



ORDINANCE

FOR

DOCTOR OF PHARMACY (PHARM.D.)

**FACULTY OF PHARMACY
INTEGRAL UNIVERSITY
LUCKNOW**

2024-25

Ordinance for the Doctor of Pharmacy

Pharm.D.

It shall be a full time regular program of six (06) academic years duration (five years of study and one year of internship or residency). During an academic year, a candidate shall be enrolled only for one program of study and shall not appear in any other examination of this or any other University. An academic year should spread over a period of not less than 200 working days.

The period of six years duration is divided into two phases –

Phase I – consisting of First, Second, Third, Fourth and Fifth academic year.

Phase II – consisting of internship or residency training during sixth year involving posting in specialty units. It is a phase of training wherein a student is exposed to actual pharmacy practice or clinical pharmacy services and acquires skill under supervision so that he or she may become capable of functioning independently.

Medium of instruction and examination

English

Eligibility of Admission

Pharm. D. Part-I Program – A candidate passing with 50% marks in any of the following examinations –

- (1) 10+2 examination with Physics and Chemistry as compulsory subjects along with one of the following subjects: Mathematics or Biology.
- (2) A pass in D. Pharm. course from an institution approved by the Pharmacy Council of India under section 12 of the Pharmacy Act.
- (3) Any other qualification approved by the Pharmacy Council of India as equivalent to any of the above examinations.

Provided that a student should complete the age of 17 years on or before 31st December of the year of admission to the program.

Reservation: As per Integral University norms.

Intake of students: Number of admissions in the above said programmes shall be as prescribed by the Pharmacy Council of India from time to time and presently be restricted as below –

Pharm. D. Programme – 30 students.

STUDY SCHEME

First Year: Theory

Subject Code	Name of Subject	No. of hours of Theory	No. of hours of Tutorial
PRY101	Human Anatomy and Physiology	3	1
PRY103	Pharmaceutics	2	1
PRY105	Medicinal Biochemistry	3	1
PRY107	Pharmaceutical Organic Chemistry	3	1
PRY109	Pharmaceutical Inorganic Chemistry	2	1
PRY111/ MT120	Remedial Biology/ Remedial Mathematics	3	1
PMT113	Medical Terminology	2	-
Total hours		18	6

First Year: Practical

Subject Code	Name of Subject	No. of hours of Practical
PRY102	Human Anatomy and Physiology	3
PRY104	Pharmaceutics	3
PRY106	Medicinal Biochemistry	3
PRY108	Pharmaceutical Organic Chemistry	3
PRY110	Pharmaceutical Inorganic Chemistry	3
PRY112	Remedial Biology	3
Total hours		18 (= 42 Hours)

Second Year: Theory

Subject Code	Name of Subject	No. of hours of Theory	No. of hours of Tutorial
PRY201	Pathophysiology	3	1
PRY202	Pharmaceutical Microbiology	3	1
PRY204	Pharmacognosy & Phytopharmaceuticals	3	1
PRY206	Pharmacology-I	3	1
PRY207	Community Pharmacy	2	1
PRY208/PRY401	Pharmacotherapeutics-I	3	1
Total hours		17	6

Second Year: Practical

Subject Code	Name of Subject	No. of hours of Practical
PRY203	Pharmaceutical Microbiology	3
PRY205	Pharmacognosy & Phytopharmaceuticals	3
PRY209	Pharmacotherapeutics-I	3
Total hours		9 (= 32 Hours)

Third Year: Theory

Subject Code	Name of Subject	No. of hours of Theory	No. of hours of Tutorial
PRY301	Pharmacology-II	3	1
PRY303	Pharmaceutical Analysis	3	1
PRY305	Pharmaceutical Jurisprudence	2	--
PRY306	Medicinal Chemistry	3	1
PRY308	Pharmaceutical Formulations	2	1
PRY 310	Pharmacotherapeutics-II	3	1
Total hours		16	5

