

## 8. FACULTY OF MEDICINE

### 8.1 DEPARTMENT OF PHARMACEUTICAL SCIENCES AND DRUG RESEARCH

#### FACULTY

##### *Professors*

1. A.K. Tiwari, Ph.D.
2. Pawan Krishan, Ph.D.
3. Rajesh Kumar Goel, Ph.D.
4. Gurpreet Kaur, Ph.D           **Head**
5. Richa Shri, Ph.D.
6. Nirmal Singh, Ph. D.
7. Gulshan Bansal, Ph. D.

##### *Assistant Professors*

- |                                |                                 |
|--------------------------------|---------------------------------|
| 1. Dimple Sethi, Ph.D.         | 2. Dhandeep Singh, M. Pharm.    |
| 3. Kanchan Vohra, Ph.D.        | 4. Om Silakari, Ph. D.          |
| 5. Yogita Bansal, Ph.D.        | 6. Amteshwar Singh Jaggi, Ph.D. |
| 7. Vikas Rana, Ph. D.          | 8. Bharti Sapra, Ph. D.         |
| 9. Suresh Kumar, Ph. D.        | 10. Gagan Preet Kaur, M. Pharm. |
| 11. Gurinderdeep Singh , Adhoc |                                 |

#### COURSES

##### 1. Bachelor of Pharmacy (4 years)\*

Students Intake : 60\*

Pre-requisite: 10+2 (with 50% marks in the four compulsory subjects i.e. Chemistry, Physics, Biology, Mathematics and English taken together or equivalent examination). The candidate shall complete the age of 17 years on or before 31st December 2018.

Admission to B.Pharm programme is based on the merit of 10+2 examination. The merit shall be calculated on the basis of marks obtained in Physics, Chemistry, Biology/Mathematics and English taken together

##### **Weightage in the Merit for the Rural Area Candidates:**

Five (5%) percent of the total marks secured in 10+2 will be added to 10+2 score of candidates who are hailing and residing in rural area and have passed their both 10th and 10+2 class examinations from schools situated in the rural area of Punjab .

Further, the candidate should have been studying in such school for at least five years before passing the last examination. A candidate claiming such benefit will have to produce a certificate from the Tehsildar of the area certifying that the school from where the candidate has passed the 10th and 10+2 examination, falls within the aforesaid rural area.

For rural area seats the concerned certificate will also be accepted that is issued by the school Principal and the residential certificate signed by Tehsildar, provided both the school and residence are in the same area.

##### 2. Master of Pharmacy (2 years)

Students Intake: 37\*

- I. Pharmaceutics 8
- II. Pharmaceutical Chemistry 8
- III. Pharmacology 8
- IV. Pharmacognosy 8.
- V. Pharmacy Practice5

**\* There is no additional seats in B.Pharm. and M.Pharm. as these courses are approved by Pharmacy Council of India.**

Phone No. 0175-304-6254 (H)

0175-304-6255 (O)

Email. Id. : head\_pharmacy@pbi.ac.in

### ELIGIBILITY

1. There will be no entrance test for admission to M. Pharm.
2. The admission shall be open to candidates who have qualified B. Pharm. examination from a recognized university/board /institution with minimum 55% marks in aggregate.
3. The admission to M Pharm. course shall be open to GPAT qualified candidates. If no GPAT qualified student is available & seats remain vacant, the vacant seats may be filled with Non-GPAT students on the basis of Merit of their BPharm score.

### INTERVIEW AND ADMISSION

The Candidates are require to bring their original certificates at the time of interview. The list of selected, candidates on the basis of interview and those on the waiting list shall be displayed on the notice board and on the website “www.pupadmissions.ac.in”.

**RESERVATION OF SEATS:** 85% of M. Pharm. seats in each specialization are meant for candidates who have qualified GPAT and B. Pharm examination from Punjabi University, Patiala and 15% seats shall be for candidates from other states/Universities. However, if eligible candidate(s), who have qualified GPAT and B. Pharm. Examination from Punjabi University, Patiala are not available, the vacant seats shall be open to candidates who have qualified GPAT and B. Pharm. Examination from other Universities. In case eligible candidates who have qualified GPAT and B. Pharm from Punjabi University, Patiala under reserved categories are not available, these vacant seats shall be open to eligible candidates, who have applied under these reserved categories and are residents of Punjab. However, if still such seats remain vacant in these reserved categories, they shall be offered first to candidates of general category who have qualified GPAT and B. Pharm. from Punjabi University, Patiala and then to candidates of universities other than Punjabi University, Patiala. The candidates being admitted under 15% quota on other Universities shall be eligible only for reservation provided by the constitution i.e. 25% for SC/ST and 10% for BC.

