



University of Central Punjab  
The Centre of Your Future

# Degree in **Hand** Career in **Reach**

Faculty of

# **Pharmaceutical Sciences**

2024-25

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[www.ucp.edu.pk](http://www.ucp.edu.pk)







# Doctor of Pharmacy

(Pharm.D.)

## Admission Requirements

- At least 60% marks in F.Sc. (Pre-Medical)/A Levels (Biology, Chemistry & Physics) or equivalent
- All applicants are required to pass UCP Admission Test

## Degree Requirements

Each candidate for Pharm.D degree is required to complete 198 Cr. Hrs. with a minimum CGPA of 2.50 on a scale of 4.00 as per the following detail:

Area	Cr. Hrs.
a) Pharmaceutics Courses	56
b) Pharmaceutical Chemistry Courses	32
c) Basic Medical Sciences Courses	32
d) Pharmacognosy Courses	16
e) Pharmacy Practice Courses	41
f) Mathematics and Bio-statistics Courses	06
g) Computer Science Courses	04
h) Humanities Courses	11
<b>Total</b>	<b>198</b>

## a) Pharmaceutics Courses (56 Cr. Hrs.)

Course Title	Code	Cr. Hrs.
Pharmaceutics-IA(Physical Pharmacy)	PHPT1113	3
Pharmaceutics-IB (Physical Pharmacy)	PHPT1123	3
Pharmaceutics-IIA (Dosage Forms Science)	PHPT2133	3
Pharmaceutics-IIB (Dosage Forms Science)	PHPT2143	3
Pharmaceutics-IIIA (Pharmaceutical Microbiology & Immunology)	PHPT2153	3
Pharmaceutics-IIIB (Pharmaceutical Microbiology & Immunology)	PHPT2163	3
Pharmaceutics-IVA(Industrial Pharmacy)	PHPT4173	3
Pharmaceutics-IVB(Industrial Pharmacy)	PHPT4183	3
Pharmaceutics-VA (Biopharmaceutics & Pharmacokinetics)	PHPT4213	3
Pharmaceutics-VB (Biopharmaceutics & Pharmacokinetics)	PHPT4223	3
Pharmaceutics-VIA (Pharmaceutical Quality Management)	PHPT4233	3
Pharmaceutics-VIB (Pharmaceutical Quality Management)	PHPT4243	3
Pharmaceutics-VIIA (Pharmaceutical Technology)	PHPT5253	3
Pharmaceutics-VII (Pharmaceutical Technology)	PHPT5263	3
Pharmaceutics-IA (Physical Pharmacy) Lab	PHPT1111	1
Pharmaceutics-IB (Physical Pharmacy) Lab	PHPT1121	1
Pharmaceutics-IIA (Dosage Forms Science) Lab	PHPT2131	1
Pharmaceutics-IIB (Dosage Forms Science) Lab	PHPT2141	1
Pharmaceutics-IIIA (Pharmaceutical Microbiology & Immunology) Lab	PHPT2151	1
Pharmaceutics-IIIB (Pharmaceutical Microbiology & Immunology) Lab	PHPT2161	1
Pharmaceutics-IVA(Industrial Pharmacy) Lab	PHPT4171	1
Pharmaceutics-IVB (Industrial Pharmacy) Lab	PHPT4181	1
Pharmaceutics-VA (Biopharmaceutics & Pharmacokinetics) Lab	PHPT4211	1
Pharmaceutics-VB (Biopharmaceutics & Pharmacokinetics) Lab	PHPT4221	1
Pharmaceutics-VIA (Pharmaceutical Quality Management) Lab	PHPT4231	1
Pharmaceutics-VIB (Pharmaceutical Quality Management) Lab	PHPT4241	1
Pharmaceutics-VIIA (Pharmaceutical Technology) Lab	PHPT5251	1
Pharmaceutics-VIIB (Pharmaceutical Technology) Lab	PHPT5261	1

b) Pharmaceutical Chemistry Courses (32 Cr. Hrs.)