Third Year: Practical

Subject Code	Name of Subject	No. of hours of Practical
PRY302	Pharmacology-II	3
PRY304	Pharmaceutical Analysis	3
PRY307	Medicinal Chemistry	3
PRY309	Pharmaceutical Formulations	3
PRY 311	Pharmacotherapeutics-II	3
Total hours		15 (= 36 Hours)

Fourth Year: Theory

Subject Code	Name of Subject	No. of hours of Theory	No. of hours of Tutorial
PRY401	Pharmacotherapeutics-I	3	1
PRY403	Pharmacotherapeutics-II	3	1
PRY405	Hospital Pharmacy	2	1
PRY407	Clinical Pharmacy	3	1
PRY409	Biostatistics & Research Methodology	2	1
PRY410	Clinical Toxicology	2	1
Total hours		15	6

Fourth Year: Practical

Subject Code	Name of Subject	No. of hours of Practical
PRY402	Pharmacotherapeutics-I	3
PRY404	Pharmacotherapeutics-II	3
PRY406	Hospital Pharmacy	3
PRY408	Clinical Pharmacy	3
Total hours		12 (= 33 Hours)

Fifth Year: Theory

Subject Code	Name of Subject	No. of hours of Theory	No. of hours of Tutorial
PRY501	Clinical Research	3	1
PRY502	Pharmcoepidemiology and Pharmacoeconomics	3	1
PRY503	Clinical Pharmacokinetics & Pharmacotherapeutics Drug Monitoring	2	1
PRY504	Pharmacotherapeutics-III	3	1
Total hours		11	4

Fifth Year: Practical

Subject Code	Name of Subject	No. of hours of Practical
PRY505	Pharmacotherapeutics-III	3
PRY506	Clerkship*	As per norm
PRY507	Project Work (6 months)	20
Total hours		20 (= 38 Hours)

*Attending ward rounds on daily basis.

Sixth Year (Internship)

Internship or residency training including postings in speciality units. Student should independently provide the clinical pharmacy services to the allotted wards.

- (i) Six months in General Medicine department, and
- (ii) Two months each in three other specialty departments.

Examination:

- (1) Every year there shall be an examination to examine the students.
- (2) Each examination may be held twice every year. The first examination in a year shall be the annual examination and the second examination shall be supplementary examination.
- (3) The examinations shall be of written and practical (including oral nature) carrying maximum marks for each part of a subject as indicated in Tables below:

EVALUATION SCHEME

First Year: Theory

Subject Code	Name of Subject	Maximum marks for Theory		
		Sessional Exam.	Annual Exam.	Total
PRY101	Human Anatomy and Physiology	30	70	100
PRY103	Pharmaceutics	30	70	100
PRY105	Medicinal Biochemistry	30	70	100
PRY107	Pharmaceutical Organic Chemistry	30	70	100
PRY109	Pharmaceutical Inorganic Chemistry	30	70	100
PRY111/ MT120	Remedial Biology/ Remedial Mathematics	30	70	100
PMT113	Medical Terminology	15	35	50
				650

First Year: Practical

Subject Code	Name of Subject	Maximum marks for practical		
		Sessional Exam.	Annual Exam.	Total
PRY102	Human Anatomy and Physiology	30	70	100
PRY104	Pharmaceutics	30	70	100
PRY106	Medicinal Biochemistry	30	70	100
PRY108	Pharmaceutical Organic Chemistry	30	70	100
PRY110	Pharmaceutical Inorganic Chemistry	30	70	100
PRY112	Remedial Biology	30	70	100
				600 (=1250)

Second Year: Theory

Subject Code	Name of Subject	Maximum marks for Theory		
		Sessional Exam.	Annual Exam.	Total
PRY201	Pathophysiology	30	70	100
PRY202	Pharmaceutical Microbiology	30	70	100
PRY204	Pharmacognosy & Phytopharmaceuticals	30	70	100
PRY206	Pharmacology-I	30	70	100
PRY207	Community Pharmacy	30	70	100
PRY208	Pharmacotherapeutics-I	30	70	100
				600