**CRITERIA OF ALLOCATION TO SPECIALISATION:** Allocation of admitted candidates to a specialization will be determined as per the criteria mentioned below: (a) Allocation of admitted students to various specializations shall be made on the basis of GPAT score and their preference. (b) Seats as mentioned below shall be reserved in each specialization for candidates who have qualified GPAT and B. Pharm. examination from Punjabi University, Patiala M. Pharm. (Pharmacology) 07 seats M-Pharm. (Pharmaceutics) 07 seats M. Pharm. (Pharmaceutical Chemistry) 07 seats M. Pharm. (Pharmacy Practice) 04 seats M. Pharm (Pharmacognosy) 07 seats. One seat in each of the five specializations shall be offered to candidates who have qualified GPAT and B. Pharm from other universities. However, if eligible candidate(s), who have qualified GPAT and B. Pharm. examination from Punjabi University, Patiala are not available, the vacant seats shall be open to candidates who have qualified GPAT and B. Pharm. examination from other universities and vice versa shall also apply (c) Separate merit list of candidates admitted under reserved category shall be prepared as per criteria mentioned above for purpose of allocation to various specialisations. The candidates as per their merit list and order of their choice shall be equally distributed to the four specialisations and not more than one candidate in excess shall be allocated to one specialisation as compared to other specialisations to accommodate the remainder (after equal distribution). (d) Candidates admitted to specialisation of their first choice shall not be allowed to shift to any other specialisation. In case of vacancy of seat, the candidate admitted from waiting list against this vacancy shall be allocated to the specialisation depending upon the merit and of one's choice and not depending upon the vacancy created in the specialisation. Candidates admitted already with a higher merit than the candidate admitted from the waiting list shall be allowed to shift to the specialisation in which vacancy has occurred.

### ABOUT THE DEPARTMENT

The Department of Pharmaceutical Sciences and Drug Research was inaugurated on November 24, 1995 by S. Harcharan Singh Brar, Chief Minister of Punjab. The department was envisaged since inception to develop into a centre of excellence for drug research and for training personnel at graduate, post-graduate and doctoral levels. The Department has a rare distinction of being granted financial assistance under the coveted FIST scheme of Department of Science and Technology, New Delhi as well as SAP-I (2009-14) and SAP-II (2015-20) scheme of University Grants Commission, New Delhi in recognition of its excellent performance in academic and research areas. The division of Pharmaceutics is actively pursuing research in niche areas of drug delivery. These include transdermal, colonic, bioadhesive, S-SEDDS, Liquid preconcentrated microemulsion systems and nanoparticulate drug delivery systems. Studies on microspheres and tablets (ODTs, oral gels, etc) for modulating drug release are

also being conducted. Development of spermicidal dosage forms also forms an integral part of research endeavors of this division. The Pharmacology division is engaged in studies on new target sites in ischaemic myocardium, diabetes induced neuropathy and biochemical pharmacology of memory. Pharmaceutical Chemistry group is involved in the design (QSAR studies) and synthesis of nonpeptide angiotensin receptor antagonists, insulin sensitizing agents and anti-adhesion molecules. Work on stress testing and degradation studies on drugs also forms a part of research pursuits of this group. The Pharmacognosy division is pursuing research related to phytochemical investigations on anti-anxiety and anti-diabetic drugs. Research interests of Pharmacy Practice division include assessment of anti-arthritic drugs, cardiovascular dysfunction and diabetic complications in patients. The students of the department have found placements leading Pharma Companies; Ranbaxy/ Sun Pharma, Torrent, Cadila, Ind Swift, Morepen, Jubilant Organosys, Jubilant Chemsys, Cipla, Dabur and Panacea Biotech to name a few. In addition, many students have gone abroad for further studies. The department maintains a close contact with leading pharmaceutical companies for training and placement of its students. This has earned the department a good name and the credibility of the teaching faculty is widely appreciated and accepted. The name of few faculty members figures in the panel of reviewers of prestigious international journals like European Journal of Pharmaceutical Sciences, Carbohydrate Polymers, International Journal of Biological Macromolecules, AAPS PharmSci.Tech., AAPS Journal, Current Drug Delivery, International J of Pharmaceutics, ActaPharmalogicaSinica, European Journal of Pain, Journal of Food Science and Technology, Journal of Alzheimer's, Neurobiology of Learning and Memory, Psychopharmacology, Journal of Chromatography, Journal of Nanoparticulate Research and Journal of Pharmaceutical and Biomedical Analysis. Approximately 800 publications in journals of international repute made by pharmaceuticals, pharmacology, pharmacognosy, pharmacy practice and pharmaceutical chemistry divisions have brought an international fame to the department. This is evident from the recent four patents filled and research publications in European Journal of Pharmaceutics and Biopharmaceutics (IF 4.25), European Journal of Pharmaceutical Sciences (IF3.35), Expert Opinion on Therapeutic Patents (IF4.2), Expert Opinion Drug Delivery (IF4.8), International Journal of Pharmaceutics (IF3.7), Carbohydrate Polymers (IF4.1), Pharmacological Research (IF 4.4), Journal of Ethnopharmacology (IF 3.26), Neuroscience and Biobehavioral Review (IF 10.5), Analysis (IF 4.23).