Course Title	Code	Cr. Hrs.
Pharmaceutical Chemistry-IA (Organic)	PHPC1313	3
Pharmaceutical Chemistry-IB (Organic)	PHPC1323	3
Pharmaceutical Chemistry-IIA (Biochemistry)	PHPC1333	3
Pharmaceutical Chemistry-IIB (Biochemistry)	PHPC1343	3
Pharmaceutical Chemistry-IIIA (Pharmaceutical Analysis)	PHPC3353	3
Pharmaceutical Chemistry-IIIB (Pharmaceutical Analysis)	PHPC3363	3
Pharmaceutical Chemistry-IVA (Medicinal Chemistry)	PHPC5373	3
Pharmaceutical Chemistry-IVB (Medicinal Chemistry)	PHPC5383	3
Pharmaceutical Chemistry-IA (Organic) Lab	PHPC1311	1
Pharmaceutical Chemistry-IB (Organic) Lab	PHPC1321	1
Pharmaceutical Chemistry-IIA (Biochemistry) Lab	PHPC1331	1
Pharmaceutical Chemistry-IIB (Biochemistry) Lab	PHPC1341	1
Pharmaceutical Chemistry-IIIA (Pharmaceutical Analysis) Lab	PHPC3351	1
Pharmaceutical Chemistry-IIIB (Pharmaceutical Analysis) Lab	PHPC3361	1
Pharmaceutical Chemistry-IVA (Medicinal Chemistry) Lab	PHPC5371	1
Pharmaceutical Chemistry-IVB (Medicinal Chemistry) Lab	PHPC5381	1

c) Medical Sciences Courses (32 Cr. Hrs.)

Course Title	Code	Cr. Hrs.
Physiology-A	PHMS1513	3
Physiology-B	PHMS1523	3
Anatomy & Histology	PHMS1533	3
Pharmacology and Therapeutics-IA	PHMS2543	3
Pharmacology and Therapeutics-IB	PHMS2553	3
Pharmacology and Therapeutics-IIA	PHMS3563	3
Pharmacology and Therapeutics-IIB	PHMS3573	3
Pathology	PHMS3583	3
Physiology-A Lab	PHMS1511	1
Physiology-B Lab	PHMS1521	1
Anatomy & Histology Lab	PHMS1531	1
Pharmacology and Therapeutics-IA Lab	PHMS2541	1
Pharmacology and Therapeutics-IB Lab	PHMS2551	1
Pharmacology and Therapeutics-IIA Lab	PHMS3561	1
Pharmacology and Therapeutics-IIB Lab	PHMS3571	1
Pathology Lab	PHMS3581	1

d) Pharmacognosy Courses (16 Cr. Hrs.)

Course Title	Code	Cr. Hrs.
Pharmacognosy-IA (Basic)	PHPG2713	3
Pharmacognosy-IB (Basic)	PHPG2723	3
Pharmacognosy-IIA (Advanced)	PHPG3733	3
Pharmacognosy-IIB (Advanced)	PHPG3743	3
Pharmacognosy-IA (Basic) Lab	PHPG2711	1
Pharmacognosy-IB (Basic) Lab	PHPG2721	1
Pharmacognosy-IIA (Advanced) Lab	PHPG3731	1
Pharmacognosy-IIB (Advanced) Lab	PHPG3741	1

e) Pharmacy Practice Courses (41 Cr. Hrs.)

Course Title	Code	Cr. Hrs.
Pharmacy Practice-IIA (Dispensing Pharmacy)	PHPP3813	3
Pharmacy Practice-IIB (Community, Social & Administrative Pharmacy)	PHPP3823	3
Pharmacy Practice-IVA (Hospital Pharmacy)	PHPP4833	3
Pharmacy Practice-IVB (Hospital Pharmacy)	PHPP4843	3
Pharmacy Practice-VA (Clinical Pharmacy-I)	PHPP4853	3
Pharmacy Practice-VB (Clinical Pharmacy-I)	PHPP4863	3
Pharmacy Practice-VIA (Advanced Clinical Pharmacy-II)	PHPP5873	3
Pharmacy Practice-VIB (Advanced Clinical Pharmacy-II)	PHPP5883	3
Pharmacy Practice-VIIA (Forensic Pharmacy)	PHPP5913	3
Pharmacy Practice-VIIB (Forensic Pharmacy)	PHPP5923	3
Pharmacy Practice-VIIIA (Pharmaceutical Management & Marketing)	PHPP5933	3
Pharmacy Practice-VIIIB (Pharmaceutical Management & Marketing)	PHPP5943	3
Pharmacy Practice-IIA (Dispensing Pharmacy) Lab	PHPP3811	1
Pharmacy Practice-VA (Clinical Pharmacy-I) Lab	PHPP4851	1
Pharmacy Practice-VB (Clinical Pharmacy-I) Lab	PHPP4861	1
Pharmacy Practice-VIA (Advanced Clinical Pharmacy-II) Lab	PHPP5871	1
Pharmacy Practice-VIB (Advanced Clinical Pharmacy-II) Lab	PHPP5881	1



f) Mathematics and Bio-statistics Courses (06 Cr. Hrs.)

Course Title	Code	Cr. Hrs.
Pharmacy Practice-IA (Pharmaceutical Mathematics)	PHMT2013	3
Pharmacy Practice-IB (Bio-Statistics)	PHMT2023	3

g) Computer Science Courses (04 Cr. Hrs.)

