

Institute of Energy & Environmental Engineering

University of the Punjab



Prospectus
2021 – 2022

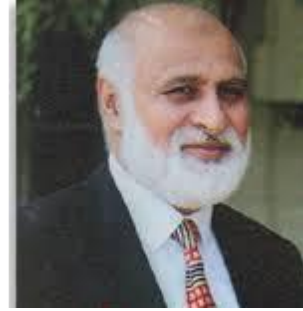
بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

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Message from Worthy Vice-Chancellor

Being the largest and the oldest varsity in Pakistan, University of the Punjab was established in historically and culturally alive city of Lahore in 1882 and since then it has provided conducive environment to the students for achieving academic excellence. University happens to be the first choice for seeking admission because of quality degrees, manageable tuition fees and amiable environment. University is committed to generate new knowledge at technological forefronts and produce adequately skilled manpower in cutting edge technologies required by indigenous industries. Institute of Energy & Environmental Engineering (Former Centre for Coal Technology) has already acquired excellence in terms of providing manpower and technical expertise to local coal-based industries, which can be evidenced from the fact that 89% of graduates are serving in indigenous industry as well as abroad including power generation, cement production and chemical industries.



Institute of Energy & Environmental Engineering has been upgraded from the Centre for Coal Technology through the Planning Commission grant of Rs. 976.53 Million. This Institute is on its way to become the leading academic Institution of Pakistan in the field of Energy & Environmental Engineering, as the proposed courses and majority of the approved equipment do not exist anywhere in Pakistan. A number of programs will be offered in disciplines of energy engineering, petroleum and gas processing engineering, environmental engineering, energy economics and policy, environmental law, energy auditing and conservation. It will not only provide professional engineers and technologists to the country in these areas but also provide policy guidelines to the Government in Energy, Economic, Strategy, Energy Security and Climate Change. Additionally, the institute will be able to payback its economic cost within 10-12 years and thousands of trained professionals, engineers, scientists, research innovation, savings through indigenous solutions, consultancy to the Government & Private Enterprises and pollution control are free of cost expected dividends of the project.

The Institute is being run under the Faculty of Engineering and Technology. The faculty comprises of Institute of Chemical Engineering & Technology, College of Engineering & Emerging Technologies, Institute of Quality and Technology Management and Department of Textile Engineering which offer various engineering courses at graduate and post-graduate levels.

The University is committed to provide best possible facilities in terms of faculty staff, laboratories, libraries and environment for R&D activities leading to higher degrees. I hope that the talented candidates will be joining the engineering degree courses with the strong commitment to keep up the tradition of this Institution and help maintain the flag of the University high in the sky.

**Prof. Dr. Niaz Ahmad Akhtar (S.I.)
VICE CHANCELLOR**

Message from the Director of the Institute

This Institute was established as Centre for Coal Technology with the funds worth of Rs. 13.408 million and Rs. 34.390 million in the years of 2004 & 2006 from HEC and further upgraded with HEC grant of Rs. 182.79 million in the year 2015. Later, this Centre was then transformed into Institute of Energy & Environmental Engineering in 2020, under PSDP project entitled as, "Strengthening and Upgradation of Academic and Research Programs at University of the Punjab" with the grant of Rs. 976.530 million. This Institute can be claimed as one of the leading Institutes of Energy Engineering in South East Asia offering state of the art analytical and pilot scale experimental facilities under one roof and having strongest vibrant faculty.



The Institute is providing technical feasibility expertise to the Government of Punjab for the establishment of more than 15 power projects at national level. In addition to evaluation of technical feasibility studies, the Institute is providing testing facilities to more than 200 local industries. The Institute is also providing free consultancy services to the private enterprises for, Gasification, Coal cleaning/Coal fired electricity generation/Domestic utilization of coal, Substitution of furnace oil/natural gas by coal in the industrial sector, Transfer of technology from the developed/developing countries to Pakistan, Spread of knowledge, experience and skill to the public within the country by integrating results on indigenous energy sources.

The Institute has planned to launch academic programs of BSc (Engg.) Energy Engineering, BSc (Engg.) Petroleum & Gas Processing Engineering, BSc (Engg.) Environmental Engineering, MSc Energy Economics & Policy, PhD Energy Engineering, Post Graduate Diploma in International Disputes Settlement, Certificate Courses in Energy Auditing & Conservation, International Certificate Courses in Industrial Environment Auditing, in addition to already running programs of M.Sc. Coal Technology, M.Phil. Coal Technology, MSc (Engg.) Energy and Environmental Engineering programs

With the successful launch of these programs, the Institute would then produce highly skilled and trained manpower in the disciplines of energy engineering, petroleum and gas processing engineering, environment engineering, energy economics and policy, environmental law, energy auditing and conservation. It will not only provide professional engineers and technologists to the country in these areas but also provide policy guidelines to the Government in Energy, Economics, Strategy, Energy Security and Climate Change.