## 8. 2 DEPARTMENT OF PHYSIOTHERAPY

(Recognised by Indian Association of Physiotherapists)

### FACULTY

#### Professor

- |                                |             |
|--------------------------------|-------------|
| 1. Narinder Kaur Multani, Ph.D | <b>Head</b> |
| 2. A. G. K. Sinha, Ph.D        |             |
| 3. Narkeesh Arumugam, Ph.D     |             |

#### Assistant Professors

- |                             |                        |
|-----------------------------|------------------------|
| 1. Sonia Singh, Ph.D        | 2. Sandeep Singh, Ph.D |
| 3. Jayraman G, MPT (Cardio) |                        |

#### Clinical Physiotherapists

- |  |   |
|--|---|
| 1. Kanimozhi D., M.P.T (Orthopedics), Ph.D | (On deputation)                             |
| 2. Vavita Rani, B.P.T.                     | 3. Nainky Bhalla MPT (Neuro)(On Deputation) |
| 4. Balwinder Kaur, B.P.T.                  | 5. Ravinder Kaur, MPT (Ortho.)              |
| 6. Saurav Sharma, MPT (Ortho.)             | 7. Ravinder Singh, BPT                      |

### COURSES

<p><b>1. Bachelor of Physiotherapy (BPT, 4½ Years)</b> <span style="float: right;"><b>Student Intake : 25</b></span>  <b>Pre-requisite: 10+2 with Physics, Chemistry, Biology and English with 50% marks in aggregate.</b>  <b>Admission of BPT</b> course shall be based on the merit list prepared by the Punjabi University, Patiala. Preparation of merit list shall involve totaling of percentage of marks of Physics, Chemistry, Biology and English in the 12<sup>th</sup> Class.</p>
<p><b>2. Master Of Physiotherapy (MPT, 2 Years)</b> <span style="float: right;"><b>Student Intake : 25</b></span>  <b>Pre-requisite: BPT with 50% marks from recognized university/board/institution.</b>                  Admission to MPT course is based on the merit list prepared by the Punjabi University, Patiala with special reference to following distribution of marks:                  i) 40% weightage for 12<sup>th</sup> (Physics, Chemistry, Biology and English) merit.                  ii) 60% weightage for BPT merit  <b>Six seats in each specialization (Musculoskeletal Physiotherapy, Neurological Physiotherapy, Cardiopulmonary Physiotherapy, Sports Physiotherapy).</b></p>

**Phone No. 0175-304-6434 (H)**

Physiotherapy is a health care profession that is primarily concerned with remediation of impairments and disabilities and the promotion of mobility, functional ability, quality of life and movement potential through examination, evaluation, diagnosis and physical intervention. Physical therapists can help people at any stage of life, when movement and function are threatened by ageing, injury, diseases, disorders, conditions or environmental factors. Physical therapists help people maximize their quality of life, looking at physical, psychological, emotional and social well being. They work in the health spheres of promotion, prevention, treatment/intervention, habilitation and rehabilitation. Physical therapists can practise independently of other health care/service providers and also within interdisciplinary rehabilitation/habilitation programmes in a wide variety of settings.

In India undoubtedly there exists a great need for the quality Physiotherapy services. The Government of India's national policy on the prevention of disability recognizes the physiotherapist as core member of the team involved in the prevention and management of locomotor disability. Prevention, health promotion, treatment/intervention, habilitation and rehabilitation take place in multiple settings that may include primary health care centers, education & research centers, fitness clubs, health clubs, hospitals, senior citizen centers, sports centers, workplaces/companies etc.

