



# Prospectus-2026

## University Institute of Technology (UIT)

## Himachal Pradesh University Shimla



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[www.hpuniv.ac.in/  
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प्रो० महावीर सिंह  
कुलपति

हिमाचल प्रदेश विश्वविद्यालय  
राष्ट्रीय मूल्यांकन एवं प्रत्यायन परिषद् द्वारा प्रत्यायित "ए" ग्रेड विश्वविद्यालय  
— ज्ञान पथ, समरहिल, शिमला - 5




संदेश

मुझे यह जानकर अत्यन्त प्रसन्नता हो रही है कि विश्वविद्यालय प्रौद्योगिकी संस्थान (यू0आई0टी0) ने शैक्षणिक सत्र 2026-27 के लिए छंटनी परीक्षा के माध्यम से प्रवेश प्रक्रिया आरम्भ करने के लिए प्रस्तावना तैयार कर ली है।

हिमाचल प्रदेश विश्वविद्यालय ने अपने अस्तित्व के लगभग 55 वर्षों में शिक्षा के प्रचार-प्रसार में कई कीर्तिमान स्थापित किए हैं तथा यह विश्वविद्यालय पूरे राज्य का केवल एक मात्र सम्बद्धता प्रदान करने के अतिरिक्त अकेला सह-आवासीय उच्च शिक्षा का प्रगतिशील केन्द्र है। सितम्बर, 2000 में स्थापित विश्वविद्यालय प्रौद्योगिकी संस्थान ने अपने लगभग दो दशकों के समय काल में प्रतिष्ठित संस्थानों सरकारी व निजी क्षेत्र स्नातक शिक्षित व प्रशिक्षित करने में नए आयाम स्थापित किए हैं।

मुझे पूर्ण विश्वास है कि इस विश्वविद्यालय में प्रौद्योगिकी युक्त शिक्षा ग्रहण करने के लिए उपयुक्त वातावरण है तथा साथ-साथ यहां का मौसम भी अति अनुकूल है।

मैं यहां प्रौद्योगिकी शिक्षा ग्रहण करने के लिए आने वाले सभी छात्र-छात्राओं को अपनी शुभकामनायें देता हूँ।

  
(महावीर सिंह)



# HIMACHAL PRADESH UNIVERSITY

NAAC Accredited "A" Grade University

GYAN PATH, SUMMER HILL, SHIMLA-171005

**Prof. Rajinder Verma**

*Pro Vice-Chancellor*



## MESSAGE

I am happy to know that the University Institute of Technology (UIT) is coming up with its process for admission to various courses i.e. B.Tech. (IT, CSE, Civil, Electrical and ECE) for the session 2026-27.

Himachal Pradesh University's (HPU) Institute of Technology (UIT) has emerged as prestigious Institute of imparting quality education leading towards and overall multifaceted growth of the young talent.

The University Institute of Technology (UIT), as an invaluable part of the University is playing a great role in giving education in the field of Life Sciences, Engineering and Law and has earned a great name in these specialized fields over the past many years.

I hope the dynamic faculty and available facilities in UIT offer the best environment for technical education and studies.

I welcome the students and wish them all good luck in their future endeavors.

(Rajinder Verma)

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## From the Desk of Director



**Prof. A. J. Singh**

India is slowly and steadily moving towards the number one spot amongst world's super powers. One of the major contributions in this pursuit is its technical man power. The country's technical work force at present is second to none in the world and it would not be unfair to attribute this achievement of India to quality education being provided by various universities and technical institutes across the country.

Every state in India is contributing its share of efforts in providing quality education to the students of this country and Himachal Pradesh is also one of the leading states in the northern region of India. University Institute of Technology (UIT), H. P. University, Shimla, is one such Institute that has been catering to the fulfillment of the demand of quality engineering, for the last twenty years. The Institute was running five streams namely: B. Tech./B. Tech. (Honours) in Civil Engineering, Electrical Engineering, Electronics & Communication Engineering, Information Technology and Computer Science Engineering and Computer Science Engineering (Artificial Intelligence and Machine Learning)[IT, CSE, CSE(AI & ML), ECE, CE, EE]. From the current session, a B.Tech. programme in Computer Science Engineering (Artificial Intelligence & Machine Learning) is being introduced, making it a total of six (06) B.Tech. programmes.

It gives me immense pleasure in bringing the **“PRAVESH UIT-2026”**, an online application process for admission in these courses for the session 2026-2027. The details for the admission have been outlined in the accompanying document.

*“To build a nation, you have to build the people”*

UIT believes in building engineers instead of just producing them. That is why our alumni are well placed in a wide spectrum of leading industrial houses as well as top central and state government agencies.

My dear young minds, I invite you people to become the part of this wonderful journey of building engineers. I assure you that, this institute not only provides the best of the theoretical-technical knowledge and hands-on exposures, but also emphasizes on special efforts for the overall development of the human personality. We truly believe in

*“Use of technology for the overall advancement of humanity with humility”.*

Trust me, my dear aspirants, the great experience at UIT will not only help you in achieving your professional goals but will also provide ample opportunities to excel in various co-curricular activities.

Looking forward to welcome you at the Institute.

(Prof. (Dr.) A.J. Singh)  
Director, UIT

# From the Desks of Co-ordinators



Dr. Shyam Chand



Dr. Praveen K. Sharma

It gives us immense pleasure to present the Prospectus-cum-Handbook of Information for admissions to B. Tech. Programmes in IT/CSE/CSE(AI & ML)/ECE/CE/EE, in University Institute of Technology (UIT) for the forthcoming academic session 2026-2027. It is the matter of great pride that, over the past 25 years, UIT has excelled steadily in imparting quality technical education to its students. From the current session, a new B. Tech. Programme in CSE (AI & ML) is being introduced, to make students understand and address the complex global challenges in future.

The academic environment of UIT is dedicated to nurturing technical excellence, innovation, and a spirit of inquiry among our students. Our aim is to create an environment that encourages learning, creativity, and research, while also inculcating strong ethical values and professional responsibility. We believe that education plays a vital role in shaping not only successful careers but also responsible citizens of society. The alumni of UIT are well placed in industries/organisation of repute across the globe.

This handbook has been carefully prepared to provide aspiring students and their parents with clear, comprehensive, and transparent information regarding the overview about UIT admission process, eligibility criteria, academic programmes, and institutional policies. It reflects our dedication to maintaining fairness, clarity, and accessibility in the admission process. We encourage all applicants to read it thoroughly and make informed decisions about their academic journey.

We look forward to welcome yet another set of bright and motivated students who will contribute to the vibrant academic environment of our institute and uphold its tradition of excellence.

We wish all prospective candidates the very best for their future endeavours.

Dr. Shyam Chand  
Co-ordinator, UIT

Dr. Praveen K. Sharma  
Co-ordinator, UIT

# PROSPECTUS



University Institute of Technology (UIT)  
Himachal Pradesh University

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# UIT: AN INTRODUCTION



## APPROVED BY ALL INDIA COUNCIL FOR TECHNICAL EDUCATION (AICTE)

Himachal Pradesh University, named after the state of Himachal Pradesh, was established on 22nd July, 1970. The University is located at Summer Hill, a suburb at the Western end of Shimla at a distance of 5 km. from the town, 5 minute walk from the Summer Hill Railway Station, and about 15 km. from Jubber Hatti Airport.