Prof. Dr. Hamed Sattar
DIRECTOR

Highlights of Institute of Energy & Environmental Engineering



1. FACULTY

Professors

- 1. Dr. Hamed Sattar (CHEM-4669) (Director)**
B.Sc. (Engg.) Chemical Engineering,
M.Sc. (Engg.) Chemical Engineering,
Ph.D. (University of Leeds, UK), P.E
- 2. Dr. Mahmood Saleem (CHEM-2544) (Former Director)**
B.Sc. (Engg.) Chemical Engineering,
M.Sc. (Engg.) Chemical Engineering,
Ph.D. (Graz University of Technology, Graz, Austria), P.E.
- 3. Dr. Shahid Munir (CHEM-4667) (Former Director)**
B.Sc. (Engg.) Chemical Engineering
M.Sc. (Engg.) Chemical Engineering, MBA
Ph.D. (University of Leeds, UK), P.E.



Associate Professors

- 1. Dr. Syed Sheraz Daood (CHEM-4668)**
B.Sc. (Engg.) Chemical Engineering,
M.Sc. (Engg.) Chemical Engineering,
Ph.D. (University of Leeds, UK), P.E



Assistant Professors

- 1. Dr. Rizwan Haider**
M.Sc. Coal Technology
Ph.D. Biotechnology (QAU/NIBGE),
Post Doc (Wyoming, USA)
- 2. Dr. Hassan Zeb (CHEM-7001)**
B.Sc. (Engg.) Chemical Engineering
M.Sc. (Engg.) Chemical Engineering
PhD (Sungkyunkwan University, South Korea), R.E.
- 3. Dr. Sarfraz Akram (CHEM-7062)**
B.Sc. (Engg.) Chemical Engineering,
M.Sc. (Engg.) Chemical Engineering, MBA
Ph.D. (University of the Punjab, Lahore), R.E.



4. **Dr. Muhammad Zafar (CHEM-6612)**
B.Sc. (Engg.) Chemical Engineering
M.Sc. (Engg.) Chemical Engineering
Ph.D. (Chonnam National University, South Korea), R.E.



Lecturers

1. **Engr. Iqra Aziz (CHEM-18809)**
B.Sc. (Engg.) Chemical Engineering,
M.Phil. Coal Technology, R.E.
2. **Engr. Abuzar Ahsan (CHEM-11878)**
B.Sc. (Engg.) Chemical Engineering,
M.Sc. (Engg.) Chemical Engineering, R.E.



IPFP-Fellows

1. **Dr. Zaeem Bin Babar (CHEM-10230)**
B.Sc. (Engg.) Chemical Engineering,
M.Sc. (Engg.) Chemical Engineering,
Ph.D. (Kyungpook National University, South Korea), R.E.



Lab Engineers

1. **Engr. Muhammad Saif Ullah (ELECT-38090)**
B.Sc. (Engg.) Electrical Engineering,
M.Sc. (Engg.) Energy & Environmental Engineering, R.E.



Visiting Faculty

1. **Prof. Dr. Shafqat Nawaz**
B.Sc. (Chemical Engineering) PU
M.Sc. (Chemical Engineering) PU
Ph.D. (Fuel Engineering) Leeds, UK
2. **Dr. Naseeruddin Sheikh**
Former Member Technology, PCSIR Former Member Board of Directors &
Chairman Technical Committee on Saindak Copper-Gold Project.
B.Sc. Hons., M.Sc. (Chem.)PU
Ph.D. (Mineral Process Engg.) UBC Canada

3. **Dr. Khurram Shahzad**
B.Sc. (Chemical Engineering) PU
M.Sc. (Chemical Engineering) UET
Ph.D. (Chemical Engineering) PU
Post Doc. (McGill University, Canada)
4. **Miss Sumaira Kanwal**
B.Sc. PU, M.Sc. (Coal Technology) PU
M.Phil. (Environmental Science) PU
5. **Engr. Majid Ali Baig**
B.Sc. (Engg.) Electrical Engineering
M.Sc. (Electric Power and Energy Engineering)
6. **Engr. Kashif Habib**
B.Sc. (Engg.) Electrical Engineering
M.Sc. (Electrical Engineering) 2014
7. **Engr. Sohail Moghal**
Master of Business Administration, LUMS, Pakistan
8. **Dr. Muhammad Ali**
Ph.D. (National College of Business Administration & Economics (Lahore, Pakistan) / University of British Columbia (Canada) 2017
9. **Dr. Ayyaz Muhammad**
B.Sc. (Chemical Engineering) PU
Ph.D (Universiti Teknologi Petronas, Malaysia) 2009

