

GURU RAVI DASS CHAIR

Faculty

Professor : Vacant
(Charge with the DUI)

Guru Ravi Dass Chair is Committed to encourage the study and research on various aspects of the life, works and teachings of the great Saint-Poet, Sri Guru Ravi Dass Ji. Special emphasis is laid on the study and research of Medieval Indian Sant Sahitya.

The Chair is engaged in collection of Sant Vani especially the Vani of Saint-poets of Punjab. Some rare and important manuscripts have been procured for our Departmental Library.

So far 35 students have been awarded Ph.D. degrees. The Chair enrolled 2 Research Scholars for the Degree of Doctor of Philosophy.

DEPARTMENT OF HINDI

About the Department

The Department of Hindi was established in 1938. It is one of the oldest Hindi Department in the Country. During early late Sixties, the Legendary Scholar, Acharya Hazari Prasad Dwivedi joined the Department as the Head. Since then, the Department has undoubtedly been major centres of Hindi Studies in the country. The Department provided good infrastructure, including computerization and Departmental Library for students and researchers.

The Department has obvious contribution towards research in Hindi Studies through the works of Acharya Hazari Prasad Dwivedi, Dr. Ganpati Chander Gupta, Dr. Ramesh Kuntal Megh, Dr. Indernath Madan, Dr. Dharam Pal Maini, its great teachers. The Department has been publishing a leading National Journal of Research namely, 'Parishodh'. Well-known Hindi writers such as Mohan Rakesh, Ravinder Kalia, Ganga Prasad Vimal, Virendra Mehendiratta, Dr. Paresh, Dr. Atul Vir Arora have been among its students.

Faculty

Professor : Neerja Sood
Reader : **Satya Pal Sehgal** Baij Nath Prasad
(Chairperson)
Lecturers : Ashok Kumar Gurmeet Singh
U.G.C. S.R.F. : Shallu
University Research Fellow : Pawan Kumar

Courses offered

| COURSE | SEATS | DURATION | ELIGIBILITY/CRITERIA |
|--|-------|----------|--|
| M.A. | 60+8 | 2 years | B.A. with 45% in Elective or 50% aggregate. |
| Diploma Course in Translation (English to Hindi) | 60+8 | 1 year | Bachelor's Degree or equivalent exam. Admission criteria passed by University, including written test. |

BHAI VIR SINGH STUDIES IN MODERN LITERATURE

Faculty

Professor : Vacant
(Charge with Chairperson, School of Panjabi Studies)

The Chair enrolls students for Ph.D. who wish to undertake research on Modern Panjabi Literature & Comparative Literature.

The Chair organises, “Meet your writers” series in order to provide opportunities to the students to understand the process of creativity. Writers of repute, from different Languages, are invited under this series.

The Chair organises Conferences, Symposia and Workshops for the teachers and students of the University Departments and its Affiliated Colleges in order to promote the talent of writing among them.

A poet’s workshop is organised every year to understand the creative process. Poets from different languages are invited to recite their poems.

LECTURES :

The Chair organises the following lectures :

- (i) Justice Teja Singh Memorial Lecture on Punjabi Culture and Punjabi Literature.
- (ii) Swami Ram Tirath Memorial Lecture on Spiritualism.

SHEIKH BABA FARID CHAIR

About the Chair

The Chair was established in 1976.

Faculty

Professor : Vacant
(Charge with Chairperson, School of Panjabi Studies)

The Chair is devoted primarily to the study of Medieval Indian Literature with emphasis on comparative studies in Medieval North Indian Literatures especially Urdu and Hindi.

Guidance to research studies in Medieval Indian Literature and its cognate subjects leading to Ph.D. Degree is also available.

The Chair organises seminars and symposia on comparative religions and comparative Bhakti Literature.

The Chair has a separate Research Degree Committee. Presently, three candidates are registered and three are enrolled for Ph.D. Degree.

PUNJABI LEXICOGRAPHY

About the Department

The Department was established in 1972. The Department has undertaken four projects for college students.

1. English-Punjabi Dictionary
2. Punjabi-English Dictionary
3. Punjabi-Punjabi Dictionary
4. Culinary Glossary

Faculty

Readers : **Sukhjit Kaur** Uma Sethi
(Head)

Lecturer : Akwinder Kaur

Thrust Areas

1. English-Punjabi Dictionary is being Completed up to Letter 'T'.
2. Punjabi English Dictionary is to be revised.
3. The compilation of first six letters of Punjabi-Punjabi Dictionary is Completed.
4. Culinary Glossary is completed.

DEPARTMENT OF RUSSIAN

About the Department

The Department was established in 1959. Russian language is taught at Certificate, Diploma and Advanced Diploma level.

The department is equipped with 11 seater language laboratory which imparts instructions in phonetics of Russian and Slovak languages. It has also appropriate Audio-visual equipments to acquaint the students with the life and culture of the people of Russia and Slovakia through slides and film shows in the department. The Department of Russian also arranges cultural evening programmes with distinguished literary personalities from Russia, CIS countries and Slovakia to widen the cultural and literary horizon of its students.

Faculty

Reader : **Pankaj Malviya**
(Chairperson)

Courses offered

| COURSE | SEATS | DURATION | ELIGIBILITY/CRITERIA |
|---------------------|--------|----------|---|
| Certificate Course | 100+14 | 1 year | 10+2 Exam. |
| Diploma Course | 25+4 | 1 year | Cert. Course in Russian or equivalent Exam. |
| Adv. Diploma Course | 15+2 | 1 year | Diploma Course in Russian or equivalent. |

Class Timings

The Classes for all the courses are normally held in the evening.

Morning/Afternoon groups for the Certificate Course in Russian language can be arranged, if sufficient number of students opt for the same.

Thrust Area

Translation Technique and Comparative Study of Russian and Indian Languages.

DEPARTMENT OF SANSKRIT

About the Department

The Department was established in 1956.

There are three courses in the Department i.e. M.Phil., Post-graduate and Certificate Course in Sanskrit. Besides this, the faculty of department is also supervising the research work of the students enrolled for Ph.D. in the field of Literature, Philosophy, Grammar, Veda, Dharma Shastra & Jyotish etc.

The Department has been organizing special lectures and workshops on important aspect of Indian Philosophy, Classic Literature and Vedic Literature.

Faculty

Professors : **Shankarji Jha** Vikram Kumar Virendra Kumar Alankar
(Chairperson)
V.P. Upadhyaya
(Re-employed)

Courses offered

| COURSE | SEATS | DURATION | ELIGIBILITY/CRITERIA |
|---------------|-------------------------|-----------------|---|
| M.A. | 60+8 | 2 year | As prescribed in Section 7.1 of Rules for Admission+Aptitude test |
| Ph.D. | Subject to availability | 3-5 years | See General Important Guidelines |

Ph.D.

There are 22 students who have been enrolled/registered for Ph.D. in the Department.

Thrust Areas

Study of Sanskrit Literature, Philosophy, Grammar, Veda in the light of Advanced Modern Technology and its comparison.

DEPARTMENT OF URDU

About the Department

The Department of Urdu was established in the year 1978 and later on the Persian studies were also started in the year 1985, with the founder members, Dr. Haroon Ayub in Urdu and Dr. Madhukar Arya in Persian, respectively. The Urdu and Persian studies had been the major subject of teaching in the Oriental College of Lahore which was later on established in the name of Punjab University, Lahore. The study of said courses were resumed by this University after the partition of India and at the first stage, the University introduced the Certificate Course in Urdu and Persian and later on the Diploma and Advanced Diploma Courses were also started. In the year 1991, the Department became the Post Graduate Department where the regular teaching of M.A. in Urdu started with joining of Professor M. Shakeel Khan just after completing Commonwealth Academic Staff Fellow (Lodon) in 1990. Now he is member of University 'SENATE' also. Later on Ph.D./Research works were also introduced in the Department in both the subjects i.e. Persian and Urdu.

The Department is using Modern Teaching Methods through Audio-Visual Software like CDs and Video Cassettes, Computer Typing and use of Internet especially in teaching Urdu and Persian Language and Literature. The Department has its own Departmental Library with a good number of reference and text books in the subjects of Urdu and Persian. The Department also receives Journals and Magazines regularly from Urdu Academy Delhi Ghalib Institute, Delhi; Academies of Iranian Academic Institutions and Iran Cultural House, New Delhi & Iran too.

The Department organizes the Seminars, Conferences of National and International Level and also the Exhibition of Iranian Paintings, Persian Books and other Exhibitions related to the Indo-Persian social and cultural relations along with the cultural festivals based on Indo-Persian traditions with the Iranian students with the help of Iran Cultural House. The Department also invites eminent and distinguished literary personalities of Urdu and Persian Language and Literature, to deliver the lectures on the various topics related to the interests of Urdu/Persian lovers and for the benefit of the students.

Faculty

Professor : **M. Shakeel Khan**
(Urdu) (*Chairperson*)

Reader : Madhukar Arya
(Persian)

Courses offered

| COURSE | SEATS | DURATION | ELIGIBILITY/CRITERIA |
|-------------------------------|--------------|-----------------|--|
| M.A. (Urdu) | 30+4 | 2 years | As prescribed in Section 7.1 of Rules for Admissions. |
| Certificate Course (Urdu) | 75+10 | 1 year | Hr. Sec. or equivalent/Pre-University/ 10+1. |
| Diploma Course (Urdu) | 25+4 | 1 year | P.U. Cert. Course in Urdu, Urdu in Matric or Adib Exam. from P.U./Equivalent exam. |
| Adv. Diploma Course (Urdu) | 15+2 | 1 year | P.U. Dip. Course in Urdu, Intermediate or B.A. I with Urdu Elective/equivalent exam. |
| Cert. Course (Persian) | 25+4 | 1 year | Hr. Sec./equivalent exam./Pre-University |
| Dip. Course (Persian) | 15+2 | 1 year | Cert. Course in Persian from P.U., or Persian at Matric level/Equivalent exam. |
| Adv. Dip. Course (Persian) 10 | | 1 year | P.U. Diploma Course in Persian/Intermediate/B.A.I with Persian Elective/Additional Language From P.U./equivalent exam. |

Classes for all Cert./Diploma/Adv. Diploma Courses are held in the evening.

Ph.D.

The department has the facilities for research leading to the Ph.D. degree in Urdu and Persian.

Thrust Area

The Department is engaged in Research Programme on almost all major disciplines of Persian language and literature, and the thrust area is Comparative study of Persian with Punjabi, Urdu, Sanskrit, Pali and other Modern Indian Languages and also in the subject of Medieval Indian History, Ancient Indian History, Fine Arts, Law, Political and Social Sciences with comparative studies and Mysticism and Mystical Literature, written during the Ancient Period based on Classical Literature and also written during the so-called Modern Period in all the Modern Indian Languages. The students come from Iran and other Arab countries for Ph.D. in the Department. The thrust area of Ph.D. in the subject of Urdu is based on language and literature of Urdu with the comparative study of Modern Indian Languages.

VISHVESHVARANAND VISHVA BANDHU INSTITUTE OF SANSKRIT AND INDOLOGICAL STUDIES (VVBIS & IS), HOSHIARPUR

About the Institute

The Institute was taken over by the University in 1965. The Panjab University maintains a Centre of Advanced Studies and Research in Sanskrit and Indology as a regular Institute of the University under the name "Vishveshvaranand Vishva Bandhu Institute of Sanskrit and Indological Studies" (VVBIS & IS) at Hoshiarpur and is about three kilometres (on the Una Road) away from the main centre of the city.

The Institute publishes a half yearly Research Journal entitled "Vishveshvaranand Indological Journal". Volume XLV-XLVI (Combined Issue) of 2007-2008 has been printed & Volume XLVII of 2009 is under process. Besides the Institute has published about 52 Research books. Dictionary of Vedic Interpretation is under process.

Faculty

| | | | |
|--------------|---|---|-------------------------|
| Professors : | Raghubir Singh (Chairperson) Prem Lal Sharma | Ganesh Dutt Bhardwaj Krishna Murari Sharma | Rajinder Kumar Sharma |
| Readers : | Parbhat Singh | Krishna Saini | Narasingha Charan Panda |
| Lecturers : | Aditya Angiras | Ved Prakash Dindoriya | Ritu Bala |

Courses offered

| COURSE | DURATION | ELIGIBILITY/CRITERIA |
|--|----------|--|
| M.A. (Sanskrit) | 2 years | B.A. with Sanskrit (45% marks) or Shastri of P.U. or any other equivalent examination. |
| Acharya in Veda, Vyakarna, Darshan and Sahitya | 2 years | Shastri examination of P.U./M.A. (Sanskrit) of P.U./equivalent examination. |
| Shastri (New Degree Course in Sanskrit) | 3 years | Prak Shastri-II/+2 (with Sanskrit) or Visharad (with Matric) from P.U./equivalent examination. |
| Prak Shastri | 2 years | Matric/Hr. Sec. I/or equivalent examination |

Number of Seats : No seat limit has been prescribed for the above courses.

The facilities for research leading to Ph.D. degree also exist.

Scholarships : The Institute offers stipends to the eligible students of Prak-Shastri, Shastri and Acharya @ Rs. 250/- p.m., Rs. 300/- p.m. & Rs. 400/- p.m. respectively for ten months. Five students each in M.A. Part I & II (Sanskrit) are awarded stipends on merit @ Rs. 150/- p.m. for twelve months.

Thrust Area

Development of Sanskrit and Indological Studies.

Vishveshvaranand Library

The Library possesses about 79185 books and journals and about 3000 ancient manuscripts. It received 118 journals and periodicals during the year and recognized by UNESCO.

VII-FACULTY OF LAW

DEPARTMENT OF LAWS

About the Department

The Department of Laws, originally established at Lahore in 1889, was re-established at Shimla in 1948, shifted to Jalandhar in 1950 and finally re-located at the University Campus at Chandigarh in 1959. Its Alumni include Judges of the Supreme Court and High Courts, Union Cabinet Ministers, State Chief Ministers, Cabinet Ministers, Ambassadors, Senior Bureaucrats, Police Officers and other legal luminaries.

The Department provides practical training to LL.B. students. One full paper of 6th Semester includes compulsory participation in two Moots, attachment with advocates in District Courts for 7 to 10 days, and special lectures by eminent Academicians, Judges and Senior Advocates which are compulsory as a part of curriculum. Every year the students of the department are sent to the Supreme Court of India as a part of the practical training programme.

It has established a Legal Aid Clinic-cum-Arbitration Centre as well as a Placement Cell. It is the only Department which has students Exchange Programme with ELSA under which various groups of students have gone from Chandigarh to Stockholm and vice-versa. The Department has provision for special lectures in memory of Justice Mehr Chand Mahajan and S. Ajit Singh Sarhadi. These lectures have been delivered over the years by eminent persons such as Justice V.K. Krishna Iyer, Justice V.S. Deshpande, Professor Upendra Bakshi, Dr. L.M. Singhvi, Professor Mool Chand Sharma, Justice J.S. Verma, Mr. Soli J. Sorabjee and Prof. M.R. Madhava Menon. It has a good library with more than 51,000 books and 52 regularly subscribed Indian and foreign journals. The Department has also the distinction of having Depository Library for United Nations Documents which is the only library with more than 8000 documents North of India. The Department regularly publishes a Law Journal (Panjab University Law Review).

ALSA : The Department has established Asian Law Students Association.

Dress Code : Black pant and coat, white shirt along with tie/scarf (prescribed) on Mondays, Wednesdays and on all formal occasions/functions i.e. moot courts, court visits, presentations, special lectures etc. The girl students have option to wear this dress or white salwar kameez with white dupatta and black coat.

Placement Cell : The Department has its own Placement Cell which encourages the students to undertake their internship after the class hours. The cell arranges internships to the interested students with leading lawyers, NGOs, Commissions etc. The Department has also started inviting the potential employers in the Corporate Sector for the purpose of recruitment of students in the Final year of their studies.

Faculty :

| | | | |
|------------|--------------------|--|-------------------------|
| Professors | : Shashi K. Sharma | P.S. Jaswal (Chairperson) | J.K. Chauhan (on leave) |
| | Nishtha Jaswal | M.S. Bains | Bhajan Kaur |
| | Ranbir Kaur | Vijay Nagpal | Shalini Marwaha |
| Readers | : Maninder Kaur | Daya Nand Garg (on deputation at PURC, Hoshiarpur) | Meenu Paul |
| | Paramjit Kaur | | Devinder Singh |
| Lecturers | : Vandana A. Kumar | Anupama Goel (on leave) | Geeta Joshi |
| | Prem Nath | Jyoti Rattan | Babita Devi |
| | Anil Kumar Thakur | Dinesh Kumar | Shipra Kaushal |

Courses offered :

LL.B. 3- years Course (6-Semesters) (Seats 180+22+27 NRI) (Morning), +180+22 (Evening).

A person who has passed one of the following examinations shall be eligible to join LL.B. course:

- (a) Bachelor's Degree in any faculty of Panjab University with at least 45% marks in the aggregate; (40% for SC/ST candidates).
- (b) Degree in any Faculty of another University recognized by the Panjab University and the Bar Council of India securing at least 45% marks in the aggregate.

Provided that in case of a candidate having a Bachelor's degree of this University or any other University recognized by the Syndicate, through Modern Indian Languages (Hindi or Urdu or Punjabi (Gurmukhi Script) and/or in a Classical Language (Sanskrit or Persian or Arabic) the aggregate of 45% marks shall be calculated by taking into account the percentage of aggregate marks that he had secured at the language examination, excluding the marks for additional optional paper, English and the elective subject taken together.

- (c) A Master's Degree from the Panjab University.
- (d) A Master's Degree from any other University recognized by the Panjab University and the Bar Council of India as equivalent to the corresponding Post-graduate degree of the Panjab University.

Admission to LL.B. Course shall be on the basis of an Entrance Test. Total marks for determining merit would be 200.

50% of 200 (100 marks for the entrance test)

50% of 200 (100 marks for the qualifying exam)

The applicants having a compartment in their qualifying examination shall not be eligible to join LL.B. course irrespective of their clearing the entrance test.

Note: The admission in the Department of Laws for the academic session 2009-2010 will be subject to the new Bar Council of India Rules 2008 as and when approved/adopted by the Panjab University.

Apart from the relevant Rules and Regulations in the Panjab University Calendars etc. applicable to various Law courses, the following provisions be noted specifically by the students with regard to their attendance, condonation of lectures, eligibility, promotion to next higher classes.

The Senate at its meeting held on 20.9.2001, Para XIII (o) has decided as under:-

“That w.e.f. the session 2002-03, the requirement of attending 75% (notwithstanding 66% as mentioned in the Regulation 3 of P.U. Cal. Vol. II, 2007 at page 387) of the total number of lectures, tutorials, seminars, practicals stipulated in the UGC letter No. F.C.A. (CPP II) dated 26.7.2001 be made applicable from the academic session 2002-03”.

Note : Lectures shall be counted upto the last working day before lectures cease and the college/department closes for preparatory holidays.

The days spent by a student for competing examination conducted by Government for Public Services (from the first day to the last day of the examination as also the days of travelling connected with the examination) shall be counted on production of satisfactory evidence as attendance at lectures delivered to his class during the period of such absence.

A student who participates in Inter-University or University or Inter-Collegiate Tournaments or Youth Festivals or National and International Tournaments or similar other activities or NCC or University educational excursions or NSS etc. be allowed credit for an equal number of lectures delivered and tutorial, practical classes etc. held during the period he was away to participate in such an activity provided the student proceeds with prior permission of the Head/Chairman/Principal concerned.

Deficiency of lectures under Regulations shall be counted after giving the credit for attendance/ participation in various activities as contemplated above.

For exhaustive information on condonation the Panjab University Calendars Vol. II (2007) and Vol. III (2005) may be consulted.

Rules for Condoning Deficiency in Lectures.

The deficiency may be condoned by the Chairperson/Head of the Department of Laws as under:-

- (a) Up to 30 lectures in various paper/s to the best advantage of the candidate; and
- (b) Up to 8 lectures in the Law Moots, Tutorials, Visits to the Courts.

Provided that no condonation shall be allowed in regard to lectures delivered by experts.

Provided further that no condonation shall be allowed in case a candidate has attended less than 33% lectures for each paper/subject/tutorial moots.

Further, the Senate in its meeting held on 12.10.2003 Para XXIII decided as under:-

1. The Vice-Chancellor, on the recommendation of the Board of Control and for reasons to be recorded, be authorized to condone shortage of lectures up to another 10 lectures delivered in various paper(s) to the best advantage of the candidate in addition to the authority vested in the Chairperson/Head of the Department.
2. The Syndicate may, for reasons to be recorded, make further relaxation up to 10 lectures delivered in various paper(s) in cases of extreme hardship beyond the limit/s stipulated in (1) above.