#### The Department

The Department of Physiotherapy at Punjabi University, Patiala came to independent existence since 2008. The vision of Physiotherapy Department is to be a pioneer in heralding best physiotherapy health care professionals, academicians & researchers and to be an integral part of our communities' need.

#### Our mission is:

- To provide conducive atmosphere for easy and effective learning.
- To prepare the students to face the global health care needs.

- To provide quality physiotherapist well equipped with cognitive, psychomotor and effective skills.
- To inculcate the holistic approach amongst the students for the total rehabilitation of patients.
- To foster the research culture among the students and staffs for timely up gradation of knowledge.
- To provide exposure to the extracurricular activities for all-round development of students.
- To provide quality care with the help of recent advances in physiotherapy for early functional independence of patients.

Department runs two regular courses i.e., **Bachelor's in Physiotherapy (BPT)** and **Masters in Physiotherapy (MPT)** in four specializations i.e., Musculoskeletal, Neuro-physiotherapy, Cardiopulmonary and Sports Physiotherapy. The department is among one of those few universities of India that offer **Doctorate of Philosophy (Ph.D.)** program in Physiotherapy.

#### **Facilities**

##### ***Out Patient Department (OPDs)***

In order to meet the requirement of clinical material for teaching and research, the Department runs three OPDs. The main **OPD (General & Neurological)** is located in the Health Centre of University where more than 100 patients receive physiotherapy services every day. The extension center i.e., **Geriatric Physiotherapy Clinic** at Model Town, Patiala provides specialized care to elderly population of the city. Sports physiotherapy clinic caters to the specific need of sports persons of the university. In all these OPDs the services are provided by the highly qualified Clinical Physiotherapists. These OPDs are equipped with ultra modern equipments like SWD, MWD unit, Combo-therapy, Interferential Therapy unit, Therapeutic Ultrasound, Traction, Infrared, Moist Heat, Whirlpool, Laser Therapy unit, Cryo-therapy, Hydrotherapy etc.

##### ***Clinical attachments***

Department has collaboration with renowned hospitals of Patiala city for clinical training of the students. These extensions are:

- **GOVERNMENT MEDICAL COLLEGE & HOSPITAL, PATIALA**
- **COLUMBIA ASIA, PATIALA** (Multispecialty, 90 bedded)
- **SADBHAWNA HOSPITAL, PATIALA** (Heart institute, 45 bedded)
- **AMAR HOSPITAL, PATIALA** (Multispecialty, 150 bedded)
- **NAVJEEVANI, SHULLAR** (Pre-vocational training, Physiotherapy services)
- **COMMUNITY HOME FOR MENTALLY RETARDED, RAJPURA.**

The department has a mobile van for community physiotherapy services. The department offers services to Community by organizing camps at various nearby villages at regular interval.

#### **Laboratories**

##### ***Teaching/Practical Labs***

The Department has following teaching labs:

- |                         |                            |                       |
|-------------------------|----------------------------|-----------------------|
| 1. Anatomy Lab          | 2. Physiology              | 3. Electrotherapy Lab |
| 4. Exercise Therapy Lab | 5. Clinical Psychology Lab | 6. Computer Lab       |

##### ***Research Lab***

The research lab of the department is equipped with state of the art research equipments such as Electromyography (EMG), Nerve Conduction Velocity (NCV), Electrocardiography (ECG), Computerized Spirometry, Bone Mineral Density Evaluation, Foot pressure assessment, Physical fitness evaluation equipments.

#### **Staff**

The Department has some of the highest qualified Physiotherapy professionals in the country in its faculty. Books authored by the faculties of the department have become the standard text book of various universities. The staff and students of the Department are actively engaged in the research work in all areas of Physiotherapy and their research output is being published in the reputed national and international journals. By virtue of their research contributions, all the faculty members have earned recognition in their respective areas of specialization. They are invited all over the country and abroad as well to chair scientific sessions, as resource persons and delivering lectures.

Department has collaboration with other institutions for academic and research expertise such as Indian Spinal Cord Injury Center, Vasant Kunj, New Delhi, Sardar Bhagwan Singh Post Graduate Institute of Biomedical Sciences and Research, Balawala, Dehradun, Mullana University, Mullana, Ambala.