2. APPROVED ACADEMIC PROGRAMS

Sr. No.	Degree Program	Duration
1	B.Sc. (Engg.) Energy Engineering (Regular and Self-Supporting)	4 yrs.
2	B.Sc. (Engg.) Environmental Engineering (Regular and Self-Supporting)	4 yrs

2.1 Washington Accord and Outcome Based Education (OBE) system

Pakistan Engineering Council (PEC) signed Washington Accord in 2017 which is an international agreement between bodies that are responsible for accrediting the Engineering Degree Programmes in their respective signatory countries. It is a globally recognized standard of engineering education and accreditation system. It grants

equivalence of degrees at an international level which aims to benefit engineers with mobility across borders. Institute of Chemical Engineering and Technology has implemented Outcome Based Education System as per requirements of Washington Accord. This opens gates for our graduates to be of the same value as in the developed countries. Under OBE system the students get opportunity to go through a world class learning experience focused on 12 engineering attributes which transforms a student into a professionally trained human resource with ethical values.

2.2 Vision of University

“University of the Punjab intends to be a leading public university in providing affordable educational opportunities to develop scientific, socio-cultural, economic and political leadership, through learner-centered teaching and research, while strengthening our identity at National and International level.”

2.3 Mission of the University

“Our mission is to provide a holistic education as such an approach has a two-fold benefits. The first is that young people are nurtured to be sensitive, tolerant, humane and capable of thinking in a creative and critical way. The second is, that armed with a sense of history and equipped with knowledge and expertise, the graduates whom we send out into the world are in a better position to develop their leadership potential and make a positive contribution to the public life. We hope that understanding as they do, their role in the wider community of human-kind and responsible to it, their action and attitudes will reflect their education.”

2.4 Vision of the Institute

To be a globally recognized energy engineering institute for providing quality education, innovation, invention, entrepreneurship leading to socio-economic and sustainable development of the country.

2.5 Mission of the Institute

Our mission is to accelerate the innovation in sustainable energy technology as well as increasing the efficiency of conventional energy production systems as it is believed that only the integration of both conventional and sustainable energy systems can produce cost-effective and environmentally friendly energy for the future. We also aim to produce

an educated and trained manpower capable of working as a workforce for successfully achieving the mission statement of the Institute.

2.6 Program Educational Objectives (PEOs)

The graduates from the Institute are expected to meet the following program educational objectives through our educational structure:

PEO-1: To impart sound engineering knowledge for developing efficient energy systems.

PEO-2: To develop skills for solving energy needs by integrating science and engineering principles adaptable to changing organizational and social needs.

PEO-3: To engage in individual projects and multi-disciplinary teams designing, evaluating, and recommending methods and strategies for the efficient production, processing and utilization of renewable or nonrenewable energy and addressing the associated environmental challenges.

3. B.SC. (ENGG.) ENERGY ENGINEERING

3.1 Admission Rules (Eligibility)

- An applicant must have appeared in the combined Entry Test conducted by the University of Engineering & Technology for the each academic session. (The test is mandatory for admission on open academic merit and carry 30% weightage for determining merit.)
- An applicant must be domiciled in Punjab.
- An applicant must have passed his F.Sc. or equivalent examination in last 3 years. The candidates placed in compartment in respective examination are not eligible.
- An applicant for admission to the B.Sc. (Engg.) First Semester on F.Sc. or equivalent examination must not be above Twenty Four (24) years of age at the time of admission.

3.1.1 For Admission on F.Sc. Basis

In addition to fulfilling the general eligibility conditions as given in 2.1(a), an applicant seeking admission to B.Sc. (Engg.) must have passed the F.Sc. (Pre-Engineering) Examination from any recognized Board of Intermediate & Secondary Education of Pakistan or any other examination considered equivalent thereto by the Punjab University. The candidate with A-level qualification must submit O-level and A-level equivalence certificates from the Inter Board Committee of Chairmen (IBCC), Islamabad.

An applicant must have obtained at least 60% marks (excluding Hafiz-e-Quran) either in Intermediate Examination or on the basis of Aggregated Marks Percentage calculated as given below:

$A = \left[\frac{(\text{Marks Obtained in F.Sc. or equivalent examination}) + (\text{Hafiz - e - Quran})^*}{1100} \right] \times 70$	
$T = \left[\frac{\text{Marks Obtained in Entry Test}}{400} \right] \times 30$	Aggregated Marks Percentage = A + T

* 20 marks for Hafiz-e-Quran, if applicable, will be added as shown above.