Second Year: Practical

Subject Code	Name of Subject	Maximum marks for practical		
		Sessional Exam.	Annual Exam.	Total
PRY203	Pharmaceutical Microbiology	30	70	100
PRY205	Pharmacognosy & Phytopharmaceuticals	30	70	100
PRY209	Pharmacotherapeutics-I	30	70	100
				300 (=900)

Third Year: Theory

Subject Code	Name of Subject	Maximum marks for Theory		
		Sessional Exam.	Annual Exam.	Total
PRY301	Pharmacology-II	30	70	100
PRY303	Pharmaceutical Analysis	30	70	100
PRY305	Pharmaceutical Jurisprudence	30	70	100
PRY306	Medicinal Chemistry	30	70	100
PRY308	Pharmaceutical Formulations	30	70	100
PRY 310	Pharmacotherapeutics-II	30	70	100
				600

Third Year: Practical

Subject Code	Name of Subject	Maximum marks for practical		
		Sessional Exam.	Annual Exam.	Total
PRY302	Pharmacology-II	30	70	100
PRY304	Pharmaceutical Analysis	30	70	100
PRY307	Medicinal Chemistry	30	70	100
PRY309	Pharmaceutical Formulations	30	70	100
PRY 311	Pharmacotherapeutics-II	30	70	100
				500 (=1100)

Fourth Year: Theory

Subject Code	Name of Subject	Maximum marks for Theory		
		Sessional Exam.	Annual Exam.	Total
PRY401	Pharmacotherapeutics-I	30	70	100
PRY403	Pharmacotherapeutics-II	30	70	100
PRY405	Hospital Pharmacy	30	70	100
PRY407	Clinical Pharmacy	30	70	100
PRY409	Biostatistics & Research Methodology	30	70	100
PRY410	Clinical Toxicology	30	70	100
				600

Fourth Year: Practical

Subject Code	Name of Subject	Maximum marks for practical		
		Sessional Exam.	Annual Exam.	Total
PRY402	Pharmacotherapeutics-I	30	70	100
PRY404	Pharmacotherapeutics-II	30	70	100
PRY406	Hospital Pharmacy	30	70	100
PRY408	Clinical Pharmacy	30	70	100
				400 (=1000)

Fifth Year: Theory

Subject Code	Name of Subject	Maximum marks for Theory		
		Sessional Exam.	Annual Exam.	Total
PRY501	Clinical Research	30	70	100
PRY502	Pharmcoepidemiology and Pharmacoeconomics	30	70	100
PRY503	Clinical Pharmacokinetics & Pharmacotherapeutics Drug Monitoring	30	70	100
PRY504	Pharmacotherapeutics-III	30	70	100
				400

Fifth Year: Practical

Subject Code	Name of Subject	Maximum marks for practical		
		Sessional Exam.	Annual Exam.	Total
PRY505	Pharmacotherapeutics-III	30	70	100
PRY506	Clerkship*	30	70	100
PRY507	Project Work (6 months)	30	70	100
				300 (=700)

*Attending ward rounds on daily basis.

Sixth Year (Internship)

Poor	Fair	Below Average	Average	Above Average	Excellent
0	1	2	3	4	5

Eligibility for appearing Examination

Only such students who produce certificate from the Head of the Institution in which he or she has undergone Pharm.D. program in proof of his or her having regularly and satisfactorily undergone the course of study by attending not less than 80% of the classes held both in theory and in practical separately in each subject shall be eligible for appearing at examination.

Mode of Examination

(1) Theory examination shall be of three hours and practical examination shall be of four hours duration.

(2) A Student who fails in theory or practical examination of a subject shall re-appear both in theory and practical of the same subject.

(3) Practical examination shall also consist of a viva –voce (Oral) examination.

(4) Clerkship examination – Oral examination shall be conducted after the completion of clerkship of students. An external and an internal examiner will evaluate the student. Students may be asked to present the allotted medical cases followed by discussion. Students' capabilities in delivering clinical pharmacy services, pharmaceutical care planning and knowledge of therapeutics shall be assessed.

