professors as well as Managers of General Aviation.
BACHELOR OF SCIENCE IN AVIATION MANAGEMENT

INTRODUCTION
The Bachelor of Science in Aviation Management degree is designed for students pursuing to lead and succeed in the world of aviation. Harmonizing basic aviation concepts with innovative business ideas and strategy, the programme provides students a rock-solid foundation of aviation knowledge, industry standards, principles of management, and leadership. The programme explores all façades of aviation management, including airport planning and management, airline fleet management, fiscal aspects of aviation, aviation marketing, and health and safety environment in aviation, aviation safety, aviation security, and global aviation business strategies.

This approach to aviation education gives the student added value over other aviation programs by focusing on the skills and knowledge required by today’s fast growing aviation industry.

CAREER PROSPECTS
The BS Aviation Management degree prepares students for professional careers in the following areas:
• Airline management
• Airline flight operations
• Airline ground operations
• Airport management
• Airport operations
• Airport planning
• Aviation consultancy firms
• Aviation charter firms
• Air services
• Aviation regulatory and safety services
• Aviation safety authorities

PROGRAM FACTS
• Program Duration
4 Years
• Timing
08:00 AM to 05:00 PM (Monday-Friday)
• Entry Requirements
12 years of education (Higher Secondary School Certificate/Intermediate) with at least second Division
• Location
Defence Road Campus, Lahore.

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<td>Aviation Law</td>
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<td>Managing Airlines</td>
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<td>Aircraft Safety Accident Investigations Analysis &amp; Application</td>
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THE UNIVERSITY OF LAHORE
INTRODUCTION

BS Aircraft Maintenance Technology (AMT) program is a Bachelor of Science program that prepares students to enter technical positions in the aerospace industry. The designed curriculum focuses on aircraft structures and system design, operation, test, and inspection. These skills and knowledge joined with a solid science foundation prepares the students for employment in a wide range of aircraft maintenance, manufacturing, and aviation support careers. The Bachelor of Science degree places our graduates for technology leadership roles in the future. We foresee our graduates amongst the managers, directors, vice presidents and CEO’s of aerospace companies worldwide.

CAREER PROSPECTS

The BS Aircraft Maintenance Technology (AMT) degree prepares students for professional careers in the following areas:

- Aircraft Machinist Technician
- Aviation Maintenance Instructor
- Aircraft Load Master Technician
- Aircraft fuel system technician
- Hydraulic Mechanic
- Landing Gear Mechanic
- Aircraft Body and Bonded Structure Repairer
- Aircraft Maintenance Planner
- Aircraft Air Conditioning Mechanic
- Aircraft Restorer
- Aircraft Rigging and Controls Mechanic
- Aircraft Steel Fabricator
- Aircraft Structure Mechanic
- Airplane Tester
- Experimental Aircraft Mechanic

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ROAD MAP

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<td>Airframe Systems-II</td>
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<tr>
<td>Principles of Marketing</td>
<td>3</td>
<td>Aviation Project Management</td>
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<td>TQM in Aviation</td>
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<td>Airline Maintenance Management</td>
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<tr>
<td>Technical Report Writing</td>
<td>3</td>
<td>Engineering Economics</td>
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<td>Internship-I</td>
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<td>Internship-II</td>
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<td>Technical Report Writing</td>
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<td>Digital Aircraft Systems</td>
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</tbody>
</table>

BACHELOR OF SCIENCE IN
AIRCRAFT MAINTENANCE TECHNOLOGY

PROGRAM FACTS

- Program Duration: 4 Years
- Timing: 08:00 AM to 05:00 PM (Monday-Friday)
- Entry Requirements: 12 years of education (Higher Secondary School Certificate/Intermediate) with at least second Division
- Location: Defence Road Campus, Lahore.

RECOGNIZED BY

Higher Education Commission
PHARMACY

• Faculty of Pharmacy
FACULTY OF
PHARMACY

DEGREES OFFERED
• Doctor of Pharmacy (Pharm-D)
• M. Phil Pharmacy - Pharmaceutics
• M. Phil Pharmacy - Pharmaceutical Chemistry
• M. Phil Pharmacy - Pharmacology
• M. Phil Pharmacy - Pharmacognosy
• Ph. D Pharmacy - Pharmacology
• Ph. D Pharmacy - Pharmaceutical Chemistry

MISSION STATEMENT
The mission of Faculty of Pharmacy, The University of Lahore, is to play a pivotal role in the development and advancement of healthcare professionals by educating them with quality education without gender discrimination 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 healthcare 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
Faculty of Pharmacy at The University of Lahore, is consisting of over 60 teachers who are competent to impart professional and technical education to pharmacy students. Eleven of them are holding Ph.D degrees from well respect national and international universities. More than 20 are enrolled in Ph. D program in Pakistan and abroad. Rest of the faculty members have at least M. Phil degree in the relevant subject. 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.
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 centered 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.

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:
• Health Department Government of the Punjab: As Drug Inspector, Deputy Drug Controller, Drug Controller, Hospital Pharmacists, Clinical Pharmacists, Drug testing laboratories, Punjab Forensic Science agency etc.
• Academia and Research
• As production managers, QC managers, QA managers, and Procurement, legislation, officers etc. in Pharmaceutical and herbal industry
• Marketing, Sales, Drug Regulatory affairs, and Consultation etc.
• WHO and renowned NGOs
• Community Pharmacy

RECOGNIZED BY
Higher Education Commission
Pharmacy Council of Pakistan

DOCTOR OF PHARMACY (PHARM-D)

PROGRAM FACTS
• Program Duration: 5 Years
• Timing: 8:30 AM - 5:00 PM (Monday to Friday)
• Entry Requirements: 12 Years of Education, F.Sc Premedical (Bio, Physics and Chemistry), A-Level or Equivalent with Minimum 60% Marks. UOL Entry Test is mandatory

LOCATION
Defence Road Campus, Lahore.

ROAD MAP
Total Semesters: 10
Total Credit Hours: 198

<table>
<thead>
<tr>
<th>SEMESTER 1</th>
<th>Cr. Hr.</th>
<th>SEMESTER 2</th>
<th>Cr. Hr.</th>
<th>SEMESTER 3</th>
<th>Cr. Hr.</th>
<th>SEMESTER 4</th>
<th>Cr. Hr.</th>
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</thead>
<tbody>
<tr>
<td>Anatomy and Histology</td>
<td>4</td>
<td>English-B (Communication &amp; Writing Skills)</td>
<td>4</td>
<td>Islamic Studies</td>
<td>3</td>
<td>Pakistan Studies</td>
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<tr>
<td>English-A (Functional English)</td>
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<td>Pharmacoeconomics Biochemistry-I</td>
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<td>Pharmacoeconomics Mathematics</td>
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<tr>
<td>Pharmacoeconomics Biochemistry-I (Organic)</td>
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<td>Pharmacoeconomics Chemistry II</td>
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<td>Pharmacoeconomics Microbiology-I</td>
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<td>Pharmacoeconomics-III (Pharmaceutical Microbiology Immunology)</td>
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<td>Pharmacoeconomics-III (Physical Pharmacy-I)</td>
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<td>Pharmacoeconomics-III (Physical Preparation-I)</td>
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<td>Pharmacology-I</td>
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<td>Pharmacology And Therapeutics-I (General-I)</td>
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<tr>
<td>Physiology</td>
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<td>Pharmacology and Therapeutics-I (General-I)</td>
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<td>Pharmacy Practice-IB (Bio-statistics)</td>
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<tr>
<th>SEMESTER 5</th>
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<th>SEMESTER 6</th>
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<th>SEMESTER 7</th>
<th>Cr. Hr.</th>
<th>SEMESTER 8</th>
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<tr>
<td>Pathology</td>
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<td>Pharmacoeconomics-III B (Pharmaceutical Analysis)</td>
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<td>Pharmacoeconomics-IB (Industrial Pharmacy)</td>
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<td>Pharmacoeconomics-IIB (Advanced)</td>
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<td>Pharmacoeconomics-V (Biopharmaceutics Pharmacokinetics)</td>
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<tr>
<td>Pharmacoeconomics-IB (Advanced)</td>
<td>4</td>
<td>Pharmacoeconomics-II (Pharmaceutical Quality Management)</td>
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<td>Pharmacoeconomics-IB (Biopharmaceutics Pharmacokinetics)</td>
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<tr>
<td>Pharmacoeconomics-IIB</td>
<td>4</td>
<td>Pharmacy Practice-II (Community, Social Administrative Pharmacy)</td>
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<td>Pharmacy Practice-IIB (Hospital Pharmacy)</td>
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<td>Pharmacy Practice-IIB (Hospital Pharmacy)</td>
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<tr>
<td>Pharmacy Practice-II (Community, Social Administrative Pharmacy)</td>
<td>4</td>
<td>Pharmacy Practice-IV (Clinical Pharmacy)</td>
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<td>Pharmacy Practice-IIB (Clinical Pharmacy)</td>
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<table>
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<th>SEMESTER 10</th>
<th>Cr. Hr.</th>
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<td>Pharmaceutical Chemistry-IIB (Medicinal Chemistry)</td>
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<tr>
<td>Pharmaceutical Chemistry-IIB (Pharmaceutical Technology)</td>
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<td>Pharmaceutical Chemistry-IIB (Pharmaceutical Technology)</td>
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<tr>
<td>Pharmacy Practice-IIB (Advanced Clinical Pharmacy-I)</td>
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<td>Pharmacy Practice-IIB (Advanced Clinical Pharmacy-I)</td>
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<tr>
<td>Pharmacy Practice-IIB (Forensic Pharmacy)</td>
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<td>Pharmacy Practice-IIB (Forensic Pharmacy)</td>
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<tr>
<td>Pharmacy Practice-IIB (Pharmaceutical Management Marketing)</td>
<td>3</td>
<td>Pharmacy Practice-IIB (Pharmaceutical Management Marketing)</td>
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</table>
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 globalization, 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 program is being offered by the Faculty of Pharmacy in four disciplines, namely, Pharmacaceutics, Pharmaceutical Chemistry, Pharmacology, and Pharmacognosy, with the main aim of working in line with the mission of the Higher Education Commission. Faculty of Pharmacy, The 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.

CAREER PROSPECTS
- Academia and Research
- R & D departments of the multinational Pharmaceutical Organizations
- Drug Testing Laboratories (DTL)
- Punjab Forensic Science Agency (PSFA)
- PAFDA. (Punjab Agriculture Food & Drug Authority
- Primary & Secondary Healthcare Department
- Tertiary care Hospitals.

RECOGNIZED BY
Higher Education Commission, Pharmacy Council of Pakistan

MASTER OF PHILOSOPHY IN PHARMACY (M.PHIL)

PROGRAM FACTS
- Program Duration 2 Years
- Timing 2:30 am to 6:00 pm (Monday to Friday)
- Entry Requirements
  16 years of education in relevant field, Pharm-D/B-Pharm Minimum 50% in annual system or 2.50 / 4.00 CGPA in semester system
  Candidate must have a basic degree in Pharmacy & registered with Provincial Pharmacy Council concerned
  UOE admission test is mandatory.
- Location Defence Road Campus, Lahore.

ROAD MAP
Total Semesters 4 Total Credit Hours 50

M.PHIL PHARMACEUTICS

<table>
<thead>
<tr>
<th>SEMESTER 1</th>
<th>Cr. Hr.</th>
<th>SEMESTER 2</th>
<th>Cr. Hr.</th>
<th>SEMESTER 1</th>
<th>Cr. Hr.</th>
<th>SEMESTER 2</th>
<th>Cr. Hr.</th>
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<tr>
<td>Microbiology and Molecular Biology Pr.</td>
<td>1</td>
<td>Pharmacy Practice Pr.</td>
<td>1</td>
<td>Chemistry of Natural Products and Photopharmacy</td>
<td>3</td>
<td>Special Problem</td>
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<tr>
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<td>Special Problem</td>
<td>1</td>
<td>Chemistry of Natural Products and Photopharmacy</td>
<td>1</td>
<td>Advance Medicinal Chemistry Pr.</td>
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<tr>
<td>Advanced Pharmaceutics Th.</td>
<td>3</td>
<td>Biotestiscs Th.</td>
<td>3</td>
<td>Drug Design and Development Pr.</td>
<td>1</td>
<td>Advance Medicinal Chemistry Th.</td>
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<tr>
<td>Biohismetics and Pharmacokinetics Th.</td>
<td>1</td>
<td>Formulation and Product Development Pr.</td>
<td>1</td>
<td>Drug Design and Development Th.</td>
<td>3</td>
<td>Biotestisics Th.</td>
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<tr>
<td>Biohismetics and Pharmacokinetics Th.</td>
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<td>Formulation and Product Development Th.</td>
<td>3</td>
<td>Seminars</td>
<td>1</td>
<td>Combinatorial Chemistry Pr.</td>
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<tr>
<td>Microbiology and Molecular Biology Th.</td>
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<td>Pharmacy Practice Clinical Pharmacy and Pharmac.</td>
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<td>Stability of Drugs and Pharmacological Analytical</td>
<td>3</td>
<td>Combinatorial Chemistry Th.</td>
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<tr>
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<th>Cr. Hr.</th>
<th>SEMESTER 3</th>
<th>Cr. Hr.</th>
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M.PHIL PHARMACOLOGY

<table>
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<th>SEMESTER 1</th>
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<th>Cr. Hr.</th>
<th>SEMESTER 1</th>
<th>Cr. Hr.</th>
<th>SEMESTER 2</th>
<th>Cr. Hr.</th>
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<tbody>
<tr>
<td>Advances in Pharmacognosy Th.</td>
<td>1</td>
<td>Biostatistics Th.</td>
<td>3</td>
<td>Pharmacology and Therapeutics IV Pr.</td>
<td>1</td>
<td>Special Problem</td>
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<tr>
<td>Advances in Pharmacognosy Theory</td>
<td>3</td>
<td>CAM (Complementary and Alternative Medicine) Theory</td>
<td>3</td>
<td>Pharmacology and Therapeutics Th.</td>
<td>3</td>
<td>Biostatistics Th.</td>
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<tr>
<td>Analytical Techniques in Pharmacognosy (Practicals)</td>
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<td>CAM (Complementary and Alternative Medicine Practical)</td>
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<td>Pharmacology and Therapeutics Th.</td>
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<td>Pharmacology and Therapeutics IV Th.</td>
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<tr>
<td>Analytical Techniques in Pharmacognosy Theory</td>
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<td>CAM (Complementary and Alternative Medicine Theory)</td>
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<td>3</td>
<td>Pharmacology and Therapeutics V Th.</td>
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<td>Bio Synthesis and Biotechnology Theory</td>
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<td>Pharmacology and Therapeutics IV Th.</td>
<td>3</td>
<td>Pharmacology and Therapeutics V Th.</td>
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<td>Bio Synthesis and Biotechnology Pr.</td>
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<td>Research Methodology and Special Problems</td>
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<td>Pharmacology and Therapeutics IV Th.</td>
<td>3</td>
<td>Pharmacology and Therapeutics V Th.</td>
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<tr>
<td>Seminar</td>
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<th>Cr. Hr.</th>
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</table>
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.

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

- Academia and Research
- R & D departments of the multinational Pharmaceutical Organizations

ROAD MAP

<table>
<thead>
<tr>
<th>Total Semesters</th>
<th>Total Credit Hours</th>
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<tbody>
<tr>
<td>6</td>
<td>48</td>
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Ph.D PHARMACOLOGY

<table>
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<th>SEMESTER 2</th>
<th>SEMESTER 3</th>
<th>SEMESTER 4</th>
<th>SEMESTER 5</th>
<th>SEMESTER 6</th>
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<td>Research Methodology</td>
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<td>Local Anti-Invective Agents</td>
<td>3</td>
<td>Drug Discovery</td>
<td>3</td>
</tr>
<tr>
<td>Battery of Pharmacological Tests</td>
<td>3</td>
<td>Neoplastic Disorders</td>
<td>3</td>
<td>Structure Activity Relations (SAR)</td>
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<tr>
<td>Metabolic Disorders</td>
<td>3</td>
<td>Systemic Anti-invective Agents</td>
<td>3</td>
<td>Metal Complexes</td>
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Ph.D PHARMACEUTICAL CHEMISTRY

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<thead>
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<th>SEMESTER 4</th>
<th>SEMESTER 5</th>
<th>SEMESTER 6</th>
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<tbody>
<tr>
<td>Advance Biostatistics (Optional)</td>
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<td>Research Work and Thesis</td>
<td>10</td>
<td>Advance Biostatistics (Optional)</td>
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</table>

Note: Comprehensive written & oral examination is taken at the end of 2nd semester for all disciplines

PROGRAM FACTS

- Program Duration
  3-5 Years
- Timing
  2:30 am to 6:00 pm  (Monday to Friday)
- Entry Requirements
  16 Years of Education / M. Phil in relevant field
  Minimum 3.0 / 4.00 CGPA.
  Candidate must have a basic degree in Pharmacy & registered with Provincial Pharmacy Council concerned.
  University admission test is mandatory
- Location
  Defence Road Campus, Lahore.

RECOGNIZED BY

Higher Education Commission

- Drug Testing Laboratories
- Punjab Forensic Science Agency
• Physics
• Chemistry
• Environmental Sciences
• Mathematics
• Molecular Biology & Biotechnology
• Center for Research in Molecular Medicine
DEGREES OFFERED

- BS Physics
- BS Physics (Computational Physics)
- BS Physics (Biophysics)
- BS Physics (Engineering Physics)
- BS Physics (Medical Physics)
- BS Physics (Geo Physics)
- BS Physics (Environmental Physics)
- M.Sc. Physics
- M.Phil Physics
- Ph.D Physics

MISSION STATEMENT

The Department of Physics imparts high quality education in the discipline of Physics, its sub-fields and some inter-disciplinary fields. It aims to produce well-groomed graduates who are self-assured in their abilities, have good understanding of physical concepts as well as complete training of the laboratory and computational techniques that aid the physical understanding. The Faculty of Science also promotes research and creative activities of the faculty and students. The Faculty inculcates wider understanding of the nature of physical and allied sciences through quality teaching, technical expertise and research-oriented atmosphere.

INTRODUCTION

Department of Physics offers undergraduate and graduate degree programs in the subjects of Pure and Applied domains of Physics as well as several inter-disciplinary areas. Special focus is placed on preparing graduates equipped with basic concepts and hands-on laboratory training at undergraduate and graduate level. Students are specially exposed to practical training in the scientific organizations and industry through a meaningful internship program. They are fully trained to join the job market as a valuable asset soon after completion of their degree or to take up further study without any difficulty. Post graduate teaching and research programs cover fundamental and applied fields incorporating recent trends in various specializations of Physics.
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 specialization in various other fields interconnected with Physics such as medical physics, solid state physics, nuclear physics etc. Over the course of four years, students learn new ways and techniques to solve problems and learn to predict the behavior of various systems. They also understand the physical laws that govern the universe and eventually are able to contribute towards answering the unanswered questions.

CAREER PROSPECTS

Depending on the concentration that a student selects during study, various job opportunities are available after completion of the degree. Our graduates are well established and successful in their professional lives being employed by internationally recognized industries and companies or they have started up their own initiatives. Some of most visible career options are in Forensic Science, Medical Physics, Education Sector, Consultancy, Research Organizations and many others. Career prospects are unlimited in each and every field.

PROGRAM FACTS

- **Program Duration**: 4 Years
- **Timing**: Morning, 08:30 AM to 05:00 PM (Monday-Friday)
- **Entry Requirements**: 12 Years of Education/Intermediate, F.Sc (Pre-Engg.)/ICS/DAE/A-Level or Equivalent (Physics & Mathematics Combination), Minimum 45% marks
- **Location**: Raiwind Road Campus, Lahore.

RECOGNIZED BY

Higher Education Commission

Note: Detail of the elective courses is available with the department, specialized courses are offered in semester 5th to 8th

ROAD MAP

<table>
<thead>
<tr>
<th>SEMESTER 1</th>
<th>Cr. Hr.</th>
<th>SEMESTER 2</th>
<th>Cr. Hr.</th>
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<th>Cr. Hr.</th>
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<tbody>
<tr>
<td>Mechanics I</td>
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<td>Mechanics II</td>
<td>2</td>
<td>Electricity &amp; Magnetism I</td>
<td>3</td>
<td>Electricity &amp; Magnetism II</td>
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<tr>
<td>Linear Algebra</td>
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<td>Waves and Oscillations</td>
<td>3</td>
<td>Heat and Thermodynamics</td>
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<td>Modern Physics &amp; Electronics</td>
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<tr>
<td>Introduction to Computer</td>
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<td>Vector Algebra and Analysis</td>
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<td>Computer Programming</td>
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<td>Differential Calculus</td>
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<td>Analytical Geometry &amp; Integral Calculus</td>
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<td>LAB-III</td>
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<td>LAB-II</td>
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<td>LAB-IV</td>
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<td>Communication Skills II</td>
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<td>Fundamentals of Management</td>
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<td>English Comprehension I</td>
<td>3</td>
<td>Pakistan Studies</td>
<td>2</td>
<td>Statistics and Probability</td>
<td>3</td>
<td>Advance Computer Programming</td>
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Total Semesters: 8
Total Credit Hours: 133
INTRODUCTION
Computational Physics extends theoretical Physics beyond the limitation of analytical techniques. This extension has become essential to advance in many different subfields of Physics as systems of interest have become complex, moving from a few degrees of freedom to many degrees of freedom. During the study of this period, students learn new ways to solve problems that were thought not to be solveable some time ago and also predict the behavior of various systems. This degree focuses on the use of Computational Techniques to aid the solution of theoretical problems and analysis in detail. The students gain extensive programming skills and at the end of degree they are able to develop their own computational applications and data models.

CAREER PROSPECTS
A computational physicist who is competent in physical science, mathematical modeling and informatics has unlimited career options. With the background of solving large numerical projects, computational physicists are more likely to go out into private or public sector as a researcher, engineer, operation leader etc. becoming part of huge projects in every area and offering solutions to the problems faced.

BACHELOR OF SCIENCE IN PHYSICS (COMPUTATIONAL PHYSICS)

PROGRAM FACTS
- Program Duration 4 Years
- Timing Morning, 08:30 AM to 05:00 PM (Monday-Friday)
- Entry Requirements 12 Years of Education/Intermediate, F.Sc (Pre-Engg.)/ICS/DAE/A-Level or Equivalent (Physics & Mathematics Combination), Minimum 45% marks
- Location Raiwind Road Campus, Lahore.

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Higher Education Commission

Note: Detail of the elective courses is available with the department, specialized courses are offered in semester 5th to 8th
INTRODUCTION

Biophysics offers you a multi-disciplinary field spanning Physics, Biology, Chemistry and Medicine. From understanding kinetics and energy distribution at cellular level to developing mathematical models of the dynamics of cells and tissues, this degree will let students delve into the variety and complexity of life and explain it with simple physical laws to gain powerful insight. The classroom teaching is supplemented with laboratory techniques and computing skills to make students an expert on a broad range of techniques like spectroscopy, electrophysiology, computational modeling and cutting-edge technologies like x-ray crystallography, laser light spectroscopy and several others. Not being offered anywhere else in Pakistan, the University of Lahore becomes the first place to offer this unique and fast advancing program.

CAREER PROSPECTS

Biophysics has become a highly emerging field throughout the world. Graduates of this program would be able to develop both the tools and understanding for treating various diseases. They will able to develop new instrumentation for imaging, detecting chemicals and materials. Eventually, they will have the insight and technology to find the solution for our big problems like energy crisis, clean resources, defining new and better drugs with target specificity and developing new nanotechnologies. From pharmaceutical companies to related fields of applied research, the career options are unlimited. Being relatively new field in Pakistan, graduates can become a part of already started projects or take initiatives on their own.

PROGRAM FACTS

- **Program Duration**: 4 Years
- **Timing**: Morning, 08:30 AM to 05:00 PM (Monday-Friday)
- **Entry Requirements**: 12 Years of Education/Intermediate, F.Sc (Pre-Engg.)/ICS/DAE/A-Level or Equivalent (Physics & Mathematics Combination), Minimum 45% marks.
- **Location**: Raiwind Road Campus, Lahore.

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Higher Education Commission

BACHELOR OF SCIENCE IN PHYSICS (BIO PHYSICS)

ROAD MAP Total Semesters 8 Total Credit Hours 133

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Note: Detail of the elective courses is available with the department, specialized courses are offered in semester 5th to 8th
INTRODUCTION
A graduate degree in Medical Physics will offer you an understanding of the physical principles that make the basics of medical technology, Magnetic Resonance imaging, Ultrasound, Nuclear Medicine, X-rays, Computed Tomography and several other imaging modalities are being employed and improved all around the world for treatment and diagnosis of diseases. This degree bridges the gap between Physics and Medicine in a challenging, research oriented with main focus of making graduates creative and passion driven.

CAREER PROSPECTS
The graduates will be able to develop and test new equipment used in radiotherapy, nuclear medicine, laser technology, ultrasound and other imaging modalities. With more and more use of radiation-based techniques in health care, there is a growing need of skilled medical physicists in the health sector.

PROGRAM FACTS
- Program Duration: 4 Years
- Timing: Morning, 08:30 AM to 05:00 PM (Monday-Friday)
- Entry Requirements: 12 Years of Education/Intermediate, F.Sc (Pre-Engg.)/ICS/DAE/A-Level or Equivalent (Physics & Mathematics Combination), Minimum 45% marks.
- Location: Raiwind Road Campus, Lahore.

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ROAD MAP
Total Semesters 8 Total Credit Hours 133

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Linear Algebra 3 Waves and Oscillations 3 Heat and Thermodynamics 3 Modern Physics & Electronics 3
Introduction to Computer 3 Vector Algebra and Analysis 3 Computer Programming 3 Infinite series and sequence 2
Differential Calculus 3 Analytical Geometry & Integral Calculus 3 LAB-I 3 Applied Differential Equations 3
LAB-I 1 LAB-II 1 LAB-III 1 LAB-IV 1
Islamic Study 2 Communication Skills II 3 Communication Skills III 2 Fundamentals of Management 2
English Comprehension I 3 Pakistan Studies 2 Statistics and Probability 3 Advance Computer Programming 3

SEMMETER 5
Cr. Hr. SEMESTER 6 Cr. Hr. SEMESTER 7 Cr. Hr. SEMESTER 8 Cr. Hr.
Classical Mechanics 3 Quantum Mechanics I 3 Quantum Mechanics II 3 Mathematical Method of Physics I 3
Thermal and Statistical Physics 3 Electromagnetic Theory-I 3 Computational Physics 3 Atomic and Molecular Physics 3
Electronics 3 Electromagnetic Theory-II 3 Computer Physics I 3 Mathematical Method of Physics II 3
Mathematical Method of Physics I 3 Solid State Physics-I 3 Mathematisl Method of Physics III 3
Mathematical Method of Physics II 3 Elective-I 3 Visual Physics 2

SEMMETER 9
Cr. Hr. SEMESTER 10 Cr. Hr. SEMESTER 11 Cr. Hr. SEMESTER 12 Cr. Hr.
Classical Mechanics 3 Quantum Mechanics I 3 Physics Lab-V 3 Mathematical Method of Physics I 3
Thermal and Statistical Physics 3 Electromagnetic Theory-I 3 Digital Electronics 3 Physics Lab-VI 3
Electronics 3 Electromagnetic Theory-II 3 Quantum Mechanics II 3 Mathematical Method of Physics II 3
Mathematical Method of Physics II 3 Elective-IV 3 Visual Physics 2

Note: Detail of the elective courses is available with the department, specialized courses are offered in semester 5th to 8th.

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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 mathematical tools vital to all engineers and scientists.

CAREER PROSPECTS
They will be suitable for job-market in teaching, research as well as industry. Also for higher studies in foreign universities. In view of the growing needs of Engineering Physicists in industry, the graduates are expected to be taken up as soon as they graduate.

PROGRAM FACTS
- Program Duration: 4 Years
- Timing: Morning, 08:30 AM to 05:00 PM (Monday-Friday)
- Entry Requirements: 12 Years of Education/Intermediate, F.Sc (Pre-Engg.)/ICS/DAE/A-Level or Equivalent (Physics & Mathematics Combination), Minimum 45% marks.
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INTRODUCTION

Environmental Physics offers you a clear understanding of Earth’s environment, using techniques, methods and analytical skills in Physics. The oceans, ice sheets, atmosphere, space environment are all governed by physical laws. Advances in Physics have helped us to determine which factors have impact on Earth’s water, air and land resulting in a collaborative effort to improve our surroundings. Recent research includes application of laser Physics and computing techniques to control air pollutants, creating more efficient energy generation methods, developing new cleanup technologies and understanding global weather and climate change. This degree is most suitable for those with strong interest in applied Physics and its application to Environmental issues.

CAREER PROSPECTS

Graduates from the Program of Environmental Physics will have excellent analytical and technical skillset to be a part of environmental research projects. These include technical positions in the fields of remote sensing, atmospheric modeling, air quality control, and climate study. Other options include following a career in teaching or taking up a position in industry. Some Engineering positions are always open in the fields of energy conservation, waste disposal, remediation of contaminated water, air and soil.

PROGRAM FACTS

- Program Duration: 4 Years
- Timing: Morning, 08:30 AM to 05:00 PM (Monday-Friday)
- Entry Requirements: 12 Years of Education/Intermediate, F.Sc (Pre-Engg.)/ICS/DAE/A-Level or Equivalent (Physics & Mathematics Combination), Minimum 45% marks
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THE UNIVERSITY OF LAHORE
INTRODUCTION
This degree focuses on the composition, structure and other physical attributes of the earth. After extensive four years of training, students are prepared to master the techniques of extraction of materials, ground water and petroleum and also detect and monitor magnetic, thermal, electrical and oceanographic activity. The graduates have full command over complex equipment used to collect data and required skills to analyze and interpret it. The laboratory trainings and computational techniques instill in them over the course of four years make them able to quickly and independently solve problems and contribute towards a better future of our earth.

CAREER PROSPECTS
The graduates of this program are expected to gain employment with geoscience and environmental industries. As we move towards seeking sustainable resources for the world, mitigate the dangers of climate change and understand our earth in a better way, the truly interdisciplinary nature of this degree makes our graduates highly sought after by employment sectors. Graduates may also continue their higher studies with ease or they may take up their own projects, initiatives and entrepreneurial activities and work towards betterment of our future in the long run. Depending on the students’ interests and plans, career options are diverse and many.

PROGRAM FACTS
- Program Duration: 4 Years
- Timing: Morning, 08:30 AM to 05:00 PM (Monday-Friday)
- Entry Requirements: 12 Years of Education/Intermediate, F.Sc (Pre-Engg.)/ICS/DAE/A-Level or Equivalent (Physics & Mathematics Combination), Minimum 45% marks.
- Location: Raiwind Road Campus, Lahore.

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TOTAL SEMESTERS 8
TOTAL CREDIT HOURS 133
INTRODUCTION
For the students who have completed fourteen years of education, department of Physics offers postgraduate program in Physics with several specialization including Medical Physics, Computational Physics, High Energy Physics and several others. This degree focuses on preparing the students for their professional life with huge emphasis on teacher training, web learning and Physics education. The students, coming from diverse backgrounds, are prepared for problem solving, conceptual learning and are taught new techniques and methodologies in research over the course of two years.

CAREER PROSPECTS
The graduates of this program are equipped with necessary methodologies in research over the course of two years. Conceptual learning and are taught new techniques and methodologies in research over the course of two years enables the students to have unlimited career options once they graduate. The quality academic training received over the course of two years distinguishes our graduates from others once they enter their professional lives.

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Higher Education Commission

ROAD MAP
THE UNIVERSITY OF LAHORE

INTRODUCTION
This degree is designed to provide students facility to concentrate on their research area and gain deeper understanding and expertise in it. The teaching culture developed at graduate level is highly research-oriented with focus on research methodologies, computational skills and problem solving techniques. The Department of Physics has 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 paper in internationally recognized journals.

CAREER PROSPECTS
Depending on the concentration that a student selects during study, various job opportunities are available after degree completion. Some of most visible ones are Forensic Science, Software Development, Medical Physicist, Education Sector, Consultants and many more. With this extensive background and training, students who want to continue their studies and increase their expertise in their fields can very well do so, with ease.

RESEARCH GROUPS
• Material Physics
• Computational Physics
• Computational Solid State Physics
• Computational Fluid Dynamics
• Biophysics/Medical Physics
• Theoretical/Experimental High Energy Physics

ELECTIVE COURSES
• Object Oriented Programming
• Nano Technology
• Advanced Techniques of Experimental/Physics
• Group Theory
• Quantum Field Theory – I
• Solid State Theory
• Advanced Computational Physics I
• Advanced Nuclear Theory - I
• Computational Physics – II

Note: List of electives is available with the department.

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ROAD MAP
THE UNIVERSITY OF LAHORE

INTRODUCTION
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RESEARCH GROUPS
• Magnetic Materials
• Biophysics
• Biophysics/Medical Physics
• Laszer Physics
• Advanced Quantum Mechanics
• Advanced Techniques of Experimental/Physics
• Group Theory
• Quantum Field Theory – I
• Solid State Theory
• Advanced Computational Physics I
• Advanced Nuclear Theory - I
• Atomic Physics

Note: Degree is designed as per HEC’s approved format. Detail of the elective courses is available with the department, these courses can be changed as per department’s requirement. More courses can be offered in semester 3rd to 4th.
INTRODUCTION

The Department of Physics offers PhD programs for those who aspire to extend their knowledge and research in their particular areas of interest. The goal of the program is to prepare the graduates according to international standards, and instill the qualities of leadership in them. The department offers challenging coursework, highly qualified internationally renowned faculty, well-equipped laboratories and an ideal environment to motivate and inspire the researchers. Over the course of their degree, the students master their research skills, deepen their knowledge and understanding, learn new methodologies and bring out their best. A number of publications in renowned journals every year are an evidence of quality of research in the department.

CAREER PROSPECTS

The graduates who pass out are prepared to do world-class research and excel in both academic and professional life. Due to the collaborations of the department with other universities and research groups, PhD students can continue their work both locally and internationally. There are numerous career options, depending on the field of the research of the students. Besides teaching and researching, PhD students also contribute towards industry.

DOCTOR OF PHILOSOPHY IN PHYSICS (Ph.D)

PROGRAM FACTS

- Program Duration: 3-5 Years
- Timing: Weekend, 9:00 am to 6:00 pm (Saturday & Sunday)
- Entry Requirements: 18 Years of Education, MS/M.Phil or Equivalent (in relevant field) with at least 1st Division or 3.00 CGPA (out of 4.00)
- Location: Raiwind Road Campus, Lahore.