3.1.2 Procedure for Application

Application filled and generated online must be accompanied by the following:

1. Photocopies of the following documents:
 - (i) Matriculation certificate
 - (ii) F.Sc./Diploma or equivalent certificate (as the case may be)
 - (iii) Photocopy of the result of Pre-Admission Combined Entry Test conducted by UET, Lahore for the current session.
 - (iv) Character certificate
 - (v) Domicile certificate
 - (vi) Hafiz-e-Quran certificate (if any): The candidate should produce a certificate from a well established Institution to the effect that he/she is a Hafiz-e-Quran. Moreover, the Faculty shall interview the candidate and make sure that he/she had learnt the Holy Quran by heart and can recite it from whatever portion he/she is required to recite.

- (vii) Migration certificate (in case the applicant has passed F.Sc. examination from a Board/University other than Board of Intermediate and Secondary Education, Lahore; Punjab University.
 - (viii) Medical fitness certificate (on prescribed form) from registered Medical Practitioner to be submitted at the time of admission.
2. One 1.5” x 1.5” size latest photograph (to be affixed on the form).

3.1.3 Allocation of Seats for admission to the B.Sc. (Engg.) First Semester on open academic merit

Proposed Strength = 80 Students (2 sections)
One Batch per year in Fall Session

3.1.4 Allocation of Reserved Seats (Regular Program)

Sr. No.	*Reserved Seats	Number of Seats
**1.	Foreign students (whose names are recommended by the Ministry of Economic Affairs & Statistics (Economic Affairs Division), Govt. of Pakistan, according to the prescribed procedure)	1
***2.	Children/spouses/real brothers or sisters/nephews or nieces (in this order of priority) of the Punjab University Employees, serving or retired, with a service of not less than 5 years. The selection shall be made according to academic merit from amongst the eligible candidates against this category of seat. (2.5%)	1
***3.	Children/spouses/real brothers or sisters/nephews or nieces (in this order of priority) of the Punjab University Teachers, serving or retired (excluding teachers on deputation/part-time teachers) with a service of not less than 5 years. The selection shall be made according to academic merit from amongst the eligible candidates against this category of seat. (2.5%)	1
4.	Children/wards of martyrs/war disabled personnel of the Defense Forces (in the absence of this category, children/wards of serving or retired personnel of the Armed Forces) to be nominated by the G.H.Q Adjutant General Branch. (1%)	1
!5.	Disabled persons on humanitarian grounds (to be approved by the Vice-Chancellor after a case has been made out by the Chairman of the Department and is supported by Incharge Admission concerned & the Committee constituted for this purpose).	1
▲6.	Nominees of Azad Kashmir Government	1
▲7.	Nominees of Gilgit/Baltistan Government	--
	Nominees of FATA (Ministry of States & Frontier Regions)	--
▲8.	Nominees of the Balochistan Government	1
▲9.	Nominees of the Khyber Pakhtunkhwa (KPK) Government	1
■10.	Outstanding Sports Persons. (Selected on the recommendations of the special committee appointed by the Vice-Chancellor for the said purpose).	1
⊥11.	Overseas Pakistanis (Son & Daughter only). These students will pay fee applicable to the Foreign students (Self Financing Scheme). Note: (1) Overseas Pakistani Seats are not convertible in any category of reserved/merit seats. (2) The students selected on Overseas Pakistani Seats will pay 1000 US\$ per year in addition to the normal dues.	2
12.	Students having distinction in co- curricular activities to be selected by a committee to be appointed by the Vice Chancellor for this purpose. Activities to be decided by the admission committee.	1
Total		12

* The candidates must have qualified the relevant examination in current Spring Examination and examination (Annual/Supplementary) of the previous two years and fulfill age limit mentioned at 2.1(a).

** Application be addressed to the concerned Agency/Quarter where from it will be sent to the Faculty of Engineering & Technology (within due date). Vice-Chancellor may permit the admission of more eligible foreign applicants on the recommendations of Convener Admission and Chairman/Principal/Director Teaching Department/Constituent College/Institute.

*** Children of the University employees (teachers and others) must apply on a separate Application Form (in case they also desire to compete against academic merit seats) and submit a service certificate of their parents from the Registrar of the University of the Punjab.

! Eligibility shall be determined by the Disability Committee/Chief Medical Officer of the University of the Punjab.

▲ Application be addressed to the concerned Agency/Quarter where from it will be sent to the Convener Admission, Faculty of Engineering & Technology (within due date).