Course Title	Code	Cr. Hrs.
Pharmacy Practice-III (Computer and its Applications in Pharmacy)	PHCS3013	3
Pharmacy Practice-III (Computer and its Applications in Pharmacy) Lab	PHCS3011	1

h) Humanities Courses (11 Cr. Hrs.)

Course Title	Code	Cr. Hrs.
English-A (Functional English)	PHHU1012	2
English-B (Communication & Writing Skills)	PHHU1024	4
Islamic Studies	PHHU2033	3
Pakistan Studies	PHHU2042	2

Community Service (PH3000)

Each student is required to complete 65 hours community work, usually after 8th semester which would be a prerequisite for the award of degree.

Programme Duration

This is a five-year degree programme comprising of 10 semesters. There is a Fall and a Spring semester in each year. The summer semester is utilized for deficiency courses. The maximum duration to complete the Pharm.D. programme is 7 years.

Scheme of Studies  
Pharmacy  
(Pharm.D.)

Semester I (22 Cr. Hrs.)

S. No	Course Code	Course Title	Cr. Hrs.	Category
1	PHHU1012	English-A (Functional English)	2	Humanities
2	PHPT1113	Pharmaceutics-IA (Physical Pharmacy)	3	Pharmaceutics
3	PHPT1111	Pharmaceutics-IA (Physical Pharmacy) Lab	1	Pharmaceutics
4	PHPC1313	Pharmaceutical Chemistry-IA (Organic)	3	Pharmaceutical Chemistry
5	PHPC1311	Pharmaceutical Chemistry-IA (Organic) Lab	1	Pharmaceutical Chemistry
6	PHPC1333	Pharmaceutical Chemistry-IIA - (Biochemistry)	3	Pharmaceutical Chemistry
7	PHPC1331	Pharmaceutical Chemistry-IIA (Biochemistry) Lab	1	Pharmaceutical Chemistry
8	PHMS1513	Physiology-A	3	Medical Sciences
9	PHMS1511	Physiology-A Lab	1	Medical Sciences
10	PHMS1533	Anatomy & Histology	3	Medical Sciences
11	PHMS1531	Anatomy & Histology Lab	1	Medical Sciences



Semester II (20 Cr. Hrs.)

S. No	Course Code	Course Title	Cr. Hrs.	Category
1	PHHU1024	English-B (Communication & Writing skills)	4	Humanities
2	PHPT1123	Pharmaceutics-IB (Physical Pharmacy)	3	Pharmaceutics
3	PHPT1121	Pharmaceutics-IB (Physical Pharmacy) Lab	1	Pharmaceutics
4	PHPC1323	Pharmaceutical Chemistry-IB (Organic)	3	Pharmaceutical Chemistry
5	PHPC1321	Pharmaceutical Chemistry-IB (Organic) Lab	1	Pharmaceutical Chemistry
6	PHPC1343	Pharmaceutical Chemistry-IIIB (Biochemistry)	3	Pharmaceutical Chemistry
7	PHPC1341	Pharmaceutical Chemistry-IIIB (Biochemistry) Lab	1	Pharmaceutical Chemistry
8	PHMS1523	Physiology-B	3	Medical Sciences
9	PHMS1521	Physiology-B Lab	1	Medical Sciences

Semester III (22 Cr. Hrs.)

S. No	Course Code	Course Title	Cr. Hrs.	Category
1	PHHU2033	Islamic Studies	3	Humanities
2	PHPT2133	Pharmaceutics-IIA (Dosage Forms Science)	3	Pharmaceutics
3	PHPT2131	Pharmaceutics-IIA (Dosage Forms Science) Lab	1	Pharmaceutics
4	PHPT2153	Pharmaceutics-IIIA (Pharmaceutical Microbiology & Immunology)	3	Pharmaceutics
5	PHPT2151	Pharmaceutics-IIIA (Pharmaceutical Microbiology & Immunology) Lab	1	Pharmaceutics
6	PHMS2543	Pharmacology and Therapeutics-IA	3	Medical Sciences
7	PHMS2541	Pharmacology and Therapeutics-IA Lab	1	Medical Sciences
8	PHPG2713	Pharmacognosy-IA (Basic)	3	Pharmacognosy
9	PHPG2711	Pharmacognosy-IA (Basic) Lab	1	Pharmacognosy
10	PHMT2013	Pharmacy Practice-IA (Pharmaceutical Mathematics)	3	Mathematics and Biostatistics

Semester IV (21 Cr. Hrs.)