*University Institute of Technology (UIT) Shimla*, formerly brand named as UIIT, is a premier institution of excellence in Engineering and Technology that grooms students to be professionals and leaders of high caliber imbued with values of entrepreneurship, ethics, and social responsibility. Functioning under the "Executive Council" of the Himachal Pradesh University since September, 2000, UIT admits students from all over the country to the B. Tech. in Information Technology, Computer Science Engineering, Civil Engineering, Electrical Engineering and Electronics & Communication Engineering programmes and imparts training to make them competent, motivated Engineers, Leaders, Thinkers, Scientists and successful Entrepreneurs. From the current session, a B.Tech. programme in Computer Science Engineering (Artificial Intelligence and Machine Learning) is being introduced, making it a total of six B.Tech. programmes. To maintain the academic standards, the requisite process of approval is sought every academic year from All India Council of Technical Education (AICTE) for all the academic programmes of UIT.

**Location:-** The University Institute of Technology (UIT) is presently functioning at Silverwood Estate in the main campus of H. P. University. The Institute is functioning in its own independent Wi-Fi campus.

## 1. DEPARTMENT OF APPLIED SCIENCES & HUMANITIES



*The department is responsible to teaches the subjects like Physics, Mathematics, Management, English and Social Science in the B.Tech. programmes, to transform technically proficient students into well-rounded professionals capable of navigating complex, real-world, and human-centric challenges. We have well qualified and experienced faculty members whose expertise are available to the rest of the engineering departments.*

## 2. DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



*The Department of Electronics & Communication Engineering was established with the aim of providing quality education in this field to the students of Himachal and other states. The department has got well experienced faculty who put their best efforts to groom the students so that they emerge out as best engineers and serve the society.*

## 3. DEPARTMENT OF INFORMATION TECHNOLOGY



*It is my privilege to welcome all of you to the Department of Information Technology at UIT Shimla. Department of Information Technology aims to seek and maintain a full-time position that offers professional challenges utilizing interpersonal skills, excellent time management and problem-solving skills to all its students.*

## 4. DEPARTMENT OF COMPUTER SCIENCE ENGINEERING



*Welcome to the Department of Computer Science Engineering at University Institute of Technology, H.P. University Shimla. We have a undergraduate program in Computer Science Engineering. Department offers large number of optional courses for providing wide spectrum of options to the students to pursue their interest.*

## 5. DEPARTMENT OF CIVIL ENGINEERING



*The Department of Civil Engineering was founded with the aim of enhancing the research practices in the hilly regions of the state and the country. In no time, with the dedication and hard work of well-experienced faculty members of various specializations, the department has grown into a fully-fledged one with well-equipped lab facilities and state-of-the-art infrastructure.*

## 6. DEPARTMENT OF ELECTRICAL ENGINEERING



*On behalf of our students and faculty, it's my privilege to welcome all of you to the Department of Electrical Engineering at UIT Shimla. We take pride in our faculty, a team of highly capable and dedicated professionals, most of whom have academic and industrial experience and degrees from leading universities of the India.*

# ACADEMIC FACILITIES

## LIBRARY



Over the past 25 years, the Institute has established a dedicated library exclusively for the students and faculty of UIT. It has built a substantial collection of books across various branches and allied disciplines. To ensure access to the latest editions of quality books, the Institute has invested over ₹25 lakh, with an additional ₹10 lakhs spent in 2025 for procuring

1,500 more books. Currently, the UIT library houses more than 6,500 books and provides a well-equipped reading space for students. The library also subscribes to around 20 computer magazines and journals, among other resources. Plans are underway to develop a special section for e-books, CD-ROMs, and other digital learning materials, creating a comprehensive resource bank. Additionally, students have access to the main University library. The library is equipped with networking facilities through Wi-Fi and CAT 6 cables and is now also connected to the National Knowledge Network (NKN).

## COMPUTER LABORATORY

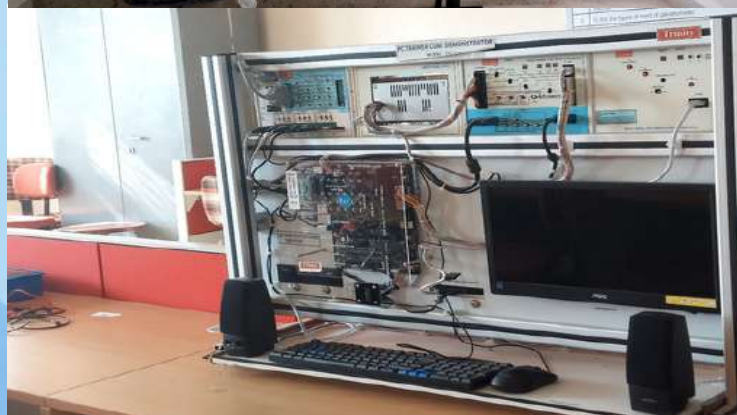


To provide a rich hands-on experience to the students, state-of-the-art computer and other laboratory facilities have been created with an investment of more than Rs 3.5 crores. Computer Laboratory is fully networked and the facility of networking is extended from computer lab to all classrooms and other labs.

Intranet Infrastructure consists of hardware and software which is sufficient to meet the requirements of Laboratories envisaged in the Detailed Course Curriculum.

# Digital Infrastructure/Website

- One Powerful DELL BLADE server with 4 Blades Extendable up to 16 Blades, configured as windows Server 2012 (R2) Data Center and dedicated LINUX Server respectively
- 130 - DELL i7- 4770, 3.4 GHz, 4GB 1600 GHz DDR3 RAM Desktops with HD-WLED Digital Monitor.
- 50 - DELL i3 Desktop with LED Monitor.
- 10 - DELL i5 Desktop with LED Monitor.
- 13 - i7 DELL Vostro Laptops with 8GB RAM.
- 54 IBM Pentium IV Desktops.
- HCL Pentium IV Multimedia Desktops with 17" LCD-TFT with Wi-Fi (30).
- P-IV ACER Laptops-10, IBM Intel Think pads-2, IBM Notebook Intel Pentium Centrino Mobile Processors.
- (13) HP Compaq 8510P/Intel Core2 Duo T7700 (2.40 GHz,800 MHz FSB, 4 MB L2 Cache, Intel 965 PM Chipset).
- One Photostat Machine.
- Four CCTV Cameras with backup of 1 TB.
- Fully Interactive LED Smart Boards
- UPS: Three 10 KVA, One 3 KVA, Eight 0.65 KVA.
- Printers: Network Laser Printers, Inkjet Printer, Dot Matrix Printer, HP Laser Jets (10), HP Laser Jet M1005 MFP Printers (09).
- INFLIBNET Connectivity.
- MFDs, Scanners, Overhead Projectors (OHP).
- Network switches - Layer 3 and Layer 2 connected with CAT6 cables.
- Dedicated Wi-Fi Facility in UIT-Linksys Access Points which provide 24x7 wireless facility.