■ Candidates seeking admission against seats reserved for sports must apply on a separate Application Form (in case they also desire to compete on academic merit) and attach copies of the relevant certificates.

⊥ The following documents are required for Overseas Pakistanis:

(a) A certificate on Form (available on the website <http://pu.edu.pk/page/downloads>) regarding his parent's employment in a foreign country issued by the Pakistani embassy in that country.

(b) A photocopy of his/her parent's resident visa for that country attested by the Pakistani Embassy.

The selection shall be made according to academic merit from amongst the eligible candidates against this Category of seat.

3.2 Program Structure

#	Code	Course Title	Course Type	Prerequisite	Lecture Credit Hours	Lab Credit Hours	Total Credit Hours
Semester I							
1	EE 111	Energy Engineering Principles and Calculations I	Core	Nil	3	-	3
2	PH 112	Physics for Scientists and Engineers	Basic	Nil	2	1	3
3	MA 113	Linear Algebra and Applied Statistics	Basic	Nil	3	-	3
4	CY 114	Chemistry-I	Basic	Nil	2	1	3
5	CY 115	Energy & Environmental Chemistry	Core	Nil	2	1	3
6	HU116	English-I	Basic	Nil	2	-	2
7	HU117	Islamic Studies	Basic	Nil	1	-	1
Total Credit Hours =						18	
Semester II							
1	CY 121	Analytical techniques	Basic	Nil	2	1	3
2	MA 122	Calculus & Analytical Geometry	Basic	Nil	3	-	3
3	EE 123	Sources of Energy	Core	Nil	2	-	2
4	HU 124	Pakistan Studies	Basic	Nil	1	-	1
5	EE 125	Workshop Practice for Engineers	Core	Nil	-	1	1
6	CS 126	Fundamentals of computer science	Basic	Nil	2	1	3
7	CY 127	Chemistry-II	Basic	CY114	2	-	2
8	HU 128	Quran Studies-I	Basic	Nil	1	-	1
Total Credit Hours =						16	

#	Code	Course Title	Course Type	Prerequisite	Lecture Credit Hours	Lab Credit Hours	Total Credit Hours
Semester III							
1	EE 211	Heat and Mass Transfer	Core	Nil	2	1	3
2	EE 212	Energy Engineering Principles and Calculations II	Core	EE 111	3	-	3
3	MA 213	Differential Equations	Basic	MA122	3	-	3
4	HU 214	English-II	Basic	HU116	2	-	2
5	EE 215	Engineering Thermodynamics	Core	EE224	2	1	3
6	EE 216	Environmental Pollution Control	Core	Nil	3	-	3
Total Credit Hours =						17	
Semester IV							
1	MA 221	Engineering Numerical Analysis	Basic	MA123	2	1	3
2	EE 222	Combustion Reaction Engineering	Core	EE212	3	-	3
3	EE 223	Engineering Materials	Core	Nil	3	-	3
4	EE 224	Mechanics of Fluid and Particle Systems	Core	Nil	3	1	4
5	EE 225	Computer Aided Engineering Design	Core	EE323	2	1	3
6	HU 226	Quran Studies-II	Basic	Nil	1	-	1
Total Credit Hours =						17	

#	Code	Course Title	Course Type	Prerequisite	Lecture Credit Hours	Lab Credit Hours	Total Credit Hours
Semester V							
1	EE 311	Fuel Engineering	Core	EE222	3	0	3
2	EE 312	Computer Applications for Engineers	Basic	CS126	2	1	3
3	EE 313	Electric Power Systems	Core	PH112	3	1	4
4	EE 314	Clean Coal Technologies	Core	Nil	3	1	4
5	MS 315	Energy Conservation and Management	Core	Nil	2	-	2
Total Credit Hours =						16	
Semester VI							
1	EE 321	Thermal Power Generation Engineering	Core	EE311	3	1	4
2	EE 322	Health and Safety at Work Place	Basic	Nil	2	-	2
3	EE 323	Design and Management of Energy Systems	Core	EE223	3	-	3
4	EE 324	Instrumentation and Process Control	Core	Nil	3	1	4
5	EE 325	Hydro Electric Power Engineering	Core	Nil	3	1	4
6	HU 326	Quran Studies-III	Basic	Nil	1	-	1
Total Credit Hours =						18	