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ROAD MAP

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ELECTIVES

- Object oriented Programming
- Nano Technology
- Advanced Techniques of Experimental Physics
- Group Theory
- Quantum Field Theory - I
- Quantum Field Theory- II
- Solid State Physics
- Solid State Theory
- Material Science – II
- Advanced Nuclear Theory - I
- Advanced Nuclear Theory - II
- Computational Physics - II
- Magnetic Materials
- Statistical Physics
- Electrodynamics I
- Advanced Quantum Mechanics
- Optical properties of Solids
- Quantum Optics-I
- Condensed Matter Theory-I
- Quantum Information Theory-I
- Plasma Physics-I
- Plasma Physics-II
- Superconductivity
- Particle Physics
- General Relativity and Cosmology
- Condensed Matter Theory-II
- Quantum Optics-II
- Atomic Physics
- Quantum Information Theory-II
- Accelerator Techniques for Materials
- Quantum Information Theory-III
- Accelerator Techniques for Materials
- Advanced Medical Physics
- Material Science
- Computational Physics
- Computational Solid State Physics

RESEARCH GROUPS

- Atomic and Molecular Physics
- Computational Solid State Physics
- Experimental Materials Physics
- Medical Physics and Biophysics
- Particle Physics and Computational Physics

Department of Physics has a growing profile for research in five key areas across Physics, Engineering and Medicine. Hundreds of great minds at the university are associated with research and discovery in these groups. The scope of research is far reaching. Our well-qualified faculty, both nationally and internationally, is associated with these groups, actively pursuing their research activities as well as supporting and supervising graduate and postgraduate students in their areas of interest, which is evident from the growing number of quality publications. The department also extends its collaboration to other institutes, building on the strength of both. Students of M.Phil. and Ph.D. can get associated with any of these areas depending on their interest and background.

Note: Degree is designed as per HEC’s approved format. Detail of the elective courses is available with the department, these courses can be changed as per department’s requirement. More courses can be offered in semester as per departmental requirement.
DEPARTMENT OF ENVIRONMENTAL SCIENCES

DEGREES OFFERED

- BS Environmental Sciences
- M.Sc Environmental Sciences
- M.Phil Environmental Sciences

MISSION STATEMENT

Environmental Science is very important and a challenging field of study. Environmental problems have occurred due to rapid urbanization, industrialization, land-use change, over exploitation of resources, excessive use of agrochemicals and lack of environmental awareness. The mission of the department is to identify environmental problems and their causes. Our aim is to create a generation committed to promote sustainable development by changing patterns of environmental, economic and social behaviors. The degree programs will equip graduates with an ability to understand relations between different components of environment.

INTRODUCTION

Department of Environmental Sciences offers undergraduate, graduate and post graduate degree programs in the field of Environmental Sciences. Courses are offered to students from physical sciences, biological sciences, environmental management, engineering, and other relevant disciplines. Students are trained to conduct research in laboratories, field stations, universities, research organizations and private companies. The degree and courses offered by the department are designed according to HEC guidelines. The BS, M.Sc and M.Phil programs are launched with highly qualified faculty members. It fulfills all the curriculum requirements recommended by HEC. Our teaching methods comply with international standards and meet all mandatory requirements of HEC.
INTRODUCTION

Environmental Sciences program is offered to students from biological sciences, physical sciences, agricultural sciences, engineering, environmental management, and other relevant disciplines. Major emphasis is to provide quality education of international standard to build a highly skilled human resource that will contribute towards national and international decision-making and management of environmental and health risks. The Department of Environmental Sciences has highly qualified faculty with vast exposure in different latest areas of research. Students are encouraged to participate in different activities including seminars and training workshops.

CAREER PROSPECTS

The scope of environmental science has increased with growing environmental concerns. In the public sector, there are various jobs at local, provincial and federal government levels. In private sector, environmental consultancies and firms have job opportunities for environmental graduates. Environmental sections have also been established by the UN Organizations, World Bank and Asian Development Bank. Environmental graduates have job opportunities in the following departments and organizations:

• Ministry of Climate Change
• Environmental Protection Agency
• Environmental Protection Department (All Provinces)
• Waste Management Companies (Major Cities)
• Pakistan Meteorological Department
• Ministry of Health
• Forest Department
• The Urban Unit Lahore
• Lahore Development Authority
• Water and Power Development Authority
• Water and Sanitation Agency
• Universities & Research Organizations
• WWF-Pakistan, UNEP-Pakistan
• Environmental Consultancies
• Mineral Water Companies
• Construction Companies
• Environmental NGOs
• all Major Industries

ELECTIVES

• Water Resource Management
• Soil and Environment
• Urban Environmental Management
• Disaster Risk Management
• Pollutant Movement in Soil
• Energy and Environment
• Hydrology
• Agro-ecology
• Occupational Safety, Health and Environment
• Solid Waste Management
• Ecotourism
• Project Management
• Environmental Biotechnology
• Air and Noise Pollution

*Note: Elective courses are selected from the following list. More elective courses can be added in the list as per department’s requirement.

BACHELOR OF SCIENCE IN
ENVIRONMENTAL SCIENCES (BS)

PROGAM FACTS

• Program Duration 4 Years
• Timing Morning, 08:00 AM to 05:00 PM (Monday-Friday)
• Entry Requirements 12 years of education (Higher Secondary School Certificate/Intermediate) with at least second Division
• Location Raiwind Road Campus, Lahore.

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THE UNIVERSITY OF LAHORE

ROAD MAP

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<td>Environmental Management Systems</td>
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<td>Natural Resource Management</td>
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*Note: Elective courses are selected from the following list. More elective courses can be added in the list as per department’s requirement.
INTRODUCTION
The aim of this program is to provide students with essential skills necessary for professional work as an environmentalist. Students will be able to identify sources of pollution, their effects on the environment and to develop theories or methods of pollution control. During the study of this period students will learn new ways and techniques to solve environmental problems of developing countries. The Department of Environmental Sciences has highly qualified faculty with vast exposure in different latest areas of research. Students are encouraged to participate in conferences and seminars to present their research work.

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

ELECTIVES
- Water Resource Management
- Soil and Environment
- Disaster Risk Management
- Pollutant Movement in Soil
- Energy and Environment
- Hydrology
- Agro-ecology
- Occupational Safety, Health and Environment

PROGRAM FACTS
- Program Duration:
  2 Years
- Timing:
  Morning, 8:30 am to 5:00 pm (Monday to Friday)
  Weekend, 9:00 am to 10:00 pm (Saturday & Sunday)
- Entry Requirements:
  14 years of education & B.Sc. in relevant field of study (Environmental Sciences, Natural Sciences, Biological Sciences, Agricultural Sciences, Atmospheric Sciences, Soil Science, Physics, Chemistry, Wildlife & Zoology, Botany, Forestry, Geography, Geology) with minimum 45% marks in annual system.
- Location:
  Raiwind Road Campus, Lahore.

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Higher Education Commission

ROAD MAP
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<td>Introduction to Biochemistry</td>
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ELECTIVES
- Solid Waste Management
- Ecotourism
- Environmental Biotechnology
- Air and Noise Pollution

*Note: Elective courses are selected from the following list. More elective courses can be added in the list as per department’s requirement.

MASTER OF PHILOSOPHY IN ENVIRONMENTAL SCIENCES (M.Phil)

INTRODUCTION
This degree program is designed to conduct research for the purpose of identifying and eliminating sources of pollutants or hazards that affect the environment and human health. Students will be able to utilize scientific knowledge of various disciplines and suggest actions based on data derived from measurements or observations of air, food, soil, water, and other sources. The department has highly qualified faculty for teaching and supervising research at MPhil level. Training workshops and seminars are regularly organized and collaborative linkages with national and international organizations are an important part of the departmental policy.

CAREER PROSPECTS
Environmental graduates have job opportunities in the following departments and organizations:
- Ministry of Climate Change
- Environmental Protection Agency
- Environmental Protection Department (All Provinces)
- Waste Management Companies (Major Cities)
- Pakistan Meteorological Department
- Ministry of Health
- Forest Department
- The Urban Unit Lahore
- Lahore Development Authority
- All Major Industries

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Higher Education Commission

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*Note: Elective courses are selected from the following list. More elective courses can be added in the list as per department’s requirement.
DEPARTMENT OF CHEMISTRY

DEGREES OFFERED

- BS Chemistry
  Specializations:
  1. Organic Chemistry
  2. Inorganic Chemistry
  3. Physical Chemistry
  4. Analytical Chemistry
  5. Industrial Chemistry
  6. Computational Chemistry
- M.Sc Chemistry
- M.Phil Chemistry
- Ph.D Chemistry

MISSION STATEMENT

The mission of the Department of Chemistry is to create and maintain programs of excellence in the areas of research, education and public outreach. It endeavors to be a nationally-recognized model for educating and graduating students prepared to compete in and contribute to the ever-changing, technology-centered world of the 21st century. Its aims to create and produce the abilities in the students to hands on work in the laboratory and computational techniques.

INTRODUCTION

Department of Chemistry offers undergraduate and graduate level degree programs in the fields of Pure and Applied domains. The Degree and Courses offered in Chemistry designed according to the scheme of studies approved by the Higher Education Commission (HEC) of Pakistan so as to meet the national and international standards. It focuses on the experimental techniques especially to endow graduates with basic concepts and hands-on laboratory training.

Students are trained through practical training in the scientific organizations and industry by organizing a meaningful internship program.

The department encourages the students to participate in the research projects, and provide them with possible facilities and guidance. Research activities would result in students presenting their findings at professional conferences and/or co-authoring articles in valued journals. 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.
CHEMISTRY
BACHELOR OF SCIENCE IN
Agriculture, Education, Research and Development.

Alternate energy resources, Waste management, Irrigation & Petrochemicals, Metallurgy, Environmental Sciences, Dentistry, Nanotechnology, Genomics, Forensics, Petroleum Dyes, Fertilizers, Cement Industry, Nuclear science, Surgery, private organizations such as: Textile, Paint, Pharmaceuticals, are available, for graduate students, in government as well as CAREER PROSPECTS perform different experimental work which will be beneficial and will be able to use different techniques to solve problems and perform different experimental work which will be beneficial for his future prospects.

INTRODUCTION
BS chemistry offers the understandings of the basic level to graduate level work in the various field of chemistry. The students will learn about all basic and advanced ideas of the subject and will be equipped to do research in the latest fields as Physiology, Genetics, and Molecular Biology. This degree can lead to specialization in various other fields interconnected with Physics such as Physical Chemistry, Bio-chemistry etc. Over the periods of four years, students will be able to use different techniques to solve problems and perform different experimental work which will be beneficial for his future prospects.

PROGRAM FACTS
- **Program Duration**: 4 Years
- **Timing**: Morning, 08:00 AM - 05:00 PM (Monday – Friday)
- **Entry Requirements**: 12 Years of Education/Intermediate, F. Sc. / ICDS/DAE/A-Level or Equivalent (Physics & Chemistry Combination), Minimum 45% marks
- **Location**: Rawalpind Road Campus, Lahore.

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Note: In the Semesters VI & VII of BS Students will study the courses of their specialization.

GENERAL COURSES
- Computational Chemistry
- Advanced Spectroscopic techniques
- Advanced Chromatographic techniques
- Chemical education
- Research methodology
- Computational Chemistry
- Statistical Data Handling and Mathematics
- Assessment in Higher Education
- Forensic chemistry

AREAS OF SPECIALIZATION

INORGANIC/ANALYTICAL CHEMISTRY
- Advanced Spectroscopic Technique
- Advanced Chromatographic Technique
- Bio-analytical Chemistry
- Solid State Chemistry
- Organic Chemistry
- Nano-chemistry
- Physical Chemistry
- Thermal Analysis
- Validation of Analytical Methods
- Nuclear medicine
- Food, pharmaceutical and Forensic analysis
- Advanced Electro-analytical Techniques
- Inorganic Material Chemistry
- Characterization of Natural Antioxidants and Essential Oils

ORGANIC CHEMISTRY
- Natural Products Chemistry
- Synthetic Applications of Named Reactions
- Advanced Spectroscopy
- Advanced Heterocyclic Chemistry
- Organic Polymer Chemistry
- Pharmaceutical Chemistry
- Supramolecular Chemistry
- Phytochemical Techniques
- Advanced Stereocchemistry
- Polycyclic Chemistry
- Organic Compounds containing S, F & S
- Dyes and Pigments
- Physical Organic Chemistry
- Asymmetric analysis

PHYSICAL CHEMISTRY
- Polymers and Advanced Composite Materials
- Advanced Quantum Chemistry
- Advanced Photochemistry and Radiation Chemistry
- Advanced Electrochemistry
- Surface Chemistry
- Advanced Statistical Thermodynamics
- Biophysical Chemistry
- Chemistry of Atmosphere
- Advanced Solid State Chemistry and Characterization Techniques
- Advanced Reactions Dynamics
- Nano-materials
- Magnetic Spin Dynamics
- Applied Nuclear Chemistry

INDUSTRIAL CHEMISTRY
- Environmental Impact of Chemical Industries
- Nano-materials and their applications
- Chemistry of Dyes and Pigments
- Pharmaceutical Chemistry
- Advanced Polymer Chemistry
- Agrochemicals
- Physical Structure of Porous Materials
- Industrial Process Chemistry
- Advance in Petrochemical Industries
- Coal Gasification and Liquidation
- Alternative Fuels
- Nuclear Fuel Processing and waste management
- Alternative Energy Sources

ROAD MAP

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<th>SEMESTER</th>
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THE UNIVERSITY OF LAHORE

TOTAL SEMESTERS 8
TOTAL CREDIT HOURS 133-139

THE UNIVERSITY OF LAHORE
INTRODUCTION

Department of Chemistry offers a postgraduate program for the students with several advanced fields of studies like organic chemistry, Inorganic chemistry, physical chemistry, Biochemistry, and many more. This degree is to create the research oriented abilities in the diverse background students through experimental work in the laboratories which are equipped with internationally standard equipment. During the span of his degree, the student will be able to prepare different projects by using different research techniques and methodologies which will be helpful for his future research and professional life.

CAREER PROSPECTS

The graduates of this program are equipped to hands on work in different fields of their career. They are prepared to continue their education in world-class institutions without any difficulty or start professional life in industry. After completion of their degrees, there are many opportunities are available, for graduate students, in government as well as private organizations like forensic department, education sector, pharmaceutical industries and beverage industries, Textile, Paint, Pharmaceuticals, Dyes, Fertilizers, Cement Industry, Nuclear science, Surgery, Dentistry, Nanotechnology, Genomics, Petroleum & Petrochemicals, Metallurgy, Environmental Sciences, Alternate energy resources, Waste management, Irrigation & Agriculture, Research and Development.

MASTER OF SCIENCE IN CHEMISTRY (M.Sc)

PROGRAM FACTS

- Program Duration
  2 Years

- Timing
  Weekend, 9:30 AM to 10:00 PM (Saturday & Sunday)

- Entry Requirements
  14 Years of Education/ B. Sc. (Physics, Chemistry, Math/ Chemistry, Botany, Zoology) or Equivalent 2nd Division, Minimum 45% marks

- Location
  Raiwind Road Campus, Lahore.

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Higher Education Commission

ROAD MAP

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<thead>
<tr>
<th>SEMESTER 1</th>
<th>Cr. Hr.</th>
<th>SEMESTER 2</th>
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<td>Elective -V</td>
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</table>

THE UNIVERSITY OF LAHORE
INTRODUCTION
This degree is designed as per HEC norms to endow student a deep thoughtful knowledge about the several advanced areas of research. The teaching culture developed at graduate level is highly research-oriented with focus on research methodologies, computational skills and problem solving techniques and experimental work in the well-equipped laboratories designed according to international standards. Students are encouraged to participate in conferences and present their research work.

CAREER PROSPECTS
The graduates of this program are equipped to hands on experimental work in the well-equipped laboratories designed according to international standards. Students are encouraged to participate in conferences and present their research work. They are prepared to continue their education in world-class institutions without any difficulty or start professional life in industry. After completion of their degrees, there are many opportunities are available, in government as well as private organizations like forensic department, education sector, pharmaceutical industries and beverage industries, Textile, Paint, organizations like forensic department, education sector, for graduate students, in government as well as private of their degrees, there are many opportunities are available, in government as well as private organizations like forensic department, education sector, pharmaceutical industries and beverage industries, Textile, Paint, organizations like forensic department, education sector, for graduate students, in government as well as private

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Higher Education Commission

PROGRAM FACTS
- Program Duration: 2 Years
- Timing: Weekend, 9:30 am to 10:00 pm (Saturday & Sunday)
- Entry Requirements: 16 Years of Education/2 years M. Sc. Chemistry, 4 years BS Chemistry or equivalent (in relevant field) with at least second Division in annual system and 2.5 CGPA (out of 4.00), UOL Entry Test and Interview is Mandatory
- Location: Raiwind Road Campus, Lahore.

COURSES LIST

ORGANIC CHEMISTRY
- Natural Products Chemistry
- Synthetic Applications of named Reactions
- Advanced Spectroscopy
- Advanced Heterocyclic Chemistry
- Organic Polymer Chemistry
- Pharmaceutical Chemistry
- Supra-molecular Chemistry
- Phytochemical Techniques
- Advanced Stereoc hemistry
- Pericyclic Chemistry
- Organic Compounds containing S, P & Si
- Dyes and Pigments
- Physical Organic Chemistry
- Asymmetric analysis

INORGANIC/ANALYTICAL CHEMISTRY
- Advanced Spectroscopic Techniques
- Advanced Chromatographic Techniques
- Bio-analytical Chemistry
- Solid State Chemistry
- Chemistry of Organometallics
- Metal-based drugs
- Nano-chemistry
- Green Chemistry Techniques
- Thermal Analysis
- Validation of Analytical Methods
- Nuclear medicine
- Food, pharmaceutical and Forensic analysis
- Advanced Electro-analytical Techniques
- Inorganic Material Chemistry
- Characterization of Natural Antioxidants and Essential Oils

PHYSICAL CHEMISTRY
- Polymers and Advanced Composite Materials
- Advanced Quantum Chemistry
- Advanced Photochemistry and Radiation Chemistry
- Advanced Electrochemistry
- Surface Chemistry
- Advanced Statistical Thermodynamics
- Biophysical Chemistry
- Chemistry of Atmosphere
- Advanced Solid State Chemistry and Characterization
- Techniques
- Advanced Reactions Dynamics
- Nano-materials
- Magnetic Spin Dynamics
- Applied Nuclear Chemistry

INDUSTRIAL CHEMISTRY
- Environmental Impact of Chemical Industries
- Nano-materials and their applications
- Chemistry of Dyes and Pigments
- Pharmaceutical Chemistry
- Advanced Polymer Chemistry
- Agrochemicals
- Physical Structure of Porous Materials
- Industrial Process Chemistry
- Advances in Petrochemical Industries
- Coal Gasification and liquefaction
- Alternative Fuels
- Nuclear Fuel Processing and waste management
- Alternative Energy Sources

Note: Any other course according to the availability of facilities, expertise in the institution may be offered.

ROAD MAP

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<thead>
<tr>
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<td>CHEM- Elective</td>
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THE UNIVERSITY OF LAHORE
DOCTOR OF PHILOSOPHY IN CHEMISTRY (Ph.D)

INTRODUCTION
This degree is designed as per HEC norms to endow students with deep, thoughtful knowledge about the several advanced areas of research. The teaching culture developed at graduate level is highly research-oriented with focus on research methodologies, computational skills and problem solving techniques and experimental work in the well-equipped laboratories designed according to international standards. Students are encouraged to participate in conferences and present their research work.

CAREER PROSPECTS
The graduates of this program are equipped to hands on work in different fields of their career. They are prepared to continue their education in world-class institutions without any difficulty or start professional life in industry. After completion of their degrees, there are many opportunities available, for graduate students, in government as well as private organizations like forensic department, education sector, pharmaceutical industries and beverage industries, Textile, Paint, Pharmaceuticals, Dyers, Fertilizers, Cement Industry, Nuclear science, Surgery, Dentistry, Nanotechnology, Genomics, Petroleum & Petrochemicals, Metallurgy, Environmental science, Surgery, Dentistry, Nanotechnology, Genomics, Pharmaceuticals, Dyes, Fertilizers, Cement Industry, Nuclear organizations like forensic department, education sector, for graduate students, in government as well as private organizations.

PROGRAM FACTS
- Program Duration: 3-5 Years
- Timing: Weekend, 9:30 am to 6:00 pm (Saturday & Sunday)
- Entry Requirements: 18 Years of Education, M.S/M.Phil or Equivalent (in relevant field) with at least 1st Division or 3.00 CGPA (out of 4.00) UOS. Entry Test and Interview is Mandatory.
- Location: Raiwind Road Campus, Lahore.

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COURSES LIST

GENERAL COURSES
- Computational Chemistry
- Advanced Spectroscopic techniques
- Advanced Chromatographic techniques
- Chemical education
- Research methodology
- Statistical Data Handling and Mathematics
- Assessment in Higher Education
- Forensic chemistry

INORGANIC/ANALYTICAL CHEMISTRY
- Advanced Spectroscopic Techniques
- Advanced Chromatographic Techniques
- Bio-analytical Chemistry
- Solid State Chemistry
- Chemistry of Organometallics
- Metal-based drugs
- Nano-chemistry
- Green Chemistry Techniques
- Thermal Analysis
- Validation of Analytical Methods
- Nuclear medicine
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- Characterization of Natural Antioxidants and Essential Oils

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- Advanced Reactions Dynamics
- Nano-materials
- Magnetic Spin Dynamics
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Note: Any other course according to the availability of facilities, expertise in the institution may be offered.

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DEPARTMENT OF MATHEMATICS AND STATISTICS

DEGREES OFFERED
• BS Mathematics
• M.Phil Mathematics
• Ph.D Mathematics

MISSION STATEMENT
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. We have 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.

INTRODUCTION
The Department of Mathematics is 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 Mathematician as future scholars, teachers, researchers and organizational leaders. The BS (HONS) M.Phil. & Ph.D. programs were launched in 2013 with highly qualified faculty members. It fulfills all the curriculum requirements for BS (HONS), M.Phil. & Ph.D. degree as recommended by HEC. Our teaching techniques comply with international standards and meet all mandatory requirements of HEC.
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 service; the pharmaceutical industry; and medicine statistics.Mathematics graduates are highly employable due to the advanced problem-solving, analytical skills and is higher level numeracy skills developed by studying this subject. There is a strong demand for financial, business, IT and education sectors.

PROGRAM FACTS
- Program Duration: 4 Years
- Timing: Morning 08:00 AM to 05:00 PM (Monday-Friday)
- Location: Raiwind Road Campus, Lahore.

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ROAD MAP

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<td>Complex Analysis-I</td>
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</table>

ANY TWO ELECTIVE LIST-1
- 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 & Splines-I
- Functional Analysis-II
- Fluid Mechanics-I

ANY TWO ELECTIVE LIST-2
- Mathematical Statistics-II
- Computer Applications
- Group Theory-II
- Theory of Modules
- Number Theory-II
- Quantum Mechanics-II
- Special Theory of Relativity
- Electromagnetic Theory-II
- Operations Research-I
- Theory of Approximation and Splines-II
- Functional Analysis-II
- Fluid Mechanics-II
INTRODUCTION

The purpose is to offer students who hold degree M.Sc or BS (hons.) Mathematics to broaden their knowledge in several fields 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.

CORE COURSES

- Group Theory
- Functional Analysis
- Riemannian Geometry
- Mathematical Techniques
- ODEs and Computational Linear Algebra
- Partial Differential Equations
- Integral Equations
- Advanced Mathematical Physics
- Advanced Numerical Analysis
- Mathematical Modeling-I

PROGRAM FACTS

- Program Duration: 2 Years
- Timing: Weekend 09:00 AM - 06:00 PM (Saturday & Sunday)
- Entry Requirements: 16 years of education, 2 years Msc, 4 years BS or Equivalent (in relevant field) with at least second Division min 50% marks in annual system and at least 2.5 CGPA (out of 4.00) in semester system. GAT/UOL entry test is mandatory.
- Location: Raiwind Road Campus, Lahore.

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ELECTIVES

- Fluid Dynamics
- Relativistic Astrophysics
- Classical Field Theory
- Quantum Field Theory
- Electrodynamics-I
- Electrodynamics-II
- General Relativity-I
- General Relativity-II
- Cosmology
- Electrodynamics
- Plasma Dynamics
- Advanced Course in Plasma Physics
- Magneto hydrodynamics-I
- Magneto hydrodynamics-II
- Optimization-I
- Optimization-II

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
- Multigrid Methods for PDEs

PURE MATHEMATICS

- Lattice Theory
- Topological Groups
- Banach Algebras-I
- Banach Algebras-II
- Rings and Modules
- Operator Theory
- Lie Algebras & Lie Groups
- Field Extensions & Galois Theory
- Linear Groups & Group Representations
- General Topology
- Homotopy Theory
- Homological Theory
- Representation Theory

ROAD MAP

<table>
<thead>
<tr>
<th>SEMESTER 1</th>
<th>Cr. Hr.</th>
<th>SEMESTER 2</th>
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</table>
**INTRODUCTION**

The program is designed to develop advanced understanding of specific fields of Mathematics and a thorough understanding of one major field of interest. We offer a broad variety of research in different areas of 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.

**DOCTOR OF PHILOSOPHY IN MATHEMATICS (Ph.D)**

**PROGRAM FACTS**

- **Program Duration**
  3.5 Years

- **Timing**
  Weekend 09:00 AM - 06:00 PM (Saturday & Sunday)

- **Entry Requirements**
  MS/M. Phil (18 years of education) degree in the relevant field (with atleast 6 credit hours thesis) from HEC recognized University/Institute. CGPA 3.0 (out of 4.0 in the Semester System) or First Division (in the Annual System) Note: Subject Test
  UOL Entry test/interview is mandatory 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.

- **Location**
  Raiwind Road Campus, Lahore.

**RECOGNIZED BY**

Higher Education Commission

**CORE COURSES**

- Group Theory
- Functional Analysis
- Riemannian Geometry
- Mathematical Techniques
- ODEs and Computational Linear Algebra
- Partial Differential Equations
- Advanced Mathematical Physics
- Advanced Numerical Analysis
- Mathematical Modeling-I

**ELECTIVES**

- Fluid Dynamics
- Relativistic Astrophysics
- Classical Field Theory
- Quantum Field Theory
- Electrodynamics-I
- Electrodynamics-II
- General Relativity-I
- General Relativity-II
- Cosmology
- Electrodynamics
- Plasma Dynamics
- Advanced Course in Plasma Physics
- Magnetohydrodynamics-I
- Magnetohydrodynamics-II
- Optimization-I
- Optimization-II
- Optimal Control Problem for PDEs
- Integral Transform

**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
- Multigrid Methods for PDEs
- Optimization

**PURE MATHEMATICS**

- Lattice Theory
- Topological Groups
- Banach Algebras-I
- Banach Algebras-II
- Rings and Modules
- Operator Theory
- Lie Algebras & Lie Groups
- Field Extensions & Galois Theory
- Linear Groups & Group Representations
- General Topology
- Homotopy Theory
- Homological Theory
- Representation Theory
- BCK Algebra
- BCI 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
- Combinatorics
- Monomial Algebra

**ROAD MAP**

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<th>Cr. Hr.</th>
<th>SEMESTER 7</th>
<th>Cr. Hr.</th>
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**THE UNIVERSITY OF LAHORE**
DEGREES OFFERED

- BS Zoology
- BS Botany
- BS Biochemistry & Biotechnology
- BS Biotechnology
- BS Microbiology & Biotechnology
- BS Molecular Biology & Biotechnology
- M.Phil Zoology
- M.Phil Botany
- M.Phil Biochemistry
- M.Phil Biotechnology
- M.Phil Microbiology
- M.Phil Molecular Biology
- M.Phil Physiology
- M.Phil Forensic Sciences
- Ph.D Zoology
- Ph.D Botany
- Ph.D Biochemistry
- Ph.D Biotechnology
- Ph.D Microbiology
- Ph.D Molecular Biology
- Ph.D Physiology

MISSION STATEMENT

The mission of the department is to develop manpower and the frontiers of knowledge with emphasis on economically important areas of teaching and research with particular reference to mitigating educated unemployment.

INTRODUCTION

The Institute of Molecular Biology and Biotechnology was established in the year 2004. It offers undergraduate 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, alternative 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, regi-technology, 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.
BACHELOR OF SCIENCE IN ZOOLOGY

INTRODUCTION
This subject has significant role in human resource development, food security, environmental conservation, sustainable development and ultimately in alleviation of poverty. Zoology is a combination of various disciplines such as Genetics, Physiology, Ecology, Developmental Biology, Microbiology, Parasitology, Entomology, Evolution, Taxonomy, Freshwater Biology, Fisheries and Wildlife etc.

CAREER PROSPECTS
After obtaining the BS degree in Zoology, the graduates will be able to get jobs in wide range of professions: various government and non-governmental organizations, teaching and research, administration and management, forestry, pharmaceutical, agriculture, biological control program, integrated pest management, poultry, wildlife, aquaculture, fisheries, livestock and other areas.

CAREER PROSPECTS
After obtaining the BS degree in Zoology, the graduates will be able to get jobs in wide range of professions: various government and non-governmental organizations, teaching and research, administration and management, forestry, pharmaceutical, agriculture, biological control program, integrated pest management, aquaculture, fisheries, livestock and other areas.

CAREER PROSPECTS
After obtaining the BS degree in Zoology, the graduates will be able to get jobs in wide range of professions: various government and non-governmental organizations, teaching and research, administration and management, forestry, pharmaceutical, agriculture, biological control program, integrated pest management, aquaculture, fisheries, livestock and other areas.

PROGRAM FACTS
- Program Duration:
  4 Years
- Timing:
  Morning 08:00 AM - 05:00 PM (Monday – Friday)
- Entry Requirements:
  12 years of education (Higher Secondary School Certificate/Intermediate) with at least second Division
- Location:
  Defence Road Campus, Lahore.

RECOGNIZED BY
Higher Education Commission

ROAD MAP
Total Semesters 8
Total Credit Hours 133

SEMMESTER 1
Cr. Hr.
Pakistan Studies
3
Islamic Studies
3
Introduction to Sociology
3
Fundamentals of Biophysics
3

SEMMESTER 2
Cr. Hr.
English for Academic Purposes
3
Communication Skills
3
Computer Applications
3
Histology
4

SEMMESTER 3
Cr. Hr.
Basic Mathematics
3
Morphology of Vascular Plants
3
Plant Systematics and Anatomy
3
Plants Physiology
3

SEMMESTER 4
Cr. Hr.
Organic Chemistry
3
Inorganic Chemistry
3
Microbiology
3
Biochemistry
3

SEMMESTER 5
Cr. Hr.
Cell Biology
4
Invertebrate Zoology
4
Biology of Chordates
4
Genetics
4

SEMMESTER 6
Cr. Hr.
Animal Morphology and Physiology
4
Biometrics
2
Entomology
4
Applied Entomology and Pest Management
4

SEMMESTER 7
Cr. Hr.
Zoogeography and Paleontology
3
Taxonomy and Biotaxonomics
4
Protozoology, Pathology and Immunology
4
Helminthology and Host-Parasite Relationship
4

SEMMESTER 8
Cr. Hr.
Developmental Biology
4
Biostatistics
4
Ichthyology
4
Applied Fishery
4

BACHELOR OF SCIENCE IN BOTANY

INTRODUCTION
The BS programme will enable to the students to be acquainted with the latest knowledge of the plant sciences. In the programme the contents of various foundation courses has been reviewed, modified and updated such as; Biodiversity and conservation, Plant Anatomy, Genetics, Biochemistry, Biostatistics etc. and the major courses as Physiology, Genetics, Ecology, Ethnobotany, cell biology etc. is incorporated.

CAREER PROSPECTS
After obtaining the BS degree in Botany, the graduates will be able to get jobs in wide range of professions: various government and non-governmental organizations, teaching and research, administration and management, forestry, pharmaceutical, agriculture, biological control program, integrated pest management, aquaculture, fisheries, livestock and other areas.

PROGRAM FACTS
- Program Duration:
  4 Years
- Timing:
  Morning 08:00 AM - 05:00 PM (Monday – Friday)
- Entry Requirements:
  12 years of education (Higher Secondary School Certificate/Intermediate) with at least second Division
- Location:
  Defence Road Campus, Lahore.

RECOGNIZED BY
Higher Education Commission

ROAD MAP
Total Semesters 8
Total Credit Hours 134

SEMMESTER 1
Cr. Hr.
Diversity of Plants
4
Systematic, Anatomy and Development
4

SEMMESTER 2
Cr. Hr.
Functional English
3
English Comprehension & Composition
3

SEMMESTER 3
Cr. Hr.
Pakistan Studies
2
Islamic Studies / Ethics
2

SEMMESTER 4
Cr. Hr.
Mathematics-I
3
Zoology-I Principals in animal life-II
3

SEMMESTER 5
Cr. Hr.
Phytochemistry and Physiology-I
3
Genetics-I
3

SEMMESTER 6
Cr. Hr.
Bacteriology and Virology
3
Plant Biochemistry-I
3

SEMMESTER 7
Cr. Hr.
Zoology-III Animal diversity-1
3

SEMMESTER 8
Cr. Hr.
Animal Behaviour and Evolution
4
Ecology
4

THE UNIVERSITY OF LAHORE

*Students taking Thesis will opt one special course, *Remaining students will opt three special courses
BACHELOR OF SCIENCE IN 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 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.

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

PROGRAM FACTS
- Program Duration: 4 Years
- Timing: Morning 08:00 AM - 05:00 PM (Monday – Friday)
- Entry Requirements: 12 years of education (Higher Secondary School Certificate/Intermediate) with at least second Division
- Location: Defence Road Campus, Lahore.

RECOGNIZED BY
Higher Education Commission

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ROAD MAP

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<td>Biochemistry II: Metabolism I</td>
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<td>Biochemistry III: Metabolism II</td>
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<td>Enzymology</td>
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<tr>
<td>Introductory Genetics</td>
<td>3</td>
<td>Molecular Biology I</td>
<td>4</td>
<td>Introduction to Biotechnology</td>
<td>3</td>
<td>Body Fluids and Function</td>
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<tr>
<td>Introduction to Computers</td>
<td>3</td>
<td>Cell Biology I</td>
<td>3</td>
<td>Cell Biology II</td>
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<td>Biochemistry of Vitamins and Minerals</td>
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<tr>
<td>Foundation of English</td>
<td>3</td>
<td>Biometrics</td>
<td>3</td>
<td>Biomedical Ethics</td>
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<td>Microbial Biochemistry and Biotechnology</td>
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<td>Mathematics</td>
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<td>Communication Skills</td>
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<td>Pakistan Studies</td>
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<th>Cr. Hr.</th>
<th>SEMESTER 8</th>
<th>Cr. Hr.</th>
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<tr>
<td>Biochemistry of Hormones</td>
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<td>Molecular Genetics and Genetic Disorders</td>
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<td>Biochemistry &amp; Physiology of Stress Tolerance</td>
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<td>Advanced Biochemistry</td>
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<td>General Physiology</td>
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<td>Environmental Biochemistry</td>
<td>3</td>
<td>Bioinformatics and System Biology</td>
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<td>Clinical Biochemistry</td>
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<td>Natural Products I</td>
<td>3</td>
<td>Techniques in Biochemistry</td>
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<td>*Review Report/Research</td>
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<tr>
<td>Immunology</td>
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<td>Introduction to Cell Signalling</td>
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<td>Bio-safety &amp; Bioethics</td>
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</tbody>
</table>

BACHELOR OF SCIENCE IN 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 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.

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

PROGRAM FACTS
- Program Duration: 4 Years
- Timing: Morning 08:00 AM - 05:00 PM (Monday – Friday)
- Entry Requirements: 12 years of education (Higher Secondary School Certificate/Intermediate) with at least second Division
- Location: Defence Road Campus, Lahore.