## Website

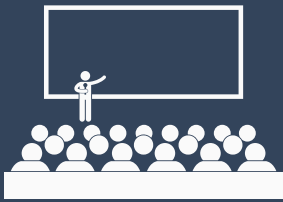
University has dedicated dynamic websites <https://admissions.hpushimla.in> for admissions and <http://www.hpuniv.ac.in/> or a direct web link <https://hpuniv.ac.in/university-detail/home.php?uiit> provides useful information to the students, parents and public. Student records, schedule of curricular activities, time tables, examination schedules etc. are available in updated form. Parents and students are encouraged to use this window of information about UIT.

# LABORATORY FACILITIES



To provide a good basic understanding of the technologies, which goes into the making of technological side of engineering and allied disciplines, well equipped and applied laboratories have been established. These labs have the latest hardware and software resource to enrich the knowledge of students. The important labs are:

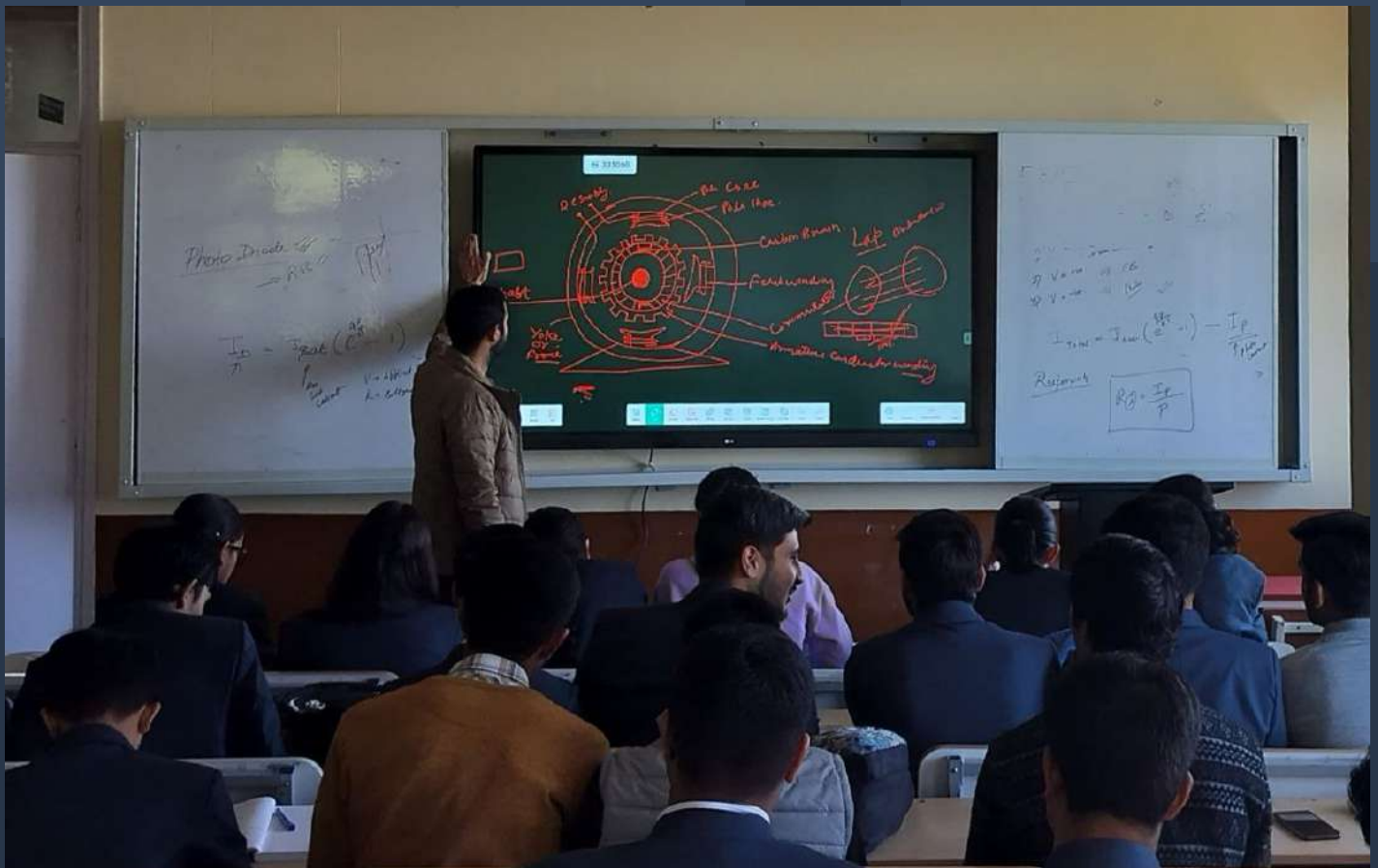
- Applied Physics Laboratory
- Civil Engineering Lab
- Electrical Engineering Lab
- Electronics and Communication Lab
- Basic Electronics Laboratory
- Basic Mechanical Engineering Laboratory
- Basic Electrical Engineering Laboratory
- Digital Electronics Laboratory
- Digital Communication Laboratory
- Information Technology Trainer Workshop
- Computer Network Laboratory
- Microprocessor and Microcontroller Lab
- Drawing Hall/lab



# SMART LECTURE HALLS



To provide an inspiring and exciting learning environment, the modern lecture theatres of UIT are equipped with latest communication and multimedia equipment such as LED Smart boards, wired connectivity as well as wireless Wi-Fi connectivity.



# ENGINEERING & TECHNOLOGY STUDENTS ASSOCIATION (ETSA)



To develop leadership qualities and team spirit among students, a student Society “*Engineering & Technology Students Association (ETSA)*” has been setup in UIT, which is being run and managed by the students. The council is also responsible for holding technical events, seminars and other extra-curricular activities of interests to students. It also provides a platform for students to interact with professionals in the industries, R & D and academics.



# National Cadet Corps (NCC)–Army Wing University Institute of Technology (UIT)

The National Cadet Corps (NCC) Army Wing at UIT, HPU stands as a symbol of discipline, leadership, and national service. Established on 24 September 2025, this prestigious unit marks a significant milestone in the institute’s commitment to holistic student development. With a sanctioned strength of 80 cadets by 7 HP (I) Coy NCC Shimla, the NCC unit provides students with a platform to nurture qualities such as patriotism, teamwork, and resilience alongside their academic pursuits.

Since its inception, the NCC Army Wing has actively engaged students in a wide range of activities designed to build both physical endurance and mental strength. In the 2026 batch, 27 students have been enrolled, who are actively participating in various NCC programs including drill training, weapon training, adventure activities, social service initiatives, and national integration camps. These activities not only enhance their personality but also prepare them to take on leadership roles in diverse fields.

The enrollment process in NCC at UIT is highly structured and merit-based. Every year, 27 cadets are selected from the student community, ensuring equal opportunities for aspiring candidates to be a part of this esteemed organization. The same intake will continue for the upcoming batches, maintaining consistency and quality in training.

Being a part of NCC offers numerous benefits, including opportunities to attend national-level camps, participate in Republic Day Parade selections, and gain preference in defense services and other government sectors. More importantly, it instills a strong sense of discipline, responsibility, and dedication towards the nation.