Award of Sessional marks and maintenance of records:

(1) A regular record of both theory and practical class work and examinations conducted in an institution imparting training for Pharm. D. program, shall be maintained for each student in the institution and 30 marks for each theory and 30 marks for each practical subject shall be allotted as sessional.

(2) There shall be three periodic sessional examinations during each academic year and the highest aggregate of any two performances shall form the basis of calculating sessional marks.

(3) The sessional marks in practicals shall be allotted on the following basis:-

(i) Actual performance in the sessional examination (20 marks);

(ii) Day to day assessment in the practical class work, promptness, viva-voce record maintenance, etc. (10 marks).

Sessional Marks in Pharm.D.

Theory	
Sessional	30 marks
Total	30 marks

Practical	
Sessional	20 marks
Assignment/ Promptness/ Viva +Record	8
Attendance	2
Total	30 marks

Minimum marks for passing examination

- A student shall not be declared to have passed examination unless he or she secures at least 50% marks in each of the subjects separately in the theory examinations, including sessional marks and at least 50% marks in each of the practical examinations including sessional marks.
- The students securing 60% marks or above in aggregate in all subjects in a single attempt at the Pharm. D. program examination shall be declared to have passed in first class.
- Students securing 75% marks or above in any subject or subjects shall be declared to have passed with distinction in the subject or those subjects provided he or she passes in all the subjects in a single attempt.

Eligibility for Promotion to next year

All students who have appeared for all the subjects and passed the first year annual or supplementary examination are eligible for promotion to the second year and, so on. However, failure in more than two subjects shall debar him or her from promotion to the next year classes.

Internship

(1) Internship is a phase of training wherein a student is expected to conduct actual practice of pharmacy and health care and acquires skills under the supervision so that he or she may become capable of functioning independently.

(2) Every student has to undergo one year internship as per Annexure-II to these regulations.

Certificate of Passing Examination

Every student who has passed the examinations for the Pharm. D. (Doctor of Pharmacy) shall be granted a certificate by the examining authority.

Practical Training:

- 1. Hospital Posting:** Every student shall be posted in constituent hospital for a period of not less than fifty hours to be covered in not less than 200 working days in each of second, third & fourth year course. Attendance is mandatory at least 75% otherwise student will not be allowed to appear in sessional/ annual/ supplementary examination. There should be presentation of clinical cases of last week hospital training. Each student shall submit report duly certified by the preceptor and duly attested by the Head of the Department or Institution as prescribed. In the fifth year, every student shall spend half a day in the morning hours attending ward rounds on daily basis as a part of clerkship. Theory teaching may be scheduled in the afternoon.
- 2. Clerkship:**
 - i) Students in shall be evaluated individually by internal and external examiners.
 - ii) Three seminars presented by students shall be evaluated for thirty marks each and the average of best two shall be forwarded to the university with marks of other subjects.

Scheme of Clerkship Examination:

	Sessional	Annual
SOAP notes writing	05	15
Case Presentation	10	25
Communication skill	03	15
Question and answer skills	02	15
Max Marks	20	70

Note: Total sessional marks are 30 (20 for clerkship exam plus 10 marks for regularity, promptness, and record maintenance).

Project work:

(1) To allow the student to develop data collection and reporting skills in the area of community, hospital and clinical pharmacy, a project work shall be carried out under the supervision of a teacher. The project topic must be approved by the Head of the Department or Head of the Institution. The same shall be announced to students within one month of commencement of the fifth-year classes. Project work shall be presented in a written report and as a seminar at the end of the year. External and the internal examiners shall do the assessment of the project work.

(2) Project work shall comprise of objectives of the work, methodology, results, discussions and conclusions.

Objectives of project work— The main objectives of the project work is to—

1. Show the evidence of having made accurate description of published work of others and of having recorded the findings in an impartial manner; and
2. Develop the students in data collection, analysis and reporting and interpretation skills.