RECOGNIZED BY
Higher Education Commission

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ROAD MAP

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<td>General Virology</td>
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<td>Epigenetics</td>
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<td>Applied Biotechnology</td>
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CAREER PROSPECTS

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

PROGRAM FACTS

- Program Duration: 4 Years
- Timing: Morning 08:00 AM - 05:00 PM (Monday – Friday)
- Entry Requirements: 12 years of education (Higher Secondary School Certificate/Intermediate) with at least second Division
- Location: Defence Road Campus, Lahore.

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Higher Education Commission

ROAD MAP

Total Semesters 8
Total Credit Hours 131

SEMMESTER 1
Cr. Hr. SEMESTER 2
Cr. Hr. SEMESTER 3
Cr. Hr. SEMESTER 4
Cr. Hr.

Biochemistry I: Introduction & 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 Biometrics 3 Biological diversity 3 Animal Biotechnology 3
Mathematics 3 English Technical Writing and comprehension 3 Plant Biotechnology 3
Islamic Studies 2 Pakistan Studies 2

SEMMESTER 5
Cr. Hr. SEMESTER 6
Cr. Hr. SEMESTER 7
Cr. Hr. SEMESTER 8
Cr. Hr.

Microbial Biotechnology 3 Genetic Resources & Conservation 3 Genomics, Translomics & 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 Molecular Biology 3 *Review Report/Research 3
Immunology 4 Bioinformatics and System Biology 3 Bio-safety & Bioethics 2
Recombinant DNA Technology 4 Biotransformatics 3 Agriculture Biotechnology 3
Research Methodology 2 *Review Report/Research 3

SEMMESTER 5
Cr. Hr. SEMESTER 6
Cr. Hr. SEMESTER 7
Cr. Hr. SEMESTER 8
Cr. Hr.

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Recombinant DNA Technology 4 Biotransformatics 3 Agriculture Biotechnology 3
Research Methodology 2 *Review Report/Research 3

THE UNIVERSITY OF LAHORE

THE UNIVERSITY OF LAHORE
INTRODUCTION

Zoology is the branch of biology that includes the study of animals and animal life, including, but not limited to, the study of the structure, function, and classification of animals. It is a multidisciplinary subject covering all aspects of animal life. With the evolution and development of modern scientific knowledge, the zoological sciences has also become revolutionized which not only include the basic classical disciplines but also contain the large number of allied modern disciplines.

CAREER PROSPECTS

The MS/MPhil. zoology has been designed to address the need and challenges of our country and world. The program aims to prepare and develop the skilled manpower, scientists and researchers to serve in various national and international research organizations, Universities, Institutes of Public Health, Environment related Agencies, Pest Control & Plant Protection Institutes, Wildlife Conservation & Management organizations, Natural History Museums, Fisheries Departments, Molecular Biology Research organization, NBGE, NAB, NIFA, POSIR, PARC, NARC Research centers and Labs, Biomedical Sciences & Forensic science Organizations, Pathology Labs, Agriculture Research Departments such as NARC, PARC.

PROGRAM FACTS

- Program Duration: 2 Years
- Timing: Weekends 02:00 PM - 05:00 PM (Saturday & Sunday)
- Entry Requirements: 16 years of education, BS 4 years, MSc 2 years Zoology with at least 2nd division in annual system or CGPA (2.5 out of 4.0) in semester system from HEC recognized university.
- Location: Defence Road Campus, Lahore.

RECOGNIZED BY

Higher Education Commission

CORE COURSES

- Advanced Analytical Techniques
- Applied Biostatistics
- Advances in Cell Biology
- Advanced Cell and Molecular Biology
- Advanced Microbiology
- Advanced Physiology
- Advances in Wildlife
- Applied Genetics
- Applied Microbiology
- Aquaculture and Fisheries
- Bacterial Genetics
- Biological Toxicology
- Biology of Birds and Mammals in Pakistan
- Cell and Tissue Culture
- Clinical Pathology
- Conservation Biology of Wildlife
- Fish Requirements
- Human Genetics
- Medical Biotechnology
- Medical Microbiology
- Medical Parasitology
- Microbial Genetics and Disease
- Molecular Entomology
- Molecular Physiology
- Principles of Wildlife Management
- Recent Advances in Endocrinology
- Recombinant DNA Technology
- Research Methods in Entomology
- Stem Cell Technology
- Toxicology
- Recent Trends in Immunology
- Advanced Biochemistry
- Advanced Virology
- Food Microbiology
- Techniques in molecular Biology
- Genomics, Transcriptomics & Proteomics
- Cell signaling & cell transduction

ELECTIVES

- Plant Growth 
- Agrostology
- Applied Biostatistics
- Advanced Analytical Techniques
- Applied Microbiology
- Advances in Cell Biology
- Biological Toxicology
- Advanced Microbiology
- Advanced Physiology
- Advances in Wildlife
- Applied Genetics
- Aquaculture and Fisheries
- Bacterial Genetics
- Biological Toxicology
- Biology of Birds and Mammals in Pakistan
- Cell and Tissue Culture
- Clinical Pathology
- Conservation Biology of Wildlife
- Fish Requirements
- Human Genetics
- Medical Biotechnology

INTRODUCTION

Plants have emerged as the most successful organisms in evolution providing a basis for the survival and taxonomic diversions of different biotic components of the biosphere. The biotic component of any agricultural ecosystem is essentially maintained by the photosynthetic activity of plants and their role in various food webs. Thus an understanding of the basic mechanisms underlying the precise and measured responses of plants to the ecological factors is imperative in determining the role and utilization of plants and their products for the welfare of man and ecosystems.

The IMBB at UOL imparts knowledge in key disciplines of plant sciences with the recent advances in taxonomy, physiology, evolution, ecological, developmental biology, tissue culture and breeding of plant species mainly of agricultural importance. The faculty and research facilities provide a unique opportunity to the MPhil/PhD students to not only deepen their insight into different research themes in botany but in the genesis of novel hypotheses.

CAREER PROSPECTS

The study of botany encompasses many benefits from the market, social and employment point of view. A vast array of the employment opportunities is available for MPhil graduates in Botany. However as the theme of profession varies according to the available demand and resources, the presumed choices for a botanist are very vast.

ROAD MAP

<table>
<thead>
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<tr>
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<td>Applied Biostatistics</td>
<td>Elective III: (e.g. Biochemistry of Cell Signaling)</td>
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<td>Advances in Cell</td>
<td>Physiology of Reproduction</td>
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ELECTIVES

- Allergology
- Soil Fertility and Plant Nutrition
- Nitrogen Biological Fixation
- Plant Cellular Signaling
- Invasive Plant Species
- Population structure and dynamics
- Plant-Environment Interactions
- Conservation and Management of Plant Resources

Note: Total Credits 36* (Flexible from 30-36)

THE UNIVERSITY OF LAHORE

THE UNIVERSITY OF LAHORE
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 fulfills 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.

CAREER PROSPECTS
- Industrial
- Agricultural
- Educational Research & Development
- Health Organizations

CAREER PROSPECTS

MASTER OF PHILOSOPHY IN PHYSIOLOGY (M.Phil)

RECOGNIZED BY
Higher Education Commission

ROAD MAP
Total Semesters 4
Total Credit Hours 36

SEMESTER 1
Cr. Hr.
SEMESTER 2
Cr. Hr.
Advanced Physiology 3
Advances in Neurphysiology 3
Advances in Endocrinology 3
Elective II (e.g. Cell and Molecular Physiology) 3
Research Thesis 3

SEMESTER 3
Cr. Hr.
SEMESTER 4
Cr. Hr.
Elective III: (e.g. Cell Signaling and Signal transduction) 3
Research Thesis 3

PROGRAM FACTS
• Program Duration 2 Years
• Timing After Noon 02:00 PM - 05:00 PM (Monday – Friday)
• Entry Requirements 16 years of education (BS/MS/BMBBS/BDS/B-Pharm) with at least 2nd division.
• Location Defence Road Campus, Lahore.

RECOGNIZED BY
Higher Education Commission

THE UNIVERSITY OF LAHORE
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 fulfills 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.

CAREER PROSPECTS
- Industrial
- Agricultural
- Educational Research & Development
- Health Organizations

CAREER PROSPECTS
- Industrial
- Agricultural
- Educational Research & Development
- Health Organizations

PROGRAM FACTS
- Program Duration: 2 Years
- Timing: After Noon 02:00 PM - 05:00 PM (Monday – Friday)
- Entry Requirements:
  1. 16/17 Year of Education, 5/4 years degree (MBBS, BDS, Pharm.D, BSN, DDNS, DMLS, MID, DOVS, DVM) OR
  2. 16 Year of Education, BS 4 years degree (Biology, Microbiology, Zoology, Physiology, Biochemistry, Human Nutrition, Biotechnology or equivalent) or equivalent from HEC Recognized with minimum CGPA of (2.5 out of 4.0)
- Location: Defence Road Campus, Lahore.

RECOGNIZED BY
Higher Education Commission

ROAD MAP
Total Semesters 4
Total Credit Hours 36

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<tr>
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RECOGNIZED BY
Higher Education Commission
INTRODUCTION
The program of study is equivalent to a Master's degree in Microbiology 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 fulfills all the curriculum requirements as set out by the 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 & remain 12 credit hours complete in the next 2 semesters.

CAREER PROSPECTS
- Industrial
- Agricultural
- Educational Research & Development
- Health Organizations

MASTER OF PHILOSOPHY IN MICROBIOLOGY (M.Phil)

PROGRAM FACTS
- Program Duration: 2 Years
- Timing: After Noon 02:00 PM - 05:00 PM (Monday – Friday)

ENTRY REQUIREMENTS
1. 16/17 Year of Education, 5/4 years degree (MBBS, BDS, Pharm.D, BSN, DPT, DDNS, DMLS, MID, DOVS, DVR) OR
2. 16 Year of Education, BS 4 years degree (Biology, Microbiology, Zoology, Physiology, Biochemistry, Human Nutrition, Biotechnology or equivalent) or equivalent from HEC Recognized with minimum CGPA of 2.5 out of 4.0

LOCATION
Defence Road Campus, Lahore.

RECOGNIZED BY
Higher Education Commission

ROAD MAP
Total Semesters: 4
Total Credit Hours: 36

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<td>Microbial Biochemistry and Physiology</td>
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<td>Microbial Genetics and Diseases</td>
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<td>Elective II (e.g. Food Microbiology)</td>
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SEMESTER 1
- Criminalistics and Introduction to Forensics 3
- Microbial Biochemistry and Physiology 3
- Techniques in Microbiology 2
- Elective I (e.g. Medical Microbiology) 3
- Elective II (e.g. Food Microbiology) 3
- Biostatistics 2
- Bioinformatics 2

SEMESTER 2
- Advanced Microbiology 3
- Microbial Biochemistry and Physiology 3
- Techniques in Microbiology 2
- Elective I (e.g. Medical Microbiology) 3
- Elective II (e.g. Food Microbiology) 3
- Biostatistics 2
- Bioinformatics 2

SEMESTER 3
- Research Thesis 6

SEMESTER 4
- Research Thesis 6

THE UNIVERSITY OF LAHORE

INTRODUCTION
The program of study is equivalent to M.Phil/MS. Students who have completed 16 years of education at BS or MSc level are eligible for admission to MPhil degree program. The Degree program fulfills all the curricular requirements as set out by the 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 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
The MPhil in forensic sciences will train graduates to think strategically and critically about crime and forensic science, expertise them with transferable skills suitable for a wide range of careers. It is a new multidisciplinary program with modules provided by Institute of molecular biology and Biotechnology including crime science, forensic drug chemistry, computer science, biosciences, statistics, anthropology and laws and psychology behind decision making.

MASTER OF PHILOSOPHY IN FORENSIC SCIENCE (M.Phil)

PROGRAM FACTS
- Program Duration: 2 Years
- Timing: After Noon 02:00 PM - 05:00 PM (Monday – Friday)

ENTRY REQUIREMENTS
1. 16/17 Year of Education, 5/4 years degree (MBBS, BDS, Pharm.D, BSN, DPT, DDNS, DMLS, MID, DOVS, DVR) OR
2. 16 Year of Education, BS 4 years degree (Biology, Microbiology, Zoology, Physiology, Biochemistry, Human Nutrition, Biotechnology or equivalent) OR
3. 16 Year of Education, BS 4 years degree (Biology, Clinical Psychology, Anthropology, Polpulation Sciences, Administrative Sciences & Biostatistics or equivalent from HEC Recognized with minimum CGPA of 2.5 out of 4.0)

LOCATION
Raiwind Road Campus, Lahore.

RECOGNIZED BY
Higher Education Commission

ROAD MAP
Total Semesters: 4
Total Credit Hours: 36

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<td>Criminalistics and Introduction to Forensics</td>
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<td>Basics of Biological Evidence</td>
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<td>Quality Assurance Standard in Forensic Laboratory</td>
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<td>Hair Evaluation for DNA Analysis</td>
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<td>Witness and Testimony in Courts</td>
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<td>Forensic Science and Death Investigation</td>
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<td>Forensic Communication, Skills and Report Writing</td>
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<td>Forensic Drug Chemistry</td>
<td>3</td>
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<tr>
<td>Forensic Ethics and Project Preparation techniques</td>
<td>2</td>
<td>Firearms and Tool Mark Analysis</td>
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<tr>
<td>Analytical Techniques in Forensic Chemistry</td>
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<td>Population Genetics and Statistics</td>
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THE UNIVERSITY OF LAHORE
INTRODUCTION
Zoology is the branch of biology that includes the study of animals and animal life, including, but not limited to, the study of the structure, function, and classification of animals. It is a multidisciplinary subject covering all aspects of animal life. With the evolution and development of modern scientific knowledge, the zoological sciences has also become revolutionized which not only include the basic classical knowledge, but also contain the large number of allied modern disciplines.

CAREER PROSPECTS
The PhD zoology has been designed to address the future needs and challenges to our country and world. The program aims to prepare and develop the skilled manpower, scientists and researchers to serve in various national and international research organizations, Universities, Institutes of Public Health, Environment related Agencies, Pest Control & Plant Protection Institutes, Wildlife Conservation & Management organizations, Natural History Museums, Fisheries Departments, Molecular Biology Research organization, NISGE, NIAB, NIFA, PCSIR, PARC Research centers and Labs, Biomedical Sciences & Forensic science Organizations, Pathology Labs, Agriculture Research Departments such as NARC, PARC

RECOGNIZED BY
Higher Education Commission

CORE COURSES
• Advanced Analytical Techniques
• Applied Biostatistics

ELEVATIVES
• Advances in Cell Biology
• Advanced Cell and Molecular Biology
• Advanced Microbiology
• Advanced Physiology
• Advances in Wildlife
• Applied Genetics
• Applied Microbiology
• Aquaculture and Fisheries
• Bacterial Genetics
• Biological Toxicology
• Biology of Birds and Mammals in Pakistan
• Cell and Tissue Culture
• Clinical Pathology
• Conservation Biology of Wildlife
• Fish Requirements
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• Medical Parasitology
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• Molecular Entomology
• Molecular Physiology
• Principles of Wildlife Management
• Recent advances in Endocrinology
• Recombinant DNA Technology
• Research Methods in Entomology
• Stem Cell Technology
• Toxicology
• Recent Trends in Immunology
• Recent Advances in Biochemistry
• Advanced Virology
• Food Microbiology
• Techniques in molecular Biology
• Genomics, Transcriptionomics & Proteomics
• Cell signaling & cell transduction

DOCTOR OF PHILOSOPHY IN ZOOLOGY (Ph.D)

PROGRAM FACTS
• Program Duration 2 Years
• Timing Weekend 02:00 PM - 05:00 PM (Saturday & Sunday)
• Entry Requirements 18 years of education, M.Phil Zoology with atleast 2nd division in annual system or CGPA (3.0 out of 4.0) in semester system from HEC recognized university.
• Location Defence Road Campus, Lahore.

ROAD MAP

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</table>

Total Credit Hours 48

DOCTOR OF PHILOSOPHY IN BOTANY (Ph.D)

INTRODUCTION
Plants have emerged as the most successful organisms in evolution providing a basis for the survival and taxonomic diversions of different biotic components of the biosphere. The biotic component of any agricultural ecosystem is essentially maintained by the photosynthetic activity of plants and their role in various food webs. Thus an understanding of the basic mechanisms underlying the precise and measured responses of plants to the ecological factors is imperative in determining the role and utilization of plants and their products for the welfare of man and ecosystems.

The IMBB at UOL imparts knowledge in key disciplines of plant sciences with the recent advances in taxonomy, physiology, evolution, ecology, developmental biology, tissue culture and breeding of plant species mainly of agricultural importance. The faculty and research facilities provide a unique opportunity to the MPhil/PhD students to not only deepen their insight into different research themes in botany but in the genesis of novel hypotheses.

RECOGNIZED BY
Higher Education Commission

CORE COURSES
• Advanced Analytical Techniques
• Applied Biostatistics

ELEVATIVES
• Advances in Cell Biology
• Advanced Cell and Molecular Biology
• Advanced Microbiology
• Advanced Physiology
• Advances in Wildlife
• Applied Genetics
• Applied Microbiology
• Aquaculture and Fisheries
• Bacterial Genetics
• Biological Toxicology
• Biology of Birds and Mammals in Pakistan
• Cell and Tissue Culture
• Clinical Pathology
• Conservation Biology of Wildlife
• Fish Requirements
• Human Genetics
• Medical Biotechnology
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• Research Methods in Entomology
• Stem Cell Technology
• Toxicology
• Recent Trends in Immunology
• Recent Advances in Biochemistry
• Advanced Virology
• Food Microbiology
• Techniques in molecular Biology
• Genomics, Transcriptionomics & Proteomics
• Cell signaling & cell transduction

DOCTOR OF PHILOSOPHY IN BOTANY (Ph.D)

PROGRAM FACTS
• Program Duration 2 Years
• Timing Weekend 02:00 PM - 05:00 PM (Saturday & Sunday)
• Entry Requirements 18 years of education, M.Phil Botany with atleast 2nd division in annual system or CGPA (3.0 out of 4.0) in semester system from HEC recognized university.
• Location Defence Road Campus, Lahore.

ROAD MAP

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Total Credit Hours 48

CAREER PROSPECTS
The study of botany encompasses many benefits from the market, social and employment point of view. A vast array of the employment opportunities is available for PhD graduates in Botany. However as the theme of profession varies according to the available demand and resources, the prescribed choices for a botanist are very vast.

ELEVATIVES
• Allelopathy
• Soil Fertility and Plant Nutrition
• Nitrogen Biological Fixation
• Plant Cellular Signaling
• Invasive Plant Species
• Population structure and dynamics
• Plant-Environment Interactions
• Conservation and Management of Plant Resources
**DOCTOR OF PHILOSOPHY**  
**BIOCHEMISTRY**  
(Ph.D)

**INTRODUCTION**  
Ph.D program has been organized in accordance with the guidelines provided by the Higher education Commission (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).

**CAREER PROSPECTS**
- Industrial
- Agricultural
- Educational Research & Development
- Health Organizations

**COURSES LIST**
- Advanced Biochemistry
- Recent Trends in Immunology
- Advanced Heterocyclic Compounds
- Advanced Clinical Biochemistry
- Techniques in Biochemistry
- Advanced Toxicology
- Biochemistry of Cell Signaling & Signal Transduction

**ROAD MAP**

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<td>Courses I^</td>
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<td>Courses II^</td>
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<tr>
<td>Courses III^</td>
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<td>Research Reading I^</td>
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</tbody>
</table>

Note: The Panel of PhD Supervisors will propose four taught courses from the courses list. + Taught Courses

**DOCTOR OF PHILOSOPHY**  
**PHYSIOLOGY**  
(Ph.D)

**INTRODUCTION**  
Ph.D program has been organized in accordance with the guidelines provided by the Higher education Commission (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).

**CAREER PROSPECTS**
- Industrial
- Agricultural
- Educational Research & Development
- Health Organizations

**COURSES LIST**
- Advanced Physiology
- Advances in Endocrinology
- Cell and Molecular Physiology
- Advances in Neuropsychology
- Physiology of Reproduction
- Cell Signaling & Signal Transduction
- Recent Trends in Neuroscience
- Physiology of Sports and Exercise

**ROAD MAP**

<table>
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<tr>
<th>SEMESTER 1</th>
<th>Cr.</th>
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<th>SEMESTER 2</th>
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<td>Course I^</td>
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<td>Course III^</td>
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<td>Research Reading I^</td>
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</tbody>
</table>

Note: The Panel of PhD Supervisors will propose four taught courses from the courses list. + Taught Courses

**PROGRAM FACTS**
- **Program Duration**: 3-5 Years
- **Timing**: After Noon 02:00 PM - 05:00 PM (Monday – Friday)
- **Entry Requirements**: 18 years of education (M.Phil or Equivalent in relevant field) with at least 1st division in annual system and 300CGPA (out of 4.00) in semester system.
- **Location**: Raiwind Road Campus, Lahore.
INTRODUCTION
Ph.D program has been organized in accordance with the guidelines provided by the Higher education Commission (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).

CAREER PROSPECTS
• Industrial
• Agricultural
• Educational Research & Development
• Health Organizations

DOCTOR OF PHILOSOPHY
MICROBIOLOGY
(Ph.D)

PROGRAM FACTS
• Program Duration: 3-5 Years
• Timing: After Noon 02:00 PM - 05:00 PM (Monday – Friday)
• Entry Requirements: 18 years of education (M.Phil or Equivalent in relevant field) with at least 1st division in annual system and 300/400 GPA (out of 4.00) in semester system.
• Location: Defence Road Campus, Lahore.

RECOGNIZED BY
Higher Education Commission

COURSES LIST
• Metabolic Pathways
• Nutritional Biochemistry
• Advances in Enzymology
• Natural Products 3: Extraction & Analysis
• Advances in Endocrinology
• Biochemical and Molecular Biology
• Biochemistry Of Stress Tolerance
• Research Reading I
• Research Reading II
• Research Thesis

Note: The Panel of PhD Supervisors will propose four taught courses from the courses list. * Taught Courses

ROAD MAP
Total Semesters 4
Total Credit Hours 48

SEMESTER 1
Cr.
Hr.
Semester 2
Cr.
Hr.
Course I* 3
Course II* 3
Course III* 3
Research (Thesis) 7
Research (Thesis) 7

SEMESTER 3
Cr.
Hr.
Semester 4
Cr.
Hr.
Research (Thesis) 7
Research (Thesis) 7

SEMESTER 5
Cr.
Hr.
Research (Thesis) 8
Research (Thesis) 8

DOCTOR OF PHILOSOPHY
BIOTECHNOLOGY
(Ph.D)

PROGRAM FACTS
• Program Duration: 3-5 Years
• Timing: After Noon 02:00 PM - 05:00 PM (Monday – Friday)
• Entry Requirements: 18 years of education (M.Phil or Equivalent in relevant field) with at least 1st division in annual system and 300/400 GPA (out of 4.00) in semester system.
• Location: Defence Road Campus, Lahore.

RECOGNIZED BY
Higher Education Commission

COURSES LIST
• Principles of Biotechnology
• Advanced qDNA Technology
• Cell & Tissue Culture (EC)
• Health Biotechnology
• Molecular Basis of Plant Development (EC)
• Transgenic Organisms (EC)
• Applications of Biotechnology
• The Molecular Basis of Cancer
• Advanced Techniques in Biotechnology
• Advances in Plant Biotechnology

Note: The Panel of PhD Supervisors will propose four taught courses from the courses list. * Taught Courses

ROAD MAP
Total Semesters 7
Total Credit Hours 48

SEMESTER 1
Cr.
Hr.
Semester 2
Cr.
Hr.
Course I* 3
Course II* 3
Course III* 3
Research (Thesis) 7
Research (Thesis) 7

SEMESTER 3
Cr.
Hr.
Semester 4
Cr.
Hr.
Research (Thesis) 7
Research (Thesis) 7

SEMESTER 5
Cr.
Hr.
Research (Thesis) 8
Research (Thesis) 8

THE UNIVERSITY OF LAHORE
THE UNIVERSITY OF LAHORE
THE UNIVERSITY OF LAHORE

THE UNIVERSITY OF LAHORE
INTRODUCTION
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CAREER PROSPECTS
• Industrial
• Agricultural
• Educational Research & Development
• Health Organizations

COURSES LIST
• Advanced Molecular Biology
• Advanced Recombinant DNA Technology
• Molecular Genetics & Genetic Disorders
• Molecular Immunology
• Genomics, Transcriptomics & Proteomics
• Advanced Epigenetics

DOCTOR OF PHILOSOPHY
MOLECULAR BIOLOGY (Ph.D)

PROGRAM FACTS
• Program Duration
3-5 Years
• Timing
After Noon 02:00 PM - 05:00 PM (Monday – Friday)
• Entry Requirements
18 years of education (M.Phil or Equivalent in relevant field) with at least 1st division in annual system and 300CGPA (out of 4.00) in semester system.
• Location
Defence Road Campus, Lahore.

RECOGNIZED BY
Higher Education Commission

ROAD MAP
Total Semesters 4
Total Credit Hours 48

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<th>SEMESTER 1</th>
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<th>Hr.</th>
<th>SEMESTER 2</th>
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<td>Course II*</td>
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<th>Cr.</th>
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<th>SEMESTER 6&amp;7</th>
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<td>Research *(Thesis)</td>
<td>8</td>
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</tbody>
</table>

Note: The Panel of PhD Supervisors will propose four taught courses from the courses list. * Taught Courses*

THE UNIVERSITY OF LAHORE
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 through outreach and scientific leadership.
- Organize symposia, seminars and special lectures in relevant disciplines at national and international levels.

OBJECTIVES

- 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.

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 outside the country.

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.

COLLABORATIVE INSTITUTIONS INTERNATIONAL

University of Pittsburgh School of Medicine
CRRP, Department of Physiology and Cell Biology
Pittsburgh, PA, USA
The Centre offers MPhil/MS and PhD programmes, in the following disciplines:

- **Molecular Biology and Biochemistry**: Research specializations: Breast cancer and tumour 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.

**Postgraduate Programmes**

**Academic and Research**

**Program Facts**

Candidates holding one of the following degrees with a minimum 2nd division or 2.5 CGPA may apply:

- MBBS/MD/Pharm or Pharm-D degree
- An M.Sc. or M.Phil or MS degree in one of the biological sciences discipline
- A 4-year Bachelor’s degree in one of the 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 of Applicants**

Applicants will be evaluated in two stages: Stage I: Short listing of applicants after administration of admission test on the basis of academic record, work experience, and the results of the Admission Test. Stage II: Interviews of short listed candidates with the faculty of CRiMM.

**Course Work**

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

**Recognized by**

Higher Education Commission
**IMBB / CRiMM FACULTY**

**PROFESSOR**
- Dr. M. H. Oazi
  - Professor/Director
  - Ph.D (Physiology)
  - Research Area: Cancer biology/Physiology
  - Publications: Ninety (91)

- Dr. M. Arsalan
  - Associate Director
  - Ph.D (Physiology)
  - Research Area: Physiology/Endocrinology
  - Publications: Hundred and four (104)

- Dr. Javed Anwer Qureshi
  - Professor
  - PhD (Biochemistry)
  - Area (s) of Research: Molecular Diagnostics; Viral Hepatitis & Diabetes; Development of modern vaccines; Protein Pharmaceuticals

- Dr. Ahmad Mukhtar Khalid
  - Professor
  - PhD (Biotechnology)
  - Research Area: Enzyme Biotechnology

- Dr. Syed Shahid Ali
  - Professor
  - PhD (Zoology)
  - Research Area: Applied Microbiology & Enzymes / Lakshena
  - Publications: Sixty (60)

- Dr. Aamer Qazi
  - Professor
  - PhD (Biochemistry)
  - Research Area: Cancer Biology
  - Publications: Fifty (50)

**ASSISTANT PROFESSOR**
- Dr. Sarfraz Ahmad
  - Assistant Professor
  - PhD (Pharmaceutical Chemistry, Austria)

- Dr. Muhammad Asif Habib
  - Assistant Professor
  - MWM, PhD (Biotechnology)

- Dr. Muhammad Sajjad Khatak
  - Assistant Professor
  - PhD (Biotechnology)

- Dr. Farheen Ansari
  - Assistant Professor
  - PhD (Microbiology)

- Dr. Muhammad Sajjad Ali
  - Assistant Professor
  - PhD (Plant Biotechnology)

- Dr. Abid Sarwar
  - Assistant Professor
  - MPhil (Microbiology)

- Dr. Nadies Wojd
  - Assistant Professor
  - PhD (Molecular Biology)

- Dr. Maria Fareed Siddiqui
  - Assistant Professor
  - Phm-M. M. Phil (Molecular Biology)

- Dr. Arif Malik
  - Professor
  - PhD (Botany)

- Dr. Syed Shahid Ali
  - Professor
  - PhD (Zoology)

- Dr. Ahmad Mukhtar Khalid
  - Professor
  - PhD (Biotechnology)

- Dr. Maria Fareed Siddiqui
  - Assistant Professor
  - Phm-M. M. Phil (Molecular Biology)

- Dr. Mazhar Abbas
  - Assistant Professor
  - PhD (Biochemistry)

- Dr. Sheikh Riaz-ud-Din
  - Professor of Emeritus
  - PhD (Biochemistry)

- Sumaira Shaheen
  - Lecturer
  - MPhil (Molecular Biology)

- M. Asad
  - Lecturer
  - MPhil (Molecular Biology)

- Asif Ali
  - Lecturer
  - CRiMM

- M. Shoaib
  - Lecturer
  - CRiMM

- Javed Tahir
  - Lecturer
  - MSc (Research Associate)

- Abdul Razzaq
  - Lecturer
  - Research Associate
  - MPhil (Biotechnology)

**Ph.D Students**
- Dr. Asma Ahmed
  - Assistant Professor
  - PhD (Microbiology)

- Dr. Humera Kausar
  - Assistant Professor
  - PhD (Microbiology)

- Dr. Sana Javid Awan
  - Assistant Professor
  - PhD (Microbiology)

- Dr. Sana Khurshid
  - Assistant Professor
  - PhD (Microbiology)

- Dr. M. Arslan
  - Associate Director
  - PhD (Physiology)

- Dr. M. H. Qazi
  - Professor
  - PhD (Physiology)

- Dr. Aamer Qazi
  - Professor
  - PhD (Biochemistry)

- Dr. Sana Javaid Awan
  - Assistant Professor
  - PhD (Microbiology)

- Dr. Sitwat Aman
  - Assistant Professor
  - PhD (Biotechnology)

- Dr. Danish Mahmood
  - Assistant Professor
  - PhD (Microbiology)

- Dr. Sana Khurshid
  - Assistant Professor
  - PhD (Microbiology)

- Dr. Mazhar Abbas
  - Assistant Professor
  - PhD (Biochemistry)

- Dr. Madeeha Afzal
  - Assistant Professor
  - PhD (Biological Sciences)

- Dr. Humera Kausar
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- Dr. Aamer Qazi
  - Professor
  - PhD (Biochemistry)

- Dr. M. H. Qazi
  - Professor
  - PhD (Pharmacogenetics, Clinical Biochemistry, Chemotherapy)
  - Publications: Three (03)

- Dr. Maria Fareed Siddiqui
  - Assistant Professor
  - Phm-M. M. Phil (Molecular Biology)
  - Area (s) of Research: Pharmacogenetics, Clinical Biochemistry, Chemotherapy
  - Publications: Three (03)

- Dr. Mazhar Abbas
  - Assistant Professor
  - PhD (Biochemistry)

- Dr. Madeeha Afzal
  - Assistant Professor
  - PhD (Biological Sciences)

- Dr. Humera Kausar
  - Assistant Professor
  - PhD (Biological Sciences)

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  - PhD (Physiology)

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  - PhD (Biochemistry)

- Dr. M. H. Qazi
  - Professor
  - PhD (Physiology)
ALLIED HEALTH SCIENCES

- Radiological Sciences & Medical Imaging Technology
- Radiology Research Section
- Physical Therapy
- Sports Sciences
- Medical Lab Technology
- Diet & Nutritional Sciences
- Public Health
- Health Professional Technologies
- Optometry & Vision Sciences
- Lahore School of Nursing
- Health Professions Education

ALLIED HEALTH SCIENCES
DEGREES OFFERED

- Medical Imaging Doctor (MID)
- B.Sc Medical Ultrasound Technology
- M.Sc Medical Ultrasound Technology
- M.Phi Medical Ultrasound Technology
- MS Medical Diagnostic Ultrasound
- MS Medical Imaging Technology
- Ph.D Medical Imaging Technology
- Ph.D Medical Ultrasound Technology
- Ph.D Medical Diagnostic Ultrasound

MISSION STATEMENT

a. Enable students to develop the cognitive, effective and psychomotor skills needed by an entry level technologists 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 problem-solving, critical thinking and professional values.

d. Practice set standards for Medical Imaging.

e. Prepare students to pass the national and international certification examination and qualify for regional licensure.

f. Demonstrate a high degree of student success within the curriculum, as evidenced by low attrition & high graduation rates.

INTRODUCTION

There are four major divisions in medical imaging (Radiological Sciences) Diagnostic Radiography, Ultrasound, Nuclear Medicine and Radiation Therapy. Nowadays Medical Imaging relies heavily on computer controlled equipment with the image productions and processing emphasizing new techniques i.e. digital image processing, picture archiving & communication system (PACS) etc. In addition, the medical diagnostic ultrasound is believed to be a diagnostic tool which is replacing the stethoscope of a physician. Today, a physician cannot cope with rapid advancements in the computerized technologies unless he chooses the option of upgrading his 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. Our goal at UIRSMIT is to train our technologists to face all aspects and challenges of our constantly evolving specialty.
INTRODUCTION
This program was introduced for the first time in Pakistan in spring 2013, keeping in view the need of a healthcare institute in Radiology Department. The curriculum encompasses all the basic modalities of Radiology as well as the rapid advancement in the field of Medical Imaging Technology e.g. General Radiography, CT, MR, Ultrasound, Nuclear Medicine etc.

CAREER PROSPECTS
This professional program is for the students interested to pursue their careers in the field of Radiological Technology including Ultrasound and it serves to provide them the knowledge of latest techniques in this field. After completing this program, they can go on to do higher degrees like MS in medical imaging technology or can compete for the jobs in the Radiology department as a “Doctor of Medical Imaging” as per job description approved by health authorities later on. As Doctor of Medical Imaging Students can also have the opportunity to specialize in different diagnostic modalities. The students are also eligible to appear in Board exam in Medical Imaging conducted by the international organizations.

PROGRAM FACTS
- Program Duration: 5 Years
- Timing: Morning, 8:00 AM-5:00 PM (Monday to Friday)
- Entry Requirements: 12 years of education, HSSC, Intermediate A-Level/ F.Sc (Pre-Medical) or Equivalent. Minimum (50%)
- Location: Defence Road Campus, Lahore.