S. No	Course Code	Course Title	Cr. Hrs.	Category
1	PHHU2042	Pakistan Studies	2	Humanities
2	PHPT2143	Pharmaceutics-IIIB (Dosage Forms Science)	3	Pharmaceutics
3	PHPT2141	Pharmaceutics-IIIB (Dosage Forms Science) Lab	1	Pharmaceutics
4	PHPT2163	Pharmaceutics-IIIB (Pharmaceutical Microbiology & Immunology)	3	Pharmaceutics
5	PHPT2161	Pharmaceutics-IIIB (Pharmaceutical Microbiology & Immunology) Lab	1	Pharmaceutics
6	PHMS2553	Pharmacology and Therapeutics-IB	3	Medical Sciences
7	PHMS2551	Pharmacology and Therapeutics-IB Lab	1	Medical Sciences
8	PHPG2723	Pharmacognosy-IB (Basic)	3	Pharmacognosy
9	PHPG2721	Pharmacognosy-IB (Basic) Lab	1	Pharmacognosy
10	PHMT2023	Pharmacy Practice-IB (Bio-statistics)	3	Mathematics and Biostatistics

Semester V (20 Cr. Hrs.)

S. No	Course Code	Course Title	Cr. Hrs.	Category
1	PHPP3813	Pharmacy Practice-IIA (Dispensing Pharmacy)	3	Pharmacy Practice
2	PHPP3811	Pharmacy Practice-IIA (Dispensing Pharmacy) Lab	1	Pharmacy Practice
3	PHPC3353	Pharmaceutical Chemistry-IIIA (Pharmaceutical Analysis)	3	Pharmaceutical Chemistry
4	PHPC3351	Pharmaceutical Chemistry-IIIA (Pharmaceutical Analysis) Lab	1	Pharmaceutical Chemistry
5	PHMS3563	Pharmacology and Therapeutics-IIA	3	Medical Sciences
6	PHMS3561	Pharmacology and Therapeutics-IIA Lab	1	Medical Sciences
7	PHPG3733	Pharmacognosy-IIA (Advanced)	3	Pharmacognosy
8	PHPG3731	Pharmacognosy-IIA (Advanced) Lab	1	Pharmacognosy
9	PHMS3583	Pathology	3	Medical Sciences
10	PHMS3581	Pathology Lab	1	Medical Sciences







Semester VI (19 Cr. Hrs.)

S. No	Course Code	Course Title	Cr. Hrs.	Category
1	PHPP3823	Pharmacy Practice-IIB (Community, Social & Administrative Pharmacy)	3	Pharmacy Practice
2	PHPC3363	Pharmaceutical Chemistry-IIIB (Pharmaceutical Analysis)	3	Pharmaceutical Chemistry
3	PHPC3361	Pharmaceutical Chemistry-IIIB (Pharmaceutical Analysis) Lab	1	Pharmaceutical Chemistry
4	PHMS3573	Pharmacology and Therapeutics-IIB	3	Medical Sciences
5	PHMS3571	Pharmacology and Therapeutics-IIB Lab	1	Medical Sciences
6	PHPG3743	Pharmacognosy-IIB (Advanced)	3	Pharmacognosy
7	PHPG3741	Pharmacognosy-IIB (Advanced) Lab	1	Pharmacognosy
8	PHCS3013	Pharmacy Practice-III (Computer and its Applications in Pharmacy)	3	Computer Science
9	PHCS3011	Pharmacy Practice-III (Computer and its Applications in Pharmacy) Lab	1	Computer Science

Semester VII (19 Cr. Hrs.)

S. No	Course Code	Course Title	Cr. Hrs.	Category
1	PHPP4833	Pharmacy Practice-IVA (Hospital Pharmacy)	3	Pharmacy Practice
2	PHPP4853	Pharmacy Practice-VA (Clinical Pharmacy-I)	3	Pharmacy Practice
3	PHPP4851	Pharmacy Practice-VA (Clinical Pharmacy-I) Lab	1	Pharmacy Practice
4	PHPT4173	Pharmaceutics-IVA (Industrial Pharmacy)	3	Pharmaceutics
5	PHPT4171	Pharmaceutics-IVA (Industrial Pharmacy) Lab	1	Pharmaceutics
6	PHPT4213	Pharmaceutics-VA (Biopharmaceutics & Pharmacokinetics)	3	Pharmaceutics
7	PHPT4211	Pharmaceutics-VA (Biopharmaceutics & Pharmacokinetics) Lab	1	Pharmaceutics
8	PHPT4233	Pharmaceutics-VIA (Pharmaceutical Quality Management)	3	Pharmaceutics
9	PHPT4231	Pharmaceutics-VIA (Pharmaceutical Quality Management) Lab	1	Pharmaceutics

Semester VIII (19 Cr. Hrs.)