#	Code	Course Title	Course Type	Prerequisite	Lecture Credit Hours	Lab Credit Hours	Total Credit Hours
Semester VII							
1	EE 411	Gas Process Engineering	Core	Nil	2	1	3
2	EE 412	Wind Power Engineering	Core	EE323	2	1	3
3	EE 413	Solar Power Engineering	Core	EE323	3	1	4
4	EE 414	Elective-I	Elective	Nil	3	-	3
	EE 414-A	Energy and Material Integration					
	EE 414-B	Power Transmission					
5	EE 415	*Project	Core	Nil	-	3	3
6	MS 416	Project Management	Basic	Nil	2	-	2
Total Credit Hours =						18	
Semester VIII							
1	EE 421	Elective-II	Elective	Nil	3	-	3
		Energy Statistics & forecasting					
2	EE 422	Industrial Psychology and Sociology	Basic	Nil	3	-	3
3	MS 423	Production and Operation Management	Basic	Nil	3	-	3
4	EE 424	Project	Core	Nil	-	3	3
5	EE 425	Entrepreneurship for Engineers	Basic	Nil	2	-	2
6	HU 426	Quran Studies-IV	Basic	Nil	1	-	1
Total Credit Hours =						15	
Total Course Work Credit hours (Semester I to VIII) =						135	

4. GENERAL RULES AND REGULATIONS

4.1 For Undergraduate 4 years program

- i. There shall be two semesters in an academic year.
- ii. Each semester will be of 18 working weeks: Sixteen weeks for teaching, one to two weeks for the conduct of examinations.

4.1.1 Course descriptions

Course contents, if revised, will be approved by the Board of Studies of the concerned department/faculty Board and Academic Council. The teachers concerned will be responsible for determining the details of the course. The Director/Chairman shall call the meeting of the teachers of the department for the purpose.

4.1.2 Course credits

- i. A minimum 124 credits are required for the 4 Years degree program. The said credits shall normally be earned in eight semesters.
- ii. The minimum number of contact hours in a course will be 15 per semester for one credit hour course.
- iii. A course may range from one credit hour to four credit hours.
- iv. One credit hour stands for at least one hour class contact per week per semester. For practical/laboratory work 3 hours shall be considered equivalent to one credit hour.
- v. Six (06) credit hours Research Project (dissertation) / project report / internship / special paper will be offered in the third and fourth years.

4.1.3 Class attendance

- i. A student must have attended at least 75% of the classes held in a course in order to be allowed to sit in the final examination.
- ii. In case of absence as a result of late admission, medical grounds or change of course, the teacher will give extra (make-up) materials to the student to compensate the deficiency because of said absence.
- iii. In case the student remains absent from the class for seven consecutive lectures without leave his/her name shall be removed from the rolls.

4.1.4 Evaluation system

The weightage of the test and assignment/sessional work will be as follows:

- | | |
|--|-----|
| (a) Mid Term (test) | 35% |
| (b) Assignment | 25% |
| (c) Final Term (test) | 40% |
| (d) To pass a course a student must obtain 'D' grade (50% marks) Cumulative in Assignments, Mid and Final Semester Examinations. | |

4.1.5 Duration of Examinations

In view of the weightage for the various examinations, the duration of the papers will be as follows:

Term	Theory	Practical
Mid-Term Examination	One and half hour	As mentioned in the Time-Table
Final Term Examination	Two hours	--

4.1.6 Home assignments

Home assignments shall be deposited with the teacher concerned as scheduled by the teacher.

4.1.7 Re-sit Examination on Medical Ground

In case a candidate is unable to appear in part or whole of the (Mid-Term/Final) Examination of a semester on medical grounds, he may be allowed to appear in the special examination (Mid-Term/Final) to be arranged by the Department/ Institute/College, provided;

- i. He/She fulfils the condition of having attended the prescribed number of lectures as laid down in Regulation 4(i & ii).
- ii. He/She is admitted as patient in a recognized Hospital, or if he/she is not hospitalized, as defined above, the candidate will be examined by the University Medical Board comprising Chief Medical Officer and senior most Medical Officer of the University.

4.1.8 Grading System

1. Letter grading should only be used for representing the individual courses and not for semester GPA or CGPA.
2. Equivalence in letter grades and grade points will be as follows:

Letter Grade	Grade Points
A	4.00
A-	3.70
B+	3.30
B	3.00
B-	2.70
C+	2.30
C	2.00
C-	1.70
D	1.00
F	0.00

3. Maximum possible Grade Point Average is 4.00
4. Minimum Cumulative Grade Point Average is 2.00.
5. Calculation Grade Point Average (GPA) for a Semester.
 - a. In order to calculate the GPA, multiply Grade Point with the Credit Hours in each course to obtain total grade points, add up to cumulative Grade Points and divide by the total number of Credit Hours to get the GPA for the Semester.
 - b. Course with 'F' will be counted as 'Zero' Grade Point for calculation of semester Grade Point Average. Calculation of cumulative grade point average will only be made when a candidate has passed all the courses required for the award of degree.
6. The percentage of marks or values of grades other than given grade points should not be reported on the transcripts.