Note : For condonation of lectures on the ground of extreme hardship cases, information to the effect along with supporting documents, if any, should be sent to the Department within seven days after the hardship is over.

Regulation 6.1 (a) of Panjab University Calendar Vol. II 2007, page 388 provides that:-

“Promotion from Ist to 2nd, 3rd to 4th and 5th to 6th semesters shall be allowed to a student who fulfils the attendance and other requirements under the rules, even if he fails to appear or qualify in the papers prescribed for Ist, 3rd or 5th semesters as the case may be”.

As per the above decision, a student who fails to attend minimum of 75% of the total delivered lectures, practicals etc. will not be eligible to sit in the examinations. A student of Ist semester who fails to fulfill the required attendance as per rules will not be eligible to be re-admitted in the Department except by qualifying the entrance test afresh.

Regulation 6.1 (b) of the Panjab University Cal. Vol. II 2007, page 388 provides that:-

“Promotion/admission to 2nd year (3rd Semester) or 3rd year (5th Semester) shall be allowed to a student provided he has passed in 5 out of 10 papers prescribed for Ist year (Ist and 2nd Semesters) and 10 out of 20 papers prescribed for Ist and 2nd years (Ist, 2nd, 3rd, 4th Semesters) as the case may be.

The Rules for Inter-University and Intra-University migration are the same except the criterion for the determination of merit. Depending upon the availability of seats, migration is permissible in the 3rd and 5th semester evening classes only provided the candidate is already a student of 3rd/5th semester in some other University/Regional Centre/Institution constituent/affiliated to Panjab University.

LL.M. 2 years (Seats 50+2+4 NRI)

A person who has passed one of the following examinations shall be eligible to join LL.M. Part-I:-

- (a) LL.B. degree examination of this University.
- (b) LL.B. degree (3-year and or 5 year course) of another University recognized by the Syndicate for this purpose.

Admission to LL.M. Part-I shall be on the basis of an Entrance Test. Total marks for determining merit would be 200 :-

50% of 200 (100marks for the entrance test)

50% of 200 (100 marks for the qualifying exam)

Note : Semester system in LL.M. course will be introduced from the academic session 2009-2010 subject to the approval of the competent authority

Provisions are there for Ph.D. & LL.D. in Law. Details in this regard are contained in the Panjab University Calendar Vol. II, 2007, pages 402-409.

Ph.D.

The application on the prescribed form for enrolment shall be considered by the Head/Chairperson of the Department of Laws thrice in a year as under:-

- (a) From July 15 to July 31;
- (b) From November 15 to November 30; and
- (c) From March 15 to March 31

The enrolment form along with Booklet containing relevant rules and regulations on the subject may be obtained on payment from the Cash Counter, S.B.I. near Administrative Block, Panjab University, Chandigarh.

For eligibility and submission of thesis for the degree of LL.D., see Regulations on pages 408-409 P.U. Cal. Vol. II, 2007.

Thrust Areas

The Department of Laws, Panjab University is actively involved in teaching and research in the field of Law. Besides teaching about 1000 students of LL.B., and 30-40 students of LL.M., the teachers of the Department actively involve themselves in guiding research as well as doing their own research work. Every student of LL.M. is required to submit a dissertation as a part of syllabi. A number of Ph.D. scholars are also registered under the teachers of the Department. The major areas of research are Constitutional Law, Human Rights, Family Law, International law, Administrative Law, Law of Taxation, Criminal Law, Law of Property, Labour Law and Environmental Law etc. In the field of Human Rights, the research is being conducted both at the LL.M. and Doctorate Level. Some of the teachers have also authored books on topics on Human Rights and related subjects. The teachers of the Department have also been participating in various international and national Seminars/Conferences both in India and abroad. Four teachers of the Department have also successfully completed the Course in Human Rights conducted by the International Institute of Human Rights at Strasbourg (France), and subsequent to the completion of this Course, the said teachers completed their internship in various International Institutions at Geneva such as U.N. Division of Human Rights, High Commission for Refugees, International Labour Organisation and ICRC. During the session 1999-2000, the Department conducted Special Course on Human Rights in which 18 students of LL.M. presented research papers on different aspects of the Human Rights. The Department organized a three day seminar 'Outreach Training Programme on Disability & Human Rights' from 23rd to 25th March, 2005. A national conference sponsored by UGC on Human Rights Education : A Futuristic Approach was organized by the Department on 3rd and 4th February, 2007. A seminar on 'NRI Abandoned Brides : A Challenge to Meet' was held on 13th February, 2007. A Special Lecture was delivered by Dr. Hassan Fancy from Canada on "***Demonstrative Advocacy***" on 24.2.2009. "Shri Dip Chand Memorial National Moot Court Competition" was organized on 28th February and 1st March, 2009. A Panel discussion on 'Surrogacy : Bane or Boon' was organized on 4.3.2009. A Seminar on "Protection and Promotion of Human Rights in India : Reality and Challenges in N.W Region" was organized on 20-21 March, 2009.

The Department also undertakes social activities and every year organizes Blood Donation Camp where a large number of students, employees and faculty members donate blood.

UNIVERSITY INSTITUTE OF LEGAL STUDIES

About the Institute

The University Institute of Legal Studies has been established by Panjab University w.e.f. Session 2004-2005. It is a 5 year course imparting legal education to the students who join the Institute after passing 10+2. The 5 year course is divided into 10 Semesters ultimately leading to degree of B.A. LL.B. (Hons.). The new Institution has been designed to have more thrust on clinical legal education so that the students are prepared for any kind of professional venture in the area of law. The course includes many new aspects like Moot courts as part of curriculum and also seminars and case studies as part of curriculum; placement of the students with lawyers, NGO's Lok Adalats, Legal Aid Cells etc. In addition, students will be visiting various institutions, which are associated with the Justice system in India like Prisons, Police Stations, Revenue Departments, District Administration and NGO's. They will be getting first hand information of the working of these different agencies who are directly or indirectly connected with the Administration of Justice. In addition, there will be students exchange programme with other Universities on reciprocal basis for 20-30 days. They will attend their classes in other Universities in exchange and participated in other activities having legal orientation. Efforts are on to have a placement cell for the first batch which will pass out in the year 2009. The new building of the Institute is coming up and ground floor of the building is complete. The building shall have about 64,000 square feet covered area when completed.

Library :

There shall be a Library consisting of more than 6000 sq. feet area. It shall be a state-of-the-art library with Internet connectivity. The library shall have a separate computer room for use of students.

Faculty :

| | | | |
|------------|---|--|--|
| Professors | : P.S. Jaswal <i>Director (Additional Charge)</i> | R.S. Grewal <i>(Re-employed)</i> | Sangita Bhalla |
| Lecturers | : Sasha Shruti Bedi Sabina Salim Jasneet Kaur Bhaarat | Navneet Arora Jasmeet Kaur Stellina Jolly Karan Jawanda | Chanchal Narang Sarabjit Kaur Amita Verma Anju Berwal Pushpinder Gill Meenu Kaushik Jai Mala Ajay Ranga |

Course offered :

B.A. LL.B. (Hons.) Five Year (Integrated) Course

B.A. LL.B. (Hons.) Five year (Integrated) Course (10 semesters) started from the Session 2004-2005.

Seats : 120+16+18 for NRI.

Eligibility Criteria :

A person who has passed one of the following examinations shall be eligible to join B.A. LL.B. (Hons.) Five Year (Integrated) Course :

- 10+2 Examination of Punjab or Haryana Board of School Education/CBSE/ICSE or any other Board/University recognized as equivalent to it with at least 50% marks (45% marks in case of SC/ST candidates).
- The candidate must not be above 20 years of age as on 1st August of the year in which admission is sought in First Semester (22 years in case of SC/ST).

Admission :

The admission to B.A. LL.B. (Hons.) Five Year (Integrated) Course shall be on the basis of an Entrance Test to be conducted by the University. Total marks for determining the merit would be 200.

50% of 200 (100 marks for Entrance Test).

50% of 200 (100 marks for the Qualifying Examination).

Every candidate admitted to the Course shall pay such fees and funds or other charges as may be prescribed by the Syndicate from time to time.

RULES REGULATING ADMISSION AND PROMOTIONS TO B.A. LL.B. (HONS.) 5 YEARS INTEGRATED COURSE (1-10 SEMESTERS) AS PER SYNDICATE DECISION DATED 24.1.2004 APPENDIX-XVII, ITEM NO. C-39.

1. B.A. LL.B. (Hons.) shall be 5 years integrated course comprising of 10 Semesters. Each academic year shall be divided into two semesters :
 - (i) from July to December
 - (ii) from January to May
2. Minimum qualification for admission to First Semester of the course shall be :
 - (a) 10+2 Examination of Punjab or Haryana Board of School Education/CBSC/ICSE or any other Board/University recognized as equivalent to it with at least 50% marks (45% marks in case of SC/ST).
 - (b) The candidate must not be above 20 years of age as on 1st August of the year in which admission is sought to the First Semester (22 years in case of SC/ST).
 - (c) The admission shall be on such criteria (academic merit or entrance test or both etc.) as may be prescribed by the Syndicate from time to time.
3. Every candidate admitted to the course shall pay such fees and funds or other charges as may be prescribed by the Syndicate from time to time.
4. A candidate admitted to the course shall be eligible to appear in a Semester examination if he has attended at least 75% of the lectures/special lectures/tutorials/moots/visits to court or other institutions etc. as may delivered or arranged during the semester.

Provided that the deficiency in this attendance requirement may be condoned as follows :

- (a) Upto 30 lectures in a paper(s) in total to the best advantage of the student and upto 10 lectures in various special lectures/moots/visits to Courts or other institutions by the Head/Chairman/ Director/Principal.

- (b) The Vice-Chancellor, in exceptional cases, on the recommendation of the Head/Chairman/Director/Principal, may condone upto 10 lectures in a paper(s) to the best advantage of the student, beyond the condonation done by the Head/Chairman/Director/Principal.
5. To be declared pass in a semester exam. a candidate, must have obtained at least
- (i) 45% marks in each paper of the semester exam.
 - (ii) 45% marks in the internal assessment/Moots/project reports/visit to Court or other institution etc. for each paper. These marks shall be on such basis/criteria as approved by the Syndicate, from time to time.
6. (i) Promotion from Ist to 2nd, 3rd to 4th, 5th to 6th, 7th to 8th & 9th to 10th semester shall be allowed if a candidate who has fulfilled the attendance and other requirements even though who has failed to appear in the examination for the semester respectively from which he is being promoted.
- (ii) Promotion from 2nd to 3rd, 4th to 5th, 6th to 7th, 8th to 9th semesters shall be allowed only if he has passed at least 50% of the papers of the Ist & 2nd, 3rd & 4th, 5th & 6th, 7th & 8th semesters respectively as the case may be.
- “Explanation :** A student shall be considered as pass in the paper only if he/she secures 45% marks in internal assessment and theory paper separately”.
- (iii) A candidate who gets reappear in paper/papers may pass the same in a total of two consecutive chances irrespective of promotion. However, where a student has cleared 80% of the papers of all the semesters preceding the semester in which he has to be admitted, he will be entitled to avail one more chance to clear the remaining papers on the recommendation of the Director/Principal, if the candidate fails to clear the remaining papers even after availing all these (three in all) chances, he will seek fresh admission in Ist Semester (through entrance test for the Ist Semester only) provided he is eligible to continue as per Rules. *(This para was substituted by Syndicate in its meeting held on 24-9-2006, Agenda Item-71).*
- (iv) All the papers of the 5 years course must be passed within 8 years from the date of admission to the Ist semester of the course.
- (v) On passing all the 10 semester examinations a candidate will be placed on the basis of aggregate marks of all 10 semester examinations as under.
- 45% or above but below 60% marks- 2nd Division
 - 60% or above but below 75% marks- Ist Division
 - 75% or above marks- Ist Division with Distinction
- (vi) The aggregate percentage of marks of all 10 semesters obtained shall be entered in the degree to be awarded by the University.
7. Every candidate shall pay such examination fee for each semester examination/re-appear as may be prescribed by the Syndicate from time to time. He must submit admission form along with the prescribed fee for the semester examination/reappear examination before the last date fixed by the Syndicate from time to time through the head/Chairman/Director/Principal.

8. The medium of instructions and examination shall be English.
9. Five per cent freeships are available for meritorious students belonging to economically weaker sections of the society in Five Year B.A. LL.B. (Hons.) Integrated Course (Decision of the Syndicate dated 28-2-2003).

For purpose of above concession candidates have passed the qualifying examination in first class (60% marks-proof to be added) and the total family income from all sources should not exceed Rs. One lac per year. For proof of family income from all sources, the income certificate shall be accepted when issued by the Competent Authority, which shall mean Deputy Commissioner/Tehsildar/SDM or the employer as the case may be. In addition to this, an affidavit duly attested by a magistrate, giving full details of total family income should also be submitted with the admission form. The candidates admitted under this category shall be exempted from payment of tuition fee. However, such candidate shall be required to pay other funds as are being paid by other candidates. Candidates holding yellow cards/yellow ration cards would be given preference over the candidates provided other merit conditions remain the same.

10. **Rules/Regulations of Bar Council of India shall be applicable to the B.A. LL.B. (Hons.) 5 years Integrated Course as amended from time to time.**

11. **RULES FOR MIGRATION (A & B)**

Migration Rules for B.A. LL.B. (5 years) Integrated course be approved as under :

- (a) Migration cannot be claimed as a matter of right.
- (b) No migration will be allowed to 1st, 2nd, 4th, 6th, 9th and 10th Semester.
- (c) Migration can be allowed only in 3rd, 5th and 7th Semester.
- (d) Migration can be allowed to the students studying in B.A. LL.B. (Hons.) 5 years integrated course of other Institutions which are recognized as equivalent to the B.A. LL.B. (Hons.) 5 years integrated course of Panjab University.
- (e) A student migrating from another University must have secured atleast 45% marks in the aggregate in the preceding year.
- (f) Only those candidates may be considered eligible to seek migration who have cleared all the papers of the examinations in which they had appeared from the Institution from which migration is to be sought.
- (g) (i) Migration will be done according to inter-se-merit.
(ii) For students of other Universities seeking migration to Panjab University, the maximum marks obtained by the top student of other University will be normalized against the maximum marks obtained by the top student of this University in order to prepare the merit list.

- (h) No migration shall be allowed if there is difference of more than 2 papers (not subjects) of the course content taught in the Panjab University and in the Institution from which the candidate is seeking migration in the examination of the Semester(s) passed by the candidate. The deficient papers be cleared within 2 consecutive attempts failing which the candidate will not be promoted to the next semester.
- (i) Migrated students shall pay the amount of fee which he/she was required to pay in the University/ College/Centre from which he/she is migrating, i.e. the sum of rupees equivalent to the annual dues, tuition fee, admission fee, NRI fee etc. or the fee applicable at the University Institute of Legal Studies, which ever is higher, for the remaining period of the study at the University Institute of Legal Studies, Panjab University, Chandigarh.
- (j) A candidate seeking migration shall have to apply on the prescribed proforma by 31st July to the Director, UIILS/Principal of the respective college. A Clause-B included in the proforma that migration will be allowed only on the basis of **merit** as defined in Clause-7 above.
- (k) No migration will be allowed without No Dues-cum-Character Certificate and Migration Certificate from the migrating College/Centre/University.
- (l) Migration may be allowed only if there is (are) vacancy (ies) in the Semester in which migration is being sought.
- (m) **Migration fee of Rs. 42,000 or as determined by the Syndicate from time to time shall be charged.**

(Approved in Syndicate meeting held on 5-4-2006 Para 21)

- 12. (i) A student of B.A. LL.B. (Hons.) 5 year-Integrated Course be awarded the degree of B.A. after successful completion of the first three years of the course. However, if he/she completes all the 5 years, then he/she be awarded B.A. LL.B. (Hons.) degree on surrendering the first degree of B.A.
- (ii) Internal assessment for the 10 semester papers shall be of 20 marks, in each subject.

The split-up of 20 marks is as follows :

| | |
|-----------------------------------|-----------------|
| Mid-term test | 08 |
| Project Report/Moot/Term paper | 05 |
| Presentation/viva-voce/G.D. | 04 |
| Attendance, Punctuality & Conduct | 03 |
| Total | 20 marks |

VIII-FACULTY OF MEDICAL SCIENCES

DR. H.S. JUDGE INSTITUTE OF DENTAL SCIENCES & HOSPITAL

Dr. H.S. Judge Institute of Dental Sciences & Hospital was established in April, 2006. In view of lack of teaching and research related to field Oral Health, it was in year 2004, the foundation stone was laid by Hon'ble Union Minister of Health & Family Welfare, govt. of India, Dr. Ambumani Ramdoss on 22nd September, 2004.

Institute of Dental Sciences has been established in six acres of land and also plans to build a 100 bedded hospital for adequate training and teaching of dental students in clinical medical subjects.

This Institute is committed to impart dental education at undergraduate level initially and subsequently at post graduate level. It has well equipped laboratories for basic medical and dental subjects and modern lectures. Dental Institute has 18 departments (out of which 9 are dental specialties and 9 medical specialties). It has 102 Dental Chair units, placed in three clinics. Four intra oral X-ray units, one OPG/Ceph Machine, two RVGs and one operating microscope are also functional in the Institute. In a short span of 2½ years 200-250 patients are attending to various specialty clinics. Institute has a well-equipped Library with 1800 books and the 25 international journals. The general ailments in patients from adjoining areas are also being attended to by faculty in the medical and surgical OPD. A fully equipped diagnostic lab has recently been inaugurated which provides facility for innumerable tests related to Biochemistry, Microbiology and Pathology at the Institute itself.

It is presently imparting under-graduate training to 300 BDS students by a dedicated and committed faculty of around 75 members. Institute is approved by Ministry of Health & Family Welfare, Govt. of India.

Faculty

Professor : **K. Gauba**
(Director Principal)

| | | | | |
|---------------|--|---|--|---|
| Readers | Savita Prashar Anubha Gulati Arun K. Garg | Komal Sehgal Manjula Mehta M.K. Chhabra | Shefali Singla Abha Sheth Robin Kaushik | Kitty Sidhu Divya Mahajan Vinay Kapoor |
| Sr. Lecturers | Sudhir Bhandari Komal Marwaha Sidhi Passi Kavita Sekhri Jyoti Sharma Lalit Kumar Sharique Rehan Jyoti Gupta Namrata C. Gill Neeraj Sharma | Rashi Chaturvedi Mili Gupta Archana Agnihotri Ruchika Sonia Bhardwaj Ruchit Uppal Puneet Kapoor Nandini Bhaskar Leena Verma | Rahul Sharma Ashita Sharma Swaty Jhamb Sukant Garg Shaveta Sood Depti Taneja Maninder Pal Singh Kamal Singh Sujata Upadhyaya | Urvashi Sharma Tulika Gupta Suruchi Aditya Rakhi Aulakh Renu Yadav Devinder Preet Singh A.P.S. Sandhu Amandeep Singh Uppal Sukhwinder Singh |
| Lecturers | Pardeep Singh Rajni jain Amrita Rawla | Harveen Kaur Rajeev Rettan Monika Nagpal | Virender Kumar Prabhjot Kaur Navjot Kaur | Manjot Kaur Amandeep Kaur Vandana Gupta |

Dental Surgeon : Preeti Kang

IX–FACULTY OF PHARMACEUTICAL SCIENCES

UNIVERSITY INSTITUTE OF PHARMACEUTICAL SCIENCES

About the Institute

The University Institute of Pharmaceutical Sciences (formerly Department of Pharmaceutical Sciences) was established in the pre-independent India at Lahore in 1944 and got re-located on the campus of Panjab University, Chandigarh in 1959. The Institute is one of the prestigious academic organizations of our country, committed to excellence in all the domains of pharmaceutical sciences. More than 1600 research papers, 118 Ph.Ds., 16 books, 35 patents, numerous national and international awards and meritorious recognitions to the faculty by professional bodies are some of the notable accomplishments of the Institute. Three of the faculty members have been elected as National Presidents of the prestigious Indian Pharmaceutical Congress. Also, some of remarkable discoveries of new medicines have seen the reality of industrial commercialization after their successful technology transfers. The alumni of the Institute occupy highest positions in industry, research organizations and academia in India and abroad.

In recognition to its contributions in research and teaching, the University Grants Commission (UGC) has accorded the highest level of status to the Institute as **Centre of Advanced Studies (CAS)**. The University Institute of Pharmaceutical Sciences is the first University Institution in the country to be granted with CAS Status in Pharmaceutical Sciences.