RECOGNIZED BY
Higher Education Commission

MEDICAL IMAGING DOCTOR (MID)

ROAD MAP

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<th>Total Semesters 10</th>
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<td>Basic Physiology</td>
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<tr>
<td>Medical Ethics</td>
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</tr>
<tr>
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**BACHELOR OF SCIENCE IN MEDICAL ULTRASOUND TECHNOLOGY (B.Sc MUT)**

**INTRODUCTION**
The B.Sc in medical ultrasound technology program (B.Sc-MUT) presents a new concept in the field of diagnostic medical imaging education. Traditionally, students were offered programs enabling them to specialize in a single diagnostic medical ultrasound modality. This program is housed within a degree program that is 2 YEAR in length.

**CAREER PROSPECTS**
Most full-time diagnostic medical imaging technologists work about 40 hours a week. They may, however, have evening, weekend or on-call hours. Opportunities for part-time and shift work also are available. Physical stamina is important, because diagnostic medical imaging technologists are on their feet for long periods and need to assist incapacitated patients. Diagnostic medical imaging technologists work with stationary diagnostic imaging devices, and their duties may include performing some services at the patient’s bedside. Some technologists travel to patients’ locations, using large vans and trucks equipped with sophisticated diagnostic equipment.

Although some diagnostic medical imaging professionals use radiation as part of their occupation, radiation hazards are minimized by the use of shielding and the application of radiation safety practices. All individuals working with radiation are monitored continuously for radiation exposure.

**ROAD MAP**

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**PROGRAM FACTS**
- **Program Duration**: 2 Years
- **Timing**: Morning, 08:00 AM - 05:00 PM (Monday – Friday)
- **Entry Requirements**: 12 years of education, HSSC, Intermediate-A-Level/ F.Sc (Pre-Medical) or Equivalent, Minimum (50%)
- **Location**: Defence Road Campus, Lahore.

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Higher Education Commission

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**MASTER OF SCIENCE IN MEDICAL ULTRASOUND TECHNOLOGY (M.Sc MUT)**

**INTRODUCTION**
The M.Sc in medical imaging technology program (M.Sc-MIT) presents a new concept in the field of diagnostic medical imaging education. Traditionally, students were offered programs enabling them to specialize in a single diagnostic medical imaging modality.

Students entering our professional masters curriculum are educated in multiple diagnostic medical imaging modalities. Currently, magnetic resonance imaging, nuclear medicine technology and sonography are taught in the professional curriculum.

**CAREER PROSPECTS**
Students who complete the MS program will meet national board eligibility requirements in two diagnostic medical imaging modalities as well as possess research skills that will distinguish them in their fields.

**ROAD MAP**

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**PROGRAM FACTS**
- **Program Duration**: 2 Years
- **Timing**: Morning, 08:00 AM - 05:00 PM (Monday – Friday)
- **Entry Requirements**: 14 years of Education, B.Sc Medical Imaging technology, B.Sc Nursing, B.Sc Radiography, B.Sc Lab. Technology with min 50% marks
- **Location**: Defence Road Campus, Lahore.

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Higher Education Commission
INTRODUCTION
This M Phil programme targets the candidates with a background of Medical Ultrasound Technology or Medical Imaging Technology. Research is also an important part of our profession and completion of the degree requires working on a project, writing a thesis and its successful defense.

CAREER PROSPECTS
The degree adds a lot to the professional skills of the students and broadens the horizon of opportunities for better jobs and careers. After the completion of M.Phil students can do Ph.D. in Medical Ultrasound Technology which will help them to get the job in the country and abroad.

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ROAD MAP
Total Semesters 4
Total Credit Hours 36

SEMESTER 1
Cr. Hr.
SEMESTER 2
Cr. Hr.
Ultrasound Physics & Instrumentation 3 Interventional Ultrasound 2
Obstetrical and Gynaecological Ultrasound 2 Musculoskeletal Ultrasound 2
Abdominal Ultrasound 2 Small parts Ultrasound 2
Practical Basis II 2 Practical Advance II 3
Vascular Ultrasound 2

SEMESTER 3
Cr. Hr.
SEMESTER 4
Cr. Hr.
Research 6 Research 6
Biostatistics and Research Methodology 2
Research Methodology 2

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 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.

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Higher Education Commission
Pakistan Medical & Dental Council

ROAD MAP
Total Semesters 4
Total Credit Hours 40

SEMESTER 1
Cr. Hr.
SEMESTER 2
Cr. Hr.
Abdominal Ultrasound 2 Musculoskeletal Ultrasound 3
Gynaecological Ultrasound 2 Vascular Ultrasound 5
Obstetrical Ultrasound 3 Advance Gynaecological Ultrasound 2
Small Parts Ultrasound 2 Advance Obstetrical Ultrasound 2
Ultrasound Physics & Instrumentation 3 Advances in Ultrasound 4

SEMESTER 3
Cr. Hr.
SEMESTER 4
Cr. Hr.
Research 4 Research (Thesis) 6
Research M. and Statistics 2
INTRODUCTION
This M.Phil programme targets the candidates with a background of medical imaging. This is the first time MS MIT is offered by any university in the country. Research is also an important part of our profession and completion of the degree requires working on a project, writing a thesis and its successful defense.

CAREER PROSPECTS
The degree adds a lot to the professional skills of the students and broadens the horizon of opportunities for better jobs and careers. After the completion of MS students can do Ph.D in Medical Imaging Technology which will help them to get the job in the country and abroad.

PROGRAM FACTS
• Program Duration: 2 Years
• Timing: Morning, 08:00 AM - 05:00 PM (Monday – Friday)
• Entry Requirements: 17/18 years of Education, M.B.B.S, MID, DMRD, with min 75% marks in annual system and CGPA (3.0 out of 4.0) from HEC recognized university/ institute.
• Location: Defence Road Campus, Lahore.

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Higher Education Commission
Pakistan Medical & Dental Council

DOCTOR OF PHILOSOPHY IN MEDICAL IMAGING TECHNOLOGY (Ph.D MIT)

INTRODUCTION
This PhD programme targets the candidates with a background in imaging technology who want to specialise in imaging technology. Research is also an important part of our profession and completion of the degree requires working on a project, writing a thesis and its successful defense.

CAREER PROSPECTS
The degree adds a lot to the professional skills of the students and broadens the horizon of opportunities for better jobs and careers.

ROAD MAP
Total Semesters 6
Total Credit Hours 48

SEMESTER 1
Cr. Hr.
SEMESTER 2
Cr. Hr.
Biostatics and Research methodology 2 Angiography 2
Cardiovascular Radiology 2 Gastroenterology System Radiology 2
Mammography and Breast 2 Gastrointestinal Tract Radiology 2
Musculoskeletal Radiology 2 Interventional Radiology 2
Radiology Physics and Instrumentation 2 Neuroradiology and ENT Radiology 2
Radiology and emergency medicine 1 Nuclear Medicine 2
Respiratory system Radiology 1

Research 6 Research 6

SEMESTER 3
Cr. Hr.
SEMESTER 4
Cr. Hr.
Research 6 Research 6

SEMESTER 5
Cr. Hr.
SEMESTER 6
Cr. Hr.
Research 6 Research 6

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### DOCTOR OF PHILOSOPHY IN MEDICAL DIAGNOSTIC ULTRASOUND (Ph.D MDU)

**INTRODUCTION**

The concept of this Ph.D in DIAGNOSTIC ULTRASOUND is a program in educational process which is accepted in academia and proven to be highly effective toward the demand of skilled graduate.

The curriculum maintains basic and advance core courses which are necessary to employ in the future plans. Thus, the attention in different modalities of ultrasound will concern clinical practice with minimum alteration on the other core courses regarding other tracks when deemed necessary. This strategy aims to give a comprehensive view in all Medical Diagnostic Ultrasound division and a focused course study plan on the specific selected tracks with integrated courses of computer sciences.

**CAREER PROSPECTS**

To enable the student to relate the physics and instrumentation (Knobology) of medical diagnostic ultrasound. After discussing the basic definitions like sound waves, period, wave equation etc, image interpretation, Knobology, transducers, Doppler, display modes, scan converters, memory, image recording, artifacts, bioeffects and safety shall be discussed in detail.

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**PROGRAM FACTS**

- **Program Duration**: 3 Years
- **Timing**: Morning 08:00 AM - 05:00 PM (Monday – Friday)
- **Entry Requirements**: 18 years of Education, M.Phil in Ultrasound/MD/FCPS/DMRD/MCPs or Equivalent (in relevant field) with at least second Division min 60% marks in annual system and 3.00 CGPA (out of 4.00) from HEC recognized university/Institute.
- **Location**: Defence Road Campus, Lahore.

**RECOGNIZED BY**

Higher Education Commission

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### DOCTOR OF PHILOSOPHY IN MEDICAL ULTRASOUND TECHNOLOGY (Ph.D MUT)

**INTRODUCTION**

The concept of this Ph.D in ULTRASOUND TECHNOLOGY is a program in educational process which is accepted in academia and proven to be highly effective toward the demand of skilled graduate.

The curriculum maintains basic and advance core courses which are necessary to employ in the future plans. Thus, the attention in different modalities of ultrasound will concern clinical practice with minimum alteration on the other core courses regarding other tracks when deemed necessary. This strategy aims to give a comprehensive view in all Medical Diagnostic Ultrasound division and a focused course study plan on the specific selected tracks with integrated courses of computer sciences.

**CAREER PROSPECTS**

To enable the student to relate the physics and instrumentation (Knobology) of medical diagnostic ultrasound. After discussing the basic definitions like sound waves, period, wave equation etc, image interpretation, Knobology, transducers, Doppler, display modes, scan converters, memory, image recording, artifacts, bioeffects and safety shall be discussed in detail.

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<td>Vascular Ultrasound</td>
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**PROGRAM FACTS**

- **Program Duration**: 3 Years
- **Timing**: Morning 08:00 AM - 05:00 PM (Saturday – Sunday)
- **Entry Requirements**: 18 years of Education, M.Phil Medical Imaging Technology, MS Medical Ultrasound Technology, MS Radiography, or Equivalent (in relevant field) with at least second Division min 60% marks in annual system and 3.00 CGPA (out of 4.00) from HEC recognized university/Institute.
- **Location**: Defence Road Campus, Lahore.

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Higher Education Commission
DEGREES OFFERED
• Diploma in Medical Radiology & Diagnostic (DMRD)
• MD Radiology
• PhD Radiology

MISSION STATEMENT
• Enable students to develop the cognitive, effective and psychomotor skills needed by an entry level radiologist 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 set standards for Medical Imaging and Radiology.
• Demonstrate a high degree of student success within the curriculum, as evidenced by low attrition & high graduation rates.

INTRODUCTION
There are four major divisions in medical imaging (Radiological Sciences) Diagnostic Radiography, Ultrasound, Nuclear Medicine and Radiation Therapy. Medical Imaging relies heavily on computer controlled equipments with the image productions and processing emphasizing new techniques i.e. digital image processing, picture archiving &communication system (PACS) etc. In addition, the medical diagnostic ultrasound is believed to be a diagnostic tool which is replacing the stethoscope of a physician. Today, a physician cannot cope with rapid advancements in the computerized technologies unless he chooses the option of upgrading his knowledge including clinical as well as diagnostic advances. Medical Imaging (Radiological Sciences) especially Medical Diagnostic Ultrasound, CT and MRI curriculum s should be aligned with new technology and national or regional requirements. Our goal, at Radiology Research Section is to train our residents and clinical fellows to face all aspects and challenges of our constantly evolving specialty.

INTRODUCTION
This program of Diploma in Medical Radiology and Diagnostics is especially designed for those students who want to accelerate their careers in field of Diagnostic Radiology.

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 have all the basic knowledge required for a Radiologist and can start his career by competing for jobs or can go on for higher degrees such as MD Radiology. The successful student of DMRD are encouraged to enroll in MD course. They shall be granted exemption from MD part I examination and two years of relaxation provided to complete mandatory clinical rotation.

DIPLOMA IN MEDICAL RADIOLOGY & DIAGNOSTIC (DMRD)

PROGRAM FACTS
• Program Duration
2 Years
• Timing
Morning, 11:00 AM - 03:00 PM (Monday – Friday)
• Entry Requirements
For MBBS (registered PMDC) with 1 year house job in PMDC recognized institution
• Location
Defence Road Campus, Lahore.

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Higher Education Commission
Pakistan Medical & Dental Council

ROAD MAP

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<td>Magnetic Resonance Imaging (MRI)</td>
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<td>Nuclear Medicine &amp; Radiology in emergency medicine</td>
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</table>
INTRODUCTION

The fellowship provides thorough training in areas of Radiology. A main goal of training is to develop a thorough understanding of the principles of diagnostic modalities.

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 have all the basic knowledge required for a Radiologist and can start his career by competing for jobs or can go on for higher degrees such as MD Radiology. After successful completion of Degree the candidate acquired sufficient knowledge of clinical practice in different disciplines relevant to clinical radiology, comprehensive knowledge of radiological physics, basics of X-Ray image, quality control, radiation protection and regulations, basic principles of US,CT,MRI,NM and be familiar with general and cross sectional radiological anatomy of conventional as well as advance multiphase modalities like US, CT and MRI.

INTRODUCTION

The concept of this Ph.D in Radiology is a program in educational process which is accepted in academia and proven to be highly effective toward the demand of skilled graduate.

CAREER PROSPECTS

To enable the student to relate the physics and instrumentation (Knobology) of medical diagnostic ultrasound. After discussing the basic definitions like sound waves, period, wave equation etc, image interpretation, Knobology, transducers, Dotpler, display modes, scan converters, memory, image recording, artifacts, bioeffects and safety shall be discussed in detail.

ROAD MAP

<table>
<thead>
<tr>
<th>SEMESTER 1</th>
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<tbody>
<tr>
<td>Cr. Hr.</td>
<td>Cr. Hr.</td>
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<tr>
<td>Biostatistics</td>
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<tr>
<td>General Radiology</td>
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<td>Physics</td>
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RECOGNIZED BY

Higher Education Commission
Pakistan Medical & Dental Council
DEGREES OFFERED

- Doctor of Physical Therapy (DPT)
- BS Orthotics & Prosthetics
- M. Phil Physical Therapy (Musculo-Skeletal)
- M. Phil Physical Therapy (Biomechanics)
- M. Phil Physical Therapy (Kinesiology)
- MS Physical Therapy (Neurology)
- MS Physical Therapy (Musculo-Skeletal)
- Ph.D Physical Therapy

MISSION STATEMENT

Our Vision is to establish a state-of-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 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 1000. The total permanent faculty of this department consists of 40 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-Musculo-Skeletal) and PhD in Physical Therapy also launched by this department 1st ever in Pakistan under the supervision of international supervisors. Future programs include MS and M.Phil programs in other specialties of Physical Therapy Insh-Allah. Recently 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 patients and also a very good place for clinical learning of UIPT students. During last one and half year, UIPT organized more than eight (8) national and international workshops/seminars in which participants came through out Pakistan. Another milestone achieved by UIPT is the MoU signed among UOL, KEMU and TUF for mutual sharing of learning resources.
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.

DOCTOR OF PHYSICAL THERAPY (DPT)

PROGRAM FACTS
• Program Duration: 5 Years
• Timing: Morning, 8:30 AM-5:00 PM (Monday to Friday)
• Entry Requirements: 12 years of education/HSSC-Level/Intermediate (Pre-Medical) or Equivalent, Minimum (50%) Marks
• Location: Defence Road Campus, Lahore.

RECOGNIZED BY: Higher Education Commission

ROAD MAP
Total Semesters 10
Total Credit Hours 172

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<td>Supervised Clinical Practice III</td>
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THE UNIVERSITY OF LAHORE
INTRODUCTION
Rehabilitation of persons with locomotor disabilities or neuromuscular disorder is a team work, where Centre of attention is the person with disabilities. The team usually comprises of the Physical medicine and Rehabilitation Specialist (Physiatrist) who is usually the leader, Prosthetist and Orthotist, Physiotherapist, Occupational therapist, Social worker and Rehabilitation Nurse. Depending upon the need, other professionals like Orthopedic Surgeons, engineer, psychologist, geriatrist and other related professionals are also included in the team. General planning of the total rehabilitation of the disabled is usually done by the Physiatrist. The role of Prosthetist and Orthotist is important. It is she/he, who fabricates and fits the prosthesis or orthosis to the persons with disabilities both temporary and permanent often referred as “Patient” and thus helps make the patient independent, confident and useful member of the society.

CAREER PROSPECT
After completing this program, students will have all basic knowledge required for a Orthotist & Prosthetist and start their career by completing for job or can go for higher studies such as M.phill O&P. They will be able to work out their knowledge and apply their skills in O & P workshops and rehabilitation centers.

PROGRAM FACTS
- Program Duration: 4 Years
- Timing: Morning, 8:00 AM-5:00 PM (Monday to Friday)
- Entry Requirements: 12 years of education/HSSC/A-Level/Intermediate (Pre-Medical) or Equivalent, Minimum (50%) Marks
- Location: Defence Road Campus, Lahore.

RECOGNIZED BY
Higher Education Commission

BACHELOR OF SCIENCE IN ORTHOTICS & PROSTHETICS (BSOP)

ROAD MAP

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<td>Lower limb Anatomy</td>
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<td>Systemic Physiology</td>
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<td>Physiology of Nervous system Neuro-muscular physiology</td>
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<td>Rehabilitation and Sports Medicine &amp; Mobility aids</td>
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THE UNIVERSITY OF LAHORE
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.

CAREER PROSPECTS
This degree provides foundation for PhD. This degree will provide them with professional skills and equip them to compete in the job market. M. Phil graduates usually pursue academic career and go on for Ph.D in their area of interest. There are opportunities in teaching and research. This is the era of specialization and research. The institutions are now interested in hiring subject specialists and the M. Phil graduates are the best option for them.

INTRODUCTION
This degree course is structured for the DPT graduates who have vision of excelling in assessment of movement and its patterns of different living organisms. The students will study the application of forces and their effects on living organisms specifically in humans. It is important for comprehending the structural and functional aspects of biological systems that are humans, animals, plants etc. by means of methods of mechanics.

CAREER PROSPECTS
Biomechanics is closely related to engineering because it often uses traditional engineering sciences to analyze biological systems. Subfields of biomechanics may include:
- Kinesiology
- Human locomotion & gait analysis
- Musculoskeletal & orthopedic biomechanics
- Cardiovascular biomechanics
- Ergonomics
- Sports biomechanics
- Rehabilitation
- Orthotics & prosthetics

MASTER OF PHILOSOPHY IN
PHYSICAL THERAPY-MUSCULO-SKELETAL (M.Phil)

PROGRAM FACTS
- Program Duration: 2 Years
- Timing: Saturday and Sunday 09:00 AM - 06:00 PM
- 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, Lahore.

RECOGNIZED BY
Higher Education Commission

ROAD MAP
Total Semesters 4
Total Credit Hours 36

SEMESTER 1
Cr. Hr.
SEMESTER 2
Cr. Hr.
Evidence Based Practice 2 Basic Medical & Physical Therapy Sciences 3
Clinical Decision Making 2 Documentation & Teaching Methodology in Physical Therapy 2
Professional Practice, Laws, Ethics & Administration 2 Applied Biomechanics & Ergonomics 3
Differential Diagnosis 2 Musculoskeletal Disorders & Assessment 3
Medical Informatics & Research Methodology 2 Exercise Rehabilitation 3

SEMESTER 3
Cr. Hr.
SEMESTER 4
Cr. Hr.
Research / Dissertation 6 Research 6

RECOGNIZED BY
Higher Education Commission

MASTER OF PHILOSOPHY IN
PHYSICAL THERAPY- BIOMECHANICS (M.Phil)

PROGRAM FACTS
- Program Duration: 2 Years
- Timing: Saturday and Sunday 09:00 AM - 06:00 PM
- 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, Lahore.

RECOGNIZED BY
Higher Education Commission

ROAD MAP
Total Semesters 4
Total Credit Hours 36

SEMESTER 1
Cr. Hr.
SEMESTER 2
Cr. Hr.
Evidence Based Practice 2 Biomechanical Measurement and Technology 3
Clinical Decision Making 2 Advance Biomechanics of Locomotion 3
Professional Practice/Laws, Ethics and Administration 2 Neuromusculoskeletal Physiology and Function 3
Differential Diagnosis 2 Injury & Occupational Biomechanics 3

SEMESTER 3
Cr. Hr.
SEMESTER 4
Cr. Hr.
Nutritional Aspects of Exercise and Sport Performance 2 Research / Dissertation 6
Evaluation of Literature and Current Trends in Biomechanics 2 Research / Dissertation 6

THE UNIVERSITY OF LAHORE
INTRODUCTION

The primary objective of the master's degree program in kinesiology is to help students to acquire a breadth of knowledge grounded in theory, to gain expertise in one or more areas of specialization, and to develop competence in methods of inquiry.

CAREER PROSPECTS

This degree provides foundation for PhD. This degree will provide them with professional skills and equip them to compete in the job market. M. Phil graduates usually pursue academic career and go on for PhD in their area of interest. There are opportunities in teaching and research. This is the era of specialization and research. The institutions are now interested in hiring subject specialists and the M. Phil graduates are the best option for them.

INTRODUCTION

Neurological physiotherapists manage people with movement disorders as a result of injuries and diseases of the brain, spinal cord and the broader neuromuscular system. Therapists work with people across a broad range of issues, ranging from sports injuries to those who have severe brain or spinal cord damage from trauma or neurological diseases. This exciting and modern postgraduate provision is for qualified physiotherapists wishing to advance their professional practice and earn a further professional and academic qualification.

CAREER PROSPECTS

This course equips physiotherapists with the knowledge and skills required to operate at senior and strategic levels in health care services and higher education institutes. Career opportunities largely exist in acute and rehabilitation hospitals, private practice, research and management. Neurological physiotherapy promises a career of immense interest and challenge at the cutting edge of research into how the brain and nervous system works and repairs. Students can further pursue their education to PhD level at the completion of degree.

ROAD MAP

Total Semesters 4
Total Credit Hours 36

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ROAD MAP

Total Semesters 4
Total Credit Hours 36

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### Master of Science in Physical Therapy - Musculo-Skeletal (MS)

**Program Facts**
- **Program Duration**: 2 Years
- **Timing**: Saturday and Sunday 09:00 AM - 06:00 PM
- **Entry Requirements**: 5 Years DPT or BS Honors degree (or minimum 16 years of education) recognized by HEC
- **Location**: Defence Road Campus, Lahore.

**Career Prospects**
After completion of this degree students will be able to apply theory into practice with appropriate selection of patients using problem solving. There will be a wide range of job opportunities for students, in different academic and clinical setups. Students will be able to enlighten their future by getting enrolled in national and international PhD. programs.

The research expertise of students will get improved to the level that they will be able to conduct individual and supervised researches. This postgraduate degree will enable students to pursue their clinical and hospital based career in various musculoskeletal rehabilitation centers.

**Road Map**

<table>
<thead>
<tr>
<th>Semester 1</th>
<th>Cr. Hr.</th>
<th>Semester 2</th>
<th>Cr. Hr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Evidence Based Practice</td>
<td>2</td>
<td>Biostatistics and Research Methodology</td>
<td>2</td>
</tr>
<tr>
<td>Clinical Decision Making</td>
<td>2</td>
<td>Applied Biomechanics and Ergonomics (Upper Quadrant)</td>
<td>2</td>
</tr>
<tr>
<td>Professional practice/ Laws, Ethics and Administration</td>
<td>2</td>
<td>Musculoskeletal Disorders and Assessment (Upper Quadrant)</td>
<td>2</td>
</tr>
<tr>
<td>Differential Diagnosis</td>
<td>2</td>
<td>Advanced Musculoskeletal Physical Therapy Practice I (Upper Quadrant)</td>
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</table>

<table>
<thead>
<tr>
<th>Semester 3</th>
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<th>Semester 4</th>
<th>Cr. Hr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Applied Biomechanics and Ergonomics (Lower Quadrant)</td>
<td>2</td>
<td>Research / Dissertation</td>
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<tr>
<td>Musculoskeletal Disorders and Assessment (Lower Quadrant)</td>
<td>2</td>
<td>Clinical Residency</td>
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<tr>
<td>Advanced Musculoskeletal Physical Therapy Practice II (Lower Quadrant)</td>
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</table>

**Total Semesters**: 4  
**Total Credit Hours**: 36

### Doctor of Philosophy in Physical Therapy (Ph.D)

**Program Facts**
- **Program Duration**: 3-5 Years
- **Timing**: Morning 09:00 AM - 03:00 PM (Morning) 09:00 AM - 03:00 PM (Weekend Saturday - Sunday)
- **Entry Requirements**: 18 years of education, M. Phil in Physical Therapy (M.Phil, PT)’s MBPT or Equivalent (in relevant field) with at least second Division min 75% marks in annual system and 3.00 CGPA (out of 4.00)
- **Location**: Defence Road Campus, Lahore.

**Career Prospects**
The goal of this doctoral program is to prepare critical thinkers and independent researchers so as to further expand the knowledge base of the physical therapy profession. Through a modern scientific approach, students will enhance their capacities to critically review scientific literature, formulate questions, devise hypotheses, and test those hypotheses using valid and reliable research designs. There is acute shortage of PhD physical therapy graduates throughout Pakistan. So graduates of this program will be in great demand throughout country as well as abroad.

**Road Map**

<table>
<thead>
<tr>
<th>Semester 1</th>
<th>Cr. Hr.</th>
<th>Semester 2</th>
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</thead>
<tbody>
<tr>
<td>Advanced Biostatistics &amp; Research Methodology</td>
<td>3</td>
<td>Diagnostic Imaging In Rehabilitation</td>
<td>3</td>
</tr>
<tr>
<td>Genetics and Molecular Biology of Muscle Adaptation</td>
<td>3</td>
<td>Public Health and Physical Therapy</td>
<td>3</td>
</tr>
<tr>
<td>Science, Theory and Clinical Application (Orthopedic Physical Therapy)</td>
<td>3</td>
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<tr>
<td>Sports Traumatology and Rehabilitation</td>
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<tbody>
<tr>
<td>Research (Thesis)</td>
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<td>Research (Thesis)</td>
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DEPARTMENT OF
SPORTS SCIENCES AND PHYSICAL EDUCATION

DEGREES OFFERED
• BS Sports Sciences and Physical Education
• M.Sc Sports Sciences & Physical Education
• M. Phil Sports Sciences
• Ph.D Sports Sciences & Physical Education

MISSION STATEMENT
The mission of the Sport Sciences program at The University of Lahore is to promote quality knowledge, research and expertise associated to human movement, physical education and sports to improve the quality of life and human performance.

INTRODUCTION
The vision of sports sciences & physical education department is to have a positive impact through various programs that promote sports leadership, wellness, teamwork and ethics, and provide students and faculty opportunities to design and enhance the intellectual assets and moral values required to lead meaningful lives while impacting society in respectful ways.

The programs in the Department of Sports Sciences and Physical Education are designed to prepare students for lifelong growth in the physical, intellectual, cultural, emotional and social dimensions. These goals and objectives are met through the qualified faculty’s presentation of research-based information, utilizing the latest technology. In near future, department is determined to launch new programs e.g. M.Phil Sports Psychology and PhD Sports Psychology. Moreover it is planned to put share in existing terrain of knowledge by publishing at least four research papers annually in impact factor journals, this number will increase to ten research papers in five years.
**INTRODUCTION**

This program consists of 133 credit hours with 50 core courses. After completion of Four Year BS Sports Sciences and Physical Education students will be able to integrate a broad and coherent theoretical and technical knowledge of health, physical education & exercise and sport science disciplines. Further to critically review and apply information with autonomy, responsibility and judgment in order to both anticipate and creatively solve problems related to professional practice, including developing appropriate activities for participation in physical education and sport in contemporary settings.

**PROGRAM FACTS**

- **Program Duration**: 4 Years
- **Timing**: Morning, 11:00 AM - 08:00 PM (Monday to Friday)
- **Entry Requirements**: 12 Years of Education, FA, FSc, Minimum 50% Marks
- **Location**: Defence Road Campus, Lahore.

**RECOGNIZED BY**

Higher Education Commission

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**ROAD MAP**

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<thead>
<tr>
<th>SEMESTER 1</th>
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<td>Athletics-II</td>
<td>2</td>
<td>Athletics-III</td>
<td>2</td>
<td>Administration and Management in Sports</td>
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<tr>
<td>Basic Mechanics</td>
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<td>Basics of Human Anatomy</td>
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<td>English III</td>
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<td>Athletics</td>
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<td>English-II</td>
<td>3</td>
<td>Gymnastics-II</td>
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<td>English-IV</td>
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<td>Games-I</td>
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<td>Games-II</td>
<td>2</td>
<td>Introduction to Computer</td>
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<td>Games-IV</td>
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<td>Mathematics-I</td>
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<td>Introduction to modern technologies</td>
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<td>Islamic Studies</td>
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<td>Talent Identification in Sports</td>
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<td>Sociology</td>
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<tr>
<td>Mathematics</td>
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<th>SEMESTER 7</th>
<th>Cr. Hr.</th>
<th>SEMESTER 8</th>
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<td>Environmental Sciences</td>
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<td>Planning and development of Sports Facilities</td>
<td>3</td>
<td>Exercises Physiology</td>
<td>3</td>
<td>Adapted Physical Education</td>
<td>3</td>
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<tr>
<td>Introduction to Statistics</td>
<td>3</td>
<td>Practical (Teaching Practice)</td>
<td>2</td>
<td>Formation of Research Proposal</td>
<td>1</td>
<td>Curriculum Development in Physical Education</td>
<td>3</td>
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<tr>
<td>Physical Education for special population</td>
<td>3</td>
<td>Research Methodology in physical Education</td>
<td>3</td>
<td>Role of Media in Sports</td>
<td>3</td>
<td>Research Thesis/Research Project</td>
<td>4</td>
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<tr>
<td>Science of Sports Training</td>
<td>3</td>
<td>Specialization in one group of track and Field</td>
<td>3</td>
<td>Scientific Sports Coaching</td>
<td>3</td>
<td>Sports Medicine</td>
<td>3</td>
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<tr>
<td>Sports Nutrition</td>
<td>3</td>
<td>Sports Psychology</td>
<td>3</td>
<td>Specialization in one Game</td>
<td>3</td>
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**CAREER PROSPECTS**

Employment for graduates would include such positions as

- **HEALTH AND FITNESS**
  - Exercise Physiologist
  - Athletic Trainer
  - Sports Bio-mechanist
  - Group Exercise Instructor
  - Personal Fitness Trainer
  - Dietitian/Sports Nutritionist
  - Medical Sports Physician
  - University Teaching/Research
  - Sports Therapist

- **SPORTS PSYCHOLOGY**
  - Sports & Exercise Psychologist
  - Consultation and Counseling
  - Clinical Sports Psychologist
  - University Teaching/Research

- **SPORTS MANAGEMENT**
  - Sports Manager
  - Sports Product Development
  - Sports Marketing and Sales
  - Sports Event Organizer
  - Fitness Center Director
  - Sports Director
  - Sports Development Officer

- **SELF-EMPLOYMENT**
  - Fitness/Health Sciences Writer
  - Private Fitness Trainer
  - Fitness Facility Owner (Entrepreneur)
INTRODUCTION
This program consists of 64 credit hours with 30 courses. Main objectives of offering this program are:

a. To train the students to understand the functional anatomy and biomechanics of the human body.
b. To introduce to the students the physiological basis for exercise and physical activity in direct application to physical fitness and athletic conditioning.
c. To facilitate the students to assess health status, conduct fitness testing, and prescribe and administer exercise programs.
d. To familiarize the students to perform health and wellness programming based upon the ability to assess needs, and to design, implement, and evaluate a project.

CAREER PROSPECTS
The Graduate having a degree of Sports Sciences and Physical Education will be able to play a significant role and positive contribute to generate human resources and to serve various sector of society in general, related to such program in particular, render to educational institutions and sports organizations.

MASTER OF PHILOSOPHY IN SPORTS SCIENCES (M.Phil)

INTRODUCTION
In the era of educational revolution, the objective of MPhil in Sport Sciences and Physical Education programs is to enable graduates to gain a deeper knowledge of the subjects as well as ability to analyze sports performance in a given situation and draw out conclusion. The main objective of the program is to produce broad base graduates able to face the challenges of the modern world to enhance the performance of the athletes. Other than that, the building blocks of the M. Phil course are to provide learning opportunity of professional training and develop a rigorous research aptitude in the field of Physical Education and Sports Sciences. It is also a pre-doctoral Program, which will enable students to master research skills to critically evaluate a situation and craft long term solutions.

CAREER PROSPECTS
Degree will have equipped you with a good knowledge of the sports and exercise industry and enabled you to look at the science behind fitness, as well as giving you an insight into related areas such as nutrition, psychology, management and finance – plenty to make you an attractive prospect to potential employers.

ROAD MAP

<table>
<thead>
<tr>
<th>SEMESTER 1</th>
<th>Cr. Hr.</th>
<th>SEMESTER 2</th>
<th>Cr. Hr.</th>
<th>SEMESTER 3</th>
<th>Cr. Hr.</th>
<th>SEMESTER 4</th>
<th>Cr. Hr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administration and Management in sports</td>
<td>3</td>
<td>Human Anatomy</td>
<td>3</td>
<td>Exercise Physiology</td>
<td>3</td>
<td>Leadership in sports</td>
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<tr>
<td>Computer Application in Sports</td>
<td>1</td>
<td>Methodology of Scientific Coaching</td>
<td>3</td>
<td>Gymnastics</td>
<td>1</td>
<td>Measurement and Evaluation in sports</td>
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</tr>
<tr>
<td>Practical Athletics (Sprints and Shot put)</td>
<td>1</td>
<td>Planning Sports Facilities</td>
<td>3</td>
<td>Physical Education for especial population</td>
<td>3</td>
<td>Practical Athletics (Relay, Hurdles)</td>
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<tr>
<td>Practical Education Gymnastics</td>
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<td>Practical Athletics (Long Jump, Triple Jump, Discus Throw)</td>
<td>1</td>
<td>Practical Athletics (High jump, Jumping)</td>
<td>1</td>
<td>Practical Games (Hockey, Tennis)</td>
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<tr>
<td>Practical Games Football and Badminton</td>
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<td>Practical Games (Volleyball, Table Tennis)</td>
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<td>Practical Games (Basketball, Cricket)</td>
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<td>Practical Small Area Games</td>
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<tr>
<td>Rules and Techniques of Games</td>
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<td>Practical Swimming (Free style, Back stroke)</td>
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<td>Sport Psychology</td>
<td>3</td>
<td>Role of media in sports</td>
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<td>Sports Nutrition</td>
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<td>Research Methods in Physical Education</td>
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<td>Sports Bio Mechanics</td>
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<td>Trauma and Rehabilitation</td>
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<td>Talent Identification in sports</td>
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<td>Science of Track and Field</td>
<td>3</td>
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</tbody>
</table>

THE UNIVERSITY OF LAHORE

THE UNIVERSITY OF LAHORE
DOCTOR OF PHILOSOPHY IN 
SPORTS SCIENCES & PHYSICAL EDUCATION (Ph.D)

INTRODUCTION
Department of Sports Sciences under Faculty of Allied Health Sciences at The University of Lahore is one of the few platforms in the whole country that is offering PhD in Sports Sciences and Physical Education. The objectives of this program are,

• The program will train the students to understand and master advance research and analysis skills.
• The program will introduce the students to the advance statistical analyses and inferences to strengthen the physiological basis for exercise and physical activity in direct application to physical fitness and athletic conditioning.
• The program will facilitate the students to learn contemporary fitness testing and prescribe & administer exercise programs.
• The program will familiarize the students to the modern concepts of health and wellness programs while applying advance measurement and evaluation techniques for designing, implementing, and evaluating a project.
• The program will enable the students to analyze the social settings, propose and execute an event management strategy and turn it into a lucrative business opportunity.
• The program would provide an opportunity to the student to critically assess physical activity (including sports) using a biomechanical, psychological, sociological, pedagogical or physiological approach.