S. No	Course Code	Course Title	Cr. Hrs.	Category
1	PHPP4843	Pharmacy Practice-IVB (Hospital Pharmacy)	3	Pharmacy Practice
2	PHPP4863	Pharmacy Practice-VB (Clinical Pharmacy-I)	3	Pharmacy Practice
3	PHPP4861	Pharmacy Practice-VB (Clinical Pharmacy-I) Lab	1	Pharmacy Practice
4	PHPT4183	Pharmaceutics-IVB (Industrial Pharmacy)	3	Pharmaceutics
5	PHPT4181	Pharmaceutics-IVB (Industrial Pharmacy) Lab	1	Pharmaceutics
6	PHPT4223	Pharmaceutics-VB (Biopharmaceutics & Pharmacokinetics)	3	Pharmaceutics
7	PHPT4221	Pharmaceutics-VB (Biopharmaceutics & Pharmacokinetics) Lab	1	Pharmaceutics
8	PHPT4243	Pharmaceutics-VIB (Pharmaceutical Quality Management)	3	Pharmaceutics
9	PHPT4241	Pharmaceutics-VIB (Pharmaceutical Quality Management) Lab	1	Pharmaceutics

Semester IX (18 Cr. Hrs.)

S. No	Course Code	Course Title	Cr. Hrs.	Category
1	PHPT5253	Pharmaceutics-VIIA (Pharmaceutical Technology)	3	Pharmaceutics
2	PHPT5251	Pharmaceutics-VIIA (Pharmaceutical Technology) Lab	1	Pharmaceutics
3	PHPP5873	Pharmacy Practice-VIA (Advanced Clinical Pharmacy-II)	3	Pharmacy Practice
4	PHPP5871	Pharmacy Practice-VIA (Advanced Clinical Pharmacy-II) Lab	1	Pharmacy Practice
5	PHPP5913	Pharmacy Practice-VIIA (Forensic Pharmacy)	3	Pharmacy Practice
6	PHPP5933	Pharmacy Practice-VIIIA (Pharmaceutical Management & Marketing)	3	Pharmacy Practice
7	PHPC5373	Pharmaceutical Chemistry-IVA (Medicinal Chemistry)	3	Pharmaceutical Chemistry
8	PHPC5371	Pharmaceutical Chemistry-IVA (Medicinal Chemistry) Lab	1	Pharmaceutical Chemistry



Semester X (18 Cr. Hrs.)

S. No	Course Code	Course Title	Cr. Hrs.	Category
1	PHPT5263	Pharmaceutics-VIIB (Pharmaceutical Technology)	3	Pharmaceutics
2	PHPT5261	Pharmaceutics-VIIB (Pharmaceutical Technology) Lab	1	Pharmaceutics
3	PHPP5883	Pharmacy Practice-VIB (Advanced Clinical Pharmacy-II)	3	Pharmacy Practice
4	PHPP5881	Pharmacy Practice-VIB (Advanced Clinical Pharmacy-II) Lab	1	Pharmacy Practice
5	PHPP5923	Pharmacy Practice-VIIB (Forensic Pharmacy)	3	Pharmacy Practice
6	PHPP5943	Pharmacy Practice-VIIIB (Pharmaceutical Management & Marketing)	3	Pharmacy Practice
7	PHPC5383	Pharmaceutical Chemistry-IVB (Medicinal Chemistry)	3	Pharmaceutical Chemistry
8	PHPC5381	Pharmaceutical Chemistry-IVB (Medicinal Chemistry) Lab	1	Pharmaceutical Chemistry



# M.Phil.

## Pharmacy (Pharmaceutics)

Admission Requirements

- Pharm.D or B.Pharm from HEC & PCP recognized institution minimum 2.00/4.00 CGPA in the semester system or 50% marks in the annual system
- All applicants are required to pass the UCP Admission Test with a 50% score or the GRE/HAT General/equivalent test with a passing score of 50% followed by an interview by the Graduate Admission Committee

Degree Requirements

A student admitted to this programme will have to complete the following degree requirements:

- 24 Cr. Hrs. course work with 6 Cr. Hrs. Thesis
- Minimum CGPA of 2.50 on a scale of 4.00

Each candidate of M.Phil. programme is required to complete 30 Cr. Hrs. as per the following detail:

Area	Cr. Hrs.
a) Core Courses	06
b) Specialization Courses	18
c) Research Thesis/Project/Additional Courses	06
Total	30

a) Core Courses

Course Title	Code	Cr. Hrs.
Biostatistics	PHPT6013	3
Research Methodology, Seminar & Project Writing	PHPT6023	3

b) Specialization Courses

Course Title	Code	Cr. Hrs.
Advanced Pharmaceutics-I	PHPT6113	3
Applied Biopharmaceutics & Pharmacokinetics	PHPT6123	3
Pharmaceutical Microbiology	PHPT6133	3
Pharmaceutical Technology	PHPT6143	3
Clinical Pharmacy	PHPT6153	3
Advanced Pharmaceutics-II	PHPT6163	3



### c) Research Thesis

Course Title	Code	Cr. Hrs.
Research Thesis	PHPT7126	6
Thesis Continuation	PHPT7121	1

### Programme Duration

This is nominally a two-year degree programme comprising of 04 semesters. There is a Fall and a Spring semester each year. The maximum duration to complete the programme is 4 years.



# M.Phil.

## Pharmacy

### (Pharmaceutical Chemistry)

### Admission Requirements

- Pharm. D or B. Pharm from HEC & PCP recognized institutions minimum 2.00/4.00 CGPA in the semester system or 50% marks in the annual system
- All applicants are required to pass the UCP Admission Test with a 50% score or the GRE/HAT General/equivalent test with a passing score of 50% followed by an interview by the Graduate Admission Committee

### Degree Requirements

A student admitted to this programme will have to complete the following degree requirements:

- 24 Cr. Hrs. course work with 6 Cr. Hrs. Thesis
- Minimum CGPA of 2.50 on a scale of 4.00

Each candidate of the M.Phil. programme is required to complete 30 Cr. Hrs. as per the following detail:

Area	Cr. Hrs.
a) Core Courses	06
b) Specialization Courses	18
c) Research Thesis/Project/Additional Courses	06
<b>Total</b>	<b>30</b>

### a) Core Courses

Course Title	Code	Cr. Hrs.
Biostatistics	PHPT6013	3
Research Methodology, Seminar & Project Writing	PHPT6023	3

### b) Specialization Courses

Course Title	Code	Cr. Hrs.
Analytical Chemistry	PHPC6313	3
Drug Design and Development	PHPC6323	3
Chemistry of Natural Product and Phytochemistry	PHPC6333	3
Combinatorial & Stereochemistry Chemistry	PHPT6343	3
Chromatographic Techniques	PHPT6353	3
Advanced Medicinal Chemistry	PHPT6363	3



c) Research Thesis

Course Title	Code	Cr. Hrs.
Research and thesis	PHPC7346	6
Thesis Continuation	PHMS7121	1

Programme Duration

This is nominally a two-year degree programme comprising 04 semesters. There is a Fall and a Spring semester each year. The maximum duration to complete the programme is 4 years.



# M.Phil.

## Pharmacy (Pharmacology)

Admission Requirements

- Pharm. D or B. Pharm from HEC & PCP recognized institutions minimum 2.00/4.00 CGPA in semester system or 50% marks in annual system
- All applicants are required to pass the UCP Admission Test with a 50% score or the GRE/HAT General/equivalent test with a passing score of 50% followed by an interview by the Graduate Admission Committee

Degree Requirements

A student admitted to this programme will have to complete the following degree requirements:

- 24 Cr. Hrs. course work with 6 Cr. Hrs. Thesis
- Minimum CGPA of 2.50 on the scale of 4.00

Each candidate of the M.Phil. programme is required to complete 30 Cr. Hrs. as per the following detail:

Area	Cr. Hrs.
a) Core Courses	06
b) Specialization Courses	18
c) Research Thesis/Project/Additional Courses	06
Total	30

a) Core Courses

Course Title	Code	Cr. Hrs.
Biostatistics	PHPT6013	3
Research Methodology, Seminar & Project Writing	PHPT6023	3

b) Specialization Courses

Course Title	Code	Cr. Hrs.
Principles of Pharmacology	PHPC6513	3
System Pharmacology-I	PHPC6523	3
Molecular Pharmacology	PHPC6533	3
System Pharmacology-II	PHPT6543	3
Biochemical Pharmacology and Toxicology	PHPT6553	3
Biochemical Techniques	PHPT6563	3



c) Research Thesis

Course Title	Code	Cr. Hrs.
Research and thesis	PHMS7126	6
Thesis Continuation	PHMS7121	1

Programme Duration

This is nominally a two-year degree programme comprising 04 semesters. There is a Fall and a Spring semester each year. The maximum duration to complete the programme is 4 years.