Faculty

Professors Emeritus : Harkishan Singh, S.K. Kulkarni

| | | | | |
|--------------|----------------|--|-----------------------|-----------------|
| Professors : | T.R. Bhardwaj | Karan Vashisht (Chairperson) | O.P. Katare | V. R. Sinha |
| | P.D. Sharma | A.R. Rao | Bhupinder Singh Bhoop | |
| Readers : | Renu Chadha | Kanwaljit Chopra | Anupam Sharma | Indu Pal Kaur |
| | Manoj Kumar | Shishu | Anil Kumar | Ranju Bansal |
| | Poonam Piplani | Maninder Karan | | |
| Lecturers : | Alka Bali | Sanju Dhawan (on leave) | Naveen Ahuja | Gaganpreet Kaur |

Courses offered :

I Bachelor of Pharmacy (B. Pharm.)

| COURSE | SEATS | DURATION | ELIGIBILITY/CRITERIA |
|---------------------------------|-----------|----------|--|
| Bachelor of Pharmacy (B.Pharm.) | 40+6+6NRI | 4 years | 50% marks in 10+2 with English, Physics, Chemistry and one of the following subjects : Biology/ Biotechnology/Computer Science/ Mathematics. |

The admission to B.Pharm. I year is made on the basis of combined merit calculated from marks obtained in the 12th class (25% weightage) and Common Entrance Test (CET) (75% weightage) conducted by the Panjab University.

Note : *Out of 40 seats, one seat each is reserved for the nominee of Himachal Pradesh and the nominee of Government of India from amongst the foreign students and the student from the States and Union Territories lacking facilities in this field and repatriates from Myanmar (Burma), Sri Lanka etc. Of the remaining seats, general reservation criteria of the University would be applied.*

II. Master of Pharmacy (M.Pharm.)

Duration : 2 years

A. Regular Courses

1. Master of Pharmacy in Pharmaceutical Chemistry :

Category A : 06 Seats

Category B : 01 Seat

2. Master of Pharmacy in Pharmaceutics :

Category A : 06 Seats

Category B : 01 Seat

3. Master of Pharmacy in Pharmacognosy :

Category A : 02 Seats

Category B : 01 Seat

4. Master of Pharmacy in Pharmacology :

Category A : 02 Seats

Category B : 01 Seat

Category A : Panjab University candidates

Category B : Candidates from Institutes other than Panjab University

B. Self Finance Courses

Master of Pharmacy in Drug Discovery and Drug Development :

Seats : 10+1

Master of Pharmacy in Pharmaceutical Analysis and Quality Assurance :

Seats : 10+1

Note : 1. *Additional 15% seats only for NRI candidates are available in Courses 1 to 4.*

2. *The reservation for the other categories (SC, ST, etc.) out of mentioned number of seats will be as per the general guidelines of the University.*

Eligibility : B. Pharm. from AICTE/PCI approved Institutions/Universities with valid GATE score and for NRI Category B. Pharm. with valid GATE/GRE (General).

- Admission**
1. Admission to all M. Pharm. Courses is made on the basis of combined merit calculated from aggregate marks obtained in B. Pharm. 4-year Course (30% weightage) and GATE score (70% weightage).
 2. Under Category A, any seat(s) remaining unfilled will be transferred to Category B and Vice-versa.
 3. Non-GATE/non-GRE candidates are eligible for admission under NRI category and self-finance programmes only on the basis of merit of aggregate marks obtained in B. Pharm. 4 year course, provided that the overall percentage of marks is not less than 55%. Such candidates will be considered only if the seat(s) remain vacant after the admission of all GATE/GRE candidates.
 4. The candidates who have graduated from the Panjab University will be awarded 10% weightage on B. Pharm. marks.
 5. In Categories A and B, the students are eligible for a scholarship as per the UGC terms and conditions, for a period of two years. Scholarship will only be paid after the receipt of the funds from UGC. there is no provision of grant of any scholarship to candidates admitted under NRI Category.

III. Doctor of Philosophy (Ph.D.) : Students are admitted from time to time depending upon the availability of seats under different projects/schemes/fellowships sponsored by different agencies including industry. The eligible students are also admitted without fellowship under self-finance scheme. For more information refer to Rules & Regulations governing Ph.D. degree in the Faculty of Pharmaceutical Sciences at page 319 of P.U. Calendar Vol. III of 2005 & at page 558 of P.U. Calendar Vol. II of 2007 respectively.

Facilities are available for advanced research in Pharmaceutical Chemistry, Pharmaceutics, Pharmacognosy and Pharmacology. Some of thrust areas are search for new chemical entities (synthetic/semi-synthetic/natural), development and optimization of novel formulations and drug delivery systems, advanced pharmacological studies related to drug discovery and development, herbal drug standardization and development of novel herbal formulations.

X-FACULTY OF SCIENCE

DEPARTMENT OF ANTHROPOLOGY

About the Department

The Department was established in 1960. During the last four decades, the department has not only grown in terms of personnel, equipment, laboratories and library, it has contributed significantly to the furtherance of anthropological teaching and research in the country.

Infrastructure and Laboratories facilities for teaching and research are available in Anthropology, Osteology, Serology and Bio-chemical Anthropology, Palaeoanthropology and Prehistoric Archaeology, Dermatoglyphics, Radiology, Photographic and Sound Recording and Computers. The unique 'Museum of Man' in the Department has a Gallery of Fossil Apes, Primates and Man which includes life-size models, and an Ethnographic Gallery which includes items of material culture. The Dewan Bahadur Wali Ram Taneja Gold Medal is awarded annually to the student who stands first with a first division in M.Sc. (H.S.). From the year 2006, Prof. (Dr.) S.R.K. Chopra Memorial Scholarship has been instituted and is awarded to the student who tops B.Sc. (Hons). Fieldwork is organized by the Department where students are given instructions in the field and research methods and based on empirical work they write dissertations. The department was recognized as one of the centres under U.G.C. Programme of Special Assistance and Departmental Research Support in 1988, this programme is extended upto 2009. The department has also been selected for support under UGC assistance for strengthening of the infrastructure of the Humanities & Social Science (ASHSS) Programme in Anthropology for a period of five years i.e. 1-4-2005 – 31-3-2010.

Faculty

| | | | | |
|--------------------------|---|---------------------------|---------------|-------------|
| Professors : | K.D. Sharma (<i>Chairperson</i>) Shalina Mehta | A.K. Sinha Indu Talwar | Rajan Gaur | R.K. Pathak |
| Re-employed Professors : | | B.G. Banerjee | R.N. Vashisht | |
| Readers : | C.J. Edwin | Abhik Ghosh | | |
| Lecturer : | Kewal Krishan | | | |
| Lecturer-cum-Curator : | Gayatri Pathamanathan | | | |

Courses offered :

| COURSE | SEATS | DURATION | ELIGIBILITY/CRITERIA |
|--------------------------------------|------------|------------------------------|--|
| B.Sc. (H.S.) | 25+2+4 NRI | 3 years | Common Entrance Test |
| M.Sc. (H.S.) | 20+3+3 NRI | 2 years | (i) B.Sc. (Hons. School) Anthropology or equivalent Exam. (ii) B.A./B.Sc. exam. with 50% marks of P.U. or any other exam. recognized by P.U., as equivalent thereto. |
| M.Sc. Forensic Science & Criminology | 20 | 2 years (Semester System) | B.Sc./B.Sc. Honours Degree in Forensic Science or B.Sc./B.Sc. Honours Degree in any stream of Science of Panjab University or any other University recognized by Panjab University, with minimum 50% marks. Admission made on basis of marks in the Qualifying Examination. |

| | | | |
|---|------|--------|---|
| Diploma in Forensic Science and Criminology | 15+2 | 1 year | (a) Bachelor's Degree of P.U. subject to having + 2 with Science or any equivalent exam. or (b) an examination of any other University recognised by Syndicate as equivalent to (a) above. |
|---|------|--------|---|

Note: Under the rules of the University, no student can enroll himself/ herself for more than one full-time course at the University at the same time.

| | | | |
|-------|-------------------------|-----------|--|
| Ph.D. | Subject to availability | 3-5 years | Through P.U. Entrance Test (See Circular No. 2374-2473/R&S dated 14/2/2008). |
|-------|-------------------------|-----------|--|

Thrust Areas

Thrust areas of research include :

- I. Palaeoanthropological investigations in the Shivaliks.
- II. Biosocial aspects of Health, Human Growth and Development.

DEPARTMENT OF BIOCHEMISTRY

About the Department

The Department of Biochemistry was started in 1962 and has since grown steadily and is now recognized as an important centre of research and teaching in the country. Our research-oriented Department provides many opportunities for prospective students who can acquire thorough training and degree in contemporary Biochemistry through our diverse programs such as B.Sc. (Hons. Sch.) and M.Sc. (Hons. Sch.) and Ph.D. programs. Our Department attracts among the very best students and provides an excellent foundation for future professional and research career.

The Department's research focus is primarily on areas such as Medical, Nutritional Biochemistry & Molecular Biology, Medicinal Biochemistry, Environmental Toxicology, Cancer Biology and Microbial Biochemistry. The Department is in a GROWTH and BUILDING phase, with induction of new faculty, recognition for Funding under FIST program of Department of Science & Technology, Government of India and has purchased new & sophisticated instruments such as Perkin Elmer Lambda-35, Bio-Rad Smartspec™ plus UV-VIS Spectrophotometer, Genway UV-VIS Spectrophotometers, Scintillation Counter, high speed Centrifuges, UV-VIS Spectrophotometers, Ultra filtration unit, PCR thermocycler, Gel.Doc. Lyophilizer, Spectrofluorophotometer etc. for enhancing research facilities.

The opportunities for Ph.D. are varied and designed to provide solid training as an independent research scientist both in an academic and industrial settings. Admissions leading to the Ph.D. degree are administered through Panjab University Ph.D. Entrance Test held every year, however students having cleared NET (UGC-CSIR), ICMR-JRF test are admitted directly in the Ph.D. program. Many of our alumni are occupying important positions in USA and other developed countries in both industry and academics.

Faculty

| | | | | |
|------------|---|--|--------------|-------------------|
| Professors | : | S. Ohja (<i>Chairperson</i>) | S. K. Singla | |
| Readers | : | Rajat Sandhir | S.C. Sharma | Archana Bhatnagar |
| Lecturers | : | Navneet Agnihotri | Dipti Sareen | |

Courses Offered :

| COURSE | SEATS | DURATION | ELIGIBILITY/CRITERIA |
|---------------|-------------------------|-----------|---|
| B.Sc. (H.S.) | 25+4+4 NRI | 3 years | Through C.E.T. and as per University rules |
| M.Sc. (H.S.)* | 25+4+4 NRI | 2 years | (a) B.Sc. (Hons. School) Biochemistry or its equivalent exam. (b) 50% marks in B.Sc. (Pass or Hons.) exam. of the P.U. or any other exam. recognised by P.U. as equivalent thereto with Biochemistry as one of the elective subjects + Common Entrance Test. |
| Ph.D. | Subject to availability | 3-5 years | See General Important Guidelines. |

Thrust Areas

Membrane Transport Molecular Biology, Diabetes, Biochemical Toxicology, Cancer Biology, Microbial Biochemistry, Neurotoxicology, Immunology and Natural Products Biochemistry.

DEPARTMENT OF BIOPHYSICS

About the Department

Biophysics has in recent times emerged as an interdisciplinary subject in the Life Sciences and primarily deals with the structure, bioenergetics, dynamics and function of the biomolecules. Over the years, the discipline of biophysics has played a significant role in the growth of areas, which include molecular biophysics, physiological biophysics, medical physics, radiation biophysics, gene and protein engineering. Advances in these areas have paved a way for the designing and development of drugs and medical technologies for the welfare of mankind.

The department of biophysics was established in 1964 and it is the only department, which offers both undergraduate and postgraduate courses in the discipline of Biophysics (Hons. School). The department also offers excellent research opportunities leading to the award of Ph.D. degree. The courses being offered to the three years B.Sc. (Hons. School) and two years M.Sc. (Hons. School) students in Biophysics are planned in a way so as to provide a broad base in the subject and be accepted in the diverse fields of biomedical sciences. Alumni from this department have been suitably employed and many of them have occupied coveted positions in the academia, industry, medical institutions, national laboratories and prestigious research institutions in India and abroad.

Department is conducting M.Sc. Nuclear Medicine and M.Sc. System Biology and Bioinformatics with Prof. D. K. Dhawan and Prof. F. S. Nandel as Co-ordinators respectively.

The department has been given special assistance under UGC-SAP program FIST grant under DST program.

For more details see the website <http://biophysics.puchd.ac.in>

*After admitting all the ongoing students of B.Sc. (H.S.) 3rd year, vacant seats will be filled from outside. B.Sc. (MLT) examination is not equivalent to B.Sc. (H.S.) Biochemistry of P.U.

Faculty

| | | | | |
|------------|---|---------------------------------------|----------------------------|---|
| Professors | : | M.P. Bansal S.N. Sayal D.V. Rai | F.S. Nandel D.K. Dhawan | B. Nehru M.L. Garg (Chairperson) |
| Reader | : | A. Koul | | |
| Lecturers | : | T. Kaur | S. Kaur | |

Courses offered :

| COURSE | SEATS | DURATION | ELIGIBILITY/CRITERIA |
|---------------|-------------------------|-----------|---|
| B.Sc. (H.S.) | 25+4+4 NRI | 3 years | Common Entrance Test. |
| M.Sc. (H.S.)* | 25+5 NRI | 2 years | (a) B.Sc. (H.S) in Biophysics of Panjab University or (b) B.Sc. (Pass or Hons.) of Panjab University or any other examination as recognized equivalent to P.U. in B.Sc. (H.S.) Biophysics or (c) As in (b) above by choosing one subject from each of the following groups : Group A- Physics, Electronics, Environmental Sciences. Group B - Chemistry, Biochemistry. Group C - Biotechnology, Microbiology, Physiology, Zoology. |
| Ph.D. | Subject to availability | 3-5 years | Candidates should have cleared UGC/CSIR Net or any other equivalent National examination or the Ph.D. Entrance Test conducting by the Panjab University. For in-service candidates who are exempted from the Entrance Test the details of admission criteria can be had from the Registrar's office/Biophysics Department. |

Ph.D.

The Department offers research facilities leading to Ph.D. degree in the areas of Cell & Molecular Biology, Molecular Biophysics, Radiation Biophysics, Neurobiophysics, Membrane Biophysics, Molecular Modelling & Drug Designing, Molecular & Reproductive Endocrinology, Cellular & Molecular Toxicology, Cancer Biology, Biomaterials and Biomedical Instrumentation.

Details of Courses offered (Theory & Practicals)

B.Sc. (H.S.)

Ist year (Major) (i) Introduction to Biophysics-I, (ii) Introduction to Biophysics-II.

(Subsidiary) (i) English preliminary Paper A, (ii) English Paper B ORAL, (iii) Physics Paper I (Electricity, Magnetism & Electronics), (iv) Physics Paper-II (Optics & Modern Physics), (v) General

*After admitting all the ongoing students of B.Sc. (H.S.) 3rd year, vacant seats will be filled from outside.

Chemistry, (vi) Mathematics, (vii) Paper-I (Algebra, Geometry & Trigonometry), (viii) Mathematics Paper-II (Calculus & Differential Equations), (ix) Zoology, (x) Botany.

2nd year (Major) (i) Microscopic Anatomy, (ii) Mammalian Physiology, (iii) Biophysical Chemistry, (iv) Physicochemical Techniques.

(Subsidiary) (i) Biochemistry Paper I (Biomolecules & Intermediary Metabolism), (ii) Biochemistry Paper II (Enzymology & Molecular Biology), (iii) Microbiology Paper-I (Introduction to General Microbiology), (iv) Microbiology Paper-II (Introduction to Applied Microbiology), (v) Mathematics Paper-I (Matrices, Vector Algebra & Vector Calculus), (vi) Statistics (Elementary Statistics).

3rd year - (i) Cytology & Cell Physiology, (ii) Molecular Biology, (iii) Neurobiophysics, (iv) Molecular Biophysics, (v) Radiation Biophysics, (vi) Biomedical Instrumentation & Electron Microscopy.

M.Sc. (H.S.)

1st year (i) Cell & Membrane Biophysics, (ii) Gene & Protein Engineering, (iii) Biomolecular Spectroscopy & Biocrystallography, (iv) Medical Physics & Instrumentation, (v) Computer Application & Bioinformatics.

2nd year (i) Biology of Cancer, (ii) Molecular Biology, (iii) Computer Biophysics & Bioinformatics, (iv) Radiation Medicine, (v) Thesis work.

Thrust Areas

Cellular & Molecular Biophysics, Biomembranes and Radiation Biophysics, Cancer Biophysics.

DEPARTMENT OF BIOTECHNOLOGY

About the Department

The Department came into existence as Centre in 1989. In 1994 after obtaining financial aid from UGC and DBT, Govt. of India, it was upgraded to the level of full-fledged Department. The Department is rated as one of the best in India for imparting state of art technology to the students in the field of biotechnology. Most of the students qualify UGC and CSIR entrance test in their first attempt and are admitted to Ph.D. programmes in prestigious research institutions in India. It has developed facilities to provide service to the local population for prenatally diagnosing the disease using conventional and molecular techniques. Most of the faculty members have been trained abroad and are recipient of prestigious national and international awards. The faculty of the department publishes research papers in national and international journals on regular basis. Every year department organizes Workshop/Symposium/Seminar dealing with state of art technologies. Department also organizes BIOTECH. RENDEZVOUS for the students of Schools, Colleges and University. Scientists of international repute are invited to deliver lectures.

Faculty

Professors : Rupinder Tiwari

Reader : Jagdeep Kaur

Lecturers : Neeraj Khuller **Neena Capalash** Jagtar Singh Kashmir Singh
(Chairperson)

Courses offered :

| COURSE | SEATS | DURATION | ELIGIBILITY/CRITERIA |
|---------------|---|------------------------------|--|
| B.Sc. (H.S.) | 13+2+2NRI | 3 years (Semester System) | 50% marks in 10+2 or equivalent examination with English, Physics, Chemistry, Mathematics, Biology, Biotechnology/Computer Science. Admission would be on the basis of Entrance Test conducted by the Panjab University. |
| M.Sc. (H.S.) | 16 +5 (Open Category)+2 +2NRI (Lateral Entry) | 2 years (Semester System) | (a) All students who have cleared B.Sc. (Hons. School) Biotechnology from P.U. (Campus). (b) For 5 (open category) & 2 NRI seats, on the basis of an Entrance Test. Only those students who have cleared B.Sc. (50% marks) with Biotechnology as elective/ vocational subject are eligible. |
| Ph.D. | Subject to availability of seats. | 3-5 years | See General Important Guidelines. |

The syllabi for these courses have been so designed that enables degree holders to meet new challenges of Molecular Biology, Microbial Biotechnology, Human Genetics, Bioinformatics, Plant & Environmental Biotechnology etc.

Open and continuous system of evaluation is adopted for M.Sc. Course. Both theory and practical examinations are conducted by the Internal Examiners.

Thrust Areas

Molecular Oncology and Environmental Biotechnology, Microbial Biotechnology, Medicinal properties of novel plants.

DEPARTMENT OF BOTANY**About the Department**

The Department of Botany, Panjab University was established in 1919 at Lahore. It shifted to Chandigarh in 1960 from Khalsa College, Amritsar where it had been housed temporarily after partition of the country. The department has grown into a well recognized centre for higher learning and research in structural, functional and evolutionary aspects of plants. In fact, this is the only Botany Department in the country, which has the necessary expertise to attend to all plant groups. The DST-FIST and UGC-SAP sponsored programme to the department of Botany, over the years has grown into a well-recognized centre for higher learning and research. Some of the major areas of research are : taxonomy, morphology, improvement and propagation of economically important plants ecology of invasive alien Plant, Physiological up gradation of harvest index of some important crops; stress biology of legumes; identification of eco-friendly herbicides and pesticides; mushroom cultivation; evaluation and conservation

of plant biodiversity; and importance of microbes in human welfare. In addition to teaching through modern techniques, seminars, symposia, workshops, invited lectures and Botanical excursions are an integral part of academic programme. The department has a well-stocked Library with nearly 6,600 books and over 60 regular scientific journals. The department also houses an internationally recognized Herbarium (abbreviated as PAN) and a Museum. The P.N. Mehra Botanical Garden, spread over 16 acres of land is one of the better-known botanical gardens attached to any University of the country. [The department has sanctioned grants by (i) Special Assistance Programme UGC-SAP (DRS) (5 years from April 1, 2007 to March 31, 2012), (ii) The UGC has sanctioned Rs. 20 Lacs for infrastructural development to the Department for the financial year 2007-2008. Besides many projects funded by DST, DOEN, UGC, CSIR and a multinational company].