DOCTOR OF PHILOSOPHY IN 
SPORTS SCIENCES & PHYSICAL EDUCATION (Ph.D)

PROGRAM FACTS
• Program Duration
  3 Years
• Timing
  Weekend, 09:00 AM - 05:00 PM (Saturday and Sunday)
• Entry Requirements
  16 Years of Education in relevant field, M.Sc. (Hons)/MS/M.Phil in Sports Sciences & Physical Education with at least CGPA 3.0 out of 4.0 and at least 1st division in annual system will be required. Selection will be according to UOL and HEC rules and regulations
  1. Secure valid score (60%) in written test; NTS GAT-Subject (Physical Education) / UOL Scholastic Aptitude Test
  2. Pass the interview by the PhD Admissions Committee of Faculty of Allied Health Sciences.
• Location
  Defence Road Campus, Lahore.

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Higher Education Commission

ROAD MAP
Total Semesters 6
Total Credit Hours 48

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<tr>
<th>SEMESTER 1</th>
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<th>SEMESTER 2</th>
<th>Cr.</th>
<th>Hr.</th>
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</thead>
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<tr>
<td>Research Methodology and Application of Statistics</td>
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<td>Curriculum Design and its Application</td>
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<tr>
<td>Test, Measurement &amp; Evaluation in sports (Advance)</td>
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<td></td>
<td>Studies of Health Education (Advance)</td>
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<td>Dissertation</td>
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</tr>
</tbody>
</table>

ELECTIVES
SEMESTER 1
• Sports Psychology (Advance)
• Science of Sports Training

SEMESTER 2
• Cognitive factors in motor skill acquisition
• Mechanical Principles involved in sports
DEGREES OFFERED

- Doctor of Dietetics & Nutritional Sciences
- M.Phil Human Nutrition and Dietetics
- M.Phil Food Science and Technology
- Ph.D Human Nutrition and Dietetics
- Ph.D Food Science and Technology

MISSION STATEMENT

The university institute of diet and nutritional sciences will be the premier academic institute in Nutrition recognized for the way it integrates research, teaching, service and practice in diverse environment to develop effective solution to public health nutritional problems.

To improve human health through enhanced nutrition by providing excellent education research and community engagement.

INTRODUCTION

Numerous nutritional deficiency disorders ranging from protein malnutrition to specific micro-nutrients in certain areas of the country especially in Pakistan. These deficiencies have resulted in growth retardation, mental disorders and various types of physical disabilities. Beside micronutrient deficiencies, the incidences of cardiovascular diseases, diabetes, cancer, obesity, hypertension and kidney and liver problems are increasing day by day due to unsafe and poor quality diets. This alarming situation demands to cure diseases with food. Realizing the importance of human nutrition in daily life and emergencies like earthquake, drought, famine and man-made disasters, the University Institute of Diet and nutritional Sciences started 5-years degree program leading to Doctor of Dietetics and Nutritional Sciences.

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, International Organizations, Private Sector, and Non-Governmental Organizations, Community Development Program etc. 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 ill defined problems, development of individual learning objectives and self-evaluation of performance.
# DOCTOR OF DIETETICS & NUTRITIONAL SCIENCES (DDNS)

## INTRODUCTION
This 5-year degree program is precisely designed to keep in view the importance of nutrition and dietetics in sustaining the healthy lifestyle. This course will provide and enable students to cope with the 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 work in public and private sectors.

## PROGRAM FACTS
- **Program Duration:** 5 Years
- **Timing:** Morning, 8:00 AM-5:00 PM (Monday to Friday)
- **Entry Requirements:** 12 years of education (Higher Secondary School Certificate/A-Level/Intermediate-F. Sc Pre medical or Equivalent) with at least second Division with 50% marks
- **Location:** Defence Road Campus, Lahore.

## RECOGNIZED BY
Higher Education Commission

## ROAD MAP

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<th>SEMESTER 1</th>
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<th>Cr. Hr.</th>
<th>SEMESTER 4</th>
<th>Cr. Hr.</th>
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<td>Advanced nutrition; Carbohydrates, lipids and proteins</td>
<td>3</td>
<td>Nutrition and life cycle</td>
<td>3</td>
<td>Dietetics (i)</td>
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<tr>
<td>Principles of food sciences</td>
<td>3</td>
<td>Advanced human nutrition; Vitamin and minerals</td>
<td>3</td>
<td>Disease prevention through Nutrition</td>
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<td>Public health nutrition (i)</td>
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<td>Medical Biochemistry</td>
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<td>Metabolic exocrinology</td>
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<td>Behavioral and social Sciences</td>
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<td>Cell biology and Physiology (ii)</td>
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<td>English comprehension (i)</td>
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<td>English comprehension (ii)</td>
<td>2</td>
<td>Fundamentals of microbiology</td>
<td>3</td>
<td>Herbs, food and Phytochemicals</td>
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<td>Islamic studies/ethics</td>
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<td>Epidemiology and public health</td>
<td>3</td>
<td>Drug-nutrient interaction</td>
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<th>SEMESTER 6</th>
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<td>Advanced clinical nutrition</td>
<td>3</td>
<td>Nutrition education</td>
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<td>Research methodology</td>
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<tr>
<td>Public health nutrition (ii)</td>
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<td>Food processing and Preservation</td>
<td>3</td>
<td>Nutrition assessment and Menu Planning</td>
<td>4</td>
<td>Principles of food service</td>
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<td>Statistics for scientists</td>
<td>3</td>
<td>Nutritional counselling and diet therapy</td>
<td>3</td>
<td>Nutraceuticals and Functional Foods</td>
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<td>Global nutritional issues</td>
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<td>Communication skills</td>
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<td>Nutrition intervention Planning</td>
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<td>Recent advances in human Nutrition</td>
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<td>Controversies in the field of Nutrition</td>
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<td>Sports nutrition</td>
<td>3</td>
<td>Computer education and Nutritional data base</td>
<td>4</td>
<td>Community nutrition</td>
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<td>Food toxicology and additives</td>
<td>3</td>
<td>Sociocultural aspects of Food</td>
<td>3</td>
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<tr>
<td>Seminar</td>
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<td>Hospital based nutritional practice</td>
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<td>Nutritional report setting</td>
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<td>Institutional management</td>
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<td>Practice nutritional practices in clinical care</td>
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<tr>
<td>Practice dietary models &amp; counselling</td>
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<td>Nutrition care in emergency cases</td>
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</tbody>
</table>

## FOREIGN COUNTRIES
- Public health departments in Middle East, Europe etc.
- Independent Private Practice as registered dietitians

## PRIVATE SECTOR
- Independent Private Practice
- Multinational Food Industry
- Multi-national Companies
- Pharmaceuticals Industry
- Consultant for Private Companies
- Consultant in Private Hospitals
- Airlines and Railways
- Health Care Centers

## PUBLIC SECTOR
- Public Health Departments
- Research and Teaching Institutes
- Non-Governmental Organizations
- Community Development Program
INTRODUCTION
This 2-years program will provide the advanced knowledge of
nutrition and prevention of disease with food in consort with
strong clinical, analytical and research skills 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 work in public and private sectors.

INTRODUCTION
This course will provide and enable students to cope with the
rapid advancement in the field of product development and
food processing industry.

CAREER PROSPECTS
This professional program is for the student’s community
to provide them the latest techniques in the field of Food
Processing and Food Safety & Security worldwide. After
completing this program, they can move further for PhD in
Food Science and Technology.

ROAD MAP
Total Semesters 4
Total Credit Hours 36

<table>
<thead>
<tr>
<th>SEMESTER 1</th>
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<tr>
<td>Nutrition and Metabolism</td>
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<td>Human Nutrition Disorders &amp; Disease Prevention</td>
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<tr>
<td>Recent Advances in Dietetics</td>
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<td>Maternal &amp; Pediatric Nutrition</td>
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<td>Biochemistry &amp; Physiology of Human Nutrition</td>
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<td>Nutraceuticals/Functional Foods</td>
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<td>Public Health and Nutrition</td>
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<td>Research Methods in Human Nutrition</td>
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<td>Laboratory Techniques in Nutrition</td>
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<td>Clinical and Therapeutic Nutrition</td>
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<td>Research M &amp; Statistics</td>
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<td>Menu Planning and Contemporary Issues in Dietetics</td>
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RECOGNIZED BY
Higher Education Commission

ROAD MAP
Total Semesters 4
Total Credit Hours 38

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<td>Physical Properties of Food</td>
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<td>Advanced Beverage Technology</td>
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<td>Food Quality Assurance Management</td>
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<td>Technology of Processed Meat</td>
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<td>Food Packaging</td>
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RECOGNIZED BY
Higher Education Commission
INTRODUCTION

This degree is designed for the Food and Nutrition Sciences graduates who want to excel their career in the field of Human Nutrition and Dietetics. The PhD program will require both course and research work leading to submission and defense of thesis and if successful the award of PhD degree. Modules (Core and Electives) will be based on advanced levels in the selected topics that will provide an in-depth student-faculty interaction.

CAREER PROSPECTS

The graduate of Human Nutrition and Dietetics can work in National and International Organization related to the Nutritional Sciences, Research and Teaching Institutes, Public Health Departments, International Organizations [UNICEF, UNDP, WHO, FAO, World Bank], Non-Governmental organizations, community development program.

DOCTOR OF PHILOSOPHY IN
HUMAN NUTRITION AND DIETETICS (Ph.D)

PROGRAM FACTS

- Program Duration: 3 Years
- Timing: Morning 08:00 AM - 05:00 PM (Monday – Friday)
- Entry Requirements:
  - Minimum 18 years of Education or equivalent degree with at least 3.0 CGPA (out of 4.00) in semester system 1st div / 75% in annual system from HEC recognized university/institute with graduation in followings
    - MS/ M.Phil in Food & Nutrition
    - MS in Human Nutrition and Dietetics
    - MS/ M.Phil in Food Science and Technology
- Location: Defence Road Campus, Lahore.

RECOGNIZED BY

Higher Education Commission

ROAD MAP

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<td>Advanced Research Methods</td>
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THE UNIVERSITY OF LAHORE

DOCTOR OF PHILOSOPHY IN
FOOD SCIENCE AND TECHNOLOGY (Ph.D)

INTRODUCTION

This course will provide and enable students to cope with the rapid advancement in the field of product development, food processing industry and food safety and security.

CAREER PROSPECTS

This professional program is for the student’s community to provide them the latest techniques in the field of Food Science and Technology worldwide. After completing this program, they can start a career as a researcher and educator and also participate in various outreach programs.

DOCTOR OF PHILOSOPHY IN
FOOD SCIENCE AND TECHNOLOGY (Ph.D)

PROGRAM FACTS

- Program Duration: 3 Years
- Timing: Morning 08:00 AM - 05:00 PM (Monday – Friday)
- Entry Requirements:
  - Minimum 18 years of Education or equivalent degree with at least 3.0 CGPA (out of 4.00) in semester system 1st div / 75% in annual system from HEC recognized university/institute with graduation in followings
    - MS / M.Phil in Food & Nutrition
    - MS in Human Nutrition and Dietetics
    - M.Sc (Hons) / MS / M.Phil in Food Science and Technology
    - M.Sc (Hons) in Food Technology
- Location: Defence Road Campus, Lahore.

RECOGNIZED BY

Higher Education Commission

ROAD MAP

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<td>Food Toxicology</td>
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<td>Meat Science</td>
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<td>Starch Chemistry and Technology</td>
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<td>Recent Advances in Food Science and Technology</td>
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<td>Dairy Processing – II</td>
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<td>Seminar – II</td>
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<td>Seminar – I</td>
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<td>Experimental Design – II</td>
<td>3</td>
<td>Research Work / Thesis</td>
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<th>SEMESTER 6</th>
<th>Cr. Hr.</th>
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</table>

THE UNIVERSITY OF LAHORE

THE UNIVERSITY OF LAHORE
DEGREES OFFERED

- Doctor of Medical Laboratory Sciences
- M.Phil Virology and Molecular Pathology
- M.Phil Immunology and Molecular Pathology
- Ph.D Virology and Molecular Pathology
- Ph.D Immunology and Molecular Pathology

MISSION STATEMENT

Our Vision is to establish a state-of-the-art teaching, clinical & research Division of Medical Laboratory Sciences at The University of Lahore for basic & advanced activities/training along with quality undergraduate and postgraduate Laboratory Technology education in line with current national & international higher standards along with basic and advanced framing.

INTRODUCTION

The department has been established with the vision to promote development and appropriate use of techniques for promotion health care. Our department has the honor to introduce Doctor of Medical Laboratory Science (DMLS) Program for the first time in the history of our country. Our DMLS program is well known and appreciated for its excellent educational standards nationwide. UIMLT offers different graduates and postgraduates programs where students are trained to critically examine all data and results and to be alert for potential technical errors. They are also encouraged to participate in the on-going basic research programs in the department and publish their research findings in reputable scientific journals. To begin transition to the "real world" they undergo rotations in the UIMLT basic skill laboratory and first pathological laboratories at the affiliated hospitals of the University of Lahore. There they learn handling and dealing of the specimen, bio-safety management and develop understanding of principles, basic skills and professionalism.
**INTRODUCTION**

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

**CAREER PROSPECTS**

After completing this program, the students are able to look independently or continue their post-graduation in various disciplines of Bio-Medical Sciences.

**ELECTIVES**

- Medical Mycology
- Advanced Clinical Microbiology
- Cytology and Cytogenetics
- Advanced Clinical Immunology

**ROAD MAP**

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<thead>
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<th>ROAD MAP</th>
<th>Total Semesters 10</th>
<th>Total Credit Hours 172</th>
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<td>Cr. Hr.</td>
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<td>Basic Anatomy</td>
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<td>Introduction to Pharmacology</td>
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<tr>
<td>Basic Physiology</td>
<td>4</td>
<td>Endocrinology</td>
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<tr>
<td>Basic Biochemistry</td>
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<td>Advances in Biochemistry</td>
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<tr>
<td>English</td>
<td>3</td>
<td>General Pathology</td>
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<tr>
<td>Social Psychology</td>
<td>3</td>
<td>Pakistan Studies</td>
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<td><strong>SEMMESTER 5</strong></td>
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<td>Clinical Pathology</td>
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<td>Advances in Immunology</td>
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<td>Clinical Bacteriology</td>
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<td>Molecular Biology &amp; Genetics</td>
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<td>General Microbiology</td>
<td>3</td>
<td>Mycology &amp; Parasitology</td>
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<td>Transfusion Medicine</td>
<td>4</td>
<td>Advances in Chemical Pathology</td>
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<tr>
<td>Basic Immunology</td>
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<td>Research Methodology</td>
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<tr>
<td>Clinical Lab Rotation (Haematology &amp; Blood Banking)</td>
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<td>Clinical Lab Rotation (Clinical Chemistry &amp; Histopathology)</td>
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<tr>
<td>Clinical Lab Rotation (Clinical Microbiology)</td>
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<td>Clinical Lab Rotation (Molecular Biology)</td>
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<tr>
<td>Research (Synopsis / Field Work)</td>
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<td>Research (Lab work / Research report submission)</td>
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**PROGRAM FACTS**

- **Program Duration**: 5 Years
- **Timing**: Morning 08:30 AM - 05:00 PM (Monday – Friday)
- **Entry Requirements**: 10 years of education (Higher Secondary School Certificate/A-Level/Intermediate-F. Sc Pre medical or Equivalent) with at least second Division with 50% marks
- **Location**: Defence Road Campus, Lahore.

**RECOGNIZED BY**

Higher Education Commission
INTRODUCTION

Understanding the immunological interaction and molecular aspect of different immunological disorders is one of the utmost challenges faced by the scientific world in the recent times. These courses will provide and enable students to cope with the speedy progression in the field of immunology and Molecular Pathology and helps them to address the immunological interfaces of immunological disorders and pathological human diseases through focused research projects.

CAREER PROSPECTS

This program aims to generate human resources of molecular pathologists in the field of immunology who can contribute to the society by serving in prestigious academic and research institutes around the globe. Since there is a huge demand of immunologists and molecular pathologists, these professionals can pursue their future career in the vaccine, pharmaceutical, research laboratories, university circles and health care industries within as well as outside Pakistan.

PROGRAM FACTS

- Program Duration: 2 Years
- Timing: Morning 08:30 AM - 05:00 PM (Monday – Friday)
- Entry Requirements:
  - 16 years of Education or equivalent degree (in relevant field) with at least 2.5 CGPA (out of 4.00) in semester system 2nd div / 50% in annual system with graduation in followings
    - M.Sc in Medical Lab Technology (2 years)
    - Doctor of Medical Laboratory Sciences (5 years)
    - BS (Hons) Four Year Medical Lab Technology (4 years)
    - BS (Hons) Bio Medical Science (4 years)
- Location: Defence Road Campus, Lahore.

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Higher Education Commission

ROAD MAP
Total Semesters 4
Total Credit Hours 36

SEMESTER 1
Cr. Hr. SEMESTER 2 Cr. Hr.
General Virology 3 Immune disorders 3
General Immunology 3 Virovirology 3
Molecular Pathology/ Molecular Biology 3 Biosafety/Bioethics 3
Diagnostic Techniques/ Instrumentation 3 Biostatistics 3

SEMESTER 3 Cr. Hr. SEMESTER 4 Cr. Hr.

INTRODUCTION

This Program is introduced for the first time in Pakistan, keeping in view of the emerging viral diseases and their deadly outbreaks during the last couple of decades. Understanding molecular aspects of these viral infections is one of the greatest challenges faced by the scientific world these days. These courses provide and enable students to cope with the rapid advancement in the field of Virology and Molecular Pathology and helps them to address the Interactions of the viral and pathological human diseases through focused research projects.

CAREER PROSPECTS

This program aims to generate human resource of molecular pathologists in the field of virology who can contribute to the society by serving in prestigious academic and research institute around the globe. There is a huge demand of these professional in the vaccine, pharmaceutical, research laboratories, university circle and health care industry within as well as outside Pakistan where they can pursue their careers.

PROGRAM FACTS

- Program Duration: 2 Years
- Timing: Morning 08:30 AM - 05:00 PM (Monday – Friday)
- Entry Requirements:
  - 16 years of Education or equivalent degree (in relevant field) with at least 2.5 CGPA (out of 4.00) in semester system 2nd div / 50% in annual system with graduation in followings
    - M.Sc in Medical Lab Technology (2 years)
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    - BS (Hons) Four Year Medical Lab Technology (4 years)
    - BS (Hons) Bio Medical Science (4 years)
- Location: Defence Road Campus, Lahore.

RECOGNIZED BY
Higher Education Commission

ROAD MAP
Total Semesters 4
Total Credit Hours 36

SEMESTER 1 Cr. Hr. SEMESTER 2 Cr. Hr.
General Virology 3 Advances in Virology 3
General Immunology 3 Molecular Mechanism of Disease (Mechanistic Virology) 3
Molecular Pathology/ Molecular Biology 3 Biosafety/Bioethics 3
Diagnostic Techniques/ Instrumentation 3 Biostatistics 3

SEMESTER 3 Cr. Hr. SEMESTER 4 Cr. Hr.
INTRODUCTION
Comprehending the immunological interactions between host and diseases is utmost complex and is one of the extreme challenges faced by the scientific/research world during the recent times. This course will provide and enable students to cope with the speedy progression in the field of Immunology and Molecular Pathology and help them to address the immunology interfaces of immunological disorders and pathological human diseases through focused research projects.

CAREER PROSPECTS
Our aims is to generate human resources of molecular pathologists in the field of immunology who can contribute to the society by serving in prestigious academic and research institutes around the globe. Since there is a huge demand of immunologists and molecular pathologists, these professional can pursue their future career in the vaccine, pharmaceutical, research laboratories, university circles and health care industry within as well as outside Pakistan.

DOCTOR OF PHILOSOPHY IN IMMUNOLOGY & MOLECULAR PATHOLOGY (Ph.D)

PROGRAM FACTS
- Program Duration: 3-5 Years
- Timing: Morning 08:30 AM - 05:00 PM (Monday – Friday)
- Entry Requirements: 18 years of education in relevant field or equivalent with at least 1st Division min 60% marks in annual system and 3.00 CGPA (out of 4.00)
- Location: Defence Road Campus, Lahore.

RECOGNIZED BY
Higher Education Commission

ELECTIVES
- Immunotoxicology
- Cell Biology
- Medical Genetics / Gene Therapy
- Clinical Virology
- Stem Cell Studies
- Biostatistics
- Immunogenetics
- Pharmacology / Antimicrobial Agents

ROAD MAP

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<th>SEMESTER 1</th>
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<th>SEMESTER 2</th>
<th>Cr. Hr.</th>
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<tr>
<td>Molecular Pathology/ Molecular Biology</td>
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<td>Vaccinology</td>
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<tr>
<td>Diagnostic Techniques/ Instrumentation</td>
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<td>Elective Subject</td>
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DOCTOR OF PHILOSOPHY IN VIROLOGY & MOLECULAR PATHOLOGY (Ph.D)

INTRODUCTION
This Program is introduced for the first time in Pakistan, keeping in view of the emerging viral diseases and their deadly outbreaks during the last couple of decades. Understanding molecular aspect of these viral infections is the greatest challenges faced by the scientists/researchers these days. These courses will provide and enable students to cope with the rapid advancement in the field of Virology and Molecular Pathology and helps them to address the interactions of the viral and pathological human diseases through focused research projects.

CAREER PROSPECTS
This program aims to generate human resource of molecular pathologists in the field of virology who can contribute to the society by serving in prestigious academic and research institutes around the globe. There is a huge demand of these professional in the vaccine, pharmaceutical, research laboratories, university circle and health care industry within as well as outside Pakistan where they can pursue their careers.

DOCTOR OF PHILOSOPHY IN VIROLOGY & MOLECULAR PATHOLOGY (Ph.D)

PROGRAM FACTS
- Program Duration: 3-5 Years
- Timing: Morning 08:30 AM - 05:00 PM (Monday – Friday)
- Entry Requirements: 18 years of education in relevant field or equivalent with at least 1st Division min 60% marks in annual system and 3.00 CGPA (out of 4.00)
- Location: Defence Road Campus, Lahore.

RECOGNIZED BY
Higher Education Commission

ELECTIVE COURSES
- Immunotoxicology
- Cell Biology
- Medical Genetics / Gene Therapy
- Clinical Immunology
- Stem Cell Studies
- Biostatistics
- Immunogenetics
- Pharmacology/Antimicrobial Agents

ROAD MAP

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<td>Molecular Mechanism of Diseases (Mechanistic Virology)</td>
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</table>
University Institute of Public Health

DEGREES OFFERED

- Master of Public Health (MPH)
- M.Phil Public Health
- Ph.D Public Health

MISSION STATEMENT

University vision is to become a center 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 integrating both academics and research with extraordinary practice opportunities.
- Promoting creative and innovative interdisciplinary research.
- Promoting collaboration and partnership to address emerging Public Health problems.
- Improving the capacity of current public health professionals and infrastructure to respond to public health challenges.

INTRODUCTION

The Public Health activities include a wide range of efforts to identify, prevent and combat threats to the health of the community/population.

Essential Public Health services include:

1. Monitoring the health status of the community.
2. Investigating the epidemics, community based health problems health hazards of flooding and earth quake.
3. To provide awareness and education to the people regarding health issues.
4. Mobilize partnership between public health physicians and public health administrators to solve community problems.
5. To support policy makers & planners for the achievement of public health interventions.
6. To enforce laws, rules & regulations for the public health safety and protection.
7. To make a link between community health workers and the public health physicians.
8. To conduct innovative research and its application.

INTRODUCTION

The University Institute of Public Health is a pioneer Institute of the University of Lahore among private sector universities for the award of Master of Public Health since 1999. It is a two years post graduate professional degree program comprising of 4-semesters. During the first three semesters, the course work of 49 credit hours are studied and in the fourth semester 10 credit hours of research and thesis dissertation has to be completed. Public Health is a joint venture public Health Physicians and organized by the society, to protect, promote and restore the health of the public at large through collective social actions. Public Health paradigm changes with the changing need, technologies, values and the objectives for the reduction in the magnitude of disease problem/disease load/ disease burden, preventive and early deaths and to relieve the community from discomfort, disability and sufferings. The teaching faculty is highly qualified, trained and specialized.

CAREER PROSPECTS

Students learn through a wide variety of courses, exercises, assignments and skills that help them in the problem solving situations faced by the community/society. After qualifying the MPH degree, they are eligible for promotion in Public and private sector Institutions.

MASTER OF PUBLIC HEALTH (MPH)

PROGRAM FACTS

- Program Duration: 2 Years
- Entry Requirements: 16 Year of Education, MBBS, BDS, Pharm-D, DPT, DNNS, DM&LS, Nursing and degree programs (4/5-years)
- Location: Defence Road Campus, Lahore

RECOGNIZED BY

Higher Education Commission
Pakistan Medical & Denatal Council (PM & DC)

ROAD MAP

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INTRODUCTION

M.Phil is a two years (4-semester) program during which a student learns about different aspects of public health through a course work of 24 credit hours to be completed in three semesters in addition to a synopsis. A semester is comprising of 16-20 weeks. There is midterm examination after 8 weeks of study and final examination after 16 weeks of study. There are assignments of each subject in relation to lectures delivered. A synopsis is a sort of proposal and road map for the conduct of future research and thesis dissertation. After the approval of synopsis by the supervisor/co-supervisor, it needs approval from the Board of Studies (BOS) followed by approval from Technical Review Committee (TRC) and Institutional Review Board (IRB). In the 4th semester a student under the supervision of a supervisor/co-supervisor conducts research and start writing thesis. On the completion of thesis during the 4th semester an external examiner is appointed by the competent authority for the evaluation of the quality of thesis. Both external and internal examiners have to evaluate and declare the result unanimously which is verified by the Head of Department/ Director, University Institute of Public Health (UIPH) which is forwarded to the Controller of examinations for result declaration. A Student has to submit six copies of his/her thesis to the HOD/Director UIPH for onward transmission to Higher Education Commission or equivalent from HEC Recognized with minimum CGPA of 3.5 out of 4.0

CAREER PROSPECTS

After the completion of M.Phil, in Public Health, the candidate may join private, or public teaching institution and/or any Non-Government Organization (NGO) in the country or abroad. He/she may continue his/her study toward Ph.D through inland or international university. His future career would be to serve community as a public health physician/community provider, policy makers and planners.

INTRODUCTION

The Ph.D. program is comprising of a course work of two semesters (18 Credit Hours) and research work of four semesters (50 Credit Hours). The research and thesis dissertation has to be completed from 3rd through 6th semester which shall be supervised by the supervisory committee from related fields of expertise as per rules and regulations approved by UOL, HEC and PM&DC. The predominant aim is to provide opportunity to the scholars to acquire essential knowledge, skills through creative and innovative research, for the dissemination of knowledge to the public health providers, policy makers and planners.

CAREER PROSPECTS

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Higher Education Commission

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DEPARTMENT OF HEALTH PROFESSIONAL TECHNOLOGIES

DEGREES OFFERED

- Doctor of Occupational Therapy
- BS Biomedical Technology
- BS Operation Theatre Technology
- BS Respiratory Therapy
- BS Audiology
- BS Speech Language Pathology
- MS Speech Language & Hearing Sciences

MISSION STATEMENT

- To produce competent allied health professionals to meet local, regional and national needs and to develop reactive practitioners, capable of effective, critical evaluation and analysis with effective interpersonal and clinical skills.
- To develop reflective and capable practitioners with efficient interpersonal and clinical skills.
- Produce professionals, who’s collaborate with other health care professions to provide integrated, quality care for patients.

INTRODUCTION

Department of Health Professional Technologies (DHPT) established in September 2014 under the umbrella of Faculty of Allied Health Sciences (FAHS). The foundation milestone of this department is launching four disciplines (BSSLP, BS Audiology, and BSOTT, BS-BMT DOT and MS-SLHS) in UOL. BS Audiology deals with hearing, balance related disorders and rehabilitation. BSSLP (BS speech & Language Pathology) deals with communication disorders. DOT (Doctor of Occupational Therapy) prevent disability. BS-BMT (BS in Bio Medical Technology) deals with the biological and medical problems, BSOTT (BS in operation Theater technology) deals with the advance clinical technologies used in Operation Theater. BS Respiratory Therapy, degree program will cover pulmonary problems, General Respiratory issues, problems in Adult Intensive Care Unit, Neonatal and Pediatric Critical Care Unit, and Sleep respiration issues. All these disciplines will increase professionals towards different treatments in hospitals, rehabilitation centers and health care institutes and introduce new advancement of skills with expertise in the old of Rehabilitations. Post-graduates of MS-SLHS will be able to identify, assess, evaluate, manage, treat, educate and help to prevent speech language and hearing and other related communication disorders and swallowing disorders. Degree is designed to help students to apply principles of evidence-based practice to their clinical service delivery.
INTRODUCTION

Occupational Therapy enables people to do the ‘day-to-day activities that are important to them’ despite impairments, activity limitations or participation restrictions or despite risks for those problems. Occupations are another name for these day-to-day activities. You will acquire the skills to facilitate independent living in people with a variety of disabilities and disorders.

Occupational therapy is directed to those who possess or who are at risk for physical disabilities, cognitive disabilities, psychosocial dysfunctions, mental illness, development disorders, maladaptive behaviors, other disorders or conditions.

CAREER PROSPECTS

The scope of occupational therapy ranges from infancy to old age, and occupational therapists can work in fields such as:

- Government & Private Hospitals
- Independent Practice
- Special Schools & Colleges
- Sports Complexes Gyms
- Mental Hospitals
- Charity Departments
- Jail Setup
- Nursing Hospitals
- Rehabilitation Centres
- Industrial Organizations
- Community Service
- Government Agencies

PROGRAM FACTS

- Program Duration: 5 Years
- Timing: Morning, 8:30 AM-5:00 PM (Monday to Friday)
- Entry Requirements: 12 years of education (Higher Secondary School Certificate/A-Level/Intermediate-F.Sc Pre medical or Equivalent) with at least second Division with 50% marks
- Location: Defence Road Campus, Lahore.

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Higher Education Commission

ROAD MAP

Total Semesters 8  Total Credit Hours 172

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<td>Anatomy II</td>
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<td>Anatomy III</td>
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<td>English II Communication Skills</td>
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<td>Psychosocial Counseling and Group Therapy</td>
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BIO-MEDICAL TECHNOLOGY

INTRODUCTION
Bio-medical Technology focuses on health issues, aging populations around the world, growing expectations of the delivery of better medical devices and equipments designed by Bio-Medical Engineers. Employment of Bio-Medical Engineers is expected to grow fast than all occupations globally. In practice, it involves everything from equipment for diagnosis and patient monitoring through implants such as pacemakers, artificial joints, and limbs to the computer simulations of biological functions.

CAREER PROSPECTS
- Government/Private Hospital Jobs
- Teaching in School, Colleges and Universities
- Government Agencies/Research Centres

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ROAD MAP

<table>
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<th>Total Semesters 8</th>
<th>Total Credit Hours 137</th>
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SEMESTER 1
- English (Functional English) 2
- Applied Physics 3
- Introduction to Computing 3
- Basic Electrical Engineering 3
- Computer Aided Engineering Drawing 1

SEMESTER 2
- English II (Communication Skills) 2
- Calculus and Analytical Geometry 3
- Physiology I 3
- Complex Variables & Transformations 3
- Human Anatomy 3

SEMESTER 3
- Linear Algebra & Differential Equations 3
- Biophysics 3
- Basic Electronics 3
- Biochemistry 3
- Circuit Analysis 3

SEMESTER 4
- Biomedical Electronics 4
- Numerical Analysis 3
- Biomechanics 3
- Digital Logic Design 3
- Bio Fluid Mechanics 3

PROGRAM FACTS
- Program Duration 4 Years
- Timing Morning, 8:30 AM-5:00 PM (Monday to Friday)
- Entry Requirements 10 years of education, HSSC/FSC (Pre-medical/Pre-Engineering/DAE)/A-Level or Equivalent with at least 50% marks
- Location Defence Road Campus, Lahore

OPERATION THEATER TECHNOLOGY

INTRODUCTION
The four-year graduation program includes instruction in all clinical and practical phases of an essential part of any hospital. This degree program will cover an operation theatre (OT) technologist forms a fundamental part of any hospital. Operation Theater professionals obliged to undertake operation theatre technologies, includes managing the patients in & out of operation theatre, looking after all the surgical equipment, arrangement of operation theatre table, dressing table, anesthesia table as well as management of the staff.

CAREER PROSPECTS
- Government/Private Hospital Jobs
- Teaching in School, Colleges and Universities

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ROAD MAP

<table>
<thead>
<tr>
<th>Total Semesters 8</th>
<th>Total Credit Hours 140</th>
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SEMESTER 1
- Communication and soft skills 5
- Medical Terminology and Record keeping (including anatomical terms) 3
- Basic Intensive care 5
- Medical Terminology and Basic Intention Care 5
- Basic Pathology 4

SEMESTER 2
- Principles of Anesthesia 4
- Community orientation 3
- Clinical Pharmacology 3
- Basic Intensive care 5
- Clinical seminar 4

SEMESTER 3
- Principles of Management 3
- Basic techniques of Anesthesia 3
- Specialized surgery and anaesthesia 5
- Electronics and technology in surgery and anaesthesia 5
- Research Methodology & Biostatistics 5
- Research Project 6

SEMESTER 4
- Clinical practice 3
- Clinical practice 3
- Clinical practice 3
- Skills based outcomes and monitor able indicators for Operation Theatre Technology JDT Internship 3
- Clinical seminar 4
- Research Project 6
- Clinical practice 4
- Clinical practice 4
INTRODUCTION

This degree program will cover pulmonary problems, General Respiratory issues, problems in Adult Critical Care Unit, Neonatal and Pediatric Critical Care Unit, and Sleep respiration issues. Respiratory Therapy is a highly multidisciplinary field that encompasses basic, translational and clinical research. The graduate program in respiratory therapy embraces this inherent diversity as the foundation for the vigorous program offering training that intersects these varied disciplines. BS Respiratory Therapy degree upgrade the professional offering training that intersects these varied disciplines.

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CAREER PROSPECTS

• Government / Private Hospitals
• Charity Departments

ROAD MAP

Total Semesters 8
Total Credit Hours 140

SEMESTER 1

Cr. Hr.

Anatomy

4

Respiratory therapy medical technology

3

Physiology

3

Biochemistry

3

Computer Education

3

Islamic Studies

2

Introduction of Respiratory Therapy

4

SEMESTER 5

Cr. Hr.

Airway Management/ CPR

3

Advanced pulmonary function test

4

Mechanical Ventilation

4

Mechanical Ventilation Clinical

4

Supervised clinical practice

3

SEMESTER 6

Cr. Hr.