**MASTER OF PHYSIOTHERAPY (M.P.T.)**

Two years (four semesters) course of MPT in four specializations namely Musculoskeletal Physiotherapy, Neuro Physiotherapy, Cardiopulmonary Physiotherapy and Sports Physiotherapy was started in Department of Physiotherapy, Punjabi University, Patiala from academic session 2007-2008. A total number of 25 seats are allocated to the MPT course and the distribution of seats in four specializations is as follows:

S.No.	Specialization	No. of Allocated Seats
1	Neurophysiotherapy	6
2	Musculoskeletal Physiotherapy	6
3	Cardiopulmonary Physiotherapy	6
4	Sports Physiotherapy	6+1

• **ELIGIBILITY**

1. Admission to MPT course shall be based on the merit list prepared by Punjabi University, Patiala.
2. The admission shall be open for the candidates who have qualified BPT examination with 50% marks from a recognized University/Board/Institution.
3. The candidate should **have completed internship before the date of counseling** for the admission to MPT.

• **B. INTERVIEW AND ADMISSION**

The students should submit **the photocopy of mark sheets of 10<sup>th</sup>, 10+2 and all the years of BPT** to the Head, Department of Physiotherapy, Punjabi University, Patiala on the day of interview. The list of selected candidates on the basis of interview and those on the waiting list shall be displayed on the notice board of the Department as well as available online.

• **C. CRITERIA OF ALLOCATION OF SPECIALIZATION**

Allocation of areas of specialization shall be determined as per the following criteria:

- Allocation of admitted students to various specializations shall be made on the basis of merit list prepared by the Punjabi University, Patiala and their preference.
- Separate merit list of candidates admitted under reserved category (SC/ST) shall be prepared for the purpose of allocation to various specializations. The candidates as per their merit list and order of their choice shall equally be distributed to the four specializations.
- The basis of allocation of specialization to the combined reserve category shall be the merit of the candidate in the combined list prepared by clubbing all the remaining five reserved categories (Category – 1 Backward Class, Category – 2 Border Area/Backward Area, Category – 3 Disabled persons/Widows/Divorced Women, Category – 4 Children/Widows of Defense personnel/Para-military personnel, Category – 5 Wards of Political sufferers/Freedom Fighters/ Riot Affected). The candidates as per their merit list and order of their choice shall equally distributed to the four specializations and not more than one candidate in excess shall be allocated to one specialization as compared to other specializations to accommodate the remainder (after equal distribution).
- Candidates admitted to specialization of their first choice shall not be allowed to shift to any other specialization. In case of vacancy of seat the candidate admitted from waiting list against this vacancy shall be allocated to the specialization depending upon the merit prepared by Punjabi University, Patiala and of one's choice not depending upon the vacancy created in the specialization. Candidates admitted already with higher merit than the candidate admitted from the waiting list shall be allowed to shift to the specialization in which vacancy has occurred.

### 8.3 DEPARTMENT OF SPORTS SCIENCE

#### FACULTY

##### Professor

1. Paramvir Singh, Ph.D.

##### Associate Professors

1. Ashok Kumar, Ph.D. *Head*
2. Ajita, Ph.D.

##### Assistant Professors

1. Anuradha Lehri, Ph.D.
2. Harish Kumar, Ph.D.
3. Amarjot Kaur Ph.D.

#### COURSES

- |  |                      |
|--|----------------------|
| <p><b>1. M.Sc. Sport Science (2 years)</b><br/>                     Pre-requisite: B.Sc. (Medical/Non Medical)/Home Science/Physical Education &amp; Sports Science or Bachelor Degree with one of the following subjects: Physiology of Exercise, Kinesiology, Bio-Mechanics, Human Anatomy, Human Physiology, Human Biology, Bio-Chemistry, Bio-Physics, Nutrition &amp; Diet Therapy, Child Development &amp; Family Relations , Graduate with D.P.Ed. or B.P.Ed<br/>                     Career Options: Teaching, Research, Sports Science.</p> | Student Intake: 27   |
| <p><b>2. Post Graduate Diploma in Health Fitness Trainer (One year)</b><br/>                     Pre-requisite: Graduation in any discipline with 50% marks in the aggregate form the University or any other statutory University.</p>  | Student Intake: 15   |
| <p><b>3. Diploma in Gatika (One Year)</b><br/>                     Pre-requisite: Graduation in any discipline with 45% marks</p>  | Student Intake: 20+5 |
| <p><b>4. M. Phil.</b><br/>                     Pre-requisite: M.Sc. Sports Science, M.P.Ed., M.A (Physical Education), M.Sc. Dietics, M.Sc. Home Science</p>   | Students Intake: 10  |

Phone No. 0175-304-6532 (H)