4.1.9 Rules for Promotions

1. At the end of the first Semester a student must obtain a minimum Grade Point average (GPA) of 2.00 to be promoted to the second semester.
2. In case a student is able to obtain GPA of 1.70 or more but less than 2.00 he /she will be promoted to the second Semester on probation (Ist probation). The candidate, who fails to secure 1.70 GPA in the first semester shall stand automatically dropped from the rolls of the Department /Centre/Institute/College.
3. At the end of second semester, a student must obtain a minimum Cumulative Grade Point Average (CGPA) of 2.00 and must also pass at least 50% of the courses offered; by him/her in order to be promoted to the third semester. If the student does not achieve desired CGPA 2.0 but obtain CGPA > 1.7 will go to 2nd (last) probation.
4. In all the following semesters a student has to maintain CGPA 2.00 for his /her promotion otherwise he/she will be removed. If a student has not availed opportunity of probation during the first two semesters then he/ she will have the right to avail probation twice in the following semesters.
5. In the third semester a student will be required to repeat those courses of the first semester in which he / she had failed.
6. In the fourth, sixth and eighth semester, a student will be required to repeat those courses of the second, fourth, sixth and /or eighth semester in which he/she had failed.
7. If a student gets D grade, he/she can repeat the course when offered to improve his/her grade.
8. A student, who completes all the courses and has not been required to repeat any course(s), obtains CGPA of less than 2.00 but not less than 1.90 at the end of 8th semester may be allowed to repeat course (varying from 2 to 4 credit hours) in which he / she had obtained the lowest grades, in order to improve the CGPA so as to obtain the minimum of 2.00 CGPA failing which he / she shall not be awarded degree and removed from the rolls of the Department /Centre / Institute / College.
9. In case a student repeats the course which he / she have already taken, the old grades will be substituted with the new grades for CGPA calculations.
10. A student will be allowed to repeat a maximum of 18 credit hours courses.

4.1.10 Calculation of Final Result

1. Minimum requirements for the award of 4 years B.Sc. (Engg.) Degree
 - i. A candidate must have qualified in accordance with the existing Rules and Regulations in each one of the I,II,III,IV,V,VI,VII and VIII Semesters, separately, i.e. by securing at least a 'D' in all course as to fulfill he requirements laid down in (ii) below:
 - ii. He/She must have earned the prescribed number of credits required for the 4 years degree i.e., a minimum of 132 credits.
 - iii. He/She must have obtained a minimum Cumulative Grade Point Average of 2.00
 - iv. He/She must have obtained 4-6 weeks industrial training.

2. Method for Calculation of the Final CGPA.
 - i. Add up Cumulative Grade Points of each semester to obtain grand total and then divide the grand total by total no. of credits of the courses studied. The resulting figures will represent the Cumulative Grade Point average secured by a candidate. The CGPA will be reported up to two decimals but for the determination of merit position CGPA will be calculated up to any decimal.
 - ii. The students obtaining CGPA of 3.70 or above will be declared eligible for role of honors
 - iii. For the award of Gold Medal or some other award(s), the 1st position will be calculated on CGPA basis of the whole course.
 - iv. For the award of Gold Medal, roll of honors and all other distinction of Punjab University, a student must have passed all the examinations at least in B Grade, in the first attempt.

5. HOSTEL ACCOMMODATION

The University of the Punjab provides hostel accommodation to a fairly large number of students. Placement in University hostels is arranged on a priority basis and only for regular students (not for self-supporting/evening programme) by the Chairman Hall Council, Quaid-e-Azam Campus, Lahore on the recommendation of the Head of Department.

6. MEDICAL FACILITIES

Services of the University Medical Officers are available to the students during working hours. The University maintains a Health Centre at the Campus where facilities for the treatment of outdoor patients exist. In case of serious illness and emergency, hospitalization can be arranged under the advice of the C.M.O./M.O. The University Medical Officer may conduct periodical check up of the students.

7. SCHOLARSHIP FACILITIES

Various types of scholarships are available to the students of regular programs (Morning) not only to acknowledge the academic performance of the students but also to fulfill their financial needs. These scholarships include;

Merit Scholarships: These scholarships are awarded each year to the students.

Needy Scholarships: These scholarships are awarded each year to the students on the basis of their financial background. Students need to apply for these scholarships to appear before the scholarship committee.

PEEF Scholarships: These scholarships are awarded each year to the students on the basis of criteria set by the Punjab Government. These scholarships continue for the two years provided that the students maintain its required CGPA.