Pediatrics/ Prehospital Pathophysiology and Critical Care

5

Application of Cardiopulmonary Diagnostics and Monitoring

4

Evidence Based Practice / Critical Analysis of Measurement and Diagnostic Tests

4

Advanced Pharmacology in Nursing Practice

3

SEMESTER 7

Cr. Hr.

Pathophysiology of Allied Health State

4

Research Methodology & Biostatistics

4

Nursing

3

Teaching Methodology and Community Medicine

4

Advanced Pharmacology in Respiratory Care

4

SEMESTER 8

Cr. Hr.

Advanced Practice in Respiratory Care

2

Pulmonary Rehabilitation

2

Seminar: Updates and Current Developments

2

Advanced Clinical Practice

4

Research/Thesis

6

INTRODUCTION

Graduate of Audiology program offered at University of Lahore provides a detailed study of the hearing and balance: their structure, function and pathology. The relationship between laboratory research and clinical aspects forms a key element. Lectures, demonstrations and tutorials will be complemented by practical experience in the clinic and laboratory.

CAREER PROSPECTS

After successful completion of 4 years degree offered at University of Lahore, the SLP graduates will be certified to do their independent private clinical practices. In addition to private clinical practice, speech language pathologists also have employment options at:

• Government / Private Hospitals
• Rehabilitation Centers for hearing impaired
• School, Colleges and Universities
• Government Agencies
• Special education school & colleges for children

ROAD MAP

Total Semesters 8
Total Credit Hours 140

SEMESTER 1

Cr. Hr.

Introduction to Audiology

2

Islamic Studies

2

Basic Anatomy

5

Basic Physiology

4

Biochemistry

2

Computer Education

2

Islamic Studies

2

Introduction to Audiology

2

SEMESTER 5

Cr. Hr.

Pediatric/Prehospital Pathophysiology and Critical Care

5

Application of Cardiopulmonary Diagnostics and Monitoring

4

Evidence Based Practice/ Critical Analysis of Measurement and Diagnostic Tests

4

Advanced Pharmacology in Nursing Practice

3

SEMESTER 6

Cr. Hr.

Pathophysiology of Allied Health State

4

Research Methodology & Biostatistics

4

Nursing

3

Teaching Methodology and Community Medicine

4

Advanced Pharmacology in Respiratory Care

4

SEMESTER 7

Cr. Hr.

Advanced Practice in Respiratory Care

2

Pulmonary Rehabilitation

2

Seminar: Updates and Current Developments

2

Advanced Clinical Practice

4

Research/Thesis

6

SEMESTER 8

Cr. Hr.

Assistive Listening Devices

4

Basic Electronics

4

Pediatrics Audiology

4

Rehabilitation Sciences II

4

Medical Imaging Studies for Audiologists

2
INTRODUCTION
Speech and Language Pathology is the study of human communication disorders. The Speech Language Pathologist (SLP) assess, diagnose and treat children and adults with a wide range of communication disorders including speech language and voice disorders and swallowing difficulties, both developmental and acquired.

Speech language pathologist is trained in the assessment and treatment of individuals across the lifespan who may present with autism, speech language disorders, dyslexia, vocal pathology, stuttering, hearing impairment, brain injury, stroke, degenerative nervous system disease, and swallowing difficulties.

Clearly, the scope of practice of this profession has evolved and is not one of simply treating speech and language disorders.

CAREER PROSPECTS
After successful completion of 4 years degree offered at University of Lahore, the SLP graduates will be certified to do their independent private clinical practices.

In addition to private clinical practice, speech language pathologists also have employment options at:

- Government Hospitals
- Private Hospitals
- Universities
- Rehabilitation Centres for hearing impaired
- School & Colleges
- Government Agencies
- Special education school & colleges for children

BACHELOR OF SCIENCE IN SPEECH LANGUAGE PATHOLOGY

PROGRAM FACTS
- Program Duration: 4 Years
- Timing: Morning, 8:30 AM-5:00 PM (Monday to Friday)
- Entry Requirements:
  - 16 years of education (Higher Secondary School Certificate/A-Level/Intermediate-F. Sc Pre medical or Equivalent) with at least second Division with 50% marks
- Location: Defence Road Campus, Lahore.

RECOGNIZED BY
Higher Education Commission

ROAD MAP

<table>
<thead>
<tr>
<th>SEMESTER 1</th>
<th>Cr. Hr.</th>
<th>SEMESTER 2</th>
<th>Cr. Hr.</th>
<th>SEMESTER 3</th>
<th>Cr. Hr.</th>
<th>SEMESTER 4</th>
<th>Cr. Hr.</th>
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<td>Neuroanatomy &amp; Embryology</td>
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<td>Speech Language pathology: Head &amp; Neck</td>
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<td>Alternative &amp; Augmentative communication</td>
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<td>Medical Imaging studies for speech language pathology</td>
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<td>Clinical &amp; professional knowledge II</td>
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</table>

Total Semesters 8
Total Credit Hours 139
INTRODUCTION

Speech Language and Hearing Sciences is a relatively new but growing profession of rehabilitation sciences. This Two-year post-graduate program includes instruction in all clinical and practical phases of an essential part of communication and Hearing disorders. The focus of program is to train speech language pathologists/therapists and Audiologists to serve the communication disorders and hearing and balance problems. The educational missions of the Department DHPT is to educate and train speech pathologists and Audiologists to serve the needs of the health care populations, moreover educate and train qualified teachers and researchers in field of speech and hearing sciences; to provide MS degree in advanced clinical areas and to provide training for practitioners in new developments. The research mission is to add to the body of knowledge identified in speech and hearing sciences and its effective applications. The service missions are to provide counsel and support to the profession in its mission to improve clinical services; to help provide appropriate health education to the public; to help extend care to those segments of society which are underserved, and to provide advice and counsel to the International Speech and Audiology sector.

MASTER OF SCIENCE IN
SPEECH LANGUAGE AND HEARING SCIENCES

PROGRAM FACTS

- Program Duration: 2 Years
- Timing: Weekend Program 9:00 AM-6:00 PM (Saturday & Sunday)
- Entry Requirements:
  1. 04 years BS (Speech Language Pathology / Audiology / Psychology)
  2. 02 years MSc Psychology
  3. 02 years MSc Special Education or equivalent qualification from HEC recognized institution with minimum 50% marks.
- Location: Defence Road Campus, Lahore.

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Higher Education Commission

ROAD MAP

Total Semesters: 36
Total Credit Hours

SEMESTER 1
Cr. Hr. SEMESTER 2
Cr. Hr.
Speech and Hearing Sciences 3 Communication & Behavioral Disorder 2
Child Development 2 Evidence Based Practice 2
Language Sciences 2 Biomedical Sciences I 2
Biomedical Sciences I 3 Rudiments of Audiology 2
Neural Bases Speech Language & Hearing 2

SEMESTER 3
Cr. Hr. SEMESTER 4
Cr. Hr.
Language & Speech Disorders 2 Clinical Seminar / Case Report 2
Clinical Management in Audiology & SLI 2 Research Project 6
Diagnostic Audiology 2
Biostatistics & Research Methodology 2

CAREER PROSPECTS

This interactive degree is designed to help students build their knowledge of Speech Audiology. They will be able to work as Speech pathologist and Audiologist in government and private sector and proficiency to facilitate the hearing impaired communities. The scope of Speech Language Hearing Sciences profession is most required now a days, Professionals working areas are:

- Government & Private Hospitals
- Independent Practice
- Special Schools & Colleges
- Mental Hospitals
- NGOs
- Nursing Hospitals
- Rehabilitation Centers
- Industrial Organizations
- Community Service
- Government Agencies
DEPARTMENT OF OPTOMETRY & VISION SCIENCES

DEGREES OFFERED
- Post Professional Doctor of Optometry
- Transitional Doctor of Optometry
- Doctor of Optometry
- MS Optometry

MISSION STATEMENT
The educational missions of the Department of Optometry and Vision Sciences is to educate and train optometrists to serve the needs of the health care populations, but also educate and train qualified teachers and researchers in optometry and vision sciences; to provide postdoctoral education in advanced clinical areas (residencies); and to provide training for practitioners in new developments and the medical sciences. The research mission is to add to the body of knowledge identified as vision science and its effective application. The service missions are to provide counsel and support to the profession in its quest to improve optometric services; to help provide appropriate health education to the public; to help extend care to those segments of society which are underserved; and to provide advice and counsel to the international optometric sector. (DOVS, UOL)

INTRODUCTION
DOVS is very fast growing department under the umbrella of Faculty of Allied Health Sciences (FAHS). The foundation milestone of this department is launching four Courses (MSO, OD, PP-OD, and T-OD) in UOL. Optometry is an independent primary eye care profession that encompasses the prevention and remediation of disorders of the eye and visual system. Doctors of Optometry perform comprehensive examinations of both the internal and external structures of the eye and subjective and objective tests to evaluate patient vision, analyze test findings, and diagnose and manage visual efficiency and eye health. Optometrists also work with other health professionals in co-managing the care of patients.

All optometrists provide general eye and vision care—some through general practice and others through more specialized practice such as contact lenses, geriatrics, low vision services (for visually impaired patients), occupational vision (to protect and preserve workers’ vision and minimize eye strain), pediatrics, sports vision, and vision therapy.
INTRODUCTION
This degree is designed especially for those Optometry graduates who already working in different Govt./ Private Hospitals they were pioneers of Optometry field. One they taught and groomed optometry graduates who are the Grandfathers of the Optometry profession in Pakistan. Graduates who are already working in different Govt. / Private Hospitals they were upgrades of Optometry field, they are the one who brought optometry profession to its peak in Pakistan. Department of Optometry & Vision Sciences offering Transitional Doctor of Optometry with B.Sc. Vision Sciences will study 4 semesters.

PROGRAM FACTS
- **Program Duration**: 2 Years
- **Timing**: Weekend 09:00 AM - 06:00 PM (Saturday & Sunday)
- **Entry Requirements**: 16 years of education, B.Sc. Vision Sciences recognized by HEC, B.Sc. (Hons) Orthoptics/B.Sc. (Hons) Ophthalmic Technology recognized by HEC, Minimum passing marks 50%
- **Location**: Defence Road Campus, Lahore.

CAREER PROSPECTS
Transitional Doctors of Optometry are independent primary health care providers and represent the front line of vision health. The eye health and good vision of the public are the prime responsibilities of Pakistan’s Doctors of Optometry, who:
- Specialize in the examination, diagnosis, treatment, management and prevention of disease and disorders of the visual system, the eye and associated structures
- Diagnose ocular manifestations of systemic conditions such as diabetes and high blood pressure and complications of the aging process such as cataracts and macular degeneration
- Prescribe medication to treat certain eye diseases
- Prescribe and fit eye glasses and contact lenses as well as safety eyewear and subnormal vision devices
- Provide vision therapy and low-vision rehabilitation

ROAD MAP

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<thead>
<tr>
<th>SEMESTER 1</th>
<th>Cr. Hr.</th>
<th>SEMESTER 2</th>
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<tr>
<td>Human Anatomy &amp; Histology</td>
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<td>Community Based Optical Rehabilitation</td>
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<td>General Pathology</td>
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<tr>
<td>Biochemistry and Genetics</td>
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<td>Introduction to Computer</td>
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<td>Communication Skills</td>
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<td>Mathematics for Optometry</td>
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<td>Advance Low Vision</td>
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<td>Advance Refraction</td>
<td>3</td>
<td>Fundamental of Surgery</td>
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<td>Primary Eye Care</td>
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<td>Clinical Ophthalmology</td>
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<td>Behavioral Sciences</td>
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<td>Advance Contact Lens</td>
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<td>Optometric Procedures</td>
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<td>Pediatric Optometry &amp; Strabismus</td>
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<td>Clinical Ophthalmology</td>
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<td>Behavioral Sciences</td>
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<td>Advance Contact Lens</td>
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</table>
INTRODUCTION
This degree is designed especially for those students who want to excel their career in the field of Optometry. They will be called “Optometrists” and will add “Doctor” as Prefix in their names and “Optometry” 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 an “Optometrist” in health settings. Optometrist Provide general eye and vision care—some through general practice and others through more specialized practice such as contact lenses, geriatrics, low vision services (for visually impaired patients), occupational vision (to protect and preserve workers’ vision and minimize eye strain), pediatrics, sports vision, and vision therapy. Currently there is a lot of demand for Optometrists in Pakistan as well as in USA, Canada, UK, Australia and in South Asia etc. It is estimated that one Optometrist is required per 10,000 people. But the total number of Optometry professionals in Pakistan is only one for 60000 people.

CAREER PROSPECTS
Doctors of Optometry are independent primary health care providers and represent the front line of vision health. The eye health and good vision of the public are the prime responsibilities of Pakistan’s Doctors of Optometry, who:
• Specialize in the examination, diagnosis, treatment, management and prevention of disease and disorders of the visual system, the eye and associated structures
• Diagnose ocular manifestations of systemic conditions such as diabetes and high blood pressure and complications of the aging process such as cataracts and macular degeneration
• Prescribe medication to treat certain eye diseases
• Prescribe and fit eye glasses and contact lenses as well as safety eyewear and subnormal vision devices
• Provide vision therapy and low-vision rehabilitation
• Work in conjunction with other health care providers to provide integrated, quality care for patients
• Educate patients about vision health and lifestyle choices for protecting and enhancing good vision and health

DOCTOR OF OPTOMETRY

PROGRAM FACTS
• Program Duration 5 Years
• Timing Morning, 8:00 AM-5:00 PM (Monday to Friday)
• Entry Requirements 10 years of education (Higher Secondary School Certificate/A-Level/Intermediate-F.Sc Pre medical or Equivalent ) with atleast 50% marks
• Location Defence Road Campus, Lahore.

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Higher Education Commission

INTRODUCTION
This degree is designed especially for those students who want to excel their career in the field of Optometry. They will be called “Optometrists” and will add “Doctor” as Prefix in their names and “Optometry” 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 an “Optometrist” in health settings. Optometrist Provide general eye and vision care—some through general practice and others through more specialized practice such as contact lenses, geriatrics, low vision services (for visually impaired patients), occupational vision (to protect and preserve workers’ vision and minimize eye strain), pediatrics, sports vision, and vision therapy. Currently there is a lot of demand for Optometrists in Pakistan as well as in USA, Canada, UK, Australia and in South Asia etc. It is estimated that one Optometrist is required per 10,000 people. But the total number of Optometry professionals in Pakistan is only one for 60000 people.

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• Diagnose ocular manifestations of systemic conditions such as diabetes and high blood pressure and complications of the aging process such as cataracts and macular degeneration
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DOCTOR OF OPTOMETRY

PROGRAM FACTS
• Program Duration 5 Years
• Timing Morning, 8:00 AM-5:00 PM (Monday to Friday)
• Entry Requirements 10 years of education (Higher Secondary School Certificate/A-Level/Intermediate-F.Sc Pre medical or Equivalent ) with atleast 50% marks
• Location Defence Road Campus, Lahore.

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Road Map

Semester 1
- Human Anatomy & Histology: 4 Cr.
- General Pathology: 3 Cr.
- Community Medicine: 2 Cr.
- Optometric Procedures I: 3 Cr.

Semester 2
- General Physiology: 4 Cr.
- General and Ocular Pharmacology: 2 Cr.
- Clinical medicine: 3 Cr.
- Ocular Disease Basics – I: 3 Cr.

Semester 3
- Biochemistry and Genetics: 4 Cr.
- Ocular Anatomy: 3 Cr.
- Geometrical and Physical optics: 3 Cr.
- Ocular Disease Basics – II: 3 Cr.

Semester 4
- Primary Eye Care: 1 Cr.
- Ocular Physiology: 3 Vision Sciences: 3 Physiological and Visual Optics: 3 Cr.

Semester 5
- Functional English: 3
- Screening Observations: 2 Cr.
- Ocular Disease Basics – I: 3
- Refraction: 3 Cr.

Semester 6
- Pakistan Studies: 2
- Islamic Studies: 2
- Communication skills: 3
- Mathematics for Optometry: 2

Semester 7
- Functional English: 4
- Introduction to Computers: 3
- Behavioral Sciences: 2

Semester 8
- Optometrists: 2
- Advance Ocular Diseases II: 3

Semester 9
- Human Anatomy & Histology: 4 Cr.
- General Pathology: 3 Cr.
- Community Medicine: 2 Cr.
- Optometric Procedures I: 3 Cr.

Semester 10
- General Physiology: 4 Cr.
- General and Ocular Pharmacology: 2 Cr.
- Clinical medicine: 3 Cr.
- Ocular Disease Basics – I: 3 Cr.

Total Credit Hours: 172
Total Semesters: 10
INTRODUCTION
This course equips optometrists with the knowledge and skills required to operate at senior and strategic levels in health care services and higher education institutes. Career opportunities largely exist in teaching institutes, acute and rehabilitation hospitals, private practice, research, and management.

CAREER PROSPECTS
The two years Master of Sciences Optometry professional optometry curriculum includes instruction in all the clinical and practical phases of optometry as well as in the theoretical and fundamental aspects of vision science. The focus of the program is to train optometrists to serve the visual needs of the country and beyond by training to equip optometrists to render primary healthcare. The program will also train and equip optometrists with managerial, research, and professional skills who can play a leadership role in eye health care delivery. Subfields of MS Optometry may include.

ROAD MAP

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<td>Advance Orthoptics &amp; Surgical Plans</td>
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<td>Clinical Rotation</td>
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PROGRAM FACTS

- **Program Duration**: 2 Years
- **Timing**: Weekend 09:00 AM - 06:00 PM (Saturday & Sunday)
- **Entry Requirements**: 16 years of education (OD, PPOD, TOD or RB Honors degree or minimum 16 years of education in relevant field) recognized by HEC
  GAT/University Entry Test – Minimum passing marks 50%
- **Location**: Defence Road Campus, Lahore.

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- Pediatric Optometry
- Low Vision & Rehabilitation
- Refraction & Dispensing
- Advance Contact Lens & Ocular Prosthetics
DEGREES OFFERED

- BS Nursing
- BS Nursing - Post RN
- MS Nursing

MISSION STATEMENT

The school approach is to enhance the health and well-being of the people by advancing the profession of nursing through education, practice, research and innovation.

INTRODUCTION

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 BSN (Post RN), Four-Years BSN, and Two-Years MSN degree programme to prepare competent nurses who will develop innovative practical solution to complex health problems from the scientific perspective.
This programme consists of 137 credit hours with 44 core courses and one elective course. After completion of Four Year BS Nursing students will be able to:

a. Utilizing the nursing process to provide safe, competent, and holistic nursing care to patients/clients in variety of settings.
b. Utilizing effective critical thinking and problem solving in their professional practiced.
c. Utilizing scholarly skills and the use of scientific methods in critiquing and applying existing nursing theories and research findings in selected practice settings.
d. Utilizing effective oral and written communication in interpersonal and professional interactions with peers, clients, families, and other professional.
e. Developing leadership skills to promote development of the profession.

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 Medical centers and in any setting where health care services are needed. It includes operation room, critical care and emergency departments as well.

**CLINICAL PRACTICUM (COURSES)**

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

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Higher Education Commission, Pakistan Nursing Council

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**INTRODUCTION**

**PROGRAM FACTS**

- **Program Duration**: 4 Years
- **Timing**: Morning, 8:30 AM-5:00 PM (Monday to Friday)
- **Entry Requirements**: 12 years of education; HSSC/ A-Level/Intermediate (Pre-Medical) or Equivalent with atleast 55% marks
- **Location**: Defence Road Campus, Lahore.

**RECOGNIZED BY**

Higher Education Commission, Pakistan Nursing Council

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**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 Medical centers and in any setting where health care services are needed. It includes operation room, critical care and emergency departments as well.

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**ROAD MAP**

<table>
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<tr>
<th>SEMESTER 1</th>
<th>Cr. Hr.</th>
<th>SEMESTER 2</th>
<th>Cr. Hr.</th>
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<td>Critical Care Nursing</td>
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<td>Introduction to Nursing Theories</td>
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<td>Nursing Seminar / Role Transition</td>
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<td>English-VII</td>
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**THE UNIVERSITY OF LAHORE**
INTRODUCTION
This programme consists of 65 credit hours with 18 core courses and one elective course. After completion of Two Year BS Nursing students will be able to:

a. Utilizing the nursing process to provide safe, competent, and holistic nursing care to patients/clients in variety of settings.
b. Utilizing effective critical thinking and problem solving in their professional practice.
c. Utilizing scholarly skills and the use of scientific methods in critiquing and applying existing nursing theories and research findings in selected practice settings.
d. Utilizing effective oral and written communication in interpersonal and professional interactions with peers, clients, families, and other professionals.
e. Developing leadership skills to promote 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 Services, military services, Administration Medical centers and in any setting where health care services are needed. It includes operation room, critical care and emergency departments as well.

BACHELOR OF SCIENCE IN NURSING (POST RN)

INTRODUCTION
This programme consists of 45 credit hours with 15 cores and one elective course. After completion of Two Year MS Nursing students will be able to:

a. Apply evidence based practice in the clinical/ community setting.
b. Utilizing effective verbal and written communication in professional interactions with peers, clients, families, and other professionals.
c. Demonstrating competence in the use of available resources to support the identified needs of communities, families, and individuals.
d. Demonstrating the ability to coordinate activities related to the provision of health care for individuals, families and groups of patients clients in various settings.
e. Utilize existing health care system and its policies to provide safe and quality care to patient/client and population.
f. Participate in enhancing and developing of the profession.

CAREER PROSPECTS
Graduates (MSN) nurses have many career opportunities because of increase of hospitals and more consciousness towards the health. MSN graduates can apply for job in many hospitals for the post of Nurse leader and have many chances to get into Private and government hospitals and health centers. MSN graduates also have opportunities at nursing education such as Lecturer, Assistant Professor, Associate Professor etc

MASTER OF SCIENCE IN NURSING (MSN)

Program Facts
- Program Duration: 2 Years
- Timing: Morning, 8:30 AM-5:00 PM (Monday to Friday)
- Entry Requirements:
  - Track 1:
    - Matric / SSC Science
    - Diploma in General Nursing
    - Diploma in Midwifery for female / One Year Specialization for male
  - Track 2:
    - Current PNC Registration Card
    - FSc (Pre-Medical)
    - BSc Nursing with three year experience after graduation
- Location: Defence Road Campus, Lahore

Recognized By:
Higher Education Commission, Pakistan Nursing Council

ELECTIVES
- Hospital Nursing Practicum
- Community Health Nursing Practicum
- Education Practicum
- Leadership Practicum

Road Map

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<thead>
<tr>
<th>SEMESTER 1</th>
<th>Cr. Hr.</th>
<th>SEMESTER 2</th>
<th>Cr. Hr.</th>
<th>SEMESTER 3</th>
<th>Cr. Hr.</th>
<th>SEMESTER 4</th>
<th>Cr. Hr.</th>
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<td>Academic English</td>
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<td>Advance Concepts in Nursing I</td>
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<td>Functional English</td>
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<td>Health Assessment</td>
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<td>Introduction to Nursing Theories and Models</td>
<td>3</td>
<td>Professional Development &amp; Leadership in Healthcare</td>
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<td>Life Sciences</td>
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<td>Patho-Physiology and Pharma I</td>
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| TOTAL | Cr. Hr. | 65 |

| ROAD MAP | Total Semesters 4 | Total Credit Hours 65 |

<table>
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<tr>
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<th>Cr. Hr.</th>
<th>SEMESTER 3</th>
<th>Cr. Hr.</th>
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<tr>
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<td>Advance Theoretical Concepts in Clinical Care</td>
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<td>Advance Concepts of Community / Public Health</td>
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<td>Ethics in Health Care</td>
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<td>Educational Design and Administration</td>
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<td>Nursing Research</td>
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<td>Leadership and Management in Nursing Practice</td>
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</table>

| TOTAL | Cr. Hr. | 45 |

| ROAD MAP | Total Semesters 4 | Total Credit Hours 45 |
DEPARTMENT OF HEALTH PROFESSIONS EDUCATION (DHPE)

DEGREES OFFERED

• Certificate in Allied Health Professions Education (CAHPE)
• M.Phil Health Professions Education

MISSION STATEMENT

The Department for Health Professions Education (DHPE) promotes excellence in education through Certificate course and M.HPE programs. This encompasses faculty development initiatives, curricular reviews and participation in curricular activities. The Department focuses on innovations in curricula, educational training and assessment methods.

INTRODUCTION

There are approximately 125 medical colleges, over 25 dental colleges and tens of postgraduate medical institutes in Pakistan which employ thousands of teachers to fulfill educational needs of healthcare industry. A vast majority of these teachers require teaching skills in healthcare setup. Training of healthcare teachers is the corner stone in improving the quality of teaching and training. Proper planning and commitment from the leadership and resources are needed to fulfill this gap in teacher training. DHPE provides an opportunity to health care teachers to learn the basics of health professions education, the use of educational platform to learn about basic skills that are required to make them effective teachers.
INTRODUCTION
Certificate in Allied Health Professions Education (CHPE) has been specially designed to fulfill the educational needs of the healthcare teachers in Pakistan. This enables them to excel in the basic and applied concepts of medical education. This program provides an opportunity for healthcare teachers to learn the basics of health professions education, the use of educational terminologies and learn about basic skills that are required to make them effective teachers, skillful assessors and scholarly educators.

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

PROGRAM FACTS
- Program Duration: 4 Months
- Timing: Morning 11:00 AM - 03:00 PM (Monday – Friday)
- Entry Requirements: 16 years of Education or Equivalent Qualification in any field of Health Professions recognized by HEC
- Location: Defence Road Campus, Lahore.

RECOGNIZED BY
Higher Education Commission

CERTIFICATE IN ALLIED HEALTH PROFESSIONS EDUCATION (CHPE)

INTRODUCTION
The Masters of Philosophy in Health Professions Education (M.Phil) has been designed to provide students with an overview of key issues in health professions education. This enables them to develop a basic level of educational competence and professionalism. The aim of the course is to equip health professionals to practice across the range of domains of teaching and learning in their own settings. The core content of courses consists of learning opportunities in curriculum development, assessment, teaching and learning, and includes generic skills in teaching and facilitating learning in health professions. The integrated unit requirements are intended to enhance students' understanding of, and capability to reflect upon, the choices of teaching and learning models relevant to their students, subjects and situations.

CAREER PROSPECTS
Our course aims at introducing the basic and applied concepts of health professions education to the Pakistani teachers and improving their skills to perform the basic functions of a teacher in any health professional institute.

PROGRAM FACTS
- Program Duration: 2 Years
- Timing: Morning 11:00 AM - 03:00 PM (Monday – Friday)
- Entry Requirements: 16 years of Education or Equivalent Qualification in any field of Health Professions recognized by HEC
- Location: Defence Road Campus, Lahore.

RECOGNIZED BY
Higher Education Commission
Pakistan Medical & Dental Council

ROAD MAP
• Basics of Teaching and Learning 3
• Principles of Assessment 3

THE UNIVERSITY OF LAHORE

ROAD MAP
Total Credit Hours 6

COURSE
Cr. Hr.
Basics of Teaching and Learning 3
Principles of Assessment 3

THE UNIVERSITY OF LAHORE

ROAD MAP
Total Semesters 4
Total Credit Hours 30

SEMESTER 1
Cr. Hr.
Basics of Teaching and Learning 3
Principles of Assessment 3

SEMESTER 2
Cr. Hr.
Curriculum Design 2
Educational Psychology 2
Leadership and Management 2

SEMESTER 3
Cr. Hr.
Issues in Health Professional Education 3

SEMESTER 4
Cr. Hr.
Research / Thesis 6
 Advances in Teaching 3
Health Educational Research Methodology 3
Seminar 3
• School of Architecture
• School of Creative Arts

ARTS & ARCHITECTURE
The School of Architecture at 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.

INTRODUCTION
The Architecture Program at University of Lahore prepares students to engage critically in the complex discourse of architectural practice and theory. Through research, analysis and exploration, students discover that design is found at the dynamic intersection of our social and physical environments. Faculty members with diverse perspectives guide students in their investigations of contemporary issues that supersede trends. Encouraged by interdisciplinary study, they craft varied ideas for the environment, finding passion and delight in the consideration of architecture. The academic program of the School follows the framework of curriculum developed by the Higher Education Commission and Pakistan Council of Architects & Planners Pakistan. The curriculum is designed to balances the creative and technical aspects of architectural education. The core components of the curriculum are Architectural Design, History and Theory, Building Sciences, and Professional Development. The school consists of the state of the art workshops, lecture rooms, Computer laboratory, Studios, Library and other allied facilities.

LEARNING OUTCOMES
The objectives of the Bachelor of Architecture program are translated into a number of learning outcomes. These outcomes are directly related to the profession of architecture, the way in which it is practiced, and the knowledge components necessary for such a practice. The following list of outcomes represents the minimum learning outputs expected and therefore they are not exclusive:

- An ability to conceptualize and coordinate designs, addressing social, cultural, environmental and technological aspects of architecture.
- An ability to apply and integrate computer technology in design processes and products.
- An ability to utilize cutting edge building technology in design.
- An ability to apply visual and verbal communication skills at various stages of architectural design and project delivery processes.
- An ability to critically analyze building designs and conduct post occupancy evaluation studies.
- An ability to employ architectural research methods including data collection and analysis to assess and propose improvements in existing built environments.
- An ability to work collaboratively with teams of architects and various interdisciplinary design teams involved in the building industry.
- An ability to recognize diversity of needs, values, behavioral norms, social patterns as they relate to the creation of the built environment.
- Specific exercises and individual and group projects may help in achieving additional learning outcomes.
BACHLORES OF ARCHITECTURE (B. ARCH)

INTRODUCTION
The B.Arch. program balances the intensity of a professional education with opportunities to use the resources of a world-class 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 educational 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 for architecture professionals. The market particularly the Gulf countries offer attractive career opportunities for architects can set up their own business. International practice. With some years of experience in an organization, the most privileged scope in the field of architecture is private practice. With some years of experience in an organization, the architects can set up their own business. International market particularly the Gulf countries offer attractive career for architecture professionals.

PROGRAM FACTS
- Program Duration: 5 Years
- Timing: Morning, 08:00 AM - 05:00 PM (Monday – Friday)
- Entry Requirements: 10 years of education (Higher Secondary School Certificate/Intermediate) Intermediate, 'A' Levels or equivalent with any of the three subjects from following: Math, Physics, Chemistry, Computer Science, Statistics, Fine Arts, Economics, Psychology, Sociology and Biology, DAS (Architecture) only, Minimum 50% Marks.
- Location: Defence Road Campus, Lahore.

RECOGNIZED BY
Higher Education Commission, Pakistan Council of Architects & Town Planners (NOC)

ROAD MAP

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<tr>
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<td>Survey of architectural history – i</td>
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<td>Basic design –i</td>
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<td>Theory of architecture</td>
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<td>Architectural design</td>
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<tr>
<td>Building materials &amp; construction –i</td>
</tr>
<tr>
<td>Architectural design –ii</td>
</tr>
<tr>
<td>Visual communication – ii</td>
</tr>
<tr>
<td>Architectural design –iii</td>
</tr>
<tr>
<td>Structural concepts in architecture</td>
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<td>Computer applications –ii</td>
</tr>
<tr>
<td>Theory of architecture –ii</td>
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<tr>
<td>Architectural design –iv</td>
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<td>Building services –i</td>
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<td>Structure for architects –i</td>
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<td>Computer applications –iii</td>
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<td>Design thesis –i</td>
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<td>Professional practice &amp; ethics</td>
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<td>Building materials &amp; construction –ii</td>
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<td>Computer applications –iv</td>
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<td>Theory of architecture –iii</td>
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<td>Theory of architecture –iv</td>
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<td>Architectural design –viii</td>
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<td>Urban design</td>
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<td>Landscape architecture</td>
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<tr>
<td>Architectural Design –ix</td>
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<tr>
<td>Design thesis –ii</td>
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</tbody>
</table>
DEGREES OFFERED

- BS Media and Mass Communication
- BA Film and Television
- M.Sc Mass Communication
- M.Phil Media & Mass Communication Studies (Research Track)
- M.Phil Media & Mass Communication Studies (Production/Professional Track)

MISSION STATEMENT

Our mission is “To pursue excellence.” To develop professionals who can face challenges with ease and ethically manage the media activities in a dynamic and competitive environment in which technology is a key determinant of organizational success. We are committed to developing in students a dedication to lifelong learning, communication skills, analytical and critical thinking skills, appreciation of diversity, and professional excellence.

Our vision is “To ensure that the faculty and students of the School of Creative Arts study how media technologies elaborate stories, entertain as well as educate the various masses of the world so they can be responsible and creative in their expression.” We nurture a universal desire for free expression.

INTRODUCTION

Where the Dedication and Fire you have for Media, Creativity, and Learning has no Boundaries!

We’re proud to have one of the largest and most innovative Mass Communication and Film and Television programs in Pakistan. This is the time when the old models are collapsing and new electronic paths are being blazed. But for SOCA, it is the quality of the information being communicated - not the technology - that matters most. SOCA comprises a wide variety of disciplines, starting from the basic perspectives of Mass Media and Communication and then moving onto explore each area of the discipline through broad exposure. It has media labs equipped with professional cameras, sets, lights & sound system, where students are given in hand training and practice. We have one of the best high quality sound recording studio, highly sophisticated cameras specifically RED camera, audio and video facilities, which are always available for the ongoing projects of the students. The facilities are designed around the principle that students need maximum exposure to the equipment to develop the competency required in media production fields.

Our vibrant and active faculty of scholars and professionals are passionate advocates to all who wish to learn. Their successes and expertise will help pave the way for you to find your own path with the best training and preparation for productive and responsible careers in the booming fields of mass communication and film & television.

We aim to develop versatile and creative media visionaries and leaders, equipped to respond to new situations within an ever changing and vigorous industry. We hope that you will strongly consider joining us as you pursue your Mass Communication and Film and Television degree.
**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.

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**PROGAM FACTS**

- **Program Duration**: 4 Years
- **Timing**: Morning 09:00 AM - 05:00 PM (Monday – Friday)
- **Entry Requirements**: 12 Years Education (HSSS) Intermediate A Levels (minimum 45% Marks)
- **Location**: Defence Road Campus, Lahore.

**RECOGNIZED BY**

Higher Education Commission

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**ROAD MAP**

<table>
<thead>
<tr>
<th>SEMESTER 1</th>
<th>Cr. Hr.</th>
<th>SEMESTER 2</th>
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<tr>
<td>Introduction to Cinema</td>
<td>3</td>
<td>Introduction to Visual Communication Theories</td>
<td>3</td>
<td>Media and Communication Theories</td>
<td>3</td>
<td>Introduction to Psychology</td>
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<td>Introduction to communication Studies</td>
<td>3</td>
<td>Readings in Urdu Literature</td>
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<td>Pakistan Studies</td>
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<td>Introduction to Sociology</td>
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<tr>
<td>Introduction to Television</td>
<td>3</td>
<td>Readings in English Literature</td>
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<td>Introduction to Audio/Video Technologies II</td>
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<td>Film Theory</td>
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<tr>
<td>English Communication</td>
<td>3</td>
<td>Introduction to Performance Making</td>
<td>3</td>
<td>Film Aesthetics</td>
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<td>Issues in Communication Studies</td>
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<th>Cr. Hr.</th>
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<td>News and Current Affairs Production</td>
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<td>Radio Broadcasting</td>
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</table>
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 and 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 sociocultural impact 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 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 Film and Television in Pakistan.