Faculty

| | | | | |
|---------------|---|--------------------------------|-----------------------------|----------------------------|
| Professors : | R.K. Kohli (<i>Chairperson</i>) Promila Pathak | A.S. Ahluwalia Harsh Nayyar | Daizy Rani Sunita Kapila | C. Nirmala I.B. Prasher |
| Readers : | Richa Puri | Anju Rao | Neera Garg | |
| Lecturer : | Kamaljit Singh | M.C. Sidhu | A.N. Singh | |
| Re-employed : | I.S. Dua | R.K. Bhanwra | H.K. Cheema | G. K. Malik |

Courses offered :

| COURSE | SEATS | DURATION | ELIGIBILITY/CRITERIA | FEES |
|---|-------------------------|-----------|--|----------------|
| B.Sc. (H.S.) | 25+4+4NRI | 3 years | Common Entrance Test after 10+2. | |
| M.Sc. (H.S.) | 25+4+4NRI | 2 years | (a) B.Sc. (Hons. School) students. or (b) 50% marks in B.Sc. (Pass or Hons.) exam. of the P.U. or any other exam. recognised by P.U. as equivalent thereto with Botany as one of the elective subjects + Common Entrance Test. | |
| Diploma Course in Landscape, Gardening, Mushroom and Spirulina Cultivation. | 35 | 3 months | 10+2 | Fee Rs. 2500/- |
| Ph.D. | Subject to availability | 3-5 years | See General Important Guidelines. | |

For the degree of Doctor of Philosophy (Ph.D.) research scholars are primarily those who have cleared NET/CSIR/GATE National Level Tests. The criteria and procedure of selecting research scholars is that they are usually selected directly by the sponsors (UGC/CSIR etc.). The department also has post-doctoral fellows sponsored by the U.G.C., D.B.T., D.S.T. etc.

Scholarships

The students are also eligible for merit scholarships offered by various agencies. These include National Merit Scholarship, Merit Scholarships of the Governments of U.T. Chandigarh, Punjab and Haryana, Panjab University, D.S.W. Scholarship (Need and Need-cum-merit), Financial Assistance to the SC/ST students, Endowment scholarships and the Vice-Chancellor's stipend.

Thrust Areas

Taxonomy, Morphology, Physiology, Cytology, Plant Biotechnology, Environment Sciences, Plant Biochemistry and Ecology.

DEPARTMENT OF CHEMISTRY

About the Department

The Department was established in 1947. It is a Centre of Advanced Studies (UGC) and DST-FIST Department. It offers research facilities in Analytical, Inorganic, Organic, Physical and Theoretical Chemistry leading to Ph.D. degree. A number of scholarships and research fellowships are available in various research projects with different faculty members. The department has several sophisticated instruments such as 300 MHz. Multinuclear NMR, X-Ray, UV-Visible FTIR, Fluorescence spectrometer Cyclic volta meter, Decessimeter HPLC, Computers, etc. The department has well equipped library with complete back files of Chemical Abstracts and several other important research journals and reference books. A number of scholarships and fellowships are available under the programme. It is additionally assisted by the UGC under its COSIST programme.

Faculty

| | | | |
|--------------------------|---|--|------------------------------|
| Professors : | S.S. Bari (Appointed as Registrar) | Paramjit Singh (Chairperson) | K.K. Bhasin |
| | S.P. Jauhar | Pratibha Kapoor | Neelam Seedhar |
| | Raj Pal Sharma | Harjinder Singh (on long leave) | |
| Readers : | Sukhjinder Singh Alok Srivastava | S.K. Mehta Kamal Nain Singh | P. Venugopalan |
| Lecturers : | Tapan Kumar Sau Ganga Ram Chaudhary Vikas | Gurjaspreet Singh Amarjit Kaur Neetu Gupta | Seema Dixit Sonal Singhal |
| UGC Research Scientist : | J.S. Brar | | |
| Prof. Emeritus : | O.P. Vig Gurdev Singh | S.V. Kessar | D.V.S. Jain |
| Prof. Re-employed : | M.L. Sharma | | |

Courses offered :

| COURSE | SEATS | DURATION | ELIGIBILITY/CRITERIA |
|--------------|------------|----------|--|
| B.Sc. (H.S.) | 50+7+8 NRI | 3 years | Common Entrance Test |
| M.Sc. (H.S.) | 13+2+2 NRI | 2 years | (a) B.Sc. (Hons. School) student of P.U. |

Panjab University has been identified as a Level-III National High Performance Computing Centre under the ICOSER project of TIFAC, Department of Science and Technology. It is among the Seven such Centres being set up around the country and is the only one in Northern India. The Department of Computer Science and Applications is hosting facilities like Web Server, E-mail Server, Domain Name Servers and Proxy Servers for Panjab University. Wide Area Network connectivity is also provided 2Mbps through ERNET and 12 Mbps through Reliance Infrastructure.

Faculty

| | | | |
|------------------------------------|---|-----------------------------------|------------------------------|
| Professors | : | R. K. Singla | M. Syamala Devi |
| Reader | : | Indu Chhabra | |
| Lecturers | : | Anu Gupta (Chairperson) | Sonal Chhabra |
| Director | : | Tankeshwar Kumar | |
| System Manager : | | Ajay Guleria Gurdeep Singh | Sudesh Kumar Neelam Verma |
| System Programmers/ Programmers | : | Mamta Gupta Arvind Syal | Mamta Nishi |
| Senior Technical Officer : | | S. K. Mahindru | |
| Technical Officers | : | Hari Ram | Amit Malhotra Binh |

Courses offered :

| COURSE | SEATS | DURATION | ELIGIBILITY/CRITERIA |
|-------------------------------------|---|---|--|
| B.Sc. (H.S.) Computer Science | | | The admission of B.Sc. (H.S.) Computer Science First Year since session 2008–2009 be kept in abeyance. |
| M.Sc. (H.S.) Computer Science | 15 (to be promoted from B.Sc. (HS) Computer Sci.-3rd year or actual promoted.)+10+2 +5 only for NRI | 2 years (Currently Annual System) Adoption of Semester System for the session 2009-2010 (Subject to the approval of competent authorities) | BCA/B.Sc. (H.S.) Computer Science/B.Tech./B.E. (Computer Science/Engineering) or any other examination recognized as equivalent with 50% marks thereto. Admission based on Common Entrance Test. |

| COURSE | SEATS | DURATION | ELIGIBILITY/CRITERIA |
|--|----------------------|---------------------------------|---|
| M.C.A. | 30+4+2*+5 for NRI | 3 years (Semester system) | The minimum qualification for admission to the first year of the course shall : (i) A recognized first degree of minimum three year's duration in any discipline with at least 50% marks and with Mathematics at 10 +2 or graduation level (all three years). Or (ii) B.C.A. from Panjab University with 50% marks. Or (iii) Any examination recognized by the Panjab University, Chandigarh as equivalent to any of the above examination (i) or (ii). The admission is based on Entrance Test conducted by Panjab University, Chandigarh. |
| M.C.A. (Evening Self-financing Course) | 40+6+2*+6 for NRI | 3 years (Semester system) | |

Note : Broucher & Placement of MCA & M.Sc. (HS) Students will be combined.

Thrust Areas

The students at the Department have the unique opportunity of working in various development environments like MS-DOS, LINUX, MS Windows, Sun Solaris and HP-Unix. The students also have the opportunity to use Internet development tools among other Visual and Non-Visual ones. They can also perform parallel programming using multiprocessor machines.

DEPARTMENT OF ENVIRONMENT AND VOCATIONAL STUDIES

Faculty

Professor : **A. S. Ahluwalia**
(*Chairperson*)

Lecturers : H. P. Singh (Biotic Environment)
Madhuri Sharma Rishi (Earth & Atmospheric Sciences)
Suman Mor (Solid Waste Management)
Vacant : 1 (Physical Environment) for SC.ST.

Board of Control : Vice-Chancellor (*Chairman*)
Prof. Amrik Singh Ahluwalia, (*Chairperson*) D.E.V.S.
Prof. Ravinder Kumar Kohli, Chairperson, Department of Botany
Dr. H.P. Singh, Lecturer, D.E.V.S.
Dr. Madhuri Rishi, Lecturer, D.E.V.S.
Dr. Suman Mor. Lecturer, D.E.V.S.
Dr. R.K. Wanchhoo, University Institute of Chemical Engineering
C.M.O. Panjab University, Health Centre
Prof. Naval Kishore, Department of Geology

*For candidates who have studied Computer as one of the subject for three years/or that subject as a full course at the under graduate level.

Dr. Kiranpreet Kaur, Department of Sociology
 Dr. Rajan Gaur, Department of Anthropology
 Prof. I.B. Prashar, Department of Botany
 Prof. K. Gauba, Director, Dental College, P.U.
 Dr. Karanjot Kaur, Department of Geography
 Dr. S.S. Randhawa, Department of Chemistry
 Prof. V.L. Sharma, Department of Zoology
 Prof. Asha Moudgil, Department of Philosophy
 Prof. Sangita Bhalla, Department of Law
 Sh. Ishwar Singh, Director, Environment, U.T. Chd.
 Sh. P.J.S. Dhadwal, Additional Director, DST, Chd.

Courses offered :

| COURSE | SEATS | DURATION | ELIGIBILITY/CRITERIA |
|--------------------------------------|----------------------------|-----------------|---|
| M.Sc. (Environment Science) | 20+2+3 NRI | 2 years | (a) Graduates from any Science/Engineering Stream or any other stream with Honours in Geography as one of the subjects from P.U. or any other University recognised by P.U. (b) Common Entrance Test (O-CET)-2009. |
| M.Sc. (Solid Waste Management) | 20+2+3 NRI | 2 years | (a) Graduates from any Science/Medical/Engineering Stream of P.U. or any other University recognised by P.U. (b) Admission based on Merit of the qualifying examination. |
| Ph.D. | Subject to availability | 3-5 years | Only UGC-NET or PU Entrance Test qualified students are eligible for enrolment. |

M.Sc. (Environment Science) :

In view of the enormous demand of environment specialists as educators, researchers, industrial consultants, urban planners and architects for the Government and Non-government organisations, in 2002 the university started a 2-year Master's degree programme in Environment Science. The level of the course is evident from the brilliant result shown by the students at the national level UGC-NET in the country in the discipline. The course is so designed that the students have to maintain regularity and seriousness. In each of the 4 papers in a semester (except the seminar/term-paper/project), a student is offered two pre-announced and 6 unannounced tests. Of the 6 surprise tests, 4 best-attempted tests apart from the two pre-announced tests are considered towards the final internal/continuous assessment comprising 20% of the total maximum marks reported in the final award-list. The attendance is also reported in the Detailed Marks-card issued to the students on completion of the semester.

The Department has reached at the top band of recognized institutions in the subject of Environment Science in the country on account of :

- (a) Consecutively best results in the UGC-NET of our students;
- (b) Achieving the highest accreditation by the Board of Professional Certification of USA by the faculty member;
- (c) Faculty bestowed with the highest awards of the government of India and other professional bodies;
- (d) Producing many good publications in high ranking refereed International journals.

The syllabus approved by the National Educational Testing of the UGC (after addition of the topics relevant to the local and national demands) has been adopted. The subject being inter-disciplinary and multidisciplinary, the faculty (based on the expertise in the relevant field) is drawn from different departments of the campus. The Outlines of Tests/Courses of Reading/Syllabus can be seen at the web site of Panjab University.

M.Sc. (Environment and Solid Waste Management) :

Management of Solid Waste has become one of the foremost worries of the developed and the developing societies. As a matter of fact, there is nothing on this earth planet that could be termed as waste. Instead of putting the resource to its gainful use, our ignorance leads us to lose it. World over, Media, governments and political manifestos of Municipal Corporations features its management in their debates. The challenge before the society and the government to manage the so called 'waste' will continue to gain momentum in the years to come. In view of the conservation drive of the UNEP and other international agencies apart from the Governments, the waste management will become a platform for future decision making anywhere in the world.

In view of its potential, DEVS, Panjab University, fortunately, is one of the very few institutions recognized by the UGC for initiating new innovative courses in Emerging Areas. With full support from the UGC, DEVS is starting 2 year course in M.Sc. Solid Waste Management with effect from admissions of 2006. This is perhaps the only university in the country that the UGC has resolved to fund the course. It complements other courses including Environmental science, Environmental management, Environmental engineering, Environment Impact Assessment etc. The course content is designed to match the need of central and state governments, municipal corporations, village panchyats industries, hotels, hospitals, hostels, restaurants, housing complexes and ground water and river boards, cities, big institutions and hospitals in India and abroad. The course is recommended for graduates in any science / engineering / medicine stream.

Environment Education :

The Department of Environment and Vocational Studies also serves as the nucleus for the Compulsory course on Environment Education for a 3-year degree course in any stream {BA, BBA, BCA, B.Sc., B.Com., B.Sc. (Honours School)}. A committee comprising the DUI (Chairperson), members of the Syndicate and Senate, Principals of many colleges, Professors of the university and the coordinator DEVS (convener) advises the operation of the course.

Doctoral Programme :

The Department proposes to enroll and register a few more suitable candidates for interdisciplinary research in any aspect of Environment for the award of Ph.D. degree under the Faculty of Science. Currently 34 students are enrolled under Ph.D. Programme under the guidance of environment experts from different disciplines.

Research Component :

Research on the current environmental issues of local, national and global importance remains the major thrust of the DEVS. Following research projects funded by various agencies have been undertaken or are in progress :

- * *Ecological status of Medicinal & Aromatic Plants of Haryana* sponsored by Haryana State Council for Science and Technology.

- * *Management of Congress-grass through Vermicomposting* sponsored by Department of Science and Technology and executed jointly with PSCST.
- * *Impact of Invasive Species on the Structure and Composition of Natural Vegetation of H. P.* sponsored as B.P. Pal National Environment Fellowship award of Ministry of Environment & Forests, Govt. of India.
- * *“Ecological Status of weeds of Chandigarh and surrounding areas with special reference to invasive weeds”* sponsored by U.G.C. New Delhi.
- * *“Utilization of some volatile Monoterpenes for weed Management”* under Research Scientist Scheme of the Department of Science and Technology, New Delhi.
- * *“Ecological status of vegetation of Nepali and Kansal Forest of Chandigarh”*. DST, U.T., Chandigarh.

Consultancy :

The DEVS undertakes consultancy on environmental issues through the University. Some of the organization for which consultancy has been undertaken include High Court of Himachal Pradesh, Cocacola, Punjab State Council for Science and Technology.

Awards :

The researches conducted for the DEVS have been credited with various national and international awards.

Facilities Available :

This Department has suitably developed the laboratory facilities with many analytical equipments for teaching demonstration and research. It has its own library with latest books and reading material in the field of Environment, Solidwaste Management and the relevant traits of the Vocational studies course. Inter-disciplinary facilities from the department of Geology, Chemistry, Physics, Botany and Zoology are also available. The facility of Visual aids like LCD projector, Slide and Over-head projectors are available for imparting instructions to the students. Students are encouraged to use these aids even for their seminars. About 15 computers with internet connectivity have also been provided in the DEVS. The students are regularly exposed to various aspects of industry requiring environmental attention. The Department also conducts educational trips to the related production units and research institutions. With the funds from UGC, DEVS is in the process of installing / purchasing equipments like Incinerator, mini-incinerator, hydraulic press, shredder, tractor-trailer apart from creating Vermi-composting and ideal land-fill unit of the DEVS.

NATIONAL CENTRE FOR HUMAN GENOME STUDIES AND RESEARCH

About the Centre

National Centre for Human Genome Studies and Research is a newly established education Centre. The goal of this Centre is to provide the most advanced and comprehensive education possible related to human genome at the post graduate level. Research activities would be directed toward our understanding of human biology and disease and to develop solutions to societal health problems. Mission is to establish specific scientific programs that will be available to the public, to improve human health and well-being through education and research.

Faculty

Professor : **Tapas Mukhopadhyay** (*Director*)

Course offered :

| COURSE | SEATS | DURATION | ELIGIBILITY/CRITERIA |
|---------------------------|-------|----------|--|
| M.Sc. (Human Genomics) | 18+2 | 2 years | (a) Bachelor degree under 10+2+3 pattern of Education in Physical, Chemical, Biological, Pharmaceutical Science or in medicine from any University/Institute recognised by P.U. with atleast 55% marks. (b) Common Entrance Test (O-CET). |

Students enrolled in the M.Sc. (Human Genomics) would be entitled to receive a stipend of Rs. 1200/- p.m. from a D.B.T. Sponsored programme of the Department.

Thrust Areas : Functional Genomics, Proteomics and Gene therapy.

DEPARTMENT OF GEOLOGY AND CENTRE OF ADVANCED STUDY IN GEOLOGY (COSIST DEPARTMENT)

About the Department

Established in 1958 by Late Prof. M.R. Sahni the department was upgraded to the status of Centre of Advanced Study in 1963-64 in Himalayan Geology and Paleontology. In 1986 it received COSIST Grants for improvement in infrastructure facilities in the Thrust areas of Geochemistry and Exploration Geology. In recent years of research and teaching, Environmental Geology, Quaternary Geology & Hydrogeology were included in the thrust areas. The Department has been allocated Rs. 90 lacs. under the FIST Programme of the DST in 2003. In 2006 the Deptt. has received Rs. 98.25 lacs under CAS scheme of the UGC.

It is only the Advanced Centre in the Country under the Special Assistance Programme of the UGC. The Department has a large collection of fossils, rocks and minerals housed in its Museum. Under the FIST programme of DST the department have a new SEM for research apart from funds for Networking and a Jaw Crusher to upgrade its infrastructure facilities. The department has 14 (registered/ enrolled) research students on its rolls.

Faculty

| | | | |
|------------|---|------------------------------|--|
| Professors | : A. D. Ahluwalia (<i>Chairman</i>) R.S. Loyal | G.S. Gill Naresh Tuli | Naval Kishore Sharma Veena Dadwal |
| Readers | : Naveen Chaudhri | Rajeev Patnaik | |
| Lecturers | : Ashu Khosla | Parampreet Kaur | Gurmeet Kaur |

Courses offered :

| COURSE | SEATS | DURATION | ELIGIBILITY/CRITERIA |
|--------------|------------|----------|---|
| B.Sc. (H.S.) | 25+4+4 NRI | 3 years | Marks in Common Entrance Test & admissible weightage. |

Note : A candidate admitted to the course may opt for any two of the following subsidiary subjects: Mathematics, Physics, Chemistry, Botany, Zoology, Statistics and Anthropology (likely to be changed to Physics, Chemistry in the 1st year and Computer Applications, Mathematics/Elementary Statistics in the IIInd Year).

| | | | |
|--------------------------------------|-------------------------|-----------|---|
| M.Sc. (H.S.) | 25+4+4 NRI | 2 years | (a) B.Sc. (Hons. School) students of Geology P.U. (b) For vacant seats-purely on merit i.e. B.Sc. 3 years course with Geology as one of the subjects, 50% marks in B.Sc & 50% marks in subject of Geology in B.Sc. |
| M.Sc. (H.S.) Petroleum Geology | 15 Seats | 2 years | (a) B.Sc./B.Sc. (H.S.) degree in Geology or equivalent degree from recognized Institute with 60% marks in aggregate. The admission will be through Departmental Entrance Test. |
| Ph.D. | Subject to availability | 3-5 years | See General Important Guidelines. |

Regarding details of courses of study and their structure under Annual System, the syllabus published by the University may be consulted.

Research Degree

Facilities are available in the department for research leading to Ph.D. and D.Sc. degrees in most of the disciplines of Geological Sciences. The minimum period required for completing Ph.D. and D.Sc. degree is three and six years respectively after M.Sc. (Hons. School)/M.Sc. in Geology.

Thrust Areas

Paleontology, Stratigraphy, Petrology, Tectonics, Environmental Geology, Hydrogeology & Engineering Geology.

DEPARTMENT OF MATHEMATICS**(CAS and DST-FIST Sponsored Department)****About the Department**

The Department was established in 1952 at Hoshiarpur and set up at Chandigarh in 1958.

It is one of the best departments of Mathematics of the Indian Universities. It has been recognized as Centre for Advanced Study in Mathematics since 1963 by the U.G.C. The National Board for Higher Mathematics has granted the status of Regional Library to the Library of the Department and support the consortium for the online access to Math. Sci. Net, for which the department is the leading partner. The Department of Science and Technology have sponsored the department for the FIST (level II) programme.