The NCC Army Wing at UIT, HPU is not just an extracurricular activity—it is a transformative journey that shapes students into confident, responsible, and nation-oriented individuals. As the unit continues to grow, it aims to inspire more students to step forward, serve the nation, and uphold the values of unity and integrity.



Cadets of NCC UIT HPU Unit with  
Lt. Gen Devendra Sharma, AVAM, SM.



Cadets at Anti Chitta Walkathon 2025 at Ridge Shimla



Cadets at State Republic Day 2026 at Shimla



It gives me immense pride to see the establishment of the NCC Army Wing at UIT, Himachal Pradesh University. I am delighted to note that our cadets are actively participating in various training programs, camps, and social service related activities. Their dedication and enthusiasm reflect the true spirit of NCC. I encourage all students to come forward and become a part of NCC, embrace its values, and contribute towards building a stronger and more disciplined India.

Jai Hind!  
Rahul Prashar  
CTO and Incharge NCC UIT HPU Unit

# FACILITIES ON THE CAMPUS

- Campus has Good cafeteria (NESCAFÉ)
- One Cafeteria is housed within the premises of UIT too Health Centre
- Market
- Guest House
- Recreational facilities
- Banking facilities with 24 × 7 ATM service. Transportation Facilities- By Bus and Railways



Central Library



Central Library

Health Care Facility Inside Campus

SBI&PNB provide 24x7 working ATMS within Campus



Summer-Hill Railway Station- 5 Minutes Walking from UIT\_HPU



Guest House



HPU -Ground



Post-Office Summerhill (5 Minutes walking Distance from UIT

HOSTEL FACILITY: Presently **NO Hostel** facility is available for the students of UIT. However, **PG/Rented Rooms** are easily available near UIT-Summer-Hill, HPU.



# ATTENDANCE

Attendance in theory and practical classes is compulsory. The rules of the University quoted below must be adhered to strictly. Any student, who fails to fulfill the minimum requisite attendance condition, is not allowed to sit in the examination. Condonation in attendance will be as per University rules.

## As per Ordinance No. 13.3 (a, b, c)

- a) For every hour per week of subject shown in the schedule of teaching, there shall be at least ten lectures + tutorials/practical/drawing classes during the semester. A student shall be eligible to appear in the examination only if he/she has attended at least 75% Lectures + Tutorials/practical/drawing classes during the semester. The attendance record submitted by teacher concerned shall be certified by the Director, University Institute of Technology/ Principal of the Engineering College concerned.
- b) Director of University Institute of Technology/ Principal of the Engineering College as the case may be, shall have the power to condone the shortage of attendance up to 10 per cent only per subject based on the merit of the case.
- c) A candidate who does not fulfill the attendance requirements in any subject will have to repeat the course of instruction in that subject.

## CONDUCT AND DISCIPLINE OF STUDENTS

A student involved in the violation of any of the rules or regulations of the Institution or the university or in any way involved in any act of indiscipline may be placed on conduct probation by the Head of the Institution. A student placed on conduct probation shall not be allowed to represent the Institution or the University in any meet, tournament, youth festival or cultural competitions during the period of his Conduct Probation and shall also remain suspended from any office that he may be holding in any student's organization. If a student, who has been on conduct probation on two previous occasions, commits an act of indiscipline, he/she shall be dropped from the Institution/University.

1. There shall be **NO RAGGING** in and outside the teaching departments of the University, College or Institutions affiliated to or maintained by the University or the hostels and also on road/approaches leading to such Institutions/ Hostels.
2. Ragging means and includes any types of Physical or mental torture, done by any individual or group either by words or by conduct, which gives an apprehension in the mind of a person that he cannot pursue his studies free from any mental disturbance/torture created thereby.
3. The Chairman of the Teaching Departments/ heads of the Colleges or Institution affiliated to or maintained by the University, at the commencement of each session when new admission taken place shall have a written undertaking from every students (old or new) to the following effect: **"I have gone through the rules and regulations regarding ragging and discipline of the University/ College/ Institution and I hereby solemnly affirm that I will not indulge in any act of ragging/indiscipline. If I am found guilty of such offences as are covered under these rules, I will have no claim against the order of the rustication /expulsion from the University/ College / Institution."**

4. If a Candidate is found indulging in ragging directly or indirectly, the competent authority, after enquiry, if satisfied, shall expel the guilty students(s) from the University/ College / Institution. **Note: Students found to have been involved in the act of RAGGING will be dealt with as per provision of Statute 23-A and recommendations of the Committee constituted by the Hon'ble Supreme Court of India in SLP. No. 24395 of 2006. (Raghvan's Committee Report)**
5. Rustication and Expulsion of Students: Rustication shall mean the loss of one academic year i.e. the student concerned shall not be allowed to appear in any University examination during the academic year in which he is rusticated. The actual period of expulsion from the College or Institution shall depend upon the time of the year when the rustication order is passed. A rusticated student may with permission of the Head of the College or Institution Concerned rejoin the class in the same college or Institution after the time of rustication in the following academic year.
6. A student who is expelled from a College or Institution shall not be allowed to appear in any University examination during the academic year in which he is expelled and the next academic year and shall not thereafter be readmitted to the same or any other college or Institution without the prior sanction of the Vice –Chancellor. Each case of rustication or expulsion shall be reported to the Registrar of the University immediately after the order is passed. A certificate signed by the College or Institution to the effect that the student has been given adequate and reasonable opportunity to explain his position before the order was passed, shall accompany the report.
7. All the students have to wear the uniform on all the working days when present in the campus. A fine of Rs.100/- per day will be imposed on those violating this condition.
8. General: In addition to whatever is there in this Document, the students will have to abide by the provisions of the H.P. University Act, Statues, Ordinances, Rules and Regulation as may be framed and amended from time to time.

**Note: In case of any contradiction/inconsistency between the provisions of ordinances and HVI/Proportions, the provision of ordinances/ statutes will prevail.**

## **FEE WAIVERS AND SCHOLARSHIPS**

**A) Fee Waivers:** Full tuition fee waiver is provided by UIT to 06 candidates per branch (03 –Low Income (LI) group i.e. candidates with annual income of parents less than 2.5 lakhs, 02-Meritorious Girls (MG), 01-Physically Challenged) as per AICTE norms.

**B) Complete Fee Waivers:** All physically challenged candidates are exempted from all kinds of fees whatsoever (except refundable security amount to be paid once only at the time of admission).

### **C) Centre and State Government Sponsored Scholarship Schemes:**

Eligible students (low income groups belonging to General, SC, ST categories and religious minority candidates, Meritorious Girls, Wards of Armed Forces etc.) are also encouraged and guided by UIT's NSP Nodal officer to apply for scholarships through online portals and all eligible candidates get financial assistance as admissible under the scheme concerned.