# PhD

## Pharmaceutics

The field of Pharmaceutics includes formulation development, drug designing, stability studies, method validation and further characterization for the evaluation of the developed formulation. To provide grounds for research in these areas, Faculty of Pharmacy, University of Central Punjab is focused to give opportunities to teachers and students to conduct their research under well facilitated environment. The program is supported by excellent teaching and laboratory infrastructure for the students. Different opportunities are available for the students and researchers in public as well as private sectors such as:

- International and national level PhD programs in the field of Pharmaceutics
- Academia Research facilities at research institutes
- Different industries such as food, pharmaceutical, biotechnology development of product is required for that pharmaceutical researcher
- Drugs Testing Laboratories specialized in Pharmaceutics
- Research in Forensic Pharmacy

Semester I (09 Cr. Hrs.)

S. No	Course Code	Course Title	Cr. Hrs.
1	PHPT8113	Advanced Pharmaceutics	3
2	PHPT8123	Pharmaceutical Microbiology and Biotechnology	3
3	PHPT8133	Applied Biopharmaceutics and Pharmacokinetics	3

Semester II (09 Cr. Hrs.)

S. No	Course Code	Course Title	Cr. Hrs.
1	PHPT8143	Drug Discovery and Development	3
2	PHPT8153	Clinical Pharmacy	3
3	PHPT8163	Pharmaceutical Technology	3

Semester III and onwards (30 Cr. Hrs.)

S. No	Course Code	Course Title	Cr. Hrs.
1	PHPT9130	Research and thesis	30



Admission Requirements

- MS/M.Phil. degree in the relevant discipline from a degree awarding institution recognized by the Higher Education Commission (HEC) and Pharmacy Council of Pakistan (PCP).
- At least 3.0 (on the scale of 4.0) CGPA in the MS/MPhil degree or 60% aggregate marks if the degree is earned from an annual system
- All applicants are required to pass the UCP Admission Test with a 60% score or a test equivalent to GRE/HAT General, conducted by testing bodies accredited by HEC with a passing score of 60% followed by an interview by the Graduate Admission Committee

Degree Requirements

The degree will be awarded according to the guidelines and policies issued by HEC/PCP/UCP from time to time.

Career Prospects

Graduates of the PhD Pharmaceutics program have diverse career opportunities, including:

**Academic Positions:** Assistant Professor and researcher in university/college.

**Pharmaceutical Industry:** Roles in formulation development, quality assurance, and drug regulatory affairs

**Research Institutions:** Positions in government and private research organizations

**Regulatory Agencies:** Consultants and evaluators for drug approval

**Entrepreneurship:** They can choose to start their pharmaceutical industry after fulfilling the legal requirements.

PhD Pharmacy (Pharmaceutical Chemistry)

Pharmaceutical Chemistry is a dynamic field that merges principles of Chemistry and Pharmacy to design, develop, and analyze drugs. A PhD in Pharmaceutical Chemistry involves advanced study and research in this interdisciplinary science, focusing on the discovery, development, and optimization of pharmaceutical agents.

A PhD in Pharmaceutical Chemistry prepares graduates for a career at the forefront of drug discovery and development. It equips them with the knowledge, skills, and experience needed to tackle the challenges of modern pharmaceutical science and contribute to improving public health. The Faculty of Pharmacy, University of Central Punjab is dedicated to providing firm groundings in the field of drug designing, stability, method development, validation and quality control. The prime concern of the curriculum is to focus on laboratory experience supported by excellent teaching and infrastructure for the students.

Semester I (09 Cr. Hrs.)

S. No	Course Code	Course Title	Cr. Hrs.
1	PHPC8413	Lead Identification, Optimization and Development	3
2	PHPC8423	Structure-Activity Relationship (SAR)	3
3	PHPC8433	Metal Complexes	3

Semester II (09 Cr. Hrs.)

S. No	Course Code	Course Title	Cr. Hrs.
1	PHPC8443	Stability of Drugs and Drug Products	3
2	PHPC8453	Pharmaceutical and Chemical Aspects of	3
3	PHPC8463	Drug Solubility Drug Properties and Arithmetic Perspective	3

Semester III and onwards (30 Cr. Hrs.)

S. No	Course Code	Course Title	Cr. Hrs.
1	PHPT9130	Research and thesis	30



## Admission Requirements

- MS/M.Phil. degree in the relevant discipline from a degree awarding institution recognized by the Higher Education Commission (HEC) and Pharmacy Council of Pakistan (PCP)
- At least 3.0 (on the scale of 4.0) CGPA in the MS/MPhil degree or 60% aggregate marks if the degree is earned from an annual system
- All applicants are required to pass the UCP Admission Test with a 60% score or a test equivalent to GRE/HAT General, conducted by testing bodies accredited by HEC with a passing score of 60% followed by an interview by the Graduate Admission Committee

## Degree Requirements

The degree will be awarded according to the guidelines and policies issued by HEC/PCP/UCP from time to time.