Faculty

| | | | | |
|--------------------|---|----------------------------------|----------------------------------|--|
| Professor Emeritus | : | R. P. Bambah | I. B. S. Passi | R. J. Hans Gill |
| Professors | : | Sudesh Kaur | Madhu Raka | A. K. Bhandari (Chairperson) |
| | | A.K. Agarwal Savita Bhatnagar | V. K. Grover | S. K. Tomar |
| Readers | : | Vikas Bist Renu Bajaj | Poonam Sehgal Gurmeet Kaur | Vanita Verma |
| Lecturers | : | D. B. Rishi Kapil K. Sharma | Dinesh Khurana Manisha Sharma | Suman Bala Anuradha Sharma |

Courses offered :

| COURSE | SEATS | DURATION | ELIGIBILITY/CRITERIA |
|--|-------------------------|-----------|--|
| B.Sc. (H.S) in Mathematics | 25+4+4 NRI | 3 years | 50 % marks (45% marks in case of SC/ST) in 10+2 with Maths in any stream, Score in the subject of only Mathematics in Common Entrance Test Plus admissible weightage |
| B.Sc. (H.S) in Mathematics & Computing | 15+2+2 NRI | 3 years | –do– |
| M.Sc. (H.S.) in Mathematics | (i) 40+5NRI | 2 years | B.Sc. (Hons. School) in Mathematics or B.Sc. (Hons. School) in Math & Computing from the Department of Mathematics, P.U., Chandigarh |
| | (ii) 35+5+5NRI | 2 years | B.A./B.Sc. (General) with 50% marks (45% marks in caste of SC/ST) in Mathematics as a major subject |
| | | | OR |
| | | | B.A./B.Sc. with Hons. 50% marks (45% marks in caste of SC/ST) in Mathematics of P.U. or any other Univ. recognized by P.U. as equivalent thereto. |
| | | | The admission will be based on Entrance Test to be conducted by Panjab University. The weightage of marks obtained in Entrance Test and in the last qualifying Examination will be 50:50. |
| Ph.D. | Subject to availability | 3-5 years | See General Important Guidelines. |

Scholarships for Students

Dr. V.C. Dumir Scholarship for excellence in Mathematics is available for meritorious students of M.Sc. (H.S.) 1st year on the following terms and conditions :

1. The amount of scholarship would be Rs. 1000/- per month for 10 months every year.

2. The scholarship be awarded to a meritorious student of M.Sc. (Honours School) 1st Year studying in the Department of Mathematics, Panjab University, Chandigarh and would be continued to that student for M.Sc. (Honours School) 2nd Year after examining his/her performance.
3. If that student is found to be ineligible to continue the scholarship in 2nd Year, it will be awarded to another deserving student of M.Sc. (Honours School) 2nd Year.

Smt. Balwant Kaur and Shri Dhanpat Roy Bahl Scholarship of the value of Rs.1400 per annum is available for meritorious and deserving post graduate student of the Department of Mathematics. Professor Hans Raj Memorial Scholarship of the value of Rs.1500/- per annum is available for meritorious student of B.Sc. (H.S) First Year.

P.C. Wadhwa Scholarship for a student of M.Sc. (H.S.) Mathematics-Part-II on the following terms and conditions :

1. The amount of scholarship would be @ Rs. 500/- per month for 10 months every year.
2. Secures atleast 60% marks in M.Sc. Part-I examination; and
3. Is NEEDY in view of the FINANCIAL POSITION of the FAMILY he comes from as determined by the University Authorities.

DEPARTMENT OF MICROBIOLOGY

About the Department

The Department established in 1964 is one of the oldest and pioneer department of Microbiology in the country. The department has made a steady progress in teaching and research since its establishment and has been recognized for research by various Government agencies : Department of Biotechnology (DBT), Department of Science & Technology (DST), Ministry of Science & Technology. The department has bagged many research projects from these funding agencies. The graduates from this department are already employed in good positions in various academic, research and industrial organizations at national and international level.

The department has several R&D projects sponsored by various National funding agencies including DBT, DST, CSIR, UGC, and ICMR dealing with various aspects of General and applied Microbiology. The major equipments available in the department include UV-Visible Spectrophotometers, Ultra centrifuge, Refrigerated centrifuge, Ultra deep freezer, Orbitol Shaker, water bath shakers, Protein purification system with fraction collector, electrophoresis equipment, BOD incubators, Gas chromatograph, laboratory Fermenter, Fluorescent Microscope Sonicator, Transilluminator, Co2 incubators, Micro centrifuge, Cold Room, PCR machine, Electroporator, ELISA reader, Lyophilizer, Millipore water purification system.

Faculty

| | | | | |
|-------------------|---|--------------|--|--------------|
| Professors | : | S.Chhibber | Gurinder Singh | |
| Readers | : | R.P.Tiwari | Prince Sharma (<i>Chairperson</i>) | Vijay Prabha |
| | | S.K. Soni | Parveen Rishi | Kusum Harjai |
| Lecturers | : | G. Shukla | D.K. Rahi | Naveen Gupta |
| Re-employed Prof. | : | R.P. Dikshit | | |

Courses offered :

B.Sc. (Hons. School) :

B.Sc. (Hons. School) course is three years duration course. During this period the students are imparted training in various aspects of General and Applied Microbiology, including Bacterial Systematic, Food & Industrial Microbiology, Environmental Microbiology, Physiology, Mycology, Parasitology, Virology, Immunochemistry and Immunopathology, Medical Bacteriology, Microbial Physiology, Microbial and Molecular Genetics as a major subjects in microbiology discipline. Besides this the students are sent for learning subsidiary subjects at first year and second year in respective discipline.

In addition, the department also offers one year subsidiary course in Introduction to general and applied Microbiology to students of the Department of Biochemistry and Biophysics.

Admission to B.Sc. (H.S.) Ist year in Microbiology for 25+4 seats and 4 NRI seats will be on the basis of marks obtained in the Common Entrance Test (Plus admissible weightages, if any) conducted by the Panjab University in 2009. Only students with (10+2) medical group are eligible for admission.

No direct admission is made to the 2nd or 3rd year of B.Sc. (H.S.).

M.Sc. (Hons. School)

M.Sc. course is of two years duration. M.Sc. Ist (H.S.) students are taught 6 major courses in advances in Microbiology and one course in Fundamentals of computer programming and applications. Project training programme, seminar presentation and a research project (Thesis) in second year.

Those students who have passed the Final B.Sc. III (Hons. School) examination in Microbiology of this University are eligible for admission to the M.Sc. I (Hons. School) course without taking entrance test. In addition the admission is granted against 4 (four) NRI seats in M.Sc. (Hons. School) Ist year on the basis of entrance test conducted by the University (OCET).

Students who have passed B.Sc. (Pass or Hons.) examination with 50% marks from a recognized University other than Panjab University with Microbiology as an elective subject are eligible for admission on the basis of entrance test.

Regarding details of courses of study and their structure under Annual System, the syllabus published by the University/notified by the Department may be consulted.

Doctorate Degree :

Facilities exist in the department for research work leading to Ph.D. degree. Requirements for Ph.D. course are M.Sc. (Hons. School) in Microbiology of Panjab University or an equivalent degree from any other University recognized by Panjab University. Research facilities exist in of all branches of Microbiology including Medical Microbiology, Agricultural Microbiology, Food Microbiology, Industrial Microbiology, Medical, Microbiology, Immunology, Environmental Microbiology, Microbial Physiology and Biochemistry and Genetic Engineering and Biotechnology.

Scope

The microbes have vast range of activities from the production of exotic alcoholic beverages to causing deadliest diseases like AIDS, Cancer, tuberculosis, Microorganisms are also responsible for the production and destruction of crops Micro-organisms are important part of food chain besides being good sources as SCP and probable alternate source of energy. With such wide variety of interaction of Microorganisms with main, animals, plants and food, the scope for a microbiologist is unlimited in teaching, research and industry.

Research Facilities

The major equipment in the laboratories of the department Shimadzu UV- Spectrophotometer, Beckman-Preparative Ultra centrifuge, Refrigerated centrifuge, Shakers, Fraction Collector, Electrophoresis equipment, BOD incubators, Gas Chromatograph and high performance liquid Chromatograph Chemap Fermenter, Fluorescence Microscope, Minibeta Counter, Sonicator, Transilluminator, Co2 incubator, eppendorf centrifuge, cold room facilities, PCR machine, Electroporator, ELISA reader.

Scholarships

The department's student is eligible on the basis of merit for scholarships offered by Panjab University, DPI (Punjab and Haryana), National Merit Scholarship, U.T. Chandigarh. In addition, the Council for Scientific and Industrial Research, New Delhi and the UGC offer fellowships to students for Ph.D. Programme.

The department of Biotechnology, Govt. of India, New Delhi has selected this department for assistance for enhancement of research and teaching in the field of Microbial Biotechnology.

DEPARTMENT OF PHYSICS

About The Department

The Department of Physics was established in 1947, in Govt. College, Hoshiarpur (Pb.). In August 1958, the Department was shifted to the present campus.

The Department received grants under the UGC COSIP (College Science Improvement Programme) from 1977-83, SAP (Special Assistance Programme) from 1980-88 and COSIST (Committee on Strengthening of Infrastructure in Science and Technology) from 1984-91. Since 1988, it has been accorded the status of a Centre of Advanced Study (CAS) by UGC with three major thrust areas : Particle Physics, Nuclear Physics and Solid State Physics - a unique achievement. At present the department has the strength of 27 faculty members, two Emeritus Professors, two Emeritus Fellows, Ramanna Fellow and 46 assisting staff. There are about 75 research students and about 235 B.Sc. (Hons. School), M.Sc. (Hons. School), Post M.Sc. Course in Accelerator Physics and M.Sc. Medical Physics students on the rolls of the department. Department has also started two self-financed courses from 2008-2009. B.Sc. (H.S.) Physics-Electronics; M.Sc. (H.S.) Physics-Electronics. About 300 B.Sc. (Hons. School) students of other departments study Physics as a subsidiary subject.

The faculty members have been honoured with Meghnad Saha Award, Goyal Prize (Kurukshetra University), Sir C.V. Raman Award, Hari Om Trust Award, Mercator Professorship, Homi Bhaba Fellowship, Emeritus Scientistships, Ramanna Fellowship, S. N. Satya Murthi Young Scientist Award and DAE Young Scientist Award. They have been elected for Indian Academy of Sciences fellowship, Joliot Curie fellowship, Alexander von Humboldt fellowships, DFG (German Research Society) Fellowship, UNESCO/IAEA Fellowship, WE-Heraeus Fellowship, Heinrich Hertz Foundation fellowship, Fulbright fellowship, Commonwealth fellowship, Third World Academy of Sciences fellowships and UGC National Lecturer Fellowship awards. The Department had the honour of having Professor Yash Pal, former UGC Chairman on its faculty. Professor K.N. Pathak, was Vice-Chancellor, Panjab University, Chandigarh from July, 2000 to July, 2006 and Prof. S. Prakash, Vice Chancellor, Jivaji University, Gwalior from Feb., 2001 to Nov., 2006.

The Department is having research collaboration with institutions like, Royal Military College of Canada, Canada; University of Notre Dame, USA; Fermilab., USA; CERN, Geneva; Bonn University Germany; Chemistry Deptt., City College of New York (CUNY), New York; KEK, Japan; ICTP, Trieste;

Univ. of Illinois, USA; BNL, USA; Univ. of Leipzig, Germany; SUBATECH, Nantes, France; Instt. fur Theoretische Physics, Tubingen, Germany; Instt of Nuclear Studies, Warsaw University, Poland; Univ. of Milano, Italy; INFN, Legnaro National Laboratory, Italy; DESY, Germany; J.L. Univ., Germany; J.W. Goethe Univ., Frankfurt, Germany; Instt. of Nucl. Physics, Strasbourg, France; University of Surrey, Gilford, U.K.; University of Hawaii, Cincinnati; Virginia Tech., Princeton University; VECC, Kolkata; TIFR, Mumbai; IIT, Kanpur; Delhi University, Delhi; Mumbai University, Mumbai; I.O.P., Bhubaneswar; BARC, Mumbai; SINP, Kolkata; Karnataka Unvi., Dharwad; UGC-DAECSR, Kolkata; IUAC, New Delhi; H.P. University, Shimla; T.B.R.L., P.G.I.M.E.R., C.S.I.O., Chandigarh, etc. The department has MOU with IUAC, New Delhi for joint faculty appointment and to various academic exchange programs related to Accelerator based research.

Funds to the tune of Rs. 35 Lakh for infrastructure development have been sanctioned by the Department of Science and Technology **under FIST (2003-2008)** to upgrade teaching and research facility in Nuclear Laboratories of the Physics Department, Panjab University, Chandigarh. Under this programme, facilities for a Monochromatic Photon Source tunable over a wide energy range [4 to 40 keV] in the X-ray region along with a high resolution X-ray Detector has been established. UGC sanctioned 97.50 Lakh under CAS-IV Phase (2008-2013). (30+30+20 Lakh) grant received from UGC under Impowerment of Infrastructure facilities during (2007-2009) period.

The Department of Science & Technology has given technical approval for funding the proposal for establishing Panjab University Accelerator Science Centre (5 MV Tandem) at P.U. Chandigarh amounting to Rs. 67.5 crore).

Research Facilities

Facilities exist in the Department for research in Nuclear Physics, Photon-Atom Interaction Studies, Particle Physics, Solid State/Condensed Matter Physics, Mass Spectrometry and Geochronology, Laser Spectroscopy and Theoretical Physics, leading to the Ph.D. degree for which at least three years of research work is required after the M.Sc. degree.

Moreover, the department has started two new M.Sc. courses in Nuclear Medicine and Medical Physics jointly with Departments of Bio-physics and Nuclear Medicine and Radiation Therapy, Post Graduate Institute of Medical Education and Research, Chandigarh from the academic session, 2007-08.

Major facilities available in the Department are as follows :

(i) Cyclotron, (ii) High Energy Physics (Experimental set up) for studies connected with Collider Physics at CERN and Fermilab, (iii) Mass Spectrometer, (iv) Equipment for study of electrical properties of semi-conductors, fabrication of thin films, (v) Vacuum Grating Spectrograph; high power Nd. YAG laser etc., (vi) Several Nuclear Spectrometers incorporating detectors like Ge(Li), Na(Ti), Ba F, Si(Li), HPGe etc. and modern electronics, (vii) Analysis set up of Ultra relativistic heavy Ions in CERN, (viii) Computational facilities for theoretical studies for modelling physical problems including simulations, (ix) Energy dispersive X-ray fluorescence spectrometers using radioactive exciter sources and X-ray tube for material analysis, (x) Facilities for PAC/PAD studies of Hyperfine Interactions, STM.

The department houses IAPT office and actively leads in IAPT, IPA activities.

An 11 inch Telescope is to be installed soon in the department as a part of Teaching Program.

Faculty

| | | | | |
|---------------------|---|--|---|--|
| Professors | : | M.M. Gupta (<i>Chairperson</i>) V.P. Singh Manjit Kaur A.K. Bhati | V.K. Jindal C.S. Aulakh M.M. Aggarwal K.P. Singh | Suman Bala J.B. Singh Keya Dharamvir |
| Readers | : | Devinder Mehta C. Nagaraja Kumar | Navdeep Goyal G.S.S. Saini | R.K. Puri |
| Lecturers | : | K.S. Bindra Sandeep Sahijpal Ashok Kumar Kuldeep Kumar | S.K. Tripathi J.S. Shahi Sunita Srivastava | Ranjan Kumar Vipin Bhatnagar B.R. Behera |
| Emeritus Professors | : | H.S. Hans | K.N. Pathak | |
| Emeritus Scientists | : | J.M. Kohli | K.N. Pathak | Nirmal Singh |
| Ramanna Fellow | : | Raj K. Gupta | | |
| Teacher | : | Bimal Rai | | |
| Re-employed | : | Gulzar Singh | | |

Courses offered :

| COURSE | SEATS | DURATION | ELIGIBILITY/CRITERIA |
|--|---|--|---|
| B.Sc. (H.S.) | 40+6+6 NRI | 3 years | (i) 10+2 Non-Medical/Medical with 50% marks (45% marks in case of ST/ST). (ii) Common Entrance Test plus admissible weightages. |
| B.Sc. (H.S.) Physics & Electronics | 20+3 | 3 years | Admission based on (Merit). |
| M.Sc. (H.S.) | (i) All students after passing (ii) 40+6+6 NRI | B.Sc. (H.S.) in Physics of P.U. 2 years | B.Sc. (Pass or Hons.) examination with 50% marks (45% marks in case of SC/ST) of P.U. or any other exam. recognised as equivalent thereto with Physics and Maths as elective subjects and Entrance Test conducted by P.U. |
| M.Sc. (H.S.) Physics & Electronics | 20+3+3 NRI | 2 years | Admission based on OCET. |

| | | | |
|--|-------------------------|-----------|--|
| M.Sc. in Medical Physics | 10+1+2NRI | 2 years | B.Sc. from a recognized University/Institution with Physics as the core subject. Candidates having recognized B.Sc. degree in Biophysics, and Medical Physics will also be eligible. |
| Post M.Sc. Course in Accelerator Physics | 10+1 | 1 year | On merit basis, as per eligibility i.e. Master degree in Science of P.U. in Physics/Applied Physics or Any other examination recognized by P.U. as equivalent to the above exam. |
| Ph.D. | Subject to availability | 3-5 years | See General Important Guidelines. |

Regarding details of courses of study and their structure under annual/semester system, the syllabus published by the University/notified by the Department may be consulted.

Thrust Areas

Nuclear Physics (Expt.), Nuclear Physics (Theory), Particle Physics (Expt.), Particle Physics (Theory), Condensed Matter Physics (Expt.), Condensed Matter Physics (Theory).

Rules/Regulations of M.Sc. Medical Physics

Introduction

Medical Physics is an established clinical specialty with wide ranging application in Radiotherapy Planning and Treatment. It can be defined as embracing all applications of radioactive sources in the treatment of cancerous and cancerous disease. The student of Medical Physics also gains knowledge about different equipments use in Radiotherapy planning and treatment and their quality assurances. There is ample scope of research in area of medical physics, the student will also be imparted to training and teach. Therefore, medical physics syllabus has been prepared in such a way that it will make the student a good clinical physicist, researcher and a teacher after qualifying this course.

As this is a specialized branch of medicine and is multidisciplinary in nature, it requires skilled/trained manpower.

Aims and Objectives

The postgraduate training program is aimed at developing skilled technical manpower in Medical Physics. They should be able to demonstrate high standards of professional skills, competence/leadership qualities.

Duration of Course

2 Academic Years

No. of Seats

General Seats = 10

NRI=02

Total Seats/Year = 12

Admission Criteria

Eligibility/Qualification :

Candidates having B.Sc. degree from recognized university/institute and have studied physics as an elective subject during all the three years of the B.Sc. programme of study and fulfill the eligibility conditions as per Panjab University, will be eligible for admission to M.Sc. Medical Physics. Students having B.Sc. degree in Biophysics shall also be eligible for admission to the course.

Admission to M.Sc. course in Medical Physics will be based on aggregate marks obtained by the candidates (out of a total 2400 marks) in B.Sc. after adding the normalized marks in the subject of physics and other weightages as prescribed by the Panjab University.

Syllabus

The broad outlines of the course are annexed and had been prepared keeping in view the guidelines/requirements of AERB, BARC, Mumbai.

Teaching and Training

The Panjab University departments (Departments of Biophysics & Physics) and the Department of Radiotherapy of PGIMER shall impart the teaching and training to the students jointly. However, few other departments of these Institutes may also be involved in this teaching programme.

First year of the teaching/training will be mainly in the Panjab University in the departments of Biophysics & Physics.

Second year of the teaching and the clinical training shall be mainly in the Department of Radiotherapy at PGIMER, Chandigarh.

Dissertation

Every student shall be allotted a project under a supervisor in the beginning of the second year and will submit the dissertation at least one month prior to the final examination.

Assessment and Evaluation

In addition to regular internal assessment, theory and practical examinations will be held at the end of first and second year.

Award of M.Sc. Degree

The candidates shall have to obtain a minimum of 50% marks in aggregate in theory and practicals for the award of M.Sc. Medical Physics. The Panjab University shall award the final degree.

DEPARTMENT OF STATISTICS

(DST-FIST Sponsored Department)

About the Department

The Department of Statistics was established in 1966 as a part of Mathematics Department and since 1974 it has been an independent Department.

The Department offers M.Sc., M.Phil. and Ph.D. courses in Statistics. The Department is also upgraded to Department of Special Assistance for a period of three years (1-4-2004 to 31-03-2009), and is among one of the active departments in the country carrying out research in the fields of Reliability Theory and Survival Analysis, Multiple Comparison Procedures, Bio-Statistics, Econometrics and Applied Statistics.