8. INDUSTRIAL TOURS

Students of the Faculty are provided an opportunity to enhance their technical knowledge and broaden their outlook by undertaking tours of factories located all over Pakistan. The expenditure of these tours is borne partly by the University.

9. FACTORY TRAINING

In order to gain practical experience in an industrial organization, job training is considered essential for the students. It also goes a long way in familiarizing the students with actual conditions in factories and various complex factors involved in their management and operation. Practical training for students is arranged by the Director / Principal / Chairman. The University shall not be responsible in the event of injury, damage or loss to the students during the course of attendance or training in or outside the University.

10. CO-CURRICULAR ACTIVITIES

Seminar on The Smog and It's Mitigation 15 November 2019.



Seminar on Serat e Nabi (SAW) 8 November, 2019



Symposium on Energy and Environment 13 December, 2019



Annual Sports Festival 2020



11. OFFICE OF RESEARCH INNOVATION AND COMMERCIALIZATION (ORIC)

In order to assist the University in promoting and enhancing research activities and helping them to commercialize and industrialize, Office of Research Innovation and Commercialization (ORIC) is working closely with the Ministry of Science and Technology (MoST), Islamabad. ORIC also helps to enhance research activities in Institutes / Colleges / Departments of the University and also to protect intellectual property generated as a consequence of research activities.

12. RULES RELATING TO DISCIPLINE

No student shall:

- (i) utter, do, or propagate anything repugnant to Islam within and outside the precincts of the University/Institute/College/Department,
- (ii) say or do anything which might adversely affect the honor and prestige of Pakistan or University and Teachers,
- (iii) smoke in the Classroom, Laboratory, Workshop, Library and Examination Hall,

- (iv) form, or associate with an Organization/Society/Club, or any other body, promoting caste distinctions and inciting parochial/linguistic/regional feeling,
- (v) organize, or hold any function within the precincts of the University except in accordance with the prescribed rules and regulations,
- (vi) collect money or receive donations or pecuniary assistance for or on behalf of the University or any University Organization except with the written permission of the competent authority,
- (vii) stage, incite, or participate, in a walkout, strike or any other form of agitation which might create or is likely to create law and order problem for the University and affect or is likely to affect its smooth functioning,
- (viii) indulge in immoral activities, use indecent language, wear immodest dress, make indecent remarks, jokes or gestures or behave in an improper manner,
- (ix) cause disturbance to others,
- (x) keep or carry weapons, narcotics, immoral or subversive literature,
- (xi) disturb peace and tranquility of the Institution/College/Department,
- (xii) use in salutary or abusive language or resort to violence against a fellow student or employee of the University.
- (xiii) use mobile phone in the class room and examination hall

Disciplinary action by the Principal of a Constituent/Affiliated College/Chairman of a University Teaching Department/Director of an Institute/Discipline Committee/Council against the student/s may be taken in one or more of the following forms depending upon the severity of the offence:

- (i) A written warning may be issued to the students concerned and a copy of the same may be displayed on the Notice Board.
- (ii) The matter may be reported to the Parents/Guardians and they may be called, if necessary.
- (iii) A student may be fined. The fine imposed shall have to be deposited with the Treasurer, under intimation to the Principal/Director/Chairman/Secretary Discipline Committee/Council as the case may be.
- (iv) A student may be turned out of the class by the teacher concerned and be not permitted to attend the same course up to three periods at one time under intimation to the Principal/Chairman/Director.
- (v) A student may be placed on probation for a fixed period not exceeding 3 months. If during the period of probation he fails to improve his conduct, he may be rusticated or expelled.

NOTE

(Applicable to the schedule of all programmes)

- ☞ The candidate is required to see the lists of Selectees and schedule of payment of dues on the Notice Board of the Institute. He/She will not be provided/sent the above-mentioned information by the Faculty through any other means.
- ☞ Once the candidate has been offered his/her higher option later he/she cannot be considered for his/her lower option irrespective of seats available in disciplines therein. In other words, there shall be no reverse processing for the generation of sequential merit lists.
- ☞ If a candidate, once selected for any option in the selectees' list, does not deposit his/her admission dues, shall lose / forfeit his/ her right to be considered for the high option(s) of disciplines given by him / her in his / her application form.

Disclaimer

The prospectus is informational and should not be taken as binding on the Faculty. Each aspect of the educational setup, ranging from the admission procedure to the examination regulations or discipline, requires continual review by the competent authorities. The Faculty, therefore, reserves the right to change/amend any rule/s and regulations applicable to students whenever it is deemed appropriate or necessary.