## Career Prospects

After obtaining a PhD in Pharmaceutical Chemistry, you will have several career opportunities in various sectors. Here are some potential career paths:

**Research Scientist:** You can work as a research scientist in pharmaceutical companies, government research organizations, or academic institutions. Your expertise in Pharmaceutical Chemistry will be valuable in developing new drug molecules, characterization, evaluation and improving drug efficacy and safety.

**Product development Scientist:** Product development scientists in a variety of industries, including food, biotechnology, and pharmaceutical science. As a product development scientist, you will be responsible for developing and optimizing new drug molecules along with their formulations.

**Regulatory Affairs Specialist:** Regulatory affairs professionals ensure that pharmaceutical products meet the necessary regulations and guidelines set by regulatory authorities. With your PhD in Pharmaceutical Chemistry, you can contribute to the regulatory aspects of drug development, including submission of applications and compliance with regulatory requirements.

**Quality Control/Quality Assurance Manager:** Pharmaceutical companies require professionals to oversee quality control and quality assurance processes. In this role, you would ensure that pharmaceutical products meet the required standards, conduct quality audits, and implement quality control procedures.

**Academia and Teaching:** With a PhD, you can pursue a career in academia as a professor or researcher. You can teach and mentor students, conduct independent research, publish scholarly articles, and contribute to the field of pharmaceutical chemistry through your work.

**Pharmaceutical Consultant:** As a consultant, you can provide expertise and advice to pharmaceutical companies, regulatory agencies, or healthcare organizations. Your knowledge of pharmaceutical chemistry can be valuable in solving complex problems related to testing, characterization and validation. Pharmaceutical chemist can play a key role in Drugs Testing Laboratories (DTLs)

**Forensic & Nuclear Scientists:** There are many other opportunities in the field of Pharmaceutical Chemistry like Forensic sciences. New drug development and nuclear Pharmacist.

**Entrepreneurship:** You may choose to start your own pharmaceutical company or venture focused on developing innovative drug delivery systems or specialized pharmaceutical products.





# PhD

## Pharmacy (Pharmacology)

The PhD Pharmacology program at the University of Central Punjab Lahore is designed to provide advanced education and research training in the field of Pharmacology. The program aims to produce highly skilled researchers who can contribute to the advancement of pharmacological science, particularly in areas related to drug development, therapeutic interventions, and understanding the mechanisms of drug action. The prime concern of the curriculum is to focus on laboratory experience supported by excellent teaching and infrastructure for the students.

### Semester I (09 Cr. Hrs.)

S. No	Course Code	Course Title	Cr. Hrs.
1	PHMS8513	Computational and Network Pharmacology	3
2	PHMS8523	Experimental Pharmacology	3
3	PHMS8533	Advanced Pharmacology-I	3

### Semester II (09 Cr. Hrs.)

S. No	Course Code	Course Title	Cr. Hrs.
1	PHMS8563	Ethnopharmacology	3
2	PHMS8553	Molecular & Translational Pharmacology	3
3	PHMS8563	Advanced Pharmacology-II	3

### Semester III and onwards (30 Cr. Hrs.)

S. No	Course Code	Course Title	Cr. Hrs.
1	PHPT9130	Research and thesis	30



## Admission Requirements

- MS/M.Phil. degree in the relevant discipline from a degree awarding institution recognized by the Higher Education Commission (HEC) and Pharmacy Council of Pakistan (PCP)
- At least 3.0 (on the scale of 4.0) CGPA in the MS/MPhil degree or 60% aggregate marks if the degree is earned from an annual system
- All applicants are required to pass the UCP Admission Test with a 60% score or a test equivalent to GRE/HAT General, conducted by testing bodies accredited by HEC with a passing score of 60% followed by an interview by the Graduate Admission Committee

## Degree Requirements

The degree will be awarded according to the guidelines and policies issued by HEC/PCP/UCP from time to time.

## Career Prospects

Graduates of the PhD Pharmacology program have diverse career opportunities, including:

**Academic Positions:** Professors, lecturers, and researchers in universities and colleges

**Pharmaceutical Industry:** Roles in drug discovery, development, and regulatory affairs

**Research Institutions:** Positions in government and private research organizations

**Healthcare Sector:** Clinical pharmacologists and consultants in hospitals and healthcare settings

**Regulatory Agencies:** Advisors and evaluators for drug approval and safety monitoring

**Entrepreneurship:** You may choose to start your own pharmaceutical company or venture focused on developing innovative drug delivery systems or specialized pharmaceutical products.







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