Since March 2000, the Department has been identified by the Department of Science and Technology (Government of India) under FIST Programme, keeping in view the research and teaching activities of the Department. The Department has well equipped Computer lab and students are given training on Statistical packages like MINITAB, SPSS, SYSTAT, R, S-PLUS, STATGRAPHICS and SAS in the Computer laboratory. Eminent Statisticians from abroad and within country keep visiting the Department frequently for research collaboration. The faculty members are attending National and International conferences. Interaction with neighbouring industries in the field of process control and with institutes like PGIMER, GMCH, NIPER, IMTECH, etc. for providing consultation to medical doctors and researchers, is another highlight of the Department of Statistics.

Faculty

| | | | | |
|------------|---|--|----------------|----------------|
| Professors | : | Kalpna K. Mahajan (<i>Chairperson</i>) | Amar Nath Gill | |
| Readers | : | Sangeeta Arora Suresh K. Sharma | Kanchan Jain | Narinder Kumar |
| Lecturer | : | Manoj Kumar | | |
| Programmer | : | Harminder Singh Deosi | | |

Courses offered :

| COURSE | SEATS | DURATION | ELIGIBILITY/CRITERIA |
|--------|-------------------------|------------------------------|---|
| M.Sc. | 30+4+5 NRI | 2 years (Semester System) | At least 50% Marks in B.A./B.Sc. and atleast 45% marks in Stats/Maths during 3 years of B.A./B.Sc. programme. |
| Ph.D. | Subject to availability | 3-5 years | See General Important Guidelines. |

M.Sc. (2–years programme)

| Course No. | Title | Credits |
|---------------------|--|----------------|
| Semester I | | |
| Stat-101 | Real and Complex Analysis | 4 |
| Stat-102 | Linear Algebra | 4 |
| Stat-103 | Distribution Theory | 4 |
| Stat-104 | Statistical Methods with Packages (Theory 3/4, Practical 1/4) | 4 |
| Semester II | | |
| Stat-201 | Probability | 4 |
| Stat-202 | Statistical Computing using FORTRAN (Theory 2/3, Practical 1/3) | 4 |
| Stat-203 | Inference I (Theory 3/4, Practical 1/4) | 4 |
| Stat-204 | Design and Analysis of Sample Surveys (Theory 3/4, Practical 1/4) | 4 |
| Semester III | | |
| Stat-301 | Nonparametric and Semi Parametric Methods (Theory 3/4, Practical 1/4) | 4 |
| Stat-302 | Statistical Process and Quality Control. (Theory 3/4, Practical 1/4) | 4 |
| Stat-303 | Course from selected module | 4 |
| Stat-304 | Course from selected module | 4 |
| Semester IV | | |
| Stat-401 | Multivariate Analysis (Theory 3/4, Practical 1/4) | 4 |
| Stat-402 | Design and Analysis of Experiments (Theory 3/4, Practical 1/4) | 4 |
| Stat-403 | Course from selected module | 4 |
| Stat-404 | Course from selected module | 4 |

MODULE–I

| | | |
|-------|--|---|
| M 1.1 | Actuarial Statistics | 4 |
| M 1.2 | Inference-II | 4 |
| M 1.3 | Linear Inference | 4 |
| M 1.4 | Operations Research | 4 |
| M 1.5 | Reliability | 4 |
| M 1.6 | Statistical Simulation and Computation | 4 |
| M 1.7 | Stochastic Processes | 4 |
| M 1.8 | Survival Analysis | 4 |

| Course No. | Title | Credits |
|------------------|--|---------|
| MODULE-II | | |
| M 2.1 | Actuarial Statistics | 4 |
| M 2.2 | Categorical Data Analysis | 4 |
| M 2.3 | Econometrics | 4 |
| M 2.4 | Economic Statistics | 4 |
| M 2.5 | Inference-II | 4 |
| M 2.6 | Linear Inference | 4 |
| M 2.7 | Operations Research | 4 |
| M 2.8 | Reliability | 4 |
| M 2.9 | Simultaneous Inference | 4 |
| M 2.10 | Statistical Simulation and Computation | 4 |

Any other course which the Board of Control may decide to offer.

Notes :

1. The Board of Control shall decide which papers from the selected modules shall be offered in M.Sc. (Statistics) 3rd and 4th Semesters.
2. Each paper/course of 4 credits shall carry hundred marks.
3. A student shall be required to earn a total of 64 credits to become eligible for the award of M.Sc. (Statistics) degree.
4. For a uniform spread of the syllabus over four semesters, a student shall be required to attend classes for courses amounting to a minimum of 12 credits and a maximum of 20 credits each semester in the four-semester M.Sc. (Statistics) programme.
5. The composition, duration and the general style of the theory papers in the final examination in each semester will be decided upon by the Board of Control.
6. The mode of conduct of practical examinations in each semester will be decided upon by the Board of Control.
7. In the final examination of the course, which is divided into theory and practical parts, the distribution of the weightage for the practical part will be as follows :

| | |
|--------------------------|-------|
| (a) Practical questions | (3/5) |
| (b) Viva-voce | (1/5) |
| (c) Record of practicals | (1/5) |
8. The practical marks in course Stat-202 : Statistical Computing using FORTRAN will be based entirely on Internal Assessment.
9. The marks in courses M 1.6 and M 2.10 : Statistical Simulation & Computation will be based entirely on internal assessment.
10. In the final examination of the course, which is divided into theory and practical parts, the theory and practical Papers will be treated as independent units for passing in a paper.
11. Evaluation to the extent of 20% of the theory marks in each course will be based on Internal Assessment. Mode of Internal Assessment will be decided by the Board of Control.

Practical and Computer Training Courses

Besides adequate library facilities, the Department also has a well-equipped Computer Laboratory. In the Computer Laboratory there are P-IV and P-III Computers, Scanner, Laser and Dot-matrix Printers. Internet facility is available on most of the computers installed in the Computer Laboratory. Students are encouraged to do their practicals using statistical packages like MINITAB, SPSS, SYSTAT, SAS, S-PLUS and MATHEMATICA, SHA ZAM, BMDP and STATGRAPHICS. Some computer-based courses in M.Sc (Statistics) are taught through rigorous training on computers using Fortran and C/C++ languages.

Major Thrust Areas :

- (i) Reliability Theory and Survival Analysis; (ii) Multiple Comparison Procedures (iii) Bio-statistics; (iv) Econometrics and (v) Applied Statistics.

DEPARTMENT OF ZOOLOGY

About the Department

Department of Zoology was established at Lahore in 1902 and later on shifted first to Hoshiarpur after the partition of country & then to Chandigarh in July 1960. It is one of the oldest departments of Panjab University. It has highly qualified faculty. The faculty uses latest modes of imparting education to the students. Department organizes talks, seminars, symposia, workshops, field trips and other extra curricular activities to inculcate the interest of Zoology and for overall development of the young students.

The Department, on the basis of its academic and research merit, has been adopted by the U.G.C. under its SPECIAL ASSISTANCE PROGRAMME in 1985 in 5 thrust areas namely Cell & Animal Physiology, Aquatic Biology, Cytogenetics, Entomology and Parasitology and COSIST PROGRAMME in 1995. Presently the department has been upgraded to the level of Centre of Advanced Studies (CAS) from April 2006-April 2011 under the thrust area of Biodiversity. Cell and Molecular Biology with a grant of Rs. 78.25 lakhs with recurring and non-recurring funds. The U.G.C. has also provided grants to the Department of Zoology to the tune of Rs. 40 lakhs for improvement of infrastructure.

The Department is running research projects funded by agencies like DST, UGC, CSIR and “Ministry of Environment”. Department has a Central laboratory well equipped with sophisticated scientific instruments and audio-visual aids.

The Department has a Computer room with fairly good number of computers for staff and students to avail the facilities of Internet, typing and printing. The Department Library is stocked with highly informative text and reference books and several series of national and international Journals. Recent books and periodicals are regularly added. The Department Museum comprising two sections - Invertebrates and Chordates with very well represented national and regional collection of animals is one of the best in the region/country. The Department is maintaining an Apiary of European honeybees, *Apis mellifera* which serves as a model to acquaint and encourage the students towards self-employment potential of Applied Zoology. The Department arranges Educational-cum-Marine trip every year for B.Sc. (H.S.) final year students in order to acquaint them with the habitat and distribution of fauna in sea and the coastal areas.

Faculty

| | | | |
|-------------------|--|----------------------------------|-------------------------|
| Professors | : M. Jain (<i>Chairperson</i>) V.Lakshmi Asha Chaudhry | Neelima R. Kumar Sukhbir Kaur | R. Jindal V.K. Walia |
| Lecturers | : Upma Bagai | Yogesh Rawal | |
| Re-employed Prof. | : C.L. Duggal | S. Gandhi | |

Courses offered :

| COURSE | SEATS | DURATION | ELIGIBILITY/CRITERIA | FEES |
|---|-------------------------|-----------|---|--------------|
| B.Sc. (H.S.) | 30+4+5 NRI | 3 years | Common Entrance Test + admissible weightage. | |
| M.Sc. (H.S.) | 12+2+2 NRI | 2 years | (a) B.Sc. (Pass or Hons.) with 50% marks (45% marks in case of SC/ST) examination of the P.U. or any other exam. recognized by P.U. as equivalent thereto with Zoology as one of the elective subject. (b) Entrance Test + admissible weightage. | |
| Ph.D. | Subject to availability | 3-5 years | See General Important Guidelines. | |
| D.Sc | ” | 6 years | After M.Sc. degree. | |
| Training Programme in Cytogenetical, Immunological & Molecular Biology Techniques | 10 | One Month | Teacher, M.Sc. & Ph.D. Student | Rs. 10,000/- |
| Fish Pond water management | 20 | 30 Days | +2 with Science or B.Sc. (Medical) | Rs. 10,000/- |
| Bee keeping Industry potential for self employment | 20 | 45 Days | +2 | Rs. 5,000/- |
| Medical Parasitology | 10 | 1 Month | B.Sc. with Zoology/Microbiology/Parasitology | Rs. 10,000/- |

Mode of Admission : On the basis of merit.

CENTRE FOR EMERGING AREAS IN SCIENCE & TECHNOLOGY

Master in Public Health

Duraion : 2 Years (4 Semesters)

No. of Seats : 15+2+5 in-service* + 2 NRI

Eligibility : Bachelor's Degree in any discipline with atleast 50% marks

Mode of Admission : On the basis of marks in the Qualifying Examination recognized by Panjab University equivalent to Bachelor's Degree.

| | | | |
|----------------|------------|---|----------------------------|
| Fee Structure: | Open | : | Rs. 20,000/- Each Semester |
| | In-service | : | Rs. 30,000/- Each Semester |
| | NRI | : | US\$ 1500/- Each Semester |

Form Submission : Office of Academic Staff College, Ist Floor Regional Centre Building, Panjab University, Chandigarh

M.Sc. in System Biology and Bioinformatics

Number of Seats : 13+2NRI

Eligibility : (a) B.Sc./ B.Sc. (Hons.) Bioinformatics
(b) B.Sc./ B.Sc. (Hons. school) in Life Sciences (including Biotechnology) with :
(i) Bioinformatics as one of the subject
OR
(ii) Certificate/Diploma courses in Bioinformatics from recognized institute/ university
(c) B.Sc/ B.Sc. (Hons. School) with the combinations

(i) Bioinformatics + Chemistry + One life sciences subject
OR
(ii) Bioinformatics + One life sciences subjects + Computer Science/ Mathematics/Physics

Mode of Admission : On the basis of O-CET.

*In case of non-availability of in-service candidates the seats will be converted into general category.

MICROBIAL BIOTECHNOLOGY

About the department

Keeping in view the enormous importance of microbes in the field of Biotechnology, a new course, Microbial Biotechnology has been introduced from July, 2008 under the aegis of Centre for Emerging Areas in Science and Technology (CEAST) in the CIL building (top floor) of P.U., Chandigarh. The course is targeted to generate active Industry-Academia Interaction and the syllabus has been designed with active inputs from Biotech industries and scientists of international repute. The course has 20+3+1 (single girl child) seats and comprises of four semesters. First three semesters are dedicated to theory and practicals. The fourth semester comprises of a research project and seminars. For details please consult P.U. website (www.puchd.ac.in). The faculty is very active in research and has collaborations with other institutes and have been awarded patents. This course also envisages to have international collaborations in the area of teaching and research and will organize a national/international conference/seminar/symposium/workshop every year so as to expose the students to the latest developments in the field of Microbial Biotechnology. The students are encouraged to participate in Biotechnology related activities in and around Chandigarh. The course received tremendous response from the students which can be gauged from the fact that all the seats of the first batch were filled in the first counseling.

Faculty

Professor : **Rupinder Tewari**
(Coordinator)

Lecturer : Rohit Sharma

| COURSE | NO. OF SEATS | DURATION |
|--------|--------------|----------|
| M.Sc. | 20 | 2 years |

Thrust areas

- (a) Extremozymes
- (b) Drug targeting
- (c) Biosensors

Eligibility conditions

B.Sc./B.Tech./B.E in any field of Biological Sciences with minimum 50% marks and must have qualified Microbiology as one of the subjects in any of the year during his/her B.Sc./B. Tech./B.E level. Detail Marks Card must mention Microbiology as one of the subjects.

Mode of admission

O-CET Entrance Test (50%) + Total aggregate of marks obtained at B.Sc/B.Tech/B.E. level (50%).

Fee structure

Tuition fee: Rs. 20,000 per semester + Laboratory charges: Rs. 15,000 per semester + other university charges.

NUCLEAR MEDICINE

About the Course in Nuclear Medicine

Nuclear medicine is the medical specialty concerned with the use of safe and small amounts of radioactive materials for diagnostic, therapeutic, and research purposes. More specifically, nuclear medicine is a part of molecular imaging because it produces images which reflect biological processes that take place at the cellular and subcellular levels. A typical nuclear medicine study involves the administration of a radionuclide into the body in order to obtain images of the organs, to perform various body function studies and to treat diseases. Most of the radionuclides used for diagnostic studies emit gamma rays, while the cell-damaging properties of beta particles are used in therapeutic applications. Radionuclides for use in nuclear medicine are derived either from nuclear reactors which produce radioisotopes with longer half-lives, or from cyclotrons/generators which produce radioisotopes with shorter half-lives.

Radioisotopes/Radiopharmaceuticals have affinities for specific organs, bones, or tissues and emit gamma rays that can be detected externally by scintillation cameras. Images are created by computers and provide data and information about the areas of the body being viewed.

Nuclear medicine imaging techniques combine the use of radioactive substances, detectors, and computers to provide functional images inside the human body by using advanced techniques like positron emission tomography (PET) and single photon emission computed tomography (SPECT). Nuclear medicine imaging is useful for detecting tumors, irregular or inadequate blood flow to various tissues, blood cell disorders and inadequate functioning of organs. During diagnostic procedures, the patient experiences little or no discomfort and the radiation dose delivered is very small.

Nuclear medicine technical experts are highly skilled individuals and their responsibilities include performing *in vivo*, radiation safety and quality control procedures. Other responsibilities which include operating the cameras that create images including patient positioning and processing the data for research purposes. The discipline of nuclear medicine also produces dedicated scientists who develop radiopharmaceuticals/radioisotopes for the imaging/therapies of organs.

NUCLEAR MEDICINE:

Faculty

Professor : D.K.Dhawan
(Coordinator)

Lecturer : Vijayta D.Chadha

| COURSE | SEATS | DURATION | ELIGIBILITY/QUALIFICATION |
|--------|-------------|----------|--|
| M.Sc. | 10+1+2(NRI) | 2 years | Minimum Qualifications For admission to M.Sc.First Year in Nuclear Medicine will be B.Sc. from a recognized University with Physics and Chemistry or Chemistry & Biology as core subject.Candidates having B.Sc. in Biophysics, Biochemistry, Microbiology, Biotechnology, |

Pharmacy And Nuclear Medicine shall also be Eligible for admission to the course.

ADMISSION

Admission to M.Sc.course in Nuclear Medicine will be through O-CET to be conducted by the Panjab University. The candidate should have passed the graduation (B.Sc.) from a recognized university institute with at least 50% marks. While deciding the final merit of the entrance test, a weightage shall be given to the B.Sc. marks obtained by the candidate, as per the University rules. The cut off percentage marks secured in the entrance test will also be as per the University rules.

M.TECH. (NANOSCIENCE & NANOTECHNOLOGY)

About the Centre

A new course of M.Tech. (Nanoscience & Nanotechnology) has been started with effect from the academic session of 2005-06 in UCIM. Now, the course has been put under the Centre for Emerging Area in Science & Technology (CEAST) and successfully running in Department of Physics, Panjab University, Chandigarh from the academic session of 2008-09. The course being interdisciplinary in nature is being run with the help of faculty from several departments of the University. The students are given projects which they complete in collaboration with industry and national laboratories.

Facilities

Facilities as available in UCIM and other departments of Panjab University, Chandigarh.

Faculty

Professor : V.K. Jindal Keya Dharamvir
(Coordinator) (Co-Coordinator)

| COURSE | SEATS | DURATION |
|--|-------------------|-----------------------|
| M.Tech. (Nanoscience & Nanotechnology) | 10+3 SC/ST+ 2 NRI | 2 years (4 Semesters) |

Eligibility conditions

Bachelor's Degree (4-years after 10+2) in Engineering/Technology, i.e. B.E./B.Tech. (in any Branch).
or

Master's degree in Physics/Chemistry/Biophysics/Biochemistry/Microbiology with minimum 50% marks in the aggregate.

Admission and Scheme of Entrance Test

The admission will be done on the basis of entrance test only. The duration of the Entrance Test will be 1 hour 30 minutes and it will consist of 75 multiple-choice questions of one mark each. The syllabus will be based broadly on the course contents on fundamentals of Physics, Chemistry, Mathematics, Biology and Computer background covered during their qualifying exams. including undergraduate level.

XI - MULTY-FACULTY DEPARTMENTS

DEPARTMENT OF EVENING STUDIES

About the Department

The Department of Evening Studies, which started as the Panjab University Evening College in 1961, provides a unique opportunity for learning through interactive teaching (unavailable in Distance Education) to the in-service young men and women, who, due to various compelling reasons, have to cut short their academic career and start earning. It is a socially useful institution to enable them to enhance their career prospects.

Faculty

| | | | |
|------------|---|---|---|
| Professors | : S.C. Vaidya (<i>D.U.I. & Chairperson</i>) Sudhir Kumar | Indu Tewari Gurpal Singh | V.K. Mahajan Keshav Malhotra |
| Readers | : N.K. Sehgal Manoj Kumar Sharma Anil Monga M.S. Bajwa Mahesh Sharma Ishwar Dayal Gaur | Vijay Kataria Archana Harsukhjait Kaur Neeraj Jain Gauri Sharma G.C. Chauhan | Vijay K. Chopra S.S. Gill Bhupinder Kaur Vandana Maini Rehana Parveen |
| Lecturers | : Mohammed Khalid Gurpreet Kaur Amandeep | Neeraj Sharma Chander Mohan Vinod Kumar | Suman Makkar Keerti Vardhan |

Courses offered

(A) Under-graduate

- (i) B.A. (Three Year Degree Course)
- (ii) B.Com. (Three Year Degree Course)

(B) Post-graduate

M.A. 2 year Degree Course in the following subjects :-

- (i) English
- (ii) Economics
- (iii) Political Science
- (iv) History
- (v) Punjabi

Department Hours

As per Syndicate decision dated 22.2.2006 (Para 34) "The following time-schedule be observed for classes in the Department of Evening Studies, with adjustments as considered necessary by the Vice-Chancellor from time to time :

Between 3.00 p.m. to 9.00 p.m.