Methodology— To complete the project work following methodology shall be adopted, namely:—

- i) Students shall work in groups of not less than two and not more than four under an authorised teacher;
- ii) Project topic shall be approved by the Head of the Department or Head of the Institution;
- iii) Project work chosen shall be related to the pharmacy practice in community, hospital and clinical setup. It shall be patient and treatment (Medicine) oriented, like drug utilisation reviews, pharmacoepidemiology, pharmacovigilance or pharmacoconomics;
- iv) Project work shall be approved by the institutional ethics committee;
- v) Student shall present at least three seminars, one in the beginning, one at middle and one at the end of the project work; and
- vi) Two-page write-up of the project indicating title, objectives, methodology anticipated benefits and references shall be submitted to the Head of the Department or Head of the Institution.

Reporting

- (1) Student working on the project shall submit jointly to the Head of the Department or Head of the Institution a project report of about 40-50 pages. Project report should include a certificate issued by the authorised teacher, Head of the Department as well as by the Head of the Institution
- (2) Project report shall be computer typed in double space using Times Roman font on A4 paper. The title shall be in bold with font size 18, sub-titles in bold with font size 14 and the text with font size 12. The cover page of the project report shall contain details about the name of the student and the name of the authorised teacher with font size 14.
- (3) Submission of the project report shall be done at least one month prior to the commencement of annual or supplementary examination.

Evaluation— The following methodology shall be adopted for evaluating the project work—

- (i) Project work shall be evaluated by internal and external examiners.
- (ii) Students shall be evaluated in groups for four hours (i.e., about half an hour for a group of four students).
- (iii) Three seminars presented by students shall be evaluated for thirty marks each and the average of best two shall be forwarded to the university with marks of other subjects.
- (iv) Evaluation shall be done on the following items: **Marks**
 - a) Write up of the seminar (7.5)
 - b) Presentation of work (7.5)
 - c) Communication skills (7.5)
 - d) Question and answer skills (7.5)

Total (30 marks)
- v) Final evaluation of project work shall be done on the following items: **Marks**
 - a) Write up of the seminar (17.5)
 - b) Presentation of work (17.5)
 - c) Communication skills (17.5)
 - d) Question and answer skills (17.5)

Total (70 marks)

Explanation— For the purposes of differentiation in the evaluation in case of topic being the same for the group of students, the same shall be done based on item numbers b, c and d mentioned above.

Assessment of Internship:

- i) The intern shall maintain a record of work which is to be verified and certified by the preceptor (teacher practitioner) under whom he works. Apart from scrutiny of the record of work, assessment and evaluation of training shall be undertaken by an objective approach using situation tests in knowledge, skills and attitude during and at the end of the training. Based on the record of work and date of evaluation, the Dean or Principal shall issue certificate of satisfactory completion of training, following which the university shall award the degree or declare him eligible for it.

ii) Satisfactory completion of internship shall be determined on the basis of the following:

1. Proficiency of knowledge required for each case management SCORE 0-5.
2. The competency in skills expected for providing Clinical Pharmacy Services SCORE 0-5.
3. Responsibility, punctuality, work up of case, involvement in patient care SCORE 0-5.
4. Ability to work in a team (Behavior with other healthcare professionals including medical doctors, nursing staff and colleagues). SCORE 0-5.
5. Initiative, participation in discussions, research aptitude. SCORE 0-5.

Grades of internship

Poor	Fair	Below Average	Average	Above Average	Excellent
0	1	2	3	4	5

ANNEXURE-I

(CONDITIONS TO BE FULFILLED BY THE ACADEMIC TRAINING INSTITUTION)

1. Hospital Details

1. Institution with their own hospital of minimum 300 beds.
2. Teaching hospital recognized by the Medical Council of India or University, or a government hospital not below the level of district headquarter hospital with 300 beds with clearly defined Memorandum of Understanding including housing pharmacy practice department with minimum carpet area of 30 square feet per student along with consent to provide the professional manpower to support the programme.
3. Corporate type hospital with minimum 300 beds with clearly defined Memorandum of Understanding including housing pharmacy practice department with minimum carpet area of 30 square feet per student along with consent to provide the professional manpower to support the programme.
4. Number of institutions which can be attached to one hospital shall be restricted by the student pharmacist to bed ratio of 1:10.