CAREER PROSPECTS
The students of this course will acquire the training and skills required for exceeding in the fields of infotainment, entertainment, cinema and television in Pakistan. They would be able to understand the application of theories of media, communication, Film, television and other forms of audio & visual media in their practical life.

PROGRAM FACTS
• Program Duration
  4 Years
• Timing
  Morning 09:00 AM -05:00 PM (Monday – Friday)
• Entry Requirements
  12 Years Education (HSSS) Intermediate A Levels (minimum 45% Marks)
• Location
  Defence Road Campus, Lahore.

RECOGNIZED BY
Higher Education Commission

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<tr>
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<td>Introduction to Computer graphics</td>
<td>3</td>
<td>Media Culture and Society</td>
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<td>Digital Compositing and Color grading</td>
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<td>Screen Writing</td>
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<td>Fiction Film</td>
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</tbody>
</table>
INTRODUCTION
The department aims to inculcate among the students an understanding regarding different media set-ups and how to work in different media outlets in a professional manner.

CAREER PROSPECTS
After graduating at the Department of Mass communication, the mass communicators would be able to compete in the market in a socially responsible manner to contribute to the public welfare and socio-cultural and national development.

The graduates, trained at the department of Mass Communication, would have insights that would make them critical thinkers and problem-solvers in various areas of this profession.

PROGRAM FACTS
- Program Duration
  2 Years
- Timing
  Morning 09:00 AM - 05:00 PM (Monday – Friday)
- Entry Requirements
  2 Years Bachelor’s in Social Sciences/Humanities are eligible to apply. Preference will be given to candidates having background in Mass Communication/Journalism.
- Location
  Defence Road Campus, Lahore.

RECOGNIZED BY
Higher Education Commission

AREA OF SPECIALIZATION

PUBLIC RELATIONS & ADVERTISING
- Copywriting Theory & Practice
- Theories, principles and practices of Public Relation/Advertising
- Media Management in Advertising and Public Relation

PRINT AND ELECTRONIC MEDIA
- Radio Broadcasting and production
- TV Production
- Documentary Making

COMMUNICATION RESEARCH AND THEORY
- Communication Theories (Advance)
- Audience Analysis

ROAD MAP

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<tr>
<th>CR. HR.</th>
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<th>TOTAL CREDIT HOURS 69</th>
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<td>Media Management</td>
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<td>Language and Communication (Theories and Practices)</td>
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<td>International Communication</td>
<td>3</td>
<td>Communication Campaign Design</td>
<td>3 Elective 3</td>
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<td>Media in National &amp; International Politics</td>
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<td>3</td>
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<td>3 Thesis/Project/Internship</td>
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<td>News Techniques Reporting Theory &amp; practice</td>
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<td>News Treatment and Page Designing</td>
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<td>Development Communication</td>
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<td>Media, Culture and Society</td>
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<td>Opinion Writing (features, Editorial Writing and Production)</td>
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</table>
### Road Map

**INTRODUCTION**

The department aims to inculcate among the students an understanding regarding different media set-ups and how to work in different media outlets in a professional manner.

**CAREER PROSPECTS**

After graduating at the Department of Mass communication, the mass communicators would be able to compete in the market in a socially responsible manner to contribute to the public welfare and socio-cultural and national development. The graduates, trained at the department of Mass Communication, would have insights that would make them critical thinkers and problem-solvers in various areas of this profession.

**Electives**

- MPhil Seminar
- Media and Public Opinion
- Media Management
- Media, Politics and Policy
- Political Communication

**Recognized By**

Higher Education Commission

### Program Facts

- Program Duration: 2 Years
- Timing: 09:00am - 05:00pm / Saturday & Sunday
- Entry Requirements: 16 years of education are eligible to apply. Preference will be given to candidates having prior degree in Multimedia, Visual Communication and Professionals working in Media Industry.
- Location: Defence Road Campus, Lahore.

### Road Map

**Semester 1**

<table>
<thead>
<tr>
<th>Cr.</th>
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<th>Approaches to Mass Communication Studies</th>
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<td>Research Practicum</td>
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**Semester 2**

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**Semester 3**

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<tr>
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<td>Elective - II</td>
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</table>

**Semester 4**

| Cr. | Hr. | Dissertation/Thesis/Enrollment               | 6 |

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**Program Facts**

- Program Duration: 2 Years
- Timing: 09:00am - 06:00pm / Saturday & Sunday
- Entry Requirements: 16 years of education are eligible to apply. Preference will be given to candidates having prior degree in Mass Communication / Journalism.
- Location: Defence Road Campus, Lahore.

**Electives**

- Documentary
- Marketing for entertainment/Communication and Art Industry

**Recognized By**

Higher Education Commission

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**Program Facts**

- Program Duration: 2 Years
- Timing: 09:00am - 05:00pm / Saturday & Sunday
- Entry Requirements: 16 years of education are eligible to apply. Preference will be given to candidates having prior degree in Multimedia, Visual Communication and Professionals working in Media Industry.
- Location: Defence Road Campus, Lahore.

**Electives**

- MPhil Seminar
- Media and Public Opinion
- Media Management
- Media, Politics and Policy
- Political Communication

**Recognized By**

Higher Education Commission
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 Bachelor’s 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.
BACHELOR OF LAW (BA.LLB)

**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.

**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.

**ELECTIVES**
- Consumer Protection Laws
- Islamic Commercial Laws
- Civil Service Laws In Pakistan

**PROGRAM FACTS**
- **Program Duration**: 5 Years
- **Timing**: Morning 08:00 AM -05:00 PM (Monday – Friday)
- **Entry Requirements**: FA /FSC or OGE A-Levels or Equivalent, Min 2nd Div. UOL Entry Test & Interview are mandatory
- **Location**: Defence Road Campus, Lahore.

**RECOGNIZED BY**
Higher Education Commission, Pakistan Bar Council

**INTERNSHIP**
After completion of 8th semester during vacations

**ROAD MAP**

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<tr>
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<td>Islamic Studies/Ethics 2</td>
<td>Introduction To European Union Laws 3</td>
<td>Constitutional Law-I (Comparative) 3</td>
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<td>Sociology 3</td>
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<td>Islamic Jurisprudence-I 3</td>
<td>Law of Contract-II 3</td>
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<td>Fundamentals of Economics 3</td>
<td>Legal System of Pakistan 3</td>
<td>Law of Tort 3</td>
<td>Islamic Jurisprudence-II 3</td>
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<td>History (South Asia) 3</td>
<td>Law of Contract-I 3</td>
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<td>Skills Development 3</td>
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<td>Public International Law-I 3</td>
<td>Public International Law-II 3</td>
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<td>Constitutional History Of Pakistan 3</td>
<td>Equity And Specific Relief 3</td>
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<td>Civil Procedure-I 3</td>
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<td>Criminal Law-II 3</td>
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<td>Criminal Procedure-II 3</td>
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<td>Law Of Property-II 3</td>
<td>Law Of Evidence-I 3</td>
<td>Law Of Evidence-II 3</td>
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<td>Legal Ethics 3</td>
<td>Interpretation Of Statutes 3</td>
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<td>Moot Cases and Role playing 3</td>
<td>Research Project / Dissertation 3</td>
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<tr>
<td>Banking laws 3</td>
<td>Consumer Protection Laws 3</td>
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<tr>
<td>Environmental laws 3</td>
<td>Intellectual Property Laws 3</td>
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<tr>
<td>Labour laws 3</td>
<td>Minor Acts 3</td>
</tr>
<tr>
<td>Land laws 3</td>
<td>Taxation Laws 3</td>
</tr>
</tbody>
</table>

**Note:**
In Semester 9th and 10th students will be required to take two of the elective courses in the list of Elective Courses.
INTRODUCTION
LL.M program is designed to develop sound theoretical knowledge of the subject and its application. This program helps the students to grasp tools and skills for advanced studies leading to Ph.D. Furthermore, it aims to disseminate comprehensive knowledge focused on advanced legal issues.

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.

ELECTIVES
- Constitutional Law of Pakistan
- Criminology
- Intellectual Property Laws
- International Economic Law
- International Trade Law
- Islamic Laws
- Labour Laws
- Law and Politics
- Law of Evidence
- Law of International Institutions
- Law of Taxation
- Research Methodology
- Law of Evidence

ROAD MAP

<table>
<thead>
<tr>
<th>SEMESTER 1</th>
<th>Total Semesters 4</th>
<th>Total Credit Hours 163</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course-1</td>
<td>4</td>
<td>Course-1</td>
</tr>
<tr>
<td>Course-2</td>
<td>4</td>
<td>Course-1</td>
</tr>
</tbody>
</table>

PROGRAM FACTS
- Program Duration: 2 Years
- Timing: Afternoon 3:00 PM to 6:00 PM (Monday to Friday)
- Entry Requirements: Law Degree (J.D., LL.B., LL.B. (Hons.), B.A/LL.B., or equivalent) from HEC Recognized Institute with 2.00 CGPA or at least 50% marks under semester system or 2nd Division (45% marks) under annual system.
- Location: Raiwind Road Campus, Lahore.

THE UNIVERSITY OF LAHORE

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
At PIL, we are dedicated to absolute top-tier education. And we are equally devoted to using our extensive intellectual capital to help resolve real-world problems and to create a more just society. One of our distinct features is to foster an environment where our students and faculty partner with people beyond the school: identifying challenges, forging alliances, solving problems, and sparking change. Our highly distinguished faculty prepares our students for careers in a world of swift change, intricacy, and opportunity. At PIL, we meet this formidable challenge by offering a curriculum that offers a solid legal and ethical foundation, enriched by courses in emerging fields and practical experience. We train our students to think and reflect critically, carefully, and thoughtfully and we do better than any other institution. The education and training you will receive as a PIL Law student is unrivalled, and private and public employers alike will be eager to have you as part of their teams. Come visit us and let us show you why our students and faculty are so content and satisfied to be here.
• Islamic Studies
• Economics
• School of Integrated Social Sciences
• Education
MISSION STATEMENT

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 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.
**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 seminaries—where 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.

**CAREER PROSPECTS**

MPhil 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/domains.

**ROAD MAP**

<table>
<thead>
<tr>
<th>SEMESTER MAP</th>
<th>Total Semesters</th>
<th>Total Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
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<tr>
<td>Quranic Sciences</td>
<td>3</td>
<td>Hadith Science</td>
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<tr>
<td>Islamic Jurisprudence &amp; History</td>
<td>3</td>
<td>Functional English</td>
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<tr>
<td>Research Methodology</td>
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<td>SEMESTER 3</td>
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<tr>
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<td>Comparative Study of Religion (Course as substitute of thesis)</td>
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<tr>
<td>Islamic Modern Thoughts</td>
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<td>Orientalism (Course as substitute of thesis)</td>
</tr>
<tr>
<td>Human Rights in Islam and West (Course as substitute of thesis)</td>
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<tr>
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<tr>
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<td>History of Muslim Thought</td>
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<tr>
<td>Quranic Sciences</td>
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<td>Contemporary Issues and Islam</td>
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<tr>
<td>Principles of Islamic Jurisprudence</td>
<td>3</td>
<td>Contemporary Issues and Islam</td>
</tr>
<tr>
<td>Research Work</td>
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</tbody>
</table>

**DOCTOR OF PHILOSOPHY IN ISLAMIC STUDIES (Ph.D)**

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 seminaries—where 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.

**CAREER PROSPECTS**

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.

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<td>SEMESTER 6&amp;7</td>
</tr>
<tr>
<td>Research Work</td>
<td>6</td>
<td>Research Work</td>
</tr>
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</table>
DEPARTMENT OF ECONOMICS

DEGREES OFFERED

- BS Economics
- M.Sc Economics
- M.Phil. Applied Economics/MS Economics
- Ph.D Economics

MISSION STATEMENT

“The department offers high quality education with a focus on research excellence, develop ethics norms, meet challenges of diversified culture and foster demand driven education for all. Provides purposeful education and training 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, moral values, as well as, professional ethics.”

INTRODUCTION

There is an intense awakening that sound economic policies for any country require the services of highly trained economists, having 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 graduate and post graduate programs which meet market demands and also enhance intellectual ability of our students. The department aims at to foster advanced education and training in Economics. For this purpose, BS Economics, M.Phil Applied Economics, MS Economics and Ph.D. 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 your dreams to have quality education. Our doors are open to attract good students on merit, to impart quality education. All major state of the art facilities are available for you. Now, students may benefit from it and get ready to embrace the challenge to achieve their goals. We care our students and ensure quality education.
# Bachelor of Science in Economics

**Program Facts**
- **Program Duration**: 4 Years
- **Timing**: Morning 08:00 AM - 05:00 PM (Monday – Friday)
- **Entry Requirements**: 12 years of education (Higher Secondary School Certificate/Intermediate) with at least second Division
- **Location**: Raiwind Road Campus, Lahore

**Recognized By**: Higher Education Commission

**Electives**
- Rural Development
- Industrial Economics
- Health Economics
- Urban Economics
- Regional Economics
- Financial Economics
- Agricultural Economics
- Entrepreneurial Economics
- Independent Study
- Thesis

**Note**: (Students have to take six courses from the list of courses given above.)

## Road Map

### Semester 1
- **Principles of Microeconomics**: 3 Cr. Hrs.
- **English**: 3 English I.
- **Mathematics I**: 3
- **Introduction to Computer**: 3
- **Optional (Non-Econ)**: 3

### Semester 2
- **Intermediate Micro Economics**: 3 Cr. Hrs.
- **Statistics I**: 3
- **Mathematics II**: 3
- **Optional (Non-Econ)**: 3
- **Optional (Non-Econ)**: 3

### Semester 3
- **Statistics II**: 3
- **Development Economics Theory**: 3
- **World Economics: History**: 3
- **Optional (Non-Econ)**: 3
- **Optional (Non-Econ)**: 3

### Semester 4
- **Intermediate Macro-Economics**: 3
- **World Economics: History**: 3
- **Optional (Non-Econ)**: 3
- **Optional (Non-Econ)**: 3

### Electives
- 3 Elective (Economics)
- 3 Elective I (Economics)
- 3 Independent Study
- 3 Thesis/Optional Econ.
- 3 Thesis/Optional Econ.
- 6 Two Optional Courses

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# Master of Economics (M.Sc)

**Program Facts**
- **Program Duration**: 2 Years
- **Timing**: Morning 08:00 AM - 05:00 PM (Monday – Friday)
- **Entry Requirements**: 14 years of education (B.A/ B.Sc./ B.Com with Economics as Elective subject) with at least 3rd Division under annual system from HEC recognized institution
- **Location**: Raiwind Road Campus, Lahore

**Recognized By**: Higher Education Commission

**Electives**
- Managerial Economics
- Human Resource Development and Management
- Economic Development Policy
- WTO and International Finance
- Economic Growth Models
- History of Economic Thought
- Environmental Economics
- Cost Benefit Analysis
- Institutional Economics
- General Equilibrium and Welfare Economics
- Monetary Theory and Policy
- Mathematical Economics II
- Applied Econometrics II
- Dynamic Macroeconomics
- Public Sector Economics
- M.Sc. Thesis

## Road Map

### Semester 1
- **Micro-economic Theory-I**: 4 Cr. Hrs.
- **Econometrics**: 4
- **Islamic Economics**: 3
- **Mathematical Economics I**: 3
- **Applied Statistics for Economists**: 3

### Semester 2
- **Applied Econometrics –I**: 4
- **Research Methodology and Computer Application**: 4
- **Islamic Economics**: 3
- **Mathematical Economics I**: 3
- **Two Optional Courses (03 Credit Hrs. each)**: 6

### Semester 3
- **Research Methodology and Computer Application**: 4
- **Islamic Economics**: 3
- **Two Optional Courses (03 Credit Hrs. each)**: 6

### Semester 4
- **Micro-economic Theory-II**: 4
- **Applied Econometrics –II**: 4
- **Econometrics**: 4
- **Islamic Economics**: 3
- **Two Optional Courses (03 Credit Hrs. each)**: 6

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# Introduction

M.Sc. Economics program is designed to develop sound theoretical knowledge of the subject. It is a two years program; i.e. four semesters. This program helps the students to equip themselves with tools and skills for advanced studies leading to M.Phil. and/or Ph.D. Degree. Furthermore, it aims at disseminate comprehensive knowledge focused to ensure quantitative skills and develop analytical ability. It also helps to develop lifetime learning ability among students.

## Career Prospects

The completion of the program leads to open doors for careers in government agencies, financial institutions, banks, consulting organizations, and non-governmental organizations. Students often secure full-time employment with organizations where they had internships or part-time employment.

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# Electives

- Population Economics
- Welfare and Happiness economics
- Public Policies
- Ethics and Economics
- Environmental and Natural Resource Economics
- Project Appraisal and Investment Analysis
- Transport Economics
- Institutional Economics
- Poverty and Income Distribution
- Labor Economics
- Political Economy
- Comparative Economic Systems

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# Core Courses

- Micro-economic Theory-I
- Macro-economic Theory-II
- Mathematical Economics I
- Applied Statistics for Economists
- Applied Econometrics -I
- Research Methodology and Computer Application
- Islamic Economics
- Micro-economics-I
- Macro-economic-II
- International Economics: Trade Theory & Finance
- Development Economics
- Issues in Pakistan Economy
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 & forecasting and welfare projects. This program emphasizes upon applied economics and caters to the growing market demand for economic analysts. Major focus is on developing analytical and creative ability in students who can embark upon advanced research and offer quality training in Economics.

MS. IN ECONOMICS

M. S. in Economics may be awarded, on completion of M. Phil course work; plus two extra courses. The M. Phil students who earn CGPA less than 2.75 (in course work) can also opt. for M. S. degree. s. t. he/she fulfills all other conditions / requirements.

CAREER PROSPECTS

The M. Phil. in Applied Economics is an ideal program for students who wish to pursue Ph.D 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 equip you with the tools and enable to conduct independent research. Furthermore, it strengthens on job careers in different economic sectors and professional places of Management, Accountancy, Consultancy, Insurance, and Corporate Sector etc.

PROGRAM FACTS

- Program Duration: 2 Years
- Timing: Weekend 09:00 AM - 07:00 PM (Saturday & Sunday)
- Entry Requirements: 16 years of education. AYUAR 85/M.A.M.Sc. Economics, GAT-General with 60% marks from HEC recognized institute/university.
- Location: Raiwind Road Campus, Lahore

RECOGNIZED BY

Higher Education Commission

M.S. IN ECONOMICS

The M. S. in Economics program is designed to prepare students for academic and research oriented jobs, as per market demand. Once you have completed this degree, you will have many career paths to choose from. However, your choice will be based on what your interests are and your area of specialization. Career prospects are many including Researcher, Educator, Economist, Economic advisors, policy analyst, Market research analyst, central bank expert careers in public sector and international organizations/financial institutions.

DOCTOR OF PHILOSOPHY IN ECONOMICS (Ph.D)

INTRODUCTION

Ph.D. program in Economics provides graduate students an opportunity to enhance advanced knowledge in Economics and learn tools and skills to apply knowledge and equip students with application of econometric tools for welfare of the society. Furthermore, this program will also enable students to conduct quality research in their specialized field 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 Ph.D. program is designed to prepare students for academic and research oriented jobs, as per market demand. Once you have completed this degree, you will have many career paths to choose from. However, your choice will be based on what your interests are and your area of specialization. Career prospects are many including Researcher, Educator, Economist, Economic advisors, policy analyst, Market research analyst, central bank expert careers in public sector and international organizations/financial institutions.

PROGRAM FACTS

- Program Duration: 3 Years
- Timing: 09:00 AM - 06:00 PM (Saturday & Sunday)
- Entry Requirements: 15 years of education. M.Phil. Equivalent Degree in Economics 3.0/4.0 CGPA or 60% marks in the last required degree GAT-Subject with 60% marks.
- Dept. Test *Must have done M. Phil Thesis
- Location: Raiwind Road Campus, Lahore

RECOGNIZED BY

Higher Education Commission

ELECTIVES

- Advanced Microeconomics and Application
- Topics in Monetary Economics and Application
- Advanced Macroeconomics and Application
- Institutional Economics
- Advanced Macroeconomics
- Topics in Environmental Economics and Application
- Major Economic Issues in Pakistan Economy
- Topics in Development Economics & Policy
- Topics in International Economics and Finance
- Project Analysis and Investment decision Making
- WTO, Globalization, International Trade and Integration
- Topics in Applied Econometric Techniques
- Applied Welfare Economics

Note: For further details, contact the department

M.Phil. Thesis / Dissertation 6

M. Phil. Thesis / Dissertation 6

CORE COURSES

- Advanced Topics in Microeconomics
- Advanced Topics in Macroeconomics
- International Economics
- Seminar in Applied Economics
- Contemporary Economic Issues in Pakistan
- Ph.D. Dissertation (06 Credit Hrs. in each semester, after course work)

Note: The student must pass comprehensive examination in Economic Theory (Advanced Micro and Macroeconomics and Area of Specialization.)
The undergraduate degree in Social Science aims to develop amongst students a sophisticated and comprehensive understanding of contemporary social science disciplines through three specializations: Politics and International Relations; International Development Studies and; Governance and Public Policy.

INTRODUCTION

To provide thorough understanding about broader defense, political, social, economic, security, foreign policy, governance and sustainable development issues.

To enhance the ability of students to conceptualize problems and apply analytical tools to solve them.

Enhance understanding about the convergence and conflict of interest that shapes international relations and structuring of global politics, challenges to sustainability of development in the 21st century and issues in governance and public policy.

To provide tools to sharpen critical thinking and development of skills for discourse analysis.

Counsel on personal and career development goals.

To provide a supportive and professional learning environment.

CAREER PROSPECTS

This degree is designed to enable our graduates to join the Civil Superior Services (CSS) of Pakistan, Federal and Provincial Government, NGOs and INGOs, The UN, local and foreign media outlets and thinktanks.

MISSION STATEMENT

SCHOOL OF INTEGRATED SOCIAL SCIENCES

PROGRAM FACTS

- Program Duration: 4 Years
- Timing: Morning 08:00 AM - 05:00 PM (Monday – Friday)
- Entry Requirements: 12 Years of education, Intermediate or equivalent at least 45%
- Location: Defence Road Campus, Lahore

RECOGNIZED BY
Higher Education Commission

DEGREES OFFERED

- Bachelor of Science in Social Science
- Bachelor of Science in Social Science (Politics and International Relations)
- Master of Philosophy/MS International Relations
- Ph.D International Relations

BACHELOR OF SCIENCE IN SOCIAL SCIENCE (POLITICS AND INTERNATIONAL RELATIONS)

ROAD MAP

Total Semesters 8  Total Credit Hours 130

| Semester | Cr Hi | | Cr Hi | | Cr Hi | | Cr Hi |
|----------|-------|---|-------|---|-------|---|
| 1        |       |   |       |   |       |   |
| English I | 3     | English II | 3 | English III | 3 | English IV or Univ Optional | 3 |
| Pakistan Studies | 2 | Islamic Studies/Ethics | 2 | Intro to Computers | 2 | General VII (Interdisciplinary) | 3 |
| Mathematics | 3 | Statistics | 3 | General VII (Interdisciplinary) | 3 | General VII (Interdisciplinary) | 3 |
| General I (Interdisciplinary) | 3 | General III (Interdisciplinary) | 3 | General VIII (Interdisciplinary) | 3 | Elements of Social Science Research | 3 |
| General II (Interdisciplinary) | 3 | General IV (Interdisciplinary) | 3 | General I (Interdisciplinary) | 3 | General III (Interdisciplinary) | 3 |
| Comparative Politics | 3 | Political Theory | 3 | Foreign Policies of Major Powers | 3 | Seminar in Contemporary Politics and IR | 3 |
| International Law | 3 | IR Since 1945 | 3 | Arms Control and Disarmament | 3 | Elective III: Dimensions of International Security | 3 |
| Politics and Governance in Pakistan | 3 | Determinants of Pakistan’s Foreign Policy | 3 | Elective I: Seminar on Emerging Security Threats | 3 | Elective IV: Nuclear Non Proliferation Regime | 3 |
| Peace and Conflict Resolution | 3 | International Political Economy | 3 | Advanced Research Methodology | 3 | | |
| Foreign Policy Analysis | 3 | Regimes and International Organizations | 3 | Internship | 3 | | |

SCHOOL OF INTEGRATED SOCIAL SCIENCES

DEGREES OFFERED

- Bachelor of Science in Social Science
- Bachelor of Science in Social Science (Politics and International Relations)
- Master of Philosophy/MS International Relations
- Ph.D International Relations

BACHELOR OF SCIENCE IN SOCIAL SCIENCE (POLITICS AND INTERNATIONAL RELATIONS)

ROAD MAP

Total Semesters 8  Total Credit Hours 130

| Semester | Cr Hi | | Cr Hi | | Cr Hi | | Cr Hi |
|----------|-------|---|-------|---|-------|---|
| 1        |       |   |       |   |       |   |
| English I | 3     | English II | 3 | English III | 3 | English IV or Univ Optional | 3 |
| Pakistan Studies | 2 | Islamic Studies/Ethics | 2 | Intro to Computers | 2 | General VII (Interdisciplinary) | 3 |
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| Peace and Conflict Resolution | 3 | International Political Economy | 3 | Advanced Research Methodology | 3 | | |
| Foreign Policy Analysis | 3 | Regimes and International Organizations | 3 | Internship | 3 | | |
### BACHELOR OF SCIENCE IN SOCIAL SCIENCE (INTERNATIONAL DEVELOPMENT STUDIES)

<table>
<thead>
<tr>
<th>SEMESTER 1</th>
<th>Cr. Hr.</th>
<th>SEMESTER 2</th>
<th>Cr. Hr.</th>
<th>SEMESTER 3</th>
<th>Cr. Hr.</th>
<th>SEMESTER 4</th>
<th>Cr. Hr.</th>
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<td>English III</td>
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<td>Islamic Studies/Ethics</td>
<td>2</td>
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<td>General VII (Interdisciplinary)</td>
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<td>Introduction to International Development Studies: Policy &amp; Practice</td>
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<td>Economics of Developing Countries</td>
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<td>Gender and Development</td>
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<td>Elective III: Globalization and Markets</td>
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<tr>
<td>Human Resource Development</td>
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<td>Sociology of Development</td>
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<td>Elective IV: Conflict and Development</td>
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<td>History of International Economic Expansion</td>
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<td>International Organizations and the Politics of Aid Institutions</td>
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<td>Determinants of Pakistan's Foreign Policy</td>
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<td>Survey of Economics and Development in Pakistan</td>
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<td>Governance and Institutions</td>
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<td>Economics and Social Policy</td>
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<td>Elective II: Science, Technology and Public Policy</td>
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<td>Leadership and Policy-making</td>
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<td>Research Thesis or 1 Course: Issues in Public Administration</td>
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<td>The Role of Government</td>
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<td>Higher Education and Public Policy</td>
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<td>Elective II: Social Justice and Public Policy</td>
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**Total Semesters:** 8  
**Total Credit Hours:** 130

### PROGRAM FACTS
- **Program Duration:** 4 Years  
- **Timing:** Morning 08:00 AM - 05:00 PM (Monday – Friday)  
- **Entry Requirements:** 12 Years of education, Intermediate or equivalent at least 45%  
- **Location:** Defence Road Campus, Lahore

**RECOGNIZED BY**  
Higher Education Commission

### BACHELOR OF SCIENCE IN SOCIAL SCIENCE (GOVERNANCE AND PUBLIC POLICY)

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<tr>
<th>SEMESTER 1</th>
<th>Cr. Hr.</th>
<th>SEMESTER 2</th>
<th>Cr. Hr.</th>
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<th>Cr. Hr.</th>
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<td>Elective II: Social Justice and Public Policy</td>
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**Total Semesters:** 8  
**Total Credit Hours:** 130

### PROGRAM FACTS
- **Program Duration:** 4 Years  
- **Timing:** Morning 08:00 AM - 05:00 PM (Monday – Friday)  
- **Entry Requirements:** 12 Years of education, Intermediate or equivalent at least 45%  
- **Location:** Defence Road Campus, Lahore

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Higher Education Commission
MASTER OF PHILOSOPHY IN INTERNATIONAL RELATIONS (M.Phil/MS)

INTRODUCTION
MPhil in International Relations is a two year program offered by the School of Integrated Social Science (SISS). We aim to educate young men and women who could contribute creatively and constructively towards building peaceful societies and world at large. The program is designed to meet the needs of all those who wish to enhance their understanding of political issues, domestically, regionally and internationally. This program has also been designed for those wishing to pursue a doctorate degree facilitating them in joining the academy, career in foreign policy, international diplomacy, governmental and non-governmental jobs and wide array of career paths.

ELECTIVES

- International Relations
- Politics of South Asia
- Politics of the Middle East
- Politics and Security of Asia-Pacific Region
- Major Issues of Muslim World
- Conflict and Cooperation in South Asia
- Seminar on Contemporary Regional and Global Issues
- Media and Global Politics

AREA STUDIES

- Security
- Regional Studies
- International Finance
- International Law
- Political Economy
- International Development
- Political Science
- International Relations
- Defence and Strategic Studies
- Science and Technology
- Media and Communication

PROGRAM FACTS

- Program Duration: 2 Years
- Timing: Morning 08:00 AM - 05:00 PM (Monday – Friday)
- Entry Requirements: 16 Years of Education, BS 4 Years, MA/MSc. 2 Years degree or equivalent in Political Science, International Relations, Defense and Strategic Studies, Defense and Diplomatic Studies, Mass Communication, Governance and Public Policy from an HEC-recognized University.
- Location: Defence Road Campus, Lahore

ROAD MAP

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<tr>
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<th>SEMESTER 2</th>
<th>Cr. Hr.</th>
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<td>Optional-I</td>
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<td>Advanced Research Methodology</td>
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<td>Optional-II</td>
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<td>Foreign Policy Analysis</td>
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<td>Optional-III</td>
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| SEMESTER 3 & 4     | Cr. Hr. | M.Phil. Thesis / Dissertation | 6 |

DOCTOR OF PHILOSOPHY IN INTERNATIONAL RELATIONS (Ph.D)

INTRODUCTION
The Doctoral program in IR is a five year intensive research degree grounded heavily in theory. It offers excellent preparation and training for careers in academia and aims at producing scholars/researchers who can demonstrate world class scholarship and profound understanding about complex and diverse social, economic and political issues/problems. In particular, our program is designed to offer in-depth knowledge and research training for scholars seeking to join academia. In this respect, we offer conducive and highly vibrant academic environment that ensures maximum motivation and incentives for the students to produce quality research under the qualified and candid supervision of our professors.

ELECTIVES

- Political Philosophy and World Order
- Seminar on Advanced Research Design
- Religion and International Politics
- Topics in International Political Thought
- Conflict, Security and Democracy
- Comparative Foreign Policy
- Critical Security Studies
- Peace and Conflict Theory
- Modern War and Strategy
- Terrorism and Political Violence
- Media and International Relations
- Seminar on Nuclear Politics
- Politics and Foreign Policy of Pakistan
- Politics and Foreign Policy of the United States
- Contemporary Pakistan and IR

PROGRAM FACTS

- Program Duration: 3 Years
- Timing: Morning 08:00 AM - 05:00 PM (Monday – Friday)
- Entry Requirements: 16 years of education, M.Phil. Equivalent Degree in International Relations 3.0/4.0 CGPA or 60% marks in the last required degree.
- Department test/interview
- Location: Defence Road Campus, Lahore

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Higher Education Commission

ROAD MAP

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</thead>
<tbody>
<tr>
<td>PhD Thesis / Dissertation</td>
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</table>
MISSION STATEMENT

“The department offers quality education with a focus on research excellence, develops fruitful ethical norms, respects diversified culture create and disseminate knowledge for all. Equal importance is given to enhance analytical ability of students to elucidate contemporary educational 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 educational sphere. Our graduates are envisaged to lead the nation in their areas of specialization, moral value and professional ethics.”

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 creative educational material and 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 of 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.

DEGREES OFFERED

- BS Education (Business)
- BS Education (Educational Management)
- M.Phil Education
- Ph.D Education

DEPARTMENT OF EDUCATION
BACHELOR OF SCIENCE IN EDUCATION (WITH BUSINESS)

INTRODUCTION
The course will focus on the introduction of basic concepts in education and the ideological, Philosophical and Psychological foundations of education. The course will also include guidance and counseling as an essential component of education. Emphasis will be given on analyzing various sociological, political, economic and ideological forces that influence the process of education in our cultural context.

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PROGRAM FACTS
• Program Duration
  4 Years
• Timing
  Morning 08:00 AM - 05:00 PM (Monday – Friday)
• Entry Requirements
  12 Years of education, Intermediate or equivalent at least 45%
• Location
  Raiwind Road Campus, Lahore

ROAD MAP
Total Semesters 8
Total Credit Hours 130

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
English IV
3
Introduction to Education
3
Mathematics
3
Educational Technology & ICT
3
Teaching of General Science (Professional I)
4
Instructional Methods
3
General Science
3
Philosophy of Education
3
Teaching of English Language (Professional II)
4
Computer Application
4
Education in Pakistan
3
Teaching of History & Geography (Professional I)
4
Curriculum Development
3
Pakistan Studies
2
Islamic Studies
2
Educational Psychology
3
Comparative Education
3
Fundamentals of Language and Linguistics
3
Language skills
3
Computer Assisted Language Learning
3
INTRODUCTION
The course will focus on the introduction of basic concepts in education and the ideological, Philosophical and Psychological foundations of education. The course will also include guidance and counseling as an essential component of education. Emphasis will be given on analyzing various sociological, political, economic and ideological forces that influence the process of education in our cultural context.

SEMESTER 5
Cr. Hr.
SEMESTER 6
Cr. Hr.
SEMESTER 7
Cr. Hr.
SEMESTER 8
Cr. Hr.
Critical Thinking & Reflective Practices
3
Economics and Financing of Education
3
Statistics & Data Analysis
3
Area I: Organizational Behavior
3
Teaching of Mathematics
4
Guidance and Counseling
3
Inclusive Education
3
Area I: Human Resource Management OR
3
Second Language Acquisition
3
Educational Assessment and Evaluation
3
Teaching Practice II
9
Area II: Term Paper
3
Teaching Practice I
6
Sociology of Education
3
Research Methods in Education
3
Area III: Seminar on Trends & Issues in Education OR
3
Educational Planning and Management
3
Area III: Qualitative Research Methods in Education
3
Educational Policy and Administration
3
Area III: Analysis and Interpretation of Data
3
Thesis
6

BACHELOR OF SCIENCE IN EDUCATION (WITH EDUCATIONAL MANAGEMENT)

INTRODUCTION
The course will focus on the introduction of basic concepts in education and the ideological, Philosophical and Psychological foundations of education. The course will also include guidance and counseling as an essential component of education. Emphasis will be given on analyzing various sociological, political, economic and ideological forces that influence the process of education in our cultural context.

RECOGNIZED BY
Higher Education Commission

PROGRAM FACTS
• Program Duration
  4 Years
• Timing
  Morning 08:00 AM - 05:00 PM (Monday – Friday)
• Entry Requirements
  12 Years of education, Intermediate or equivalent at least 45%
• Location
  Raiwind Road Campus, Lahore

ROAD MAP
Total Semesters 8
Total Credit Hours 130

SEMESTER 1
Cr. Hr.
SEMESTER 2
Cr. Hr.
SEMESTER 3
Cr. Hr.
SEMESTER 4
Cr. Hr.
English
3
English II
3
English III
3
English IV
3
Pakistan Studies
2
Islamic Studies/ Ethics
2
Statistics
3
Life and learning in Education
3
Introduction to Education Management
3
Statistics
3
Management Leadership
3
Governance
3
Information Management of Education
3
Knowledge Management
4
School Event Management
3
Introduction to computer
3
Management Control
3
Globalization and Management
3
Human Resource Management
3
Socio Economics Problems of Pakistan
3
Educational Sociology
3
Critical Thinking & Reflective Practices
3
Economics and Financing of Education
3
Statistics & Data Analysis
3
Area I: Organizational Behavior
3
Teaching of Mathematics
4
Guidance and Counseling
3
Inclusive Education
3
Area I: Human Resource Management OR
3
Second Language Acquisition
3
Educational Assessment and Evaluation
3
Teaching Practice II
9
Area II: Term Paper
3
Teaching Practice I
6
Sociology of Education
3
Research Methods in Education
3
Area III: Seminar on Trends & Issues in Education OR
3
Educational Planning and Management
3
Area III: Qualitative Research Methods in Education
3
Educational Policy and Administration
3
Area III: Analysis and Interpretation of Data
3
Thesis
6

THE UNIVERSITY OF LAHORE
THE UNIVERSITY OF LAHORE
THE UNIVERSITY OF LAHORE
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 teaching-learning 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.

CAREER PROSPECTS

The M. Phil. in Education program is focused on exposing students to innovative research and practice in the leadership, management and administration of educational institutions. Taught by experienced teachers and active researchers in the field, this program explicitly integrates theory and practice to enable graduates to apply the latest research to refine and improve practice in their own contexts. Graduates may find opportunities in the following areas: Head or Leading Teachers, among others; Assistant or Deputy Principal Positions; School 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 a variety of teaching-learning 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.

DOCTOR OF PHILOSOPHY IN 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 teaching-learning 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.

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Higher Education Commission

PROGRAM FACTS

• Program Duration
  3-5 Years
• Timing
  Weekend 09:00 AM to 06:00 PM (Saturday - Sunday)
• Entry Requirements
  A Master degree in Education (18 years of education) in relevant discipline from HEC recognized University with 3.5 (4.0 CGPA or least 60% marks under semester system or 1st Division 60% marks) under annual system.
• Location
  Raiwind Road Campus, Lahore

ROAD MAP

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<td>Statistics in Education</td>
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<td>Curriculum Models and Themes</td>
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<td>Comparative Teacher Education</td>
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<td>Computers and Information Technology in Education</td>
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<th>Cr. Hr.</th>
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</thead>
<tbody>
<tr>
<td>Research Work</td>
<td>6</td>
<td></td>
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</tr>
</tbody>
</table>
• English Language & Literature
MISSION STATEMENT

The mission of the Department is to ensure that, while pursuing his/her programme of study, each learner develops linguistically, academically, and cognitively within a socially and culturally supportive environment.

INTRODUCTION

The Department constitutes a professional, yet congenial, environment for the teaching and promotion of both (applied) linguistics and literature in English. A variety of degrees ranging from BS to MA to MPhil are offered in both disciplines; the BS is a multidisciplinary degree in the study of English language and literature, (applied) linguistics, and communication.

The Department has appropriately qualified faculty thoroughly committed to teaching and research in a vigorous atmosphere, and its programmes of study are characterized by a balanced combination of rigour and flexibility. We try to sustain a dynamic learning environment that encourages creative thinking abilities as well as linguistic and interpersonal skills. The classes are typically highly interactive, involving a good deal of student participation. We try to maintain the highest standards of academic excellence, and of professional and ethical conduct.

Extracurricular activities are part of our broader scheme, and are organized to provide the students opportunities for social interaction, entertainment, and the development of their non-academic talent.

DEGREES OFFERED

- BS English Language and Communication
- MA English Literature
- MA English Language Teaching & Linguistics
- M.Phil in English Literature
- M.Phil in Applied Linguistics
BS (ELC) is an integrated degree programme including both English Language and Literature courses. The diversity of the program is further enhanced by the addition of a wide range of courses from other disciplines, e.g., Social Sciences, Business and Commerce. Social Sciences are the backbone of development in social and economic terms. Extending over eight semesters or four years, the aim of this programme is to provide students with strong foundational but in-depth knowledge of English Language and Literature on the one hand, and to develop their communicative skills on the other. The coursework comprises 129 credit hours. The last two semesters provide the students an opportunity to major in English Language or English Literature by devoting their studies entirely to either of these disciplines, and write a thesis (3 credits) on a corresponding topic.

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CAREER PROSPECTS

This program will open up many career avenues for the students. These may lead on to key positions in the print and electronic media, the civil services, multinational organizations, and education (especially English language teaching), to name just a few of the possibilities. To state the obvious, a first degree is necessary for anyone wanting to pursue higher studies at the Master’s level and beyond.

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INTRODUCTION
This degree consists of 19 taught courses (63 credit hours), and aims at fostering an appreciation of the richness and variety of literary texts from both British and American literature. Students are given rigorous training in interpretive thinking and precise expression, enabling them to invent and organize ideas, draw conclusions and articulate them in eloquent and convincing ways. The coursework is extended over four semesters, the last one including a thesis (taking up another 6 credits).

CAREER PROSPECTS
MA in English Literature is the basic requirement for an appropriate teaching position at school and college levels. This program also helps students relate their multiple experiences of literature to real life situations, and thus become more sensitive human beings. Further, it makes students eligible for admission to an MPhil degree in English Literature.

INTRODUCTION
This is a dual Master’s Degree program consisting of 69 credit hours distributed among 20 courses and a 4-credit thesis/research project. The two areas covered are linguistics and its applications to English language teaching. Besides, considerable attention is diverted, directly or indirectly, to improving the English language skills of the students themselves. The students are provided training in critical thinking and precise expression, enabling them to compose organized texts and to articulate their ideas in clear and persuasive ways.

CAREER PROSPECTS
This program will prepare the students for an English teaching career at both school and college levels. Further, it makes them eligible for admission to an M.Phil degree in the same or a compatible area of study.

ROAD MAP

PROGRAM FACTS
• Program Duration 2 Years
• Timing Morning 08:00 AM - 05:00 PM (Monday – Friday)
• Entry Requirements Fourteen (14) years of BA/B.Com, or any other equivalent degree with the minimum CGPA of 2.5 or a 2nd Division under the annual system.
• Location Raiwind Road Campus, Lahore

RECOGNIZED BY
Higher Education Commission

THE UNIVERSITY OF LAHORE

THE UNIVERSITY OF LAHORE

THE UNIVERSITY OF LAHORE
INTRODUCTION
Consisting of four semesters or about two years, the aim of this program is to develop a critical approach towards a wide-range of issues and techniques figuring in English Literature from the Elizabethan to the postmodern and contemporary periods. The program will help reinforce the students’ previous knowledge of English Literature and will strive to sharpen its appreciation through exposure to diverse literary texts and theories. Divided into core and elective courses, this scheme of study covers (as already implied) certain theoretical areas (such as research methodology, literary theory) as well as various texts belonging to the periods mentioned above. The coursework, comprising 24 credit hours, takes up three semesters, but work on a supervised thesis (adding another 6 credits) starts in the third semester. The fourth semester is thus devoted entirely to thesis writing.

CAREER PROSPECTS
M.Phil in English Literature is the basic requirement for an academic or teaching career in the literature departments of all university-level institutions. Naturally, the degree is also very helpful in getting a teaching position at colleges or other lower-level institutions. Further, it enables the successful and more ambitious candidates to go on to higher studies at the doctoral level.

Masters of Philosophy in English Literature (M.Phil)

PROGRAM FACTS
- Program Duration: 2 Years
- Timing: Weekend 09:00 AM to 6:00 PM (Friday - Saturday - Sunday)
- Entry Requirements: 16 years of education culminating in an MA or a 4-year BS degree in a relevant field, with a minimum CGPA of 2.5 or a second division under the annual system.
- Location: Raiwind Road Campus, Lahore

RECOGNIZED BY: Higher Education Commission

CORE COURSES
- Research Methodology
- Pakistani Literature in English
- Contemporary Literary Theory
- Shakespearean Literature
- Romantic Literature
- Postcolonial Theory and Literature

ELECTIVES
- South Asian Literature
- Native American Literature
- African Literature
- 20th century Drama and Poetry
- American Literature
- Modern and Post-Modern Literature
- Digital Humanities
- Popular Narrative
- World Literature in English
- Post-Modern Fiction
- Continental Divinas
- Classical and Rhetorical Studies

ROAD MAP

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<tr>
<th>SEMESTER 1</th>
<th>Cr. Hr.</th>
<th>SEMESTER 2</th>
<th>Cr. Hr.</th>
<th>SEMESTER 3</th>
<th>Cr. Hr.</th>
<th>SEMESTER 4</th>
<th>Cr. Hr.</th>
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<tr>
<td>Research Methodology</td>
<td>3</td>
<td>Shakespearean Literature</td>
<td>3</td>
<td>Postcolonial Theory and Literature</td>
<td>3</td>
<td>Research Thesis</td>
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<td>Pakistani Literature in English</td>
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<td>Romantic Literature</td>
<td>3</td>
<td>Elective course-I</td>
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<tr>
<td>Contemporary Literary Theory</td>
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<td>Elective course-I</td>
<td>3</td>
<td>Research Thesis</td>
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</table>

Note: Two courses can be opted in lieu of Thesis as per HEC policies.

Masters of Philosophy in Applied Linguistics (M.Phil)

INTRODUCTION
Consisting of four semesters or about two years, the aim of this program is to reinforce the students’ background in linguistics and to investigate a wide range of issues related to the various applied aspects of the discipline in question. Divided into core and elective courses, the scheme of study encompasses certain fundamental areas (such as research methodology, syntactic, pragmatics) as well as several applied ones (e.g., Translation Studies, Critical Discourse Analysis). The coursework, comprising 24 credit hours, is spread over three semesters, but work on a supervised thesis (adding another 6 credits) starts in the third semester. The fourth semester is thus devoted entirely to thesis writing.

CAREER PROSPECTS
M.Phil in Applied Linguistics is the basic requirement for an academic career in the relevant departments of all university-level institutions. Naturally, the degree is also very helpful in seeking a teaching position at colleges or other lower-level educational institutions. Further, it enables the successful and more ambitious candidates to go on to higher studies at the doctoral level.

PROGRAM FACTS
- Program Duration: 2 Years
- Timing: Weekend 09:00 AM to 6:00 PM (Friday - Saturday - Sunday)
- Entry Requirements: 16 years of education culminating in an MA or a 4-year BS degree in a relevant field, with a minimum CGPA of 2.5 or a second division under the annual system.
- Location: Raiwind Road Campus, Lahore

RECOGNIZED BY: Higher Education Commission

CORE COURSES
- Research Methodology
- General Linguistics
- Syntactic Theory
- Phonetics and Phonology
- Semantics and Pragmatics
- Critical Discourse Analysis
- Corpora Linguistics
- Discourse Analysis
- Stylistics
- English for specific purposes
- Second Language Acquisition

ELECTIVES
- Applied Linguistics
- Sociolinguistics
- Computational Linguistics
- Discourse Analysis
- Stylistics
- English for specific purposes
- Second Language Acquisition
- Translation Studies

ROAD MAP

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<th>SEMESTER 1</th>
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<th>SEMESTER 2</th>
<th>Cr. Hr.</th>
<th>SEMESTER 3</th>
<th>Cr. Hr.</th>
<th>SEMESTER 4</th>
<th>Cr. Hr.</th>
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</thead>
<tbody>
<tr>
<td>Research Methodology</td>
<td>3</td>
<td>Syntactic Theory</td>
<td>3</td>
<td>Critical Discourse Analysis</td>
<td>3</td>
<td>Research Thesis</td>
<td>6</td>
</tr>
<tr>
<td>General Linguistics</td>
<td>3</td>
<td>Phonetics and Phonology</td>
<td>3</td>
<td>Crosscultural Communication</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elective course I</td>
<td>3</td>
<td>Elective course II</td>
<td>3</td>
<td>Research Thesis</td>
<td></td>
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</tbody>
</table>

Note: Two courses can be opted in lieu of Thesis as per HIC policies.
• Admission Rules and Policies
• External and Internal Student/Credit Hour Transfer Policies
• Examination Rules and Policies
• Library Rules and Policies
• Student Conduct and Discipline Rules
• Accommodation Rules and Policies
ADMISSION POLICIES

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 record and is obtained in the admission test and performance in the interview.

A pattern of the same standard as of scholastic aptitude test (SAT) for undergraduate studies and graduate record examination (GRE) for graduate studies.

Students who have completed all the formalities and deposit their fees and other dues on the prescribed time, they will not be given admission only after they have submitted the application. The applicants will be allocated the University Registration Card by the Registrar and will be issued the Registration Number and will be issued the prescribed form from Office of Student Affairs and after completion submit the same along with their application. The application will be reviewed by the competent authority.

APPLICATION FOR ADMISSION

• Application for admission shall be entertained only on a prescribed form, which is part of the prospectus. Applicants received through “e mail” shall be entertained only if they are followed by a paid order in the name of The University of Lahore and should reach UOL up to last date announced for the admission.

• Admission shall be granted on the basis of eligibility criteria mentioned for each programme and after passing the admission test & interview by the admission committee of the department.

• Applicants, who have appeared in Inter / degree level or pre-requisite level examination for the admission in various programmes are reviewed by the concerned department. The department reserves the right to interview the students to assess their deficiencies.

• Each student who has appeared in the relevant examinations for the admission in the University also must produce a Character Certificate (in current date) from the admission date in previous institution (e.g. University). The matching of certificate shall be done by the equivalence committee.

• The applicant must provide following documents in addition to the regular admission requirements:

  a. Proof that the degree awarding institute is recognized degree awarding institution (not from affiliated colleges etc.)

  b. Character Certificate (in current date)

  c. Maximum applicable program duration starting from the approval of the course(s) and attendance requirements.

DEADLINE

• Students in graduate programs shall not enroll in advance courses unless they have been officially enrolled in different courses offered by the department.

• Students in graduate programs shall not enroll in less than 2 courses and more than 4 courses in a regular semester.

• In summer semester students can enroll up to two courses.

FINANCIAL AID

• The applicant may be granted course exemptions as per departmental recommendation/university policy.

• Annual fee is fixed by the authority to approve transfer of new admission.

• Intramural / Intracampus-unit of the academic unit of a course(s) completed at another institution (university or college) to UOL on the recommendation of the department for academic and administrative reasons.

• The department concerned shall admit students who wish to transfer their credits earned from another recognized degree awarding institutions.

• The course completed at another accredited institute will be assessed along with credit hours of each course. Their grades will be assessed depending upon the course contents and attendance requirements.

• Exemptions will be confirmed after the exemptions forwarded by the department.

• 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 course(s) completed at the previous institution, the committee may offer a challenge test in the course(s).

• The Registrar will review the documents and all other legal policies and will notify the student about the approval of the course(s).

• If any discrepancy is found, the Registrar will ask to re-verify the decision and provide a grace period to the student.

• The applicant may be granted admission and examination fees will be paid after the approval of the HOC. Exemption will be confirmed after the notification issued by the Registrar.

• In case of MBBS/MD, Practitioner (Academic)/Charman (BEd) will be the final authority to approve transfer of new admission with Zero Credit Hours.

TRADE EXEMPTIONS

• Any student who passes the admission test and fulfills the admission criteria and seats are available in the transferred/ equivalent courses of degree programs of the University of Lahore (HOD) of receiving department will approve the application and will forward it to student affairs department which can transfer the student in accordance with the conditions prescribed for trade exemption.

• If the Committee is not satisfied with the academic attainment of course(s) completed at another institution, the university may offer a challenge test in the course(s).

• Maximization of course exemption is at per department recommendation/university rules.

• Exemptions for admission/transfer will be charged as per university rules at the time of transfer/ exemption, which is currently full time fee of the course per exempted course.

• The Heed 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.
## Degree Transfer Scenarios

Following can be the Degree transfer scenarios that have been dealt with hereunder.

### SEMESTER 1

<table>
<thead>
<tr>
<th>TRANSFER DEPARTMENT</th>
<th>TRANSFER DEPARTMENT</th>
<th>TRANSFER DEGREE</th>
<th>TRANSFER DEGREE</th>
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<tr>
<td>Inter Department Transfer</td>
<td>A</td>
<td>A</td>
<td>Program A</td>
</tr>
<tr>
<td>Other Department Transfer</td>
<td>A</td>
<td>B</td>
<td>Program A</td>
</tr>
<tr>
<td>From Other Campus – Same Program</td>
<td>N/A</td>
<td>N/A</td>
<td>Program A</td>
</tr>
<tr>
<td>From Other Campus – Other Program</td>
<td>N/A</td>
<td>N/A</td>
<td>Program A</td>
</tr>
<tr>
<td>From Other University-Same Program</td>
<td>N/A</td>
<td>N/A</td>
<td>Program A</td>
</tr>
<tr>
<td>From Other University-Different Program</td>
<td>N/A</td>
<td>N/A</td>
<td>Program A</td>
</tr>
</tbody>
</table>

### 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.

- **Eligibility**
  - 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.

The registrar office will issue a unique registration number to a student who submits registration fee for first time regardless of the grade.

The registraris 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 a student wants to transfer to another department/campus, relevant fee will be credited to the transferee campus by finance section.

If a student wants to change degree program in 1st semester then fee payable and in effect at that time will be charged as degree transfer fee. He/she will forward application to HOD and approval from both departmental Heads is required. Previous registration number will be cancelled and new registration number will be issued new registration number on same applicant number. In case of difference in fee, difference fee shall be charged/adjusted by accounts department.

### Course Acceptance Criteria

- Course contents and credit hours conforming to the relevant course for the program i.e. a course can be accepted 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 i.e. a course can be accepted against the course of equal or higher credit hours.
- The courses of equal or higher credit hours and the same subject shall be accepted.

### Managing Registration Number

- The registrar office will issue unique program number to a student who submits fee transfer in effect at that time will be charged as degree transfer fee.
- The student must pay the tuition fee at the transferor campus where he/she will be transferred or at the accepting campus by finance section.

### Managing Finances

- Every student will have a separate account which 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 will be updated accordingly.

- 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 payable and in effect at that time will be charged as degree transfer fee. He/she will forward application to HOD and approval from both departmental Heads is required. Previous registration number will be cancelled and new registration number will be issued new registration number on same applicant number. In case of difference in fee package, difference fee shall be adjusted.

### New Admission Transfer - 1st Semester

- The student will be charged for applicable transfer fee.

- Student is registered in same degree program by mistake then HOD will verify and confirm the mistake and registrar will issue new registration number.

### New Admission Cancellation-Fail to Meet Eligibility Criteria

- Students should provide complete documents/ equivalence before M.D. Term exams to secure admission. In case admission is cancelled student will have to pay registration fee.

- A student can not apply for fee transfer to next semester in case of illegibility. However applying for refund in case of illegibility 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.
EXAMINATION RULES AND POLICIES

• In addition to mid-term test(s) and final examination, the Department may require students to take quizzes, projects, assignments, seminars, term papers and presentations in accordance with course requirements.

• Final examination will cover entire course content.

• 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 requested by the Department.

• The Department, on completion of final examination shall send 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 Mark Sheet to CE Office within three weeks of the final examination.

• If a student who wishes to have his/her Semester result reviewed are to be dealt with by the HOD according to the policy of the University.

• Any student scoring a semester GPA less than 1.0 in a semester will repeat those courses in which he/she earned less than 1.0 grade for the total semester of a degree. Each student shall also be required to complete laid down duration, pass number of courses as well as prescribed by respective Department.

• All answers books of the Students will be destroyed after 120 days (one hundred and twenty days) after declaration of the Results.

• The degree of successful students not present in the class in the university, the period already commenced shall be excluded from the aforesaid period.

• 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.

• All successful students shall be issued to them on the prescribed form. Each successful Student at the completion of his program will receive the degree of that Program.

• 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 course program showing the grades he has obtained and the CGPA only. He will not be eligible to receive the degree of that Program.

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• If the courses) 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.

• If the student is not enrolled and applies for semester freeze within two weeks of commencement of semester then no fee will be charged.

• 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/-

• 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.

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LIBRARY RULES AND POLICIES

RAIWNID ROAD CAMPUS
Central Library
Monday to Friday
08:00 AM - 09:00 PM
Saturday and Sunday
09:00 AM - 05:00 PM

DEFENCE ROAD CAMPUS
LBS. and Medical Library
Monday to Friday
08:00 AM - 08:00 PM

CENTRAL LIBRARY
Raiwind Road Campus
Monday to Friday
08:00 AM - 03:30 PM

LIBRARY RULES AND POLICIES

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.
Students are advised to keep their university cards with them while using the library.
Students members are advised to keep their university cards with them while using the library.

LIBRARY MEMBERSHIP
To enjoy the facilities offered by the "Central Library", the faculty staff & students should submit Membership/Registration Form (study level) to the 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
6 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. Period may be renewed for further 14 days if another user has not reserved the desired book.
ii. Reference Material and CDs may only be issued for one day per special necessity.
iii. Annual Reports, Projects, Thesis, Pamphlets, Periodicals and Newspapers cannot be checked-out, and can only be consulted within the library.

FINES
Violation of the library lending rules may result in following fines:

1. 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.

2. 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 replacement cost thereof.

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4. In case of library material is a matter of disciplinary action. Books accidentally damaged should be reported so that suitable assessment can be made & damages paid.

DISABLING FINE
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.

Any fine is payable by the student.

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. Period may be renewed for further 14 days if another user has not reserved the desired book.
ii. Reference Material and CDs may only be issued for one day per special necessity.
iii. Annual Reports, Projects, Thesis, Pamphlets, Periodicals and Newspapers cannot be checked-out, and can only be consulted within the library.

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STUDENTS CONDUCT AND DISCIPLINE RULES

Students are expected to demonstrate ethical and moral values within the University. For this purpose, students will be required to observe discipline 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 forms, the students are required to sign an affidavit that they will maintain discipline as required under these rules. The student is a part of the application form. In case of breach of discipline or any unjustified absence in the university, the student's attendance will be rectified in accordance with the norms of justice and keeping in view the evidence available thereof.

Every student must:

1. Be a faithful in his/her religious duties and respect the convictions of others in matters of religious or sectarian activity/group.
2. Respect the teachers and others in the University community and to deter those who interfere with its operations.
3. Be faithful and honest in his/her dealing with the University to whom the powers may have been delegated.
4. “Rector” means the Rector of the University.
5. “Chairman” means the Chairman of the Board of Governors of the University.
6. “Appellate Authority” means the University Discipline Committee, Rector, UOL, and Chairman Board of Governors and other teachers/officials of the University to whom the powers may have been delegated.
7. “Member” means the members of the University Discipline Committee appointed by the Board of Governors.
8. “HoD/Dean/Chairman CoG” means the head of the Department, HoD/Dean or Chairman CoG.
9. “Member” means the members of the University Discipline Committee appointed by the Rector and/or Chairman CoG.
10. “Student” means the students of the University.

2.0 INTRODUCTION

The University believes that 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.

2.1 STUDENT DISCIPLINE

The Discipline Rules have been formulated under the University Ordinance No. 2002. The purpose of these rules is to streamline the functioning of the students. These rules are a revision of 2006 of Lahore University Discipline Rules and the amendments made with effect from February 18, 2009, approved by the Rector and Chairman BoG.

Every Student

1. Shall be faithful in his/her religious duties and respect the convictions of others in matters of religious or sectarian activity/group.
2. Shall be faithful and honest in his/her dealing with all people.
3. Shall be loyal to his/her country and refrain from doing anything which might damage his/her honor and prestige.
4. Shall be law abiding and be polite to all.
5. Shall respect the teachers and others in the University in the manner prescribed.
6. Shall keep himself/herself clean in body and mind standing for clean speech and clean conduct.
7. Shall help his/her fellow being especially those in distress.
8. Shall drive the car noisily, or play the alarm signal in the University, during the period of suspension.
9. Shall drive the car noisily, or play the alarm signal in the University, during the period of suspension.
10. Collect any money or receive donation or pecuniary assistance from or on behalf of the Rector, except with the permission of the Rector.
11. Collect any money or receive donation or pecuniary assistance from or on behalf of the Rector, except with the permission of the Rector.
12. Participating in any unauthorized assembly and function.
13. Keeping fire arms or other weapons, even if licensed.
14. Involving in fighting or using of abusive language.
15. Damaging or breaking University property or others in the Premises of the University.
16. Performing any act contrary to the University Ordinance or any other University policy.
17. All students are required to wear modest and among the students.
18. Tight fitted clothes should be avoided. Loose and unwearing clothes are not allowed.
19. Male students wear shirts with trousers, Shalwar Qamis or Kurta, suits and dress shoes with socks.
20. Female Students must also be decently dressed. Following dress code to be strictly followed by them.
21. shall no longer have the right to enter the University premises and may be handed over to the civil authorities if found trespassing.
22. Students are expected to demonstrate ethical and moral values within the University.
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4. The faculty or officer may 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;

5. To prevent damage or to destruction of the property;

6. For the performance of the officer’s or employees duties in relation to the custody, maintenance or use of the property.

7. Refusal or failure to provide identification when requested to do so by an officer or faculty or employees of the university in the course of official duties, provided that when making such a request the officer or employee concerned produces identification to the student;

8. Interferes with the orderly conduct of a teaching group or ceremony of the university or a meeting of the board of directors, committees, subcommittee or anybody constituted by or under the university’s charter, policies, regulations or appointed by anybody so constituted;

9. In an examination, is in possession of material contrary to the instructions for the examination;

10. Copies or attempts to copy computer software without the permission of the

THE UNIVERSITY OF LAHORE

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 for him up to a maximum 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 TO 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 of by the Rector subject to the approval of the Board of Governors.

6.2 The Board of Governors after due consideration may take such decision as may be considered appropriate according to the merit of case.

7.0 STUDENT DISCIPLINE ON THE CAMPUS

7.1 The University of Lahore primarily aims to promote, project and maintain an academic environment that is conducive to equitable transmission of knowledge and learning, pursuit of truth, intellectual growth and development of its students as scholars and citizens.

7.2 In order to achieve these aims and goals the University strives to create the educational community by establishing Students Disciplinary Rules and Regulations and Student Code of Conduct for promotion of individual and social responsibility.

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 regulations follow recognized judicial and legal principles and procedures.

7.4 Reasonable opportunity is available to accused student to defend himself, call witness and present material evidence in his support before a Fair Means Committee, Students Discipline Committee, if he/she is found guilty.

7.5 The student shall have the right of appeal to the student and his parents, Dean, Head of Department and by reporting major offenses to the Discipline Committee.

8.0 PROCTOR SYSTEM

8.1 Proctor System has also been established whereby faculty members are appointed as proctors from each department. They take immediate administrative action against those who violate the student conduct rules and by reporting major offenses to the Discipline Committee.

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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 hold the position under the co-operation of the Rector.

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.

• The Proctor Chief may suspend the accused student for fifteen days from attending classes and utilizing other facilities provided to him by the University.

• 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 detailed allegation and asking the student to appear before the Standing Proctor Committee and to defend his case on a specified date and time and place.

• The student should be given reasonable opportunity to defend his case. However, the student will not be allowed to represent his case by a lawyer or any other person at the proceeding of the Standing Committee.

• The student may, if considered necessary request the committee to allow the complainant against the student and witnesses of the case to be present in the meeting at the time of hearing the enquiry.

• The Chief Proctor should give responsibility to record minutes of the proceeding of the meeting to any member of the committee, who shall record the statement of the concerned student and witness if any, about incidence in writing and get the signatures of student and witnesses.

• The Standing Proctor Committee after due consideration of the whole matter should recommend to the Chief Proctor the appropriate penalty that shall be notified by the Registrar after the complaint of the student to the student and his parents, Dean, HOD’s, etc.
9.0 RIGHT TO APPEAL
9.1 The student has the right to appeal in writing to the Appellate Committee against the decision of the Standing Committee. The Appellate Committee after due consideration may decide to concur or enhance or reduce the punishment.

10.0 COGNIZABLE
10.1 Infringement of the Constitution of Code of Conduct and are subject to disciplinary sanction by the University of Lahore.

11.0 PUNISHMENT FOR INFRACTIONS
11.1 The Chief proctor, Standing Proctor Committee and Proctors can impose following punishment on student committing violation given above.

RULES AND REGULATIONS
11.1 The Chief proctor, Standing Proctor Committee and Proctors besides performing the above functions, duties and responsibilities shall also be required to undertake the following.

- Take regular rounds of campus in groups for maintaining peaceful atmosphere.
- May wear prescribed dress green and proctor badge.
- Proper reporting mechanism is in place and management is informed of progress/results of all hostelers on daily basis.

- They will not be required to appear before the Committees as witnesses.

Note: There will be a Chief Proctor along with Proctors at each campus.

UNIVERSITY GIRLS HOSTEL OBJECTIVES
- Ensuring that hostels are operated and managed by the University on professional grounds.

RULES AND REGULATIONS
1. Only enrolled students studying at UOL and faculty members will be eligible to apply for hostel rooms.

2. Upon admission in the university and on willingness to take a hostel room, student will fill up the requisite application form for room reservation.

3. De-allocation application should be submitted one month prior notification to the hostel.

4. Room rent will be charged to the occupant regardless to the date of entry or the student is interested in getting admission in the last date of the month she has to pay the dues for the entire month.

5. All the occupants of hostel rooms will be bound to follow the code of conduct and hostel rules and regulations in place from time to time.

6. Material breach thereof will render the boarder liable for disciplinary action.

7. All senior students, foreigners and faculty members will avail the bi-seater facility and junior members will avail the tri-seater facility.

8. Use of excessive force or Assault towards Ragging

9. Injury to body, causing hurt or grievous hurt

10. Use of excessive force or Assault towards Ragging

11. Unlawful Assembly and rioting while ragging

12. Disruption of Rights

13. Harassment

14. Indecent Exposure, Violation of prescribed dress code, wearing torn, jeans

15. Misuse of Alcoholic Beverages, Drug and Tobacco

16. Theft or Damage of Property or Services

17. Endangerment

18. Violation of decency and morals while ragging

19. Unlawful Assembly and rioting while ragging

20. Student admit card to be issued on allocation of residence in said hostel.

21. Student seeking air conditioning facility will be charged a fixed rate of electricity with the unit consumed as notified by the finance office on monthly basis.

22. Hostel management will follow a reactive strategy in the event of non-payment of the dues by the boarder.

23. Non payment of dues by 25th of the month will render the boarder ineligible to enter the hostel premises and the standing of the boarder will change to suspender.

24. Further the student notified at the time of admission will be informed of nonpayment of the dues by the boarder.

25. Change of status from suspender to normal will be made on payment of default subcharge in addition to the fine that will be applied and levelled for the management as deemed appropriate and student will not be allowed to take their disciplinary action.

26. All hostel occupant will be liable to pay damages caused by them to the property of University hostel.

27. Any violation of rules and regulations will result in strict disciplinary action.

28. Students are to sign in and sign out daily their entry, exit or any other movement from the hostels, failure to do so, will result in fine for classes.

STUDENT'S ENTRY AND EXIT PASSES
- To ensure safety and security of the students, UOS has designed an entry and exit pass which has three copies, a copy which remains in the warden’s office, a copy which the students leaves at the security office and a copy which a student holds in his/her security office.

- The pass contains a student's name, registration number, hostel name, the student’s contact number and CNIC number.

- Out pass slips are issued to students who may find it difficult to report at the standard time (7:00AM). The out pass can only be issued with the consent of the parents. If the student fails to return by the time indicated on the out pass slip, she and the family are immediately contacted to locate the student. The student is charged a fine of Rs. 4000.

ACCOMMODATION RULES AND POLICIES

STUDENTS' ENTRY AND EXIT PASSES
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THE UNIVERSITY OF LAHORE
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TRANSPORT RULES AND POLICIES

Semesters are as under
Fall (September - January)
Spring (February - August)
Summer (July - August)

1. For new allocation student will submit duly signed transport application form, transport charging will start from month of allocation.

2. For renewal cases user will submit duly signed application form for the new term. Charging will be for whole term.

3. Transport application form will be signed and voucher will be issued from system. User will deposit transport dues in bank.

4. Any user who once joins transport cannot leave transport facility during semester.

5. De-allocation will be allowed in following cases:
   • Degree is completed during term
   • Shifting to UOL hostels

6. Transport dues will be recovered for the whole semester. However monthly installments can also be allowed.

7. If a user shifts from one route to another, route will be changed in transport management system on request and charges would be charged accordingly and if user shifts near to university or transport service is not available in his/her part then de-allocation will be allowed if approved by director development and planning.

8. One way use of transport will not be allowed.

9. A user can apply for de-allocation within fifteen days from the date of allocation if not paid.

10. Transport monthly dues will be payable before 10th of every month. A fine of Rs.20 will be charged per day from 10th onwards.

11. In case of renewal during the semester student will pay transportation charges only of preceding months and no fine will be charged on it.

12. If a student is found using university transport without renewal of allocation, his/her allocation will be forcibly done by the transport department on approval by the head of department. In this case fine for the preceding months will also be charged along with transportation charges.

13. At the end of each term fine will be locked.

14. In case of vacations by department on the basis of official notification student is not going to pay fine for the vacations but the vacation period is not more than one month and only once in calendar year.

15. Students are not going to pay transport charges if the vacation time is not less than 25 days. If the vacations start prior to 10th of any particular month, waiver could be provided in that particular month and if the vacations start after 10th of any particular month, waiver would be adjusted in next month accordingly.

16. In case of long leave of staff, transport charges and fine will not be charged if one of the following criteria:
   • Leave period is 30 days (1 month) or more than 30 days notified by registrar.
   • Waiver of actual charges is only given for multiple of 30 days.

17. In case of freezing semester transport charges will be waived off from the day semester isfreeze . System should block account with remarks and reverse entry should be made.

18. A term based generated list of receivables/ defaulters will be provided to accounts department including transport.

19. At the end of every semester clearance will be given by accounts department including transport.

20. It is must for every student to carry transport card while travelling and cards will be printed through system. It is responsibility of transport department to check students transport cards.

21. In case of card lost, transport card will be re-issued only once on request and an amount of Rs 1000 will be charged.

22. If a student will be found misusing his/her transport card i.e. using old or re-prepared card for another person, charges for the full term with fine will be collected.

23. Transport charges will be charged same from students/ faculty and staff members. Concession in transport dues of fine waiver will be granted by written approval of chairman BOG/ director finance/ pro-rector academics.

24. Transport dues are variable due to fluctuation of fuel rates in the market and this will be charged by the order of higher management authority and also will be notified at start of each semester.

25. There is no refund policy for dues paid. Transport dues once paid, deposited will not be refunded.

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