Seats Available

| | | | |
|------------------------|--------|------------------------|-------|
| B.A. Part I | 300+42 | B.Com. Part I | 70+10 |
| B.A. Part II | 300 | B.Com. Part II | 70 |
| B.A. Part III | 300 | B.Com. Part III | 70 |
| M.A. Part I (Eng.) | 80+12 | M.A. Part II (Eng.) | 80 |
| M.A. Part I (Eco.) | 60+8 | M.A. Part II (Eco.) | 60 |
| M.A. Part I (Pol. Sc.) | 80+12 | M.A. Part II (Pol.Sc.) | 80 |
| M.A. Part I (History) | 60+8 | M.A. Part II (History) | 60 |
| M.A. Part I (Punjabi) | 60+8 | M.A. Part II (Punjabi) | 60 |

Courses of Study

Admission shall be open to the following classes :-

(I) B.A. (Three Year Degree Course) Part I, II & III

B.A. Part I (Under 10+2+3 Scheme)

Conditions for Eligibility to Admission

A person who has passed one of the following examinations shall be eligible to join the First Year Class of the B.A. (General) degree course :-

- (i) B.A./B.Sc./B.Com. Part I (Old Scheme)/Pre-Medical/Pre-Engg./Intermediate/Arts/Science/Agriculture examination of Panjab University;
- (ii) The +2 examination under 10+2+3 system of education of a recognized University/Board/Council, provided he/she has secured 33% marks;
- (iii) Any other examination recognized by the University as equivalent to (i) and (ii) above.
- (iv) The Syndicate vide Para 41 of its meeting held on 26-7-2003 has decided that if the candidates placed under Compartment in +2, cleared their Compartment examination by appearing in the Supplementary Examination of the Board before the last date of admission for any course (The courses MBBS, BAMS, BHMS, B.E., B.Arch., B.B.A. & B.C.A. are not covered in the foregoing decision) they should be considered for admission to the next higher class provided they were eligible.
- (v) **All candidates seeking admission in the Department are required to submit their Application Forms duly filled in, attested and supported by photocopy of all relevant documents. Incomplete Application Forms will not be accepted in any case. Further, they have to submit the original documents at the time of interview.**
- (vi) **In addition to conditions laid down at Point (v) above, candidates from other Boards/Universities are required to submit an Eligibility Certificate from the Registration Branch of the Panjab University, Chandigarh, along with the Application Form.**

Candidates placed in Compartment in one subject only at the +2 examination by a recognised Board/Body/Council/University in India, will be allowed to take admission to the 1st year of B.A. class subject to the following conditions :-

In case the candidate is seeking admission to the B.A. First Year Class, he/she should have obtained at least 33% marks in the aggregate of all the subjects (including at least 20% in the subject of Compartment, Theory and Practical/s taken together) taken up by him/her at the +2 examination.

Important note :

A student of B.A. Part II and III shall offer the same subjects as had been offered by him/her in B.A. I in this Department.

B.A. Part II (Under 10+2+3 Scheme)

A person who has passed one of the following examinations shall be eligible to join the Second Year Class of B.A. (General) course :-

- (i) B.A. First Year (General) examination of the Panjab University under 10+2+3 scheme.
- (ii) B.A. First Year examination under 10+2+3 scheme from any other University in India recognized by the Panjab University as equivalent to its B.A. Part I examination, subject, however, to the condition that the subjects he/she has studied in B.A. Part I are the same as offered by this University. In case of any deficiency he/she shall have to pass the deficient subject/s in the following September and April Examinations. The total number of credits shall, however, remain the same. If such a student fails to pass the deficient subject/s in the following September and April examinations, his/her result for B.A. Part II examination shall stand cancelled.

Note : The marks obtained in B.A. First Year Examination shall be counted towards his/her division, by increasing or decreasing the maximum marks in accordance with the maximum marks prescribed by the Panjab University.

B.A. Part III (Under 10+2+3 Scheme)

A person who has passed one of the following examinations shall be eligible to join the Third Year Class of B.A. (General) course :-

- (i) B.A. Second Year (General) Examination of Panjab University under 10+2+3 scheme.
- (ii) B.A. Second Year (General) Examination under 10+2+3 scheme from any other University in India recognized by the Panjab University as equivalent to its B.A. Part II examination, subject, however, to the condition that the subjects he/she has studied in B.A. Part I and Part II were the same as offered by this University. In case of any deficiency he/she shall have to clear the deficient subject/s in the following September and April Examinations. The total number of credits shall, however, remain the same. If such a student fails to clear the deficient subject/s in the following September and April Examinations his/her result for B.A. Part III examination shall stand cancelled.

Note : The marks obtained in the B.A. First and Second Year Examinations shall be counted towards his/her division by increasing or decreasing the maximum marks in accordance with the maximum marks prescribed by the Panjab University.

COMBINATION OF SUBJECTS

Compulsory Subjects (For B.A. I)

1. Panjabi (Two Papers) 50 Marks each

OR

History & Culture of Punjab*

2. English (100 Marks)
3. Environmental Education
4. Any one subject from each group i.e. Group A, B & C (200 x 3 = 600)

| Group A | Group B | Group C |
|-------------------------|-------------------|------------------|
| Sociology | Political Science | Economics |
| Public Administration | Sanskrit | English Elective |
| Police Administration** | History | Urdu Elective |
| Functional English | Mathematics | Panjabi Elective |
| | | Hindi Elective |

The Syndicate at its meeting held on 22.2.2006 (Para 34) decided that the combinations of subjects/ options offered by the Department of Evening Studies may be reviewed on year-to-year basis after getting due approval of the Dean of University Instruction and the Vice-Chancellor.

* (i) The following categories of students shall also be entitled to take the option of History & Culture of Punjab in lieu of Punjabi as Compulsory subject :

- (a) Students who are not domiciled in Punjab and have not studied Punjabi upto 10th Class.
- (b) Wards of/and Defence Personnel and Central Government employees/employees who are transferable on all India basis.

(ii) Optional papers in B.A./B.Com. shall not be offered if a minimum number of 10 students do not opt for the same.

(iii) Students can offer one subject for which teaching is not available in the Department. They will prepare that subject on their own. In case of practicals, a Certificate will be needed for attending required number of practicals as per University Rules.

Note : Changes made in rules/syllabi, courses/options in B.A./B.Com. I and M.A. I shall be operative from the session 2009-2010. To the existing students of B.A./B.Com. II & III and M.A. II, the syllabi/courses/ options shall continue to be same as were in force in session 2008-09.

**Subject to approved by the D.U.I./V.C. Subject introduced as per decision of the Syndicate at its meeting held on 28-6-2008 vide para 57.

(II) B.Com. Part I, II & III
SCHEME OF EXAMINATION
OUTLINES OF TESTS
B.Com. Part I, II & III

1. The admission to B.Com. Course for the Session 2009-2010 shall be made according to the following provisions approved by the Academic Council on 5.7.2000.

2. The B.Com. (General) Programme of study shall consist of 29 credits. One credit shall carry 50 marks.

3.1 (A) Admission to the first year of B.Com. (General) degree course shall be open to a person who has passed one of the following examinations conducted by a recognized Board/Council/University :

(a) +2 examination or B.Com. Part I (Old Scheme) of Panjab University with three of the following subjects securing at least 40 per cent marks in aggregate :

Commerce (or theory of Commerce, or foundation course in Commerce)
Accountancy (or Book Keeping and Accountancy)
Economics
Mathematics (or Statistics)
Business Organisation (or Business Management or Theory and Practice of Mgt.)
Insurance (or General Insurance or Life Insurance)
Banking and Trade
Commercial Geography
Office Management and Secretarial Practice (or Office Organisation and Management)
Mercantile Law (or Company Law)
Auditing
Typewriting and Stenography/Computers (for typewriting).

(b) +2 examination or B.A. Part I (Old Scheme) of Panjab University with at least two of the subjects mentioned in (a) securing at least 45% marks in aggregate.

(c) +2 examination or B.A. Part I/ B.Sc. Part I/Pre-Engineering/Pre-Medical Examination of the Panjab University under the Old Scheme not covered in (b) securing at least 50% marks.

(d) Any other examination recognized by the University as equivalent to (a) or (b) or (c) as given above with requisite percentage of marks given under each clause.

Provided that a candidate seeking admission to the first year of B.Com. should have passed in the subject of English at the +2 examination and in cases where passing in English is not necessary according to the regulations of certain Boards/Bodies/Councils/Universities in India, the admission of the candidate shall be provisional and will be confirmed only after he has cleared the subject of English as a deficient subject from the parent Board/Body/Council/University in two consecutive chances subsequent to his admission.

Provided further that -

(a) a compartment candidate at the +2 examination shall be eligible to offer in the B.Com. First Year Class the subject in which he has been placed under compartment, subject to the provision under regulation 3 above.

- (b) a candidate who has not passed English as one of the subjects at the +2 examination shall be allowed to offer in the B.Com. First Year class English (as Communication Skill) but he will have to pass English as a deficient subject, subject to the provision under regulation 3 above.
 - (c) in case a candidate does not clear the relevant subject in any of the two consecutive chances offered to him subsequent to the date of his admission, his provisional admission to the First Year of B.Com. Examination shall stand cancelled.
- (B) Subject to the reservations made by the University, the admission shall be on merit. The merit for this purpose shall be determined on the basis of the score of a candidate to be computed as follows :-
- (i) Percentage of marks in the qualifying examination.
 - (ii) Add score of 4 for each of the subjects passed from the subjects referred to in 3.1 (A) (a) not exceeding 16 in total.
- (C) B.A./B.Sc. Part II of Panjab University.
- (D) Any other examination recognized by the University as equivalent to (A) or (B) with the requisite Group/Subject/s and percentage of marks or (C) above.

Provided that a candidate seeking admission to the first year of B.Com. should have passed in the subject of English at the +2 examination and in cases where passing in that subject is not necessary according to the regulations of certain Board/Body/Council/Universities in India, the admission of the candidate shall be provisional and will be confirmed only after he has cleared the subject of English as a deficient subject from the parent Board/Body/Council/University in two consecutive chances subsequent to his admission.

- (E) Provided further that :
- (a) A candidate who has been placed under compartment in the +2 examination conducted by a Board/Bodies/Councils/University in India shall be eligible to seek admission to the First Year of B.Com. Course, provided he fulfils the following conditions :
 - (i) He should have been placed in compartment in one subject only.
 - (ii) He should have obtained at least 20% marks in the subject in which he had been placed in compartment, and
 - (iii) He should have obtained the requisite percentage of marks in the aggregate of the examination as laid down in the relevant regulations.
 - (b) A candidate who has not passed English as one of the subjects at the 10+2 examination shall be allowed to offer in the B.Com. First year class English (as communication skill) but he will have to clear English as a deficient subject, subject to the proviso under Regulation 3 above.
 - (c) In case a candidate does not clear the relevant subject at any of the two consecutive chances afforded to him subsequent to the date of his admission, his provisional admission to First Year of B.Com. examination shall stand cancelled.

3.2. A person who has passed one of the following examinations shall be eligible to join the Second/Third Year class of the Bachelor of Commerce (General and Honours) course as the case may be :-

- (a) Bachelor of Commerce (General and Honours) First/Second Year Examination of the University under 10+2+3 system.

- (b) Bachelor of Commerce First Year or Second Year examination under 10+2+3 system of education from any University the B.Com. Examination of which is recognized as equivalent to B.Com. Examination of this University, if the subjects/Courses offered were the same as prescribed by this University. In case there is some deficiency in the subjects/courses, he/she shall have to pass the deficient subjects/courses, if any, at the next two consecutive examinations. If he/she fails to pass the deficient subjects/courses, his/her result of B.Com. Second Year or B.Com. Third Year, as the case may be, shall stand cancelled.

Provided that the marks obtained by the students in B.Com. First Year or Second Year Examination, as the case may be, shall be counted towards his/her division and the marks obtained in the examination concerned shall be normalized by increasing or decreasing the maximum marks in accordance with the maximum marks prescribed by the Panjab University.

3.2 A person who has passed one of the following examinations shall be eligible to join the Second/Third year class of the Bachelor of Commerce (General and Honours) course as the case may be :-

- (a) Bachelor of Commerce (General & Honours) First/Second Year examination of the University.
- (b) Bachelor of Commerce First Year or Second Year examination, under 10 + 2 + 3 system of education of the Kurukshetra University (Kurukshetra) or Punjabi University (Patiala) or Guru Nanak Dev University (Amritsar) or Himachal Pradesh University (Shimla) or Maharishi Dayanand University (Rohtak) if the subjects/courses offered were the same as prescribed by the University. In case there is some deficiency in the subjects/courses, he shall have to clear the deficient subjects/courses, if any, at the next two consecutive examinations. If he fails to clear the deficient subjects/courses his result of B.Com. Second Year or B.Com. Third Year as the case may be, shall stand cancelled.

Provided that the marks obtained by the student in B.Com. First Year or Second Year examination, as the case may be, shall be counted towards his division and the marks obtained in the examination concerned normalized by increasing or decreasing the maximum marks in accordance with the maximum marks prescribed by the Panjab University.

Structure of Syllabus

B.Com. 1st Year

| S. No. | Subjects | Credit | M.M. | Number of Lectures (L) & Tutorial (T) per week | |
|--------|--------------------------------|--------|------|--|---|
| | | | | L | T |
| 1. | English (Communication Skills) | 2 | 100 | 5 | 1 |
| 2. | Punjabi/HCP* | 1 | 50 | 3 | 1 |
| 3. | Commercial & Labour Law | 2 | 100 | 5 | 1 |
| 4. | Financial Accounting | 2 | 100 | 5 | 1 |
| 5. | Business Organization and Mgt. | 2 | 100 | 5 | 1 |
| 6. | Business Math. and Stats. | 2 | 100 | 5 | 1 |
| 7. | Environmental Education | 0 | — | 5 | 1 |

***Note :** The following categories of the students shall be entitled to take the option of History & Culture of Punjab in lieu of Punjabi as compulsory subject :

- (a) Students who are not domiciled in Punjab and have not studied Punjabi upto class 10th.
 (b) Ward of/and Defence Personnel and Central Government employee/s who are transferable on all India basis.
 (c) Foreigners.

| S.No. | Subjects | Credit | M.M. | Number of Lectures (L) & Tutorial (T) per week | |
|------------------------|-----------------------------------|--------|------|--|---|
| B.Com.–2nd Year | | | | | |
| 1. | Company Law & Auditing | 2 | 100 | 5 | 1 |
| 2. | Corporate Accounting | 2 | 100 | 5 | 1 |
| 3. | Cost Accounting | 2 | 100 | 5 | 1 |
| 4. | Business Economics | 2 | 100 | 5 | 1 |
| 5. | Banking & Insurance | 2 | 100 | 5 | 1 |
| 6. | Indirect Tax Laws | 2 | 100 | 5 | 1 |
| B.Com. 3rd Year | | | | | |
| 1. | Functional Management | 2 | 100 | 5 | 1 |
| 2. | Management Accounting & Bus. Fin. | 2 | 100 | 5 | 1 |
| 3. | Direct Tax Laws | 2 | 100 | 5 | 1 |
| 4. | Indian Economy | 2 | 100 | 5 | 1 |
| 5. | Entrepreneurship & Small Business | 2 | 100 | 5 | 1 |
| 6. | Organization Behaviour | 2 | 100 | 5 | 1 |
| 7. | Viva-Voce | 1 | 50 | – | – |

Instructions for Practicals

- Each Unit shall be divided into five practical groups.
- Each student will require to study five period of text and one period of practical in a week in each subject. However, in case of Punjabi/HCP, each student will require to study three periods of text only.

Practical Examination (10 marks)

Evaluation on the basis of practical work will be strictly in accordance with syllabus prescribed. There will be a term paper on the basis of practical/training work. The class teacher shall take this term paper and the teacher concerned shall keep record of the term paper for a period of one year.

Important Notes :

- Students are advised to check any changes in the courses and syllabi of B.A./B.Com. at the time of admission.**
- For B.A./B.Com. Courses, the Department will conduct two mandatory tests in theory paper – one in the month of September/October and the other in December/January, or any other months as decided by D.U.I./Vice-Chancellor every year.**
 - For the first Test, there will be only one Paper of one hour's duration in each subject and for the Second Test there will be only one Paper of three hours' duration in each subject comprising different parts, if so required.**

There will be a Special Test only for those students who could not fulfil the conditions of eligibility. It will not be held to provide opportunity to all students to improve their earlier score.

- Whereas the First Test will carry weightage of 40%, the Second Test will have weightage of 60% in each subject/paper. The total weightage for both the Tests taken together shall be 10% of the total marks in each theory subject/paper. The weightage of 10% marks shall be added to each paper of B.A./B.Com. I, II and III years which will carry weightage of only 90% marks. A candidate will have to pass in theory and practical/s separately.**

(III) Courses of study for M.A. Classes

The details of the papers and the options allowed in M.A. Part I and II are as follows :-

ECONOMICS

M.A. Part I

- Paper – I : Micro Economic Theory and Welfare Economics
Paper – II : History of Economic Thought
Paper – III : Mathematics and Statistics for Economic Analysis
Paper – IV : Economics of Agriculture

M.A. Part II

- Paper – I : Macro Economic Theory
Paper – II : Economics of Growth, Development & Planning
Paper – III : Economics of Public Finance
Paper – IV : Economics of Money & Banking

ENGLISH

M.A. Part I

- Paper – I : Approaches to Literature
Paper – II : British Literature upto 1750
Paper – III : British Literature 1750-1900
Paper – IV : British Literature–The Twentieth Century

M.A. Part II

- Paper – I : Contemporary Critical Theory (Compulsory)
Paper – II : Indian Writing in English (Compulsory)
Paper – III : American Literature
Paper – IV : Shakespeare

HISTORY

M.A. Part I

- Paper – I : The Punjab 1450-1800 A.D.
Paper – II : (Option i) The State in Ancient India
OR
(Option ii) The State in Medieval India
Paper – III : The U.S.A. 1860–1973
Paper – IV : China & Japan 1800 – 1965

M.A. Part II

- Paper – I : The Punjab 1799-1966
Paper – II : National Movement in India 1858–1947
Paper – III : Economic History of India upto 1200 A.D.
Paper – IV : (Option i) Social and Cultural History of India upto 1200 A.D.
OR
(Option ii) Social and Cultural History of India upto 1200-1750 A.D.

POLITICAL SCIENCE

M.A. Part I

- Paper – I : Western Political Thought
Paper – II : Modern Political Analysis
Paper – III : Indian Political System
Paper – IV : International Politics

M.A. Part II

| | |
|---------------|--|
| Paper – I : | Indian Political Thought |
| Paper – II : | Comparative Political Systems (U.S.A., U.K., China, Japan and Switzerland) |
| Paper – III : | Public International Law |
| Paper – IV : | Foreign Policy of India |

PUNJABI

M.A. Part I

| | |
|---------------|---|
| Paper – I : | <i>Punjabi Sahit Da Itihas</i> (History of Punjabi Literature) |
| Paper – II : | <i>Sahit Sidhant Ate Punjabi Alochana</i> (Literary Theory and Punjabi Criticism) |
| Paper – III : | <i>Madhkali Punjabi Kavita</i> (Medieval Punjabi Poetry) |
| Paper – IV : | <i>Punjabi Vartik Ate Galap</i> (Punjabi Prose and Fiction) |

M.A. Part II

| | |
|---------------|--|
| Paper – I : | <i>Punjabi Bhasha Ate Bhasha Vigyan</i> (Punjabi Language and Linguistics) |
| Paper – II : | <i>Punjabi Sabhyachar, Lokdhara Ate Lok Sahit</i> (Punjabi Culture, Folk Lore & Folk Literature) |
| Paper – III : | <i>Aadhunik Punjabi Kavita</i> (Modern Punjabi Poetry) |
| Paper – IV : | <i>Punjabi Natak</i> (Punjabi Drama) |

Special Note :

In case less than 10 candidates opt for a particular optional subject, that option shall not be allowed.

INTERNAL ASSESSMENT (20%) FOR REGULAR STUDENTS OF POST-GRADUATE COURSES (Annual System)

For details, please refer to syllabus.

RULES FOR ADMISSION/ELIGIBILITY

Important : Candidates desirous of applying for admission to University Teaching Departments for the session 2009-2010 can download admission form from P.U. Website www.puchd.ac.in free of cost. However, those finally admitted will be charged cost of admission form along with admission fees.

Extracts from the decision of the Syndicate dated 22.2.2006, (Para 34), are reproduced below :–

The criterion of ‘employment’ as a condition of eligibility for admission to the Department of Evening Studies be understood, interpreted and applied liberally and pragmatically, keeping in mind the social purpose of providing opportunity especially to the underprivileged to upgrade their skills. Accordingly, ‘employment’ would include not only ‘private employment of any kind’ but ‘self-employment’ as well. The candidate’s own certificate that he is so employed or self-employed would, therefore, suffice.

Note : No ‘Failed’ candidate shall be admitted. (The students whose admission forms were duly sent by the Department to the Controller of Examinations for appearing in the examination, but did not appear, or dropped the paper, will also be considered ‘failed’ students under University Rules).

Eligibility for Admission :

The eligibility conditions for admission to M.A. Part I are given in the general section of this Handbook. Students are, however, advised to consult the ‘University Calendar’ for relevant regulations or detailed ‘Syllabus, Courses and Regulations’ for the class/subject concerned.

The following are not eligible for admission to M.A. courses in the Faculties of Arts and Languages :

- (a) If a student fails to pass M.A. Part/Semester-I or fails to appear in the examination even though he/she had requisite attendance, he/she be not allowed to seek re-admission in the Department for M.A. Part/Semester-I in the same subject. Such a student can appear in the same examination as a private candidate as prescribed under the University regulations;
- (b) If a student fails to meet the prescribed attendance requirement, and is, therefore, debarred from sitting in the examination, or does not on his/her own volition seek permission to sit in the examination he/she should be deemed to have failed in the examination. Such a student be not allowed to seek re-admission in the same Department;
- (c) If a student fails to earn promotion to the M.A. Part II or the next semester of M.A. for any of the reasons specified in Paras (a) and (b) above for two successive years, in the same or two different Departments, he/she should be debarred from seeking admission in any Department in the Faculties of Arts and Languages for the next two years.
- (d) In order to ensure the implementation of the above conditions, the columns given in the Admission Form, seeking information from the applicant on the course(s) attended by him/her in the preceding three years, must be filled by him/her.

If he/she leaves these columns blank, the admission form will be rendered invalid and if he/she makes mis-statement or conceals relevant facts, his/her admission will be cancelled even if made.

TUTORIALS AND SEMINARS

(i) Though specific tutorials for Under-graduate as well as Post-graduate classes, the literature authored by Shakespeare and other eminent writers of English are shown through audio-visual either in the class rooms or collectively.

(ii) Special Seminars are held on the important topics mentioned in the syllabi and form an integral part of the curriculum.

(iii) Special extension lectures are delivered by eminent scholars.

Ph.D./Research Facilities

The Department provides supervisory facility/research guidance to the eligible candidates for research leading to Ph.D. Degree.

UNIVERSITY SCHOOL OF OPEN LEARNING

The multi-discipline Department of Correspondence Studies, started in 1971 has emerged as one of the premier institutes of Distance Education in the country. It is housed in a sprawling building on the campus. It offers a wide range of courses whose mode of examination and the degree/diplomas awarded is the same as for those studying in colleges and departments of the University. Presently the name of

D.C.S. has been changed to “University School of Open Learning”. The department has on its rolls the following highly qualified faculty :-

PUBLIC ADMINISTRATION

Professors : Vijay Rattan Pawan Kamra
R. K. Sharma Swinder Singh

Re-employed: B.B. Goel

Tutor-cum-Curator: Ramesh Pal

MATHEMATICS

Reader : R. A. Yadav

ENGLISH

Professors : M. Malik (Retd.) Veena Singh (Re-employed)
Readers : Swaran Singh S. K. Kaushik (Retd.) I. S. Ghuman
Savita Dhir Kiran Garg Praveen Sharda

COMMERCE

Professors : A. K. Saihjal L. K. Bansal R. K. Gupta
S. K. Nayar

Reader : S. K. Gopal

Lecturer : Geeta Bansal

PUNJABI

Professor : Jaspal Kaur Kang

Teacher : Tarlochan Singh

HISTORY

Readers : V. Khosla Manju Malhotra Vikram Kailani
(Re-employed)

Lecturer : Sheena Pall

GEOGRAPHY

Professor : **Neelam Grover**
(Chairperson)

Reader : Harveen Pannu

Tutor-cum-Curator: Sangram Singh Rana

HINDI

Professors : Jagmohan Chopra
(Re-employed)

Readers : Yojna Rawat Neeru

SOCIOLOGY

Reader : Madhurima

DEFENCE STUDIES

Reader : Meena Dutta

SANSKRIT

Professor : Aruna Goel
(Re-employed)

ECONOMICS

Professor : P. Khanna

Readers : S. B. Prashar Poonam Goel Reena Bhasin
Satish Dewan Harish Kapur
(Re-employed) (Re-employed)

Lecturers : Sangeeta Malhotra Harsh Gandhar

POLITICAL SCIENCE

Professor : S. K. Sharma

Readers : Amarjit Rangi S. K. Shukla

Lecturers : Emanuel Nahar Swaranjit Kaur

EDUCATION

Reader : Kuldip Puri

Lecturers* : Supreet Kaur Ram Mehar Mamta Rani
Manju Gera Kuljeet Kaur Jatinder Grover
Jeesu Jaskanwar Singh

PSYCHOLOGY

Reader : Saran K. Sharma

PHILOSOPHY

Tutor-cum-Curator : Sudhir K. Baweja

STATISTICS

Reader : Ravi K. Mahajan

*In addition to above, two lecturers in Education are also provided on contract basis, whose names are given below :

1. Dr. Pooja Ahuja
2. Ms. Gurpreet Kaur

The Department offers the following courses :

Bachelor Degree Courses

1. B.A. I, II & III (10+2+3 Scheme)
2. B.Com. I, II & III (10+2+3 Scheme)
3. Bachelor of Library and Information Science (One Year Course)
4. Bachelor of Education (B.Ed.) (two years course) (for in-service teachers only) (admission through entrance test only).

Masters Degree Courses (Annual Examination System)

5. M.A. Parts I & II

| | |
|----------------------------|-----------------------|
| (i) English | (v) Political Science |
| (ii) Hindi | (vi) History |
| (iii) Punjabi | (vii) Economics |
| (iv) Public Administration | (viii) Sociology |
6. Master of Finance & Control (M.F.C.) Part I & II
7. Master of Commerce (M.Com.) Part I & II
8. Master of Education (M.Ed.) Part I & II (for in-service teachers only) (Admission through entrance test only).

One Year Diploma/Certificate Course

1. Post Graduate Diploma in Health, Family Welfare and Population Education
2. Post Graduate Diploma in Mass Communication
3. Post Graduate Diploma in Computer Applications
4. Diploma in Statistics
5. Certificate Course in Vivekananda Studies
6. Post Graduate Diploma in Human Rights & Duties (w.e.f. 2006-07).
7. Post Graduate (Advance) Diploma Course in Naturopathy & Yoga.

Our B.Ed. and M.Ed. courses are recognized by N.C.T.E. The School has quality-oriented lessons written by experts. The School has transformed majority of lessons into SIM/SLM mode with the help of DEC grant and the remaining lessons are in the process of being converted into SLM mode.

**MASTER OF EDUCATION (M.ED.) (Correspondence) (For In-service Teachers)
(Two Year Course)**

| Course Offered | Duration | Seats | Eligibility/Criteria |
|----------------|-----------|-------|---|
| M.Ed. | Two years | 150 | <ol style="list-style-type: none"> 1. Common Entrance Test. 2. 55% Marks in B.Ed. 3. Two Years paid teaching experience in a school recognized by a Board of School Education established by law or in College affiliated to or recognized by a university provided that part-time experience shall also be counted towards teaching experience if the |

teaching was done as paid teaching and the teacher is working at the time of admission, i.e. in service at the time of admission.

Admission to 150 seats in M.Ed. (two year course) through correspondence for session 2009-10 will be done on the basis of Entrance Test. Category-wise distribution of 150 seats as per University regulations is as under :

| Open | S.C. | S.T. | P.H. | Defence/In-service/Ex-Servicemen | Roit Victims | Wards of Freedom Fighters | Kashmiri Migrants |
|------|------|------|------|----------------------------------|--------------|---------------------------|-------------------|
| 98 | 23 | 11 | 5 | 8 | 3 | 3 | 1 |

M.Ed.-I

In the first year of M.Ed. (Correspondence) three foundation papers are to be completed as under :

| Sr. No. | Papers | Theory | External | Internal | Practical | Ext. | Int. |
|---------|--|--------|----------|----------|-----------|------|------|
| I | Foundations of Education (Philosophical and Sociological) | 100 | 75 | 25 | – | – | – |
| II | Advanced Educational Psychology | 80 | 60 | 20 | 20 | 15 | 5 |
| III | Methodology of Educational Research and Educational Statistics | 100 | 75 | 25 | – | – | – |

Aggregate of M.Ed.-I (Correspondence) = 300 marks

M.Ed.-II

In the second year of M.Ed. (Correspondence) a student has to opt two (Papers IV and V) out of the following options (S. No. A to L). The dissertation work is compulsory :

Papers IV and V (special papers) 2 x 100 = 200 marks

| Sr. No. | Papers | Theory | External | Internal | Practical | External | Internal |
|---------|---------------------------------|--------|----------|----------|-----------|----------|----------|
| A | Guidance and Counselling | 80 | 60 | 20 | 20 | 15 | 5 |
| B | Adult and Continuing Education | 80 | 60 | 20 | 20 | 15 | 5 |
| C | Value Education and Human Right | 100 | 75 | 25 | ... | ... | ... |

| | | | | | | | |
|------|--|-----|----|----------|-----|----------|-------|
| D | Comparative Education | 100 | 75 | 25 | ... | ... | ... |
| E | Teacher Education | 100 | 75 | 25 | ... | ... | ... |
| F | Special Education | 80 | 60 | 20 | 20 | 15 | 5 |
| G | Educational Technology | 80 | 60 | 20 | 20 | 15 | 5 |
| H | Measurement Evaluation | 100 | 75 | 25 | ... | ... | ... |
| I | Curriculum Development | 80 | 60 | 20 | 20 | 15 | 5 |
| J | Environmental Education | 100 | 75 | 25 | ... | ... | .. |
| K | Yoga Education | 80 | 60 | 20 | 20 | 15 | 5 |
| L | Educational Administration and Supervision | 100 | 75 | 25 | .. | .. | .. |
| | | | | External | | Internal | Total |
| (I) | Dissertation | | | 100 | | 50 | 150 |
| (II) | Field based experiences related to Supervision and evaluation of teaching –practice and other aspects of school experience (internship). | | | | | | |
| | | | | External | | Internal | Total |
| | | | | 25 | | 25 | 50 |

150 + 50 = 200

Aggregate of M.Ed.-II = 200 = 400 marks

Grand total of M.Ed.-I and II 300 + 400 = 700 marks

PERSONAL CONTACT PROGRAMME (P.C.P.) FOR M.ED.

- i. The PCP for M.Ed. (Correspondence) will be held at the University School of Open Learning, Panjab University, Chandigarh only.
- ii. 80% attendance will be compulsory in the PCPs failing which the candidate will not be allowed to appear in the final examination.
- iii. Candidate will have to submit two assignments in each paper during PCP-II.
- iv. Internal assessment will be calculated on the basis of marks of assignments, house test, attendance, Classroom-interaction.

All practicals shall be conducted as per requirement of the different subjects at par with M.Ed. Regular. These practicals shall be conducted during PCPs (Personal Contact Programmes) organized by the University School of Open Learning, Panjab University, Chandigarh. Division of marks of different papers would also remain exactly similar to the M.Ed. Regular.

EMPLOYMENT CERTIFICATE

(To be provided by the Principal/Headmaster/Headmistress and countersigned by appropriate authority*)

This is to certify that Mr/Ms has been teaching in this school since as Post Graduate/Graduate/Primary/Assistant Teacher and she/he is a regular/full time/contractual teacher of this school. He/She has years of teaching experience. This school is Govt./ Govt. aided/unaided and is recognized by the Central or a State Government or a Union Territory.

Signature of Principal/Headmaster/Headmistress
with stamp

Place :.....

Date :.....

Name.....

Designation.....

Address.....

.....

Certificate from countersigning authority

It is certified that the information as given above is correct and nothing has been concealed thereof.

Countersigning Authority
(Stamp)

*Appropriate authority for countersigning on the employment certificate of the teachers from :

- | | | | |
|----|---|---|---|
| 1. | Recognized Schools | : | Concerned District Education Officer |
| 2. | Affiliated Schools to various Education Boards CBSE/ICSE | : | Concerned Incharge affiliation in Respective Education Boards |
| 3. | Kendriya Vidyalas, Navodya Vidyalas | : | Principal of Institution |
| 4. | Degree / Post Graduate College | : | Principal of the College |

PANJAB UNIVERSITY REGIONAL CENTRE, MUKTSAR

About the Centre

The Panjab University Regional Centre was started in 1998 realising the responsibility towards the society in general and the development of the backward area in particular, Punjab Govt. and Panjab University decided to start a Regional Centre at Muktsar, which is an ideal place for the establishment of such Regional Centre.

About the Town

Muktsar is historic town having special value for Punjab and the Punjabies as it is the place where Sri Guru Gobind Singh Ji fought last battle with Mughal Rulers. It is situated in the centre of the Western Malwa Region which is known for its fertile land and rich crops. It is situated at a distance of 30 kms from Malout, 60 kms from Dabwali and Abohar, 55 kms from Ferozepur, 35 kms from Gidderbaha, 30 kms from Jalalabad and 28 kms from Gurharsahai. It is approachable both by road and rail.

Faculty

| | | | | |
|-----------|---|---|---|--|
| Professor | : | P.S. Dhingra <i>Director</i> | | |
| Readers | : | D.K. Singh | Balkar Singh | Manish Kumar |
| Lecturers | : | J.S. Dhillon Ummed Singh Sujit Lahiry Satish Kumar | Darshan Singh Baljinder Kaur Nisha Jain Gurpal Singh | Rajesh Kumar Mishra Ravinder Kumar Charanjiv Singh (on leave) |

Courses Offered

| COURSE | SEATS | DURATION | ELIGIBILITY/CRITERIA |
|--------------------|---------------|----------|--|
| M.A. Economics | 40+6 | 2 years | As prescribed in Section 7.1 of Rules for Admissions |
| M.A. English | 40+6 | 2 years | -do- |
| M.A. Punjabi | 40+6 | 2 years | -do- |
| M.A. Political Sc. | 40+6 | 2 years | -do- |
| LL.B. | 50+8+8 NRI | 3 years | Admission based on O-C.E.T.-2008 |
| M.C.A. | 18+2+2*+3 NRI | 3 years | -do- |
| M.Phil. | 15 | 2 years | Admission based on CET. |

The Rules of LL.B. (3 year) prevailing in Department of Laws, P.U., Chandigarh would also apply at the Centre.

*For candidates who have studied computer science as one of the subjects for three years or the subject as a full course at the under graduate level.

PANJAB UNIVERSITY REGIONAL CENTRE, LUDHIANA

Panjab University Regional Centre, Ludhiana was established on the campus of P.U. Extension Library, Ludhiana in the year 2003 on 2.75 Acres of land situated in the Civil Lines area of Ludhiana. The then Vice-Chancellor, Panjab University took keen interest and fulfilled the long outstanding demand of the residents of Ludhiana, for quality professional (legal and management), education by setting up this Regional Centre. A sum of Rs. 100 lacs for the construction of the new building was arranged with the personal influence of then Vice-Chancellor from Sh. Lala Lajpat Rai, M.P. out of the M.P. Local Area Development Fund Scheme and the Institute was formally inaugurated by His Excellency the Governor of Punjab, Justice O.P. Verma on 5th October, 2003.

Faculty

| | | | |
|-------------------|--|--|---|
| Professors : | Dinesh K. Gupta (Director) | Rattan Singh (Laws) | |
| Reader : | Ravi Inder Singh (Management) | | |
| Lecturers : | Gurjaswinder Singh Aman A. Cheema Shiv Kumar Dogra Harpreet Kaur Vohra Ashish Sahijpal | Arti Puri Aditi Sharma Vaishali Thakur Taranjeet Singh Shashi Kapoor | Supinder Kaur Ashish Virk Neelam Batra Monika Kansal |
| Adhoc Lecturers : | Vijay Rai Dhanda Nidhi Sharma | Rajneesh | Rajnish Saryal |
| Guest Faculty : | Ajay Kumar Jindal | Parveen Talwar | |

Courses Offered

| COURSE | SEATS | DURATION | ELIGIBILITY/CRITERIA |
|---|----------------|--------------------------|-------------------------|
| B.A., LL.B. (Hons.) Five Years (Integrated) Course (Self Finance) | 50+30*+7+8 NRI | 5 years | Admission based on CET |
| LL.B. (Self Finance) | 63+9+9 NRI | 3 years (6 Semesters) | Admission based on OCET |
| M.B.A. (Self Finance) | 50+8 NRI | 2 years (4 Semesters) | Admission based on CAT |

The Rules of LL.B. (3 year cours) prevailing in Department of Laws, P.U., Chandigarh would also apply at this Centre.

*Subject to approval of the Syndicate.

SWAMI SARVANAND GIRI PANJAB UNIVERSITY REGIONAL CENTRE BAJWARA (HOSHIARPUR)

About the Centre

The university has recently started its Technical Institute in Kandi Area of Punjab at Hoshiarpur from the session 2006-2007. The campus has been opened keeping in mind the need of quality technical education for the Area. The campus has been established in a beautiful lush green environment and in State of Art Infrastructure. The required facilities and technical requirement has been created at the Centre. The students will be able to work in the conducive environment with infrastructure befitting the level of the Panjab University along with quality faculty and research. The institute is presently offering B.E. degree in Computer Science, Electronics & Communication, Mechanical and Electrical & Electronics. In addition the LL.B. 3 year course, B.A. LL.B 5 year course and M.C.A. have also started w.e.f. Session 2007-08. Apart from highly qualified faculty, well equipped laboratories and other infrastructure, the Centre has a library and Health Centre facilities at the Campus. There are two Hostels one each for Boys and Girls.

B.E. Course

Faculty of Engineering

Professor : **V.K. Rattan**
(Director)

| | | | |
|-------------|---------------------|----------------|-----------------|
| Lecturers : | Meenu Bhagat | Manu Dogra | Jaswinder Singh |
| | Neeraj Sharma | Gurinder Singh | Vinay Arora |
| | Harkamalpreet Singh | Gurpreet Singh | Suresh Kumar |
| | Naveen Dogra | Jaspal Singh | Jagroop Kaur |
| | Mandeep Singh Walia | Prabha Sharma | Suman |
| | Satish Kumar | | |

Faculty on Contract : Aman Kaura

| | | | |
|-----------------|-----------|--------------|---------------|
| Guest Faculty : | Megha Dua | Naseeb Singh | Sandeep Saini |
|-----------------|-----------|--------------|---------------|

Admission

The admission to B.E. courses at the Swami Sarvanand Giri Panjab University Regional Centre at Bajwara, Hoshiarpur, will be made on the merit of A.I.E.E.E. examination as followed by the other Engineering Institute/Colleges of Panjab University.

Courses offered :

| COURSE | SEATS | DURATION | ELIGIBILITY CRITERIA |
|--|--------------|-----------------|--|
| B.E. in Electronics & Communication | 60+8 | 4 years | 10+2 examination with a minimum of 60% marks in the qualifying Exam (55% for SC/ST PH categories) with Physics and |

| COURSE | SEATS | DURATION | ELIGIBILITY CRITERIA |
|--------------------------|-------|----------|---|
| | | | Mathematics as compulsory subjects along with one of the following subjects : |
| | | | Chemistry, Bio-Technology, Computer Science or Biology and Qualified in A.I.E.E.E. conducted by C.B.S.E. New Delhi. |
| Computer Science | 60+8 | 4 years | -do- |
| Mechanical | 60+8 | 4 years | -do- |
| Electrical & Electronics | 60+8 | 4 years | -do- |

Notes : 1. A candidate must secure a Minimum of 15 percent marks in the All India Engineering Entrance Examination (AIEEE-2009) to qualify for admission.

However, candidates belonging to Scheduled Castes/Tribes and Physically Handicapped categories shall be eligible if they secure a minimum of 10 percent of the maximum marks of AIEEE-2009.

2. Candidates who have passed the 10+2 examinations of Mahila Gram Vidyapith, Allahabad or any other Institute not recognized by the Panjab University, will not considered for admission.

MCA Course

The MCA course has been started by the University at SSGPURC, Hoshiarpur in the session 2007-08.

Co-ordinator : **Prof. R.K. Singla**

| | | | | |
|---------------|---|-------------------------------------|--------------------------------|------------------------------|
| Lecturers | : | Verinder Kumar Negi Vinay Sharma | Kumar Monika Pooja Sood | Sukhbir Kaur Babita Pabbi |
| Guest Faculty | : | Sandeep Siani Megha Dua | Sandeep Kumar Leena Kaushal | Arun Sharma |

Admission

The admission to B.A. LL.B. (Hons) 5 year Integrated Course and LL.B. at Swami Sarvanand Giri Regional Centre, Bajwara, Hoshiarpur will be made on the merit of CET and O-CET conducted by Panjab University.

Courses Offered :

| COURSE | SEATS | DURATION | ELIGIBILITY/CRITERIA |
|---------------------------------------|--------------|-----------------|--|
| B.A. LL.B (Hons) 5 year Integrated | 60+8+9 NRI | 5 years | Admission based on CET-2009 conducted by P.U. |
| LL.B. | 80+11 | 3 years | <p>(a) Those candidate who have passed/appeared in the final year of Bachelor's degree in any faculty of P.U. with at least 45% marks (40% for SC/ST Students)</p> <p style="text-align: center;">OR</p> <p>(b) A Bachelors degree in any faculty of any University recognized as equivalent to corresponding degree of Panjab University with at least 45% of the aggregate marks (40% for SC/ST Students)</p> <p style="text-align: center;">OR</p> <p>(c) Master's Degree in any subject from Panjab University.</p> <p style="text-align: center;">OR</p> <p>(d) A Master's degree from any other University recognized as equivalent to the corresponding post-graduated degree of Panjab University.</p> |