2. Specialty

- a) Tertiary care hospitals are desirable
- b) Medicine (compulsory), and any three specializations of the following:
 1. Surgery
 2. Pediatrics
 3. Gynecology and obstetrics
 4. Psychiatry
 5. Skin and VD
 6. Orthopedics

3. Location of the Hospital

Within the same limits of Corporation or Municipality or Campus with Medical Faculty involvement as adjunct faculty.

4. Training of Pharmacy Practice Faculty

- a) Teaching staff will be trained as per the module prescribed by the Central Council.
- b) Duration of training – Minimum 3 months.
- c) Training sites – Institutions running pharmacy practice or Programs for at least five years.
- d) Trainer – Professor or Assistant Professor with minimum of five years of clinical pharmacy teaching and practice experience.

ANNEXURE-II
(INTERNSHIP)

1) SPECIFIC OBJECTIVES:

- i) To provide patient care in cooperation with patients, prescribers, and other members of an interprofessional health care team based upon sound therapeutic principles and evidence-based data, taking into account relevant legal, ethical, social cultural, economic, and professional issues, emerging technologies, and evolving biomedical, pharmaceutical, social or behavioral or administrative, and clinical sciences that may impact therapeutic outcomes.
- ii) To manage and use resources of the health care system, in cooperation with patients, prescribers, other health care providers, and administrative and supportive personnel, to promote health; to provide, assess, and coordinate safe, accurate, and time-sensitive medication distribution; and to improve therapeutic outcomes of medication use.
- iii) To promote health improvement, wellness, and disease prevention in co-operation with patients, communities, at-risk population, and other members of an interprofessional team of health care providers.
- iv) To demonstrate skills in monitoring of the National Health Programmes and schemes, oriented to provide preventive and promotive health care services to the community.
- v) To develop leadership qualities to function effectively as a member of the health care team organised to deliver the health and family welfare services in existing socio-economic, political and cultural environment.
- vi) To communicate effectively with patients and the community.

2) OTHER DETAILS:

- i. All parts of the internship shall be done, as far as possible, in institutions in India. In case of any difficulties, the matter may be referred to the Pharmacy Council of India to be considered on merits.
- ii. Where an intern is posted to district hospital for training, there shall be a committee consisting of representatives of the college or university, and the district hospital administration, who shall regulate the training of such trainee. For such trainee a certificate of satisfactory completion of training shall be obtained from the relevant administrative authorities which shall be countersigned by the Principal or Dean of College.
- iii. Every candidate shall be required, after passing the final Pharm. D. examination as the case may be to undergo compulsory rotational internship to the satisfaction of the College authorities and University concerned for a period of twelve months so as to be eligible for the award of the degree of Pharm. D. as the case may be.

3) ASSESSMENT OF INTERNSHIP:

- i) The intern shall maintain a record of work which is to be verified and certified by the preceptor (teacher practitioner) under whom he works. Apart from scrutiny of the record of work, assessment and evaluation of training shall be undertaken by an objective approach using situation tests in knowledge, skills and attitude during and at the end of the training. Based on the record of work and date of evaluation, the

Dean or Principal shall issue certificate of satisfactory completion of training, following which the university shall award the degree or declare him eligible for it.

ii) Satisfactory completion of internship shall be determined on the basis of the following:

1. Proficiency of knowledge required for each case management SCORE 0-5.
2. The competency in skills expected for providing Clinical Pharmacy Services SCORE 0-5.
3. Responsibility, punctuality, work up of case, involvement in patient care SCORE 0-5.
4. Ability to work in a team (Behavior with other healthcare professionals including medical doctors, nursing staff and colleagues). SCORE 0-5.
5. Initiative, participation in discussions, research aptitude. SCORE 0-5.

Grades of internship

Poor	Fair	Below Average	Average	Above Average	Excellent
0	1	2	3	4	5

A Score of less than 3 in any of above items will represent unsatisfactory completion of internship.