### **D) Sri Badrika Ashram Sponsored Scholarship Schemes:**

### **E) SJVN Sponsored Scholarship Schemes:**

# ACADEMIC PROGRAMMES



## Courses offered

UIT offers courses of Bachelor of Technology in :-

1. Information Technology [IT]
2. Computer Science Engineering [CSE]
3. Computer Science Engineering (Artificial Intelligence & Machine Learning) [CSE(AI &ML)]
4. Electronics and Communication Engineering [ECE]
5. Civil Engineering [CE]
6. Electrical Engineering [EE]

Further, UIT also offers the opportunity to the students to pursue B. Tech.(Honours) degree (conditions apply), in all the six branches.

## Duration

The duration of B. Tech./B.Tech. (Hons.) course in IT, CSE, CSE(AI & ML), CE, EE & ECE shall be of 4 years spread over 8 Semesters on full time basis for fresh entry candidates and shall be of 6 Semesters for Lateral Entry candidates (admitted directly in 2nd year).

The details of semester wise course outlines and syllabi are available on UIT website.



## **ADMISSION CRITERION - FRESH ENTRY To B. Tech./B. Tech. (Hons.) (IT /CSE/ CSE(AI & ML)/ ECE/ CE/ EE) 1st Year**

### **ELIGIBILITY:-**

1. The eligibility is 10+2 examination or equivalent, passed with Physics, Mathematics and any one of the other elective subjects of a Board/University established by law in India with 50% marks or equivalent grade. For SC/ST candidate's eligibility will be 45% marks or equivalent grades.
2. In case of candidates studying in University/Board/College or School in a foreign country, the eligibility/qualifying examination will be the same as recognized equivalent to 10+2 by the University or the Association of Indian Universities with 50% marks in three subjects as detailed above in (a). For SC/ST candidates, eligibility will be 45% marks or equivalent grades.
3. The candidate should not be, more than twenty-two years (22) in age as on 1st July of the year of admission.
4. The admission of eligible foreign students shall be conducted strictly as per the guidelines of the H.P. University, Shimla. (<http://hpuniv.nic.in/DISW.html>)



## **ADMISSION CRITERION - LATERAL ENTRY to B.Tech./B.Tech. (Hons.) (IT/CSE/ECE/CE/EE) 2nd Year**

For being eligible to seek admission to an Engineering Degree programme at the second year/third semester level through lateral entry scheme, a candidate must fulfill any one of the following conditions:

1. Should have acquired a Polytechnical diploma preferably in the same branch (IT/CSE/CE/EE/ECE) (after matriculation/10+2) with 45% (40% for reserved category), preferably from Himachal Pradesh State Board of Technical Education or equivalent from institute preferably located in H.P.
2. Must have passed the Bachelor Degree in Science(B.Sc.), with Mathematics and Physics as subjects and minimum of 60%marks in aggregate from Himachal Pradesh University or any other recognized University/Institutions located in preferably Himachal Pradesh.
3. A candidate seeking admission under sponsored category under the lateral entry scheme should have same eligibility as given in (1) or (2) above. The candidate should have minimum of 3 year's experience of working in Government Sector/Public Sector Units /Industry related to Information Technology/Computer Science Engineering/Electronics and Communication Engineering/Civil Engineering/Electrical Engineering, whichever is applicable for seeking admission in branch concerned. The candidates are required to produce the experience certificate from the employer along with (i) requisite leave of 3 years, (ii) salary statement/at the time counseling. Form 16-A (of salary) for the last three years from the employer.
4. The candidates, who have appeared in the final year/semester, but their result of Degree/Diploma course is awaited, can also apply. But, they should get their result cleared and show the pass certificate with requisite percentage on the date of counseling.

Provided further that the seat(s) remain vacant under lateral entry scheme from the bonafide Himachali candidates, then vacant seat(s) will be filled up from the candidates, who have passed the prescribed diploma or B.Sc. from other University/ Board with conditions of (1) or (2) mentioned above, after exhausting all possibilities of filling these seats from bonafide Himachali candidates.

# STUDENTS' INTAKE

FRESH ENTRY (1st SEMESTER):

75+6@+6\*+2\*\*+3\*\*\*+2\$+10# FOR EACH BRANCH

## BASIS OF ADMISSION

For admission to all seats, a Common Entrance Test will be conducted by the University. Separate merit lists for HIMACHALI candidates (passing 10+2 from schools within Himachal Pradesh) and ALL INDIA candidates (Open to all Candidates) will be prepared.

### Note:

@	<b>6 Seats are 10% of the sanctioned intake in B. Tech. (IT/CSE/CSE(AI &amp; ML)/ECE/CE/EE) over and above reserved for the candidates from Economically Weaker Section (EWS)-General Category of HP.</b>
*	<b>6 Seats are 10% of the sanctioned intake approved by the AICTE for the current year in B. Tech. (IT/CSE/CSE(AI &amp; ML)/ECE/CE/EE) each, over and above, to provide programme fee waiver for – Meritorious Girl, Low Income (LI) group candidates (annual income of parents/family less than Rs.2.5 lakh) &amp; Physically Challenged Meritorious Students in the respective ratio of 2:3:1 as per AICTE norms.</b>
**	<b>Two Seats (over &amp; above) are reserved for Single Girl Child (only child of parents, that too a girl).</b>
***	<b>Three Seats (over &amp; above) are reserved for the Ward of H. P. University Employee.</b>
\$	<b>2 Supernumerary Seats (over &amp; above) are reserved for the bonafide domicile residents/migrants of Jammu and Kashmir.</b>
#	<b>10 Seats (over and above) are allotted for foreign students sponsored by the ICCR (<a href="http://hpuniv.nic.in/DISW.html">http://hpuniv.nic.in/DISW.html</a>)</b>

# STUDENTS' INTAKE

LATERAL ENTRY (3rd SEMESTER): 06\*\* + any seat(s) remaining vacant at the end of 1st year for each branch

\*\*6 Seats are 10% of the sanctioned intake of the first year in B. Tech. (IT /CSE/ ECE/ CE/ EE) over and above. Out of the allowed intake of 10% of the sanctioned seat under the lateral entry scheme, 1 seat i.e. 20% of this intake shall be admitted under the category of sponsored candidate.

## BASIS OF ADMISSION

The admission under Lateral Entry Scheme shall be made on the basis of percentage of marks in polytechnic-diploma/ qualifying exam and as per the prevailing reservation roster.

## RESERVATION OF SEATS ( Fresh Entry)

15% and 7.5% of the seats shall be reserved for Scheduled Caste and Scheduled Tribes candidates, respectively. Further 5% of total seats are reserved for Physically Challenged (PC). Physically Challenged candidates will have to produce a certificate of minimum disability of 40% (issued by competent authority) at the time of counseling, to avail the reservation in PC category. Roster applicable for this will be followed for deciding seats for SC, ST and PC categories separately.

The seats reserved for SC, ST and PC categories i.e. (15% + 7.5% + 5% = 27.5%) shall be filled as under:

- 1.40% of the seats for admission shall be open for all the candidates irrespective of the institution from where they have passed their qualifying examination.
- 2.60% of the seats shall be filled out of the candidates who have passed their qualifying examination (10+2) from schools located within Himachal Pradesh.

The remaining 72.5% seats (100% - 27.5%) shall be filled as under:

- 1.40% of the seats shall be open for all the candidates irrespective of the institution from where they have passed their qualifying examination.
- 2.60% of the seats shall be filled out of the candidates who have passed their qualifying examination (10+2) from schools located within Himachal Pradesh.

# 120 POINT RESERVATION ROSTER

The 120 Point Reservation Roster of H.P. University, Shimla for Admission to B. Tech.(IT / CSE/ CSE(AI & ML)/ ECE/ CE/ EE) in UIT.

1 PC	26 SC	51	76	101 PC
2	27 ST	52 SC	77	102
3	28	53 ST	78 SC	103
4	29	54	79	104
5	30	55	80 ST	105
6	31	56	81	106 SC
7 SC	32	57	82 PC	107 ST
8	33 SC	58	83	108
9	34	59 SC	84	109
10	35	60	85 SC	110
11	36	61	86	111
12 SC	37	62 PC	87	112
13 ST	38	63	88	113 SC
14	39 SC	64	89	114
15	40	65 SC	90	115
16	41 ST	66	91 SC	116
17	42 PC	67 ST	92	117
18 SC	43	68	93 ST	118
19	44	69	94	119 SC
20	45	70	95	120 ST
21 PC	46 SC	71	96	
22	47	72 SC	97 SC	
23	48	73	98	
24	49	74	99	
25	50	75	100	
	(PC-5%)	(SC-15%)	(ST - 7.5%)	

**Note:** In case, no candidate is found in the waiting/merit list of a particular reserve category, at any stage, then vacant seat(s) shall be converted to other category as per the following rules:

1. Vacant seat(s) of PC category shall be converted to General category.
2. Vacant seat(s) of ST shall be converted to SC or vice-versa, as the case may be.
3. In case, no candidate is left in the merit/waiting list of SC and ST category, after exercising all possibilities, then corresponding vacant seat(s), if any, shall be converted to General category.
4. All the over and above (supernumerary) seats are non convertible.

## FEE STRUCTURE \*

**(The candidates of Physically Challenged category are exempted from all types of fee except for Refundable fee)**

### Academic Session 2026-27

S. No.	(A) Fee Category	(In Rs.)
1	Admission Fee <b>(One Time Only)</b>	2500
2	Laboratory Security (Refundable*) <b>(One Time Only)</b>	2500
3	Library Security (Refundable*) <b>(One Time Only)</b>	12500
<b>Total</b>		<b>17500</b>

S. No.	(B) Annual Charges (To be collected in Odd Semesters only)	(In Rs.)
1	Continuation fee	1250
2	Sports fee	625
3	Medical Fee	125
4	Holiday Home Fee	31
5	Students Aid fund	13
6	Youth Welfare Fund	46
7	Identity Card Fee	125
8	House/ Sessional Exam fee	1250
9	Breakage Fee	750
10	Common Room Charges	125
11	Development Fee (As approved by AICTE)	5000
12	Insurance for Students (As per AICTE requirements)	148
13	University Development Fee	625
14	Range and Rover Fee	63
<b>Total</b>		<b>10176</b>

S. No.	(C) Other Annual Charges (To be retained in the account of UIT)	(In Rs.)
1	Magazine Fee	625
2	Annual Function Charges	1250
3	Industrial Visit /Educational Tour Fund	625
4	Club/Miscellaneous Activity Fund	1250
5	Placement Brochure & Activity Fund	625
<b>Total</b>		<b>4375</b>

S. No.	(D) Semester Charges (Per Semester)	(In Rs.)
1	Tuition Fee	55000
2	Dilapidation Fee	750
3	Amalgamated Fund	1875
4	Population/Education Club Fee	13
5	UIT Infrastructure Development Fund	1250
<b>Total</b>		<b>58888</b>

As per the above fee structure, the Total Fee Payable		
A	At the time of Admission (Sem-I/Sem-III (Lateral Entry))	
S.N.	Fee Category of Student	Amount (In Rs)
1	Normal Fee (For without Fee Waiver Candidates )	90,939
2	Full Tuition Fee Waiver Candidates (MG/LI considered for Fee Waiver)	35,939
3	Half Tuition Fee Waiver Candidates (Wards of HPU-Employees)	63,439
4	Physically Challenged Candidates	15,000

\* Refundable implies that after the candidate leaves/completes the course, the amount will be refunded back to the student after completing the official formalities.

<b>Total Fee Payable in the remaining Odd Semesters (3<sup>rd</sup> , 5<sup>th</sup> , 7<sup>th</sup> )</b>		
S.N.	Fee Category of Student	Amount (In Rs)
1	Normal Fee (For without Fee Waiver Candidates )	73,439
2	Full Tuition Fee Waiver Candidates (MG/LI considered for Fee Waiver)	18,439
3	Half Tuition Fee Waiver Candidates (Wards of HPU-Employees)	45,939
4	Physically Challenged Candidates	Nil

<b>Total Fee Payable in Even Semesters (2<sup>nd</sup> , 4<sup>th</sup> , 6<sup>th</sup> , 8<sup>th</sup> )</b>		
S.N.	Fee Category of Student	Amount (In Rs)
1	Normal Fee (For without Fee Waiver Candidates )	58,888
2	Full Tuition Fee Waiver Candidates (MG/LI considered for Fee Waiver)	3,888
3	Half Tuition Fee Waiver Candidates (Wards of HPU-Employees)	31,388
4	Physically Challenged Candidates	Nil

S.N.	<b>University Registration Fee (One Time Only)</b>	
1	For students passing 10+2 Exam from H.P. Board of School Education	<b>As per HPU norms</b>
2	For Others Boards	

<b>EXAMINATION FEE</b>		
S.N.	<b>Examination Fee (Per Semester)</b>	
1	Examination Fee per Semester (to be paid before the examinations as per University Schedule or as per University decisions notified from time to time) <b>(To be deposited at H. P. University Fee Counter/Online)</b>	<b>As per HPU norms</b>

**Note:-** GST shall be applicable as per the rules of the University.

#### **FEE PAYMENT SCHEDULE**

For all categories of students:

- **7th to 21st of July** of the academic year for odd semesters (i.e. III, V, VII)
- **7th to 21st of December** of the academic year for even semesters (i.e. II, IV, VI, VIII)

#### **Important Notes:**

1. In case the fee is not deposited till the due date, late fee of Rs.1,000/- for first two weeks & Rs.2,000/- for next fifteen days and failing which the name of the student will be automatically struck off from the rolls of UIT.
2. Fee once deposited shall be refunded, only as per the above provisions

### **WITHDRAWAL OF ADMISSION BY THE CANDIDATE AND REFUND OF FEE**

If a student chooses to withdraw from the program of study in which he/she is enrolled, the institution concerned shall follow the following four-tier system for the refund of fees remitted by student as per letter No.1-533/2016-HPU(Acad.) Dated:13-Dec-2023 of Himachal Pradesh University and D.O.No.F.2-71/2022(CPP-II) (C-114546) dated: 12-June-2024 of UGC

Category	Percentage of Refund of Fees *	Point of Time when notice of withdrawal of admission is received in the HFI
(1)	100%	15 Days or more <b>before</b> the formally notified last date of admission
(2)	90%	Less than 15 days <b>before</b> the formally notified last date of admission
(3)	80%	15 Days or less <b>after</b> the formally notified last date of admission
(4)	50%	30 Days or Less, but more than 15 days <b>after formally</b> notified last date of admission
(5)	00%	More than 30 days <b>after</b> formally notified last date of admission

\* As per the directions from UGC, UIT shall deduct Rs. 1000/- as processing charges from the refundable amount.

\*\* The last date of admission for first year (fresh admission) shall be **31-08-2026** and for lateral entry to 2nd year shall be **15-09-2026**. (These dates shall be considered as reference dates for fee refund policy)

# COMMON ENTRANCE TEST 2026 (FRESH ENTRY TO 1st YEAR)



1. Candidates fulfilling the eligibility criteria will be called for Common Entrance test for B. Tech (IT/CSE/CSE(AI & ML)/CE/EE/ECE). There shall be only one paper consisting of 100 Multiple Choice Questions (MCQs) of duration 3 Hours. Therefore, the pattern of UIT Entrance Test will be as follows:

Subject	No. of Questions	Marks	Time
(a) Physics	33 MCQ	66	3 Hours
(b) Chemistry	33 MCQ	66	
(c) Mathematics	34 MCQ	68	
<b>Total</b>	<b>100 MCQs</b>	<b>200</b>	

2. Each question will be of 2 marks.
3. **There shall be No Negative Marking.**
4. Displayed result shall show the marks scored by candidates in each subject and the total marks.
5. A combined merit list will be prepared for all the five courses (IT/CSE/CSE(AI & ML)/ECE/CE/EE) on the basis of total marks scored by the candidates.
6. In case of a tie i.e. student obtaining equal marks (aggregate) in the entrance examination, the issue shall be resolved according the higher marks obtained by the candidate in Mathematics part of entrance test followed by marks obtained in Physics part. Even if there is a tie in inter-se ranking after exhausting the above procedure, then the candidate younger in age will be given preference.
7. Seat will be allotted on the basis of above merit and the order of course preference opted by the candidate in the counseling form.

**Note: The syllabus for the entrance test has been provided in this prospectus.**

## EXAMINATION CENTRES

### Region

Himachal Pradesh

### Examination Centre

Shimla, Dharamshala, Mandi, Nalagarh & Hamirpur

**Note:** If the strength of candidates in any center(s) falls below the requisite number, then University reserve the right to allot the other available examination Centre.

**↓ ADMIT CARD**

Please Read

Admit cards for appearing in the entrance test will be generated online only, to those candidates who have submitted their online application forms complete in all respect before or by the last date as notified by the University. Online Admit cards to such candidates will be activated as per dates scheduled and candidates are advised to download the same after logging in to the online registration account created during the online submission of application. So, ***candidates are advised not to forget their registration ID and password of account created for online application.*** No separate admit card will be issued to the candidates from UIT. Without the valid admit card, candidate will not be allowed to enter the examination hall. Admit card is to be retained by the candidate as he/she may have to produce the card at the time of counseling and admission or at any time during the admission process, when asked for.

**↓ COUNSELING**

Please Read

Dates of counseling and the list of candidates eligible to attend counseling will be displayed on University website <https://admissions.hpshimla.in> or <http://www.hpuniv.ac.in> or <https://hpuniv.ac.in/university-detail/home.php?uiit>

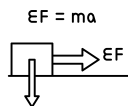
No other communication whatsoever shall be made with the candidates in this regard. There will be a counseling system to allot the available seats in the order of combined merit drawn category wise by the University. The eligibility of the candidates will be determined by the counseling committee (to recommend the admission to UIT). Final merit and allotment of the seats in different courses will be decided only for those candidates who will appear for counseling in person as per counseling schedule. In case of unavoidable circumstances, the candidates who will not be able to appear in person may depute an authorized person to convey his/her consent for the course, i.e. B. Tech. (IT/CSE/CSE(AI & ML)/ECE/CE/EE), with a letter of authority. Failing which, the merit of the candidate will be cancelled. The committee will also prepare a waiting list and as soon as vacancy arises, next candidate(s) from the waiting list will be allotted seat(s) in the UIT. This information will be available on the University website <http://www.hpuniv.ac.in> and no other mode of communication will be used in this regard.

**Important Note:** If candidate is unable to produce/bring original certificates at the time of counseling, his/her candidature will be rejected there and then by the committee constituted for counseling for B. Tech. (IT/CSE/CSE(AI & ML)/ECE/CE/EE) course without any notice.

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All disputes are subject to Judicial Courts in Shimla.

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# SYLLABI OF ENTRANCE TEST

## Physics

- **Mechanics:** Unit and dimensions, displacement, velocity, acceleration, kinematics in one and two dimensions, projectiles, circular motion, concept of relative motion. Newton's laws of motion, concepts of inertial and uniformly accelerated frames. Force, spring force, frictional force, and gravitational force. Work, energy and power, momentum, conservation of momentum and energy. Linear and angular momentum, simple, harmonic motion. Universal law of gravitation, gravitational potential and field, acceleration due to gravity, motion of planets and satellites in circular orbits, Kepler's laws.
- **System of Particles:** Center of mass and its motion, elastic and inelastic collisions. Rigid bodies, moment of inertia, parallel and perpendicular axes theorems, moment of inertia of simple geometrical shapes, i.e. uniform ring, disc, thin rod, cylinder. Angular momentum, its conservation, torque, equilibrium of rigid bodies.
- **Bulk Properties of Matters:** Hook's law; Young's shear and bulk modulus. Principle of buoyancy, pressure in fluid, streamlined flow, Bernoulli's theorem.
- **Wave Motion:** concepts of amplitude, frequency and phase. Longitudinal and transverse waves, superposition of waves, progressive and stationary waves. Vibration of strings and air columns, resonance, beats, velocity of sound, Doppler effect.
- **Heat and Thermodynamics:** Thermal expansion of solids, liquids and gases, ideal gas laws, absolute temperature, specific heats and their ratio, Isothermal and adiabatic processes. First law of thermodynamics, Carnot's cycle and refrigerator, Heat conduction in one dimension, elementary concepts of black body radiation. Stefan's law of radiation. Wien's displacement law.
- **Electrostatics:** Coulomb's Law, electric field and electric potential, lines of force, capacitance, dielectric constant, parallel plate capacitor, capacitors in series and parallel. Energy stored in capacitor, charging and discharging of capacitor.
- **Current Electricity:** Electric current, Ohm's law, series and parallel arrangements of resistance's and cells. Kirchoff's laws and applications to networks. Heating effect of current. Biot-Savart's law, force on a moving charge and on a current carrying wire in a magnetic field, magnetic moment of a current loop, effect of a uniform magnetic field on a current loop, moving coil galvanometer, voltmeter, ammeter.
- **Electromagnetic Induction:** Faraday's law, Lenz's law, definitions of self and mutual inductance. A. C Generator, LCR circuit with A.C. Phasor diagrams and L-C oscillations.
- **Optics:** Reflection and refraction at plane and curved surfaces. Total internal reflection and critical angle. Deviation and dispersion of light by a prism. Thin lenses, Spherical aberration, microscope, telescope. Wave Nature of Light: Interference. Young's double slit experiment, fringe width, elementary concepts of diffraction by a single slit.
- **Atomic and Nuclear Physics:** Radioactivity: alpha, beta and gamma radiations, law of radioactive decay, decay constant, half- life and mean life. Photoelectric effect, de-Broglie wavelength, Bohr's theory of hydrogen- like atoms. Atomic nucleus, binding energy and its calculation.
- **Semiconductor Physics and Electronics:** Elementary concepts of metals. Insulators and semiconductors, Intrinsic and extrinsic semiconductors, p-n junction diode, rectifier, basics of transistors, transistor amplifier (in CE mode).



# Chemistry

## 1. Physical Chemistry

- **General Topics:** Concept of atoms and molecules; Dalton's atomic theory; Mole concept, Calculations (based on mole concept) involving common oxidation-reduction, neutralisation, and displacement reactions; Concentration in terms of mole fraction, molarity and normality.
- **Gaseous And Liquid States:** Absolute scale of temperature, ideal gas equation; Deviation from ideality, van der Waals equation; Kinetic theory of gases, average, root mean square and most probable velocities and their relation with temperature; Law of partial pressures; Vapour pressure.
- **Atomic Structure And Chemical Bonding:** Bohr model, spectrum of hydrogen atom, quantum numbers; Wave-particle duality, de Broglie hypothesis; Uncertainty principle; shapes of s, p and d orbital's; Electronic configurations of elements (up to atomic number 36); Aufbau principle; Pauli's exclusion principle and Hund's rule; Orbital overlap and covalent bond; Hybridisation involving s, p and d orbital's only; VSEPR model and shapes of molecules (linear, angular, triangular, square planar, pyramidal, square pyramidal, trigonal bi-pyramidal, tetrahedral and octahedral).
- **Energetics:** First law of thermodynamics; Internal energy, work and heat, pressure-volume work; Enthalpy, Hess's law; Heat of reaction, fusion and vapourization; Second law of thermodynamics; Entropy; Free energy; Criterion of spontaneity.
- **Chemical Equilibrium:** Law of mass action; Equilibrium constant, Le Chatelier's principle; Solubility product, common ion effect, pH and buffer solutions; Acids and bases (Bronsted and Lewis concepts).
- **Electrochemistry:** Electrochemical cells and cell reactions; Standard electrode potentials; Nernst equation; Electrochemical series, emf of galvanic cells; Faraday's laws of electrolysis; Electrolytic conductance, specific, equivalent and molar conductivity.
- **Solid State:** Classification of solids, crystalline state, seven crystal systems, close packed structure of solids (cubic), packing in fcc, bcc and hcp lattices; coordination number, packing fraction.
- **Solutions:** Raoult's law; Molecular weight determination from lowering of vapour pressure, elevation of boiling point and depression of freezing point.

## 2. Inorganic Chemistry

- **Isolation/Preparation and Properties of the Following Elements and Compounds:** Boron, silicon, nitrogen, phosphorus, oxygen, sulphur and halogens; Properties of allotropes of carbon (only diamond and graphite), phosphorus and sulphur. Oxides, peroxides, hydroxides, carbonates, bicarbonates, chlorides and sulphates of sodium, potassium, magnesium and calcium; Boron: diborane, boric acid and borax; Aluminium: alumina, aluminium chloride and alums; Carbon: oxides and oxyacid (carbonic acid); Silicon: silicones, silicates and silicon carbide; Nitrogen: oxides, oxyacids and ammonia; Phosphorus: oxides, oxyacids (phosphorus acid, phosphoric acid) and phosphine; Oxygen: ozone and hydrogen peroxide; Sulphur: hydrogen sulphide, oxides, sulphurous acid, sulphuric acid and sodium thiosulphate; Halogens: hydrohalic acids, oxides and oxyacids of chlorine, bleaching powder; Xenon fluorides. Oxides and chlorides of tin and lead; Oxides, chlorides and sulphates of  $\text{Fe}^{2+}$ ,  $\text{Cu}^{2+}$  and  $\text{Zn}^{2+}$ ; Potassium permanganate, potassium dichromate, silver oxide, silver nitrate, silver thiosulphate. Ores and minerals: Commonly occurring ores and minerals of iron, copper, tin, lead, magnesium, aluminium, zinc and silver.



# Chemistry

**Transition elements (3d series) :** Definition, general characteristics, oxidation states and their stabilities

colour (excluding the details of electronic transitions) and calculation of spin-only magnetic moment; Coordination compounds: nomenclature of mononuclear coordination compounds, cis-trans and ionisation isomerisms, hybridization and geometries of mononuclear coordination compounds (linear, tetrahedral, square planar and octahedral).

## 3.Organic Chemistry

- **Concepts:** Hybridisation of carbon; Sigma and pi-bonds; Shapes of simple organic molecules; Structural and geometrical isomerism; Optical isomerism; IUPAC nomenclature of simple organic compounds (only hydrocarbons, mono-functional and bi-functional compounds); Hydrogen bonds: definition and their effects on physical properties of alcohols and carboxylic acids; Inductive and resonance effects on acidity and basicity of organic acids and bases; Polarity and inductive effects in alkyl halides;
- **Preparation, Properties and Reactions of Alkanes, Alkenes and Alkynes:** Homologous series, physical properties of alkanes (melting points, boiling points and density); Combustion and halogenation of alkanes; Preparation of alkanes by Wurtz reaction and decarboxylation reactions. Physical properties of alkenes and alkynes (boiling points, density and dipole moments); Reactions of alkenes with  $\text{KMnO}_4$  and ozone; Reduction of alkenes and alkynes; Preparation of alkenes and alkynes by elimination reactions; Electrophilic addition reactions of alkenes with  $\text{X}_2$ ,  $\text{HX}$ ,  $\text{HOX}$  and  $\text{H}_2\text{O}$  ( $\text{X}=\text{halogen}$ ); Addition reactions of alkynes; Metal acetylides.
- **Reactions of benzene:** Structure and aromaticity; Electrophilic substitution reactions: halogenation, nitration, sulphonation, Friedel-Crafts alkylation and acylation.
- **Phenols:** Acidity, electrophilic substitution reactions (halogenation, nitration and sulphonation); Reimer-Tiemann reaction.
- **Alkyl halides:** Rearrangement reactions of alkyl carbocation, Grignard reactions, nucleophilic substitution reactions; Alcohols: esterification, dehydration and oxidation, reaction with sodium, phosphorus halides,  $\text{ZnCl}_2/\text{concentrated HCl}$ , conversion of alcohols into aldehydes and ketones.
- **Ethers: Preparation by Williamson's Synthesis;** Aldehydes and Ketones: oxidation, reduction, oxime and hydrazone formation; aldol condensation, Perkin reaction; Cannizzaro reaction; haloform reaction and nucleophilic addition reactions (Grignard addition); Carboxylic acids: formation of esters, acid chlorides and amides, ester hydrolysis; Amines: Preparation from nitro compounds, reaction with nitrous acid, azo coupling reaction of diazonium salts of aromatic amines, Sandmeyer and related reactions of diazonium salