

Faculty of

# Science & Technology



#### INTRODUCTION

Faculty of Science & Technology (FOST) is home to some of the most creative and inventive scientists and leaders. With more than 54 PhD scholars in its academia, FOST ensures excellence in teaching, research, high-quality education and training for our students so that they can excel and be experts in their respective fields in the regional and global arena. Having published more than 200 research publications each year in HEC-accredited high impact factor journals and presenting papers at international and national conferences, FOST has established international collaborations with globally renowned universities & institutions. These ties specifically encourage our PhD scholars to collaborate on research; as well as ensures that prominent professionals come to UCP to share their knowledge & experience with our students. Here at Faculty of Science & Technology, inter-disciplinary research is strongly encouraged within mathematical, physical, and life sciences. The objective of FOST is to provide a multidisciplinary approach to modern day challenges with the deep understanding of the underlying scientific and technical. FOST offers a wide range of physical, biological and food science programs in a unique and demanding coursework. Its 7 departments span the full spectrum of mathematical, physical and life sciences, and undertake both fundamental research in our well-equipped laboratories and cutting-edge applied work.



#### BS Biochemistry

This 4-year programme revolves around the structure, properties and interactions of molecules and the knowledge of biochemical processes that can affect human health, genetics and bacteria.

#### BS Biotechnology

This degree programme equips the students with the practical knowledge and conceptual understanding of cutting-edge research ideas in biology, including cell biology, microbiology, biochemistry, molecular biology, and genetics.



#### BS Microbiology

This programme covers the vast aspects of microbial life to provide quality education to our nation's youth to explore new horizons in Microbiology through training and educating the workforce.

#### BS Food Science & Technology

This programme provides ample opportunities to work as a food technologist, food engineer, food chemist, food analysts, production managers, quality control managers, quality assurance officers, product application officers and food researchers.

#### BS Medical Laboratory Technology

The programme offers a dynamic research environment to produce qualified researchers, innovators, trainers and leaders of biotechnology with complementary skills in business and entrepreneurship. Our PhD scholars are trained in a unique environment to interact and integrate skills arising from basic and

advanced knowledge in biological, cellular and molecular processes and industrial and applied biomedical aspects.

**Eligibility Criteria:** For all BS programmes, a candidate must have at least 45% marks in F.Sc. Pre-Medical/A levels with (Biology, Physics & Chemistry) or equivalent. All applicants are required to pass the UCP admission test.

#### **BS** Mathematics

BS Mathematics programme envisages uplifting the standards of higher education in Mathematics in Pakistan. The courses included in this programme are a fine blend of core, pure and applied mathematics. The programme enables students to use variables, products and quantities to do mathematical analysis. Students who have done ADS/B.Sc. have the opportunity to join the BS programme. The central theme of this programme is to train students in various fields of Mathematics for better understanding of the subject leading to successful lifelong careers.

**Eligibility Criteria:** At least 45% marks in F.Sc. Pre-Engineering/ICS/A levels or equivalent with Mathematics. All applicants are required to pass the UCP admission test.

#### BS Mathematics-Post ADS

**Eligibility Criteria:** At least 45% marks or 2.00/4.00 CGPA in ADS Mathematics or equivalent. All applicants are required to pass the UCP admission test.

#### **BS** Physics

With a Bachelor's of Science degree in Physics, students can pursue their careers in multiple fields of research and development, manufacturing and engineering. Students who have done ADS/B.Sc. have the opportunity to join the BS Physics programme as a major and have a thorough understanding of advanced level Physics courses in challenging fields of optics, thermodynamics, quantum mechanics and solid-state physics.

**Eligibility Criteria:** At least 45% marks in F.Sc. Pre-Engineering/ICS/A levels or equivalent with Mathematics & Physics. All applicants are required to pass the UCP admission test.

#### BS Physics-Post ADS

**Eligibility Criteria:** At least 45% marks or 2.00/4.00 CGPA in ADS Physics or equivalent. All applicants are required to pass the UCP admission test

#### BS Zoology

BS Zoology is a growing discipline with substantial relevance for modern society. The study of Zoology is increasingly recognised as vital for understanding and protecting our planet. It contributes to the development of strategies to reduce and discover new biological-based solutions to animal diseases. Students who have done ADS/B.Sc. have the opportunity to join this programme as a major. Students will be able to study the evolution, behaviour, interactions, conservation and distribution of animals. Zoologists have a strong demand between fishing and aquatic farms and research companies.

**Eligibility Criteria:** At least 45% marks in F.Sc. Pre-Medical or equivalent with Biology. All applicants are required to pass the UCP admission test.

#### BS Zoology-Post ADS

**Eligibility Criteria:** At least 45% marks or 2.00/4.00 CGPA in ADS Zoology or equivalent. All applicants are required to pass the UCP admission test.

#### **BS** Chemistry

BS Chemistry programme prepares students for careers as professional chemists and serves as a foundation for careers in other fields such as biology and medicine. The curriculum offers a thorough fundamental knowledge of the significant fields of Chemistry, covering the general areas of inorganic, organic,

physical chemistry and bounteous specialised areas. Students who have done ADS/ B.Sc. have the opportunity to join this programme. Professionals in this field can work in multiple areas due to the overlap between chemistry and other sciences.

**Eligibility Criteria:** At least 45% marks in F.Sc. Pre-Medical/Pre-Engineering/A Levels or equivalent with Chemistry. All applicants are required to pass the UCP admission test.

#### BS Chemistry-Post ADS

**Eligibility Criteria:** At least 45% marks or 2.00/4.00 CGPA in ADS Chemistry or equivalent. All applicants are required to pass the UCP admission test.

#### MS Biochemistry

MS programme in Biochemistry opens the opportunities for the highly skilled and trained students in academia and industry to apply the learnt skills and prove themselves as productive beings.

#### MS Biotechnology

MS Biotechnology aims to facilitate students to be a part of the biotechnology industry by providing training in many biotech disciplines and preparing high-quality researchers who will become the intellectual leaders in the technology-driven scientific industry and academia.

#### MS Microbiology

The MS Microbiology programme aims to attain the highest level of glory and excellence in microbiology through quality teaching and research. The programme aims to produce competent and skilled professionals in microbiology to fulfil the future needs of educational institutes, industry and research organizations

#### MS Food Technology

The MS Food Technology programme aims to provide students with advanced knowledge, skills and competencies through quality teaching and research. This program allows them to operate in the public and private agri-food sector in leading positions with autonomous decisional abilities.

**Eligibility Criteria:** To apply for MS Biochemistry, Biotechnology, Microbiology & Food Technology, a candidate must have at least 2.00/4.00 CGPA or 50% marks from an annual system in a relevant field. All applicants are required to pass the UCP admission test and interview.

#### PhD Biochemistry

This programme focuses on preparing the graduates for researchoriented careers in government, academia and industry. It gives extensive exposure to industry-oriented research.

#### PhD Microbiology

The programme offers a dynamic research environment to excel our students in Microbiology through highly qualified HEC approved supervisors. Our PhD scholars are trained in a unique environment to acquire advanced/ applied training in the scientific study of microbes and their impact on society.

#### PhD Biotechnology

The program offers a dynamic research environment to produce qualified researchers, innovators, trainers and leaders of biotechnology with complementary skills in the area of business and entrepreneurship. Our PhD scholars are trained in a unique environment to interact and integrate skills arising from basic and advanced knowledge in biological, cellular and molecular processes and from industrial and applied biomedical aspects.

**Eligibility Criteria:** To apply for PhD Biochemistry, Microbiology or PhD Biotechnology, a candidate must have at least 3.00/4.00 CGPA in MS/M.Phil in a relevant field. All applicants are required to pass the UCP admission test and interview.

### Fee Structure of Faculty of Sciences & Technology

Programme	Total Credit Hours	Admission Fee (PKR)	Per Credit Hour Fee (PKR)	Total Fee (PKR)
BS Biotechnology	137	25,000	7,000	984,000
MS Biotechnology	30	25,000	16,000	505,000
PhD Biotechnology	48	25,000	8,000	409,000
BS Biochemistry	135	25,000	6,000	835,000
MS Biochemistry	30	25,000	16,000	505,000
PhD Biochemistry	48	25,000	8,000	409,000
BS Microbiology	133	25,000	6,000	823,000
MS Microbiology	30	25,000	16,000	505,000
PhD Microbiology	48	25,000	8,000	409,000
BS Medical Lab Technology	127	25,000	7,000	914,000
BS Food Science & Technology	136	25,000	6,000	841,000
BS Chemistry	139	25,000	5,800	831,200
BS Chemistry-Post ADP	76	25,000	5,800	465,800
BS Physics	136	25,000	5,800	813,800
BS Physics-Post ADP	76	25,000	5,800	465,800
BS Mathematics	131	25,000	5,800	784,800
BS Mathematics-Post ADP	76	25,000	5,800	465,800
BS Zoology	138	25,000	5,800	825,400
BS Zoology-Post ADP	76	25,000	5,800	465,800

#### UCP Merit and Other Scholarships

The current scholarship policy and maintenance criteria is available on our official website <a href="https://www.ucp.edu.pk/ucp-scholarships/">https://www.ucp.edu.pk/ucp-scholarships/</a>. Currently, we have 9 different types of scholarship to offer to new and on-going students.

Sr. No	Scholarship Type	Programmes Applicable
1	Merit Scholarship	All undergraduate and graduate programmes
2	PGC Scholarship	All undergraduate programmes
3	UCP Alumni Scholarship	All graduate programmes (MS/M.Phil.)
4	Legacy Scholarship	All undergraduate and graduate programmes
5	Scholarship for differently-abled students	All undergraduate and graduate programmes
6	Need-based Scholarship  a) Financial Need Scholarship (At the time of admission)  b) Scholarship for Students with Deceased Parents/Guardian (Only for existing students)	Only for undergraduate programmes
7	Talent-Based Scholarship	All undergraduate and gradute programmes
8	Sports Scholarship	All undergraduate and gradute programmes
9	Faculty/Staff Development Scholarship	Only for MS/M.Phil. programmes

The details of available scholarships are as follows:

Merit Scholarship for Undergraduate Students					
Academic Marks (Intermediate)	Scholarship	Continuation CGPA			
75% Marks	100%	3.85 or higher			
70% Marks	75%	3.70 or higher			
65% Marks	50%	3.50 or higher			
60% Marks	25%	3.25 or higher			
N/A at the time of admission	12.5%	3.00 or higher			
Merit Scholarship for Graduate Students (MS/M.Phil. Programmes)					
CGPA (16 years education)	Scholarship	Continuation CGPA			
3.80 CGPA in 16 years degree	75%	3.90 or higher			
3.60 CGPA in 16 years degree	50%	From 3.75 to 3.89			
N/A at the time of admission	25%	From 3.50 to 3.74			

PGC Scholarship for Undergraduate Programmes				
Category	Available Scholarship	Continuation CGPA		
PGC Students (At the time of admission)	35%	3.25 or higher		
N/A at the time of admission	25%	3.15 or higher		
	15%	3.00 or higher		
UCP Alumni Scholarship for G	raduate Program	nmes (MS/M.Phil.)		
CGPA	Available Scholarship	Continuation CGPA		
3.50 CGPA (50% admission fee shall be charged)	50%	3.50 or higher		
3.00 CGPA (50% admission fee shall be charged)	25%	From 3.00 to 3.49		
N/A at the time of admission	12.5%	From 2.50 to 2.99		
Other Available Scholarships	for Undergraduc	ate Programmes		
Category	Scholarship	Continuation CGPA		
Need-based Scholarship(case evaluation by the committee)	25-100%	3.00 or higher		
Scholarship for students with Deceased Parent/Guardian (Applicable only for current students)	50%	3.00 or higher		
Talent-based Scholarship Case evaluation by the committee)	25-100%	2.00 or higher		
Sports Scholarship (Case evaluation by the committee)	Full or Partial	2.00 or higher		
Legacy Scholarship (For siblings of UCP existing students or children of UCP graduates)	25%	3.00 or higher		
Scholarship for Differently-abled Students (official disability certificate by the Govt. of Pakistan & committee assessment)	25-100%	2.50 or higher		
Other Available Scholarsh	ips for Graduate	Programmes		
Category	Scholarship	Continuation CGPA		
Talent-based Scholarship Case evaluation by the committee)	25-100%	2.50 or higher		
Sports Scholarship (Case evaluation by the committee)	Full or Partial	2.00 or higher		
Legacy Scholarship (For siblings of UCP existing students or children of UCP graduates)	25%	3.00 or higher		

Scholarship for Differently-abled Students (official disability certificate by the Govt. of Pakistan & committee assessment)	25-75%	2.50 or higher
Faculty/Staff Development Scholarship (only for MS/M.Phil. students)-4 years satisfactory service	50%	3.00 or higher
Faculty & staff members (only for MS/M. Phil students)-3 years satisfactory service	25%	3.00 or higher

#### Note:

- PGC scholarship, need-based scholarship, talent-based scholarship, sports scholarship, scholarship for differently-abled students are for the first 2 semesters and will be revaluated on the above mentioned continuation CGPA upon their performance post the second semester
- The details of all the above mentioned scholarships is available on the university website <a href="https://www.ucp.edu.pk/ucp-scholarships/">https://www.ucp.edu.pk/ucp-scholarships/</a>.
- Students who are not eligible for scholarships at the time of admission can apply for scholarships based on their CGPA after the completion of the first semester
- The recipients of all scholarships shall adhere to all university rules, policies and procedures with no exception as outlined in the student handbook. The university withholds the right to revoke any of the scholarships in case of breach of any disciplinary rules and regulations.



## STUDENT RESOURCE CENTRES



- Guidance and support from career professionals
- Career Labs prepares UCP students for the job market by helping them internalise professional and business skills
- · Access to internships, jobs, scholarships, and exchange programmes



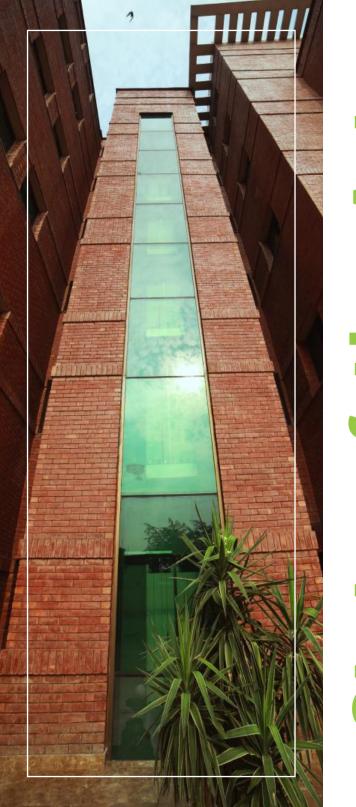
- A blended learning approach to help students read and analyse complex texts and convey comprehensive ideas
- Provides support with the knowledge of grammar and vocabulary
- Aims to enhance students' critical thinking skills to enable them to cope with the course material in English across disciplines



- DSA manages student societies and clubs in the domains of performing arts, public speaking, science and community service
- Engages and provides the student with various co-curricular activities and opportunities



 Facilitates students in course registrations, add/drop of courses and virtual learning



# State-of-the-Art Facilities





Over 67,000 resources available



Designated hall for virtual meetings and conferences



Centre for all activities and events



A 25 yard, 4 lane, temperature controlled swimming pool



Male & female gym with top-of-the-line-training equipment



Variety of food options with comfortable ambiance



Bringing scripts and ideas to life



Training ground for our young performers



A shared lounge for students



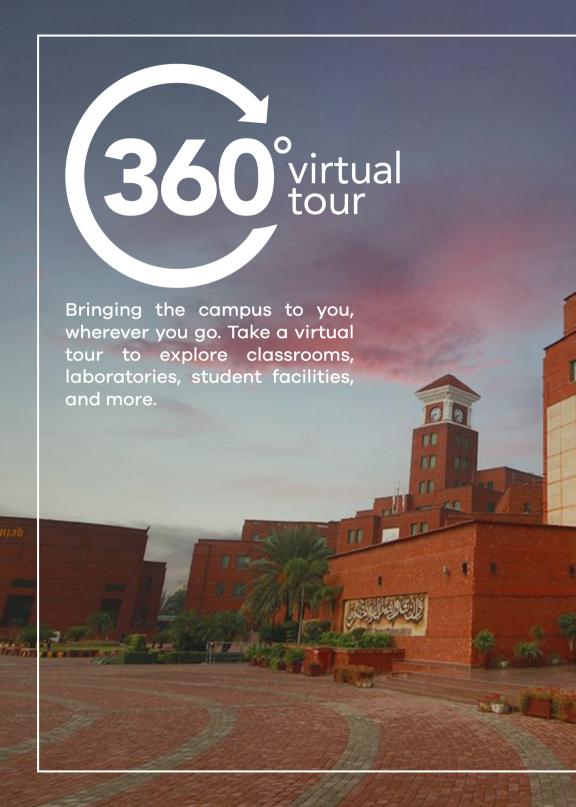
In-house business incubator



For meetings and brainstorming sessions



Safe means of transport at nominal rates







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#### **For More Details:**

(042) 111-000-827 admissions@ucp.edu.pk

1 - Khayaban-e-Jinnah Road, Johar Town, Lahore

www.ucp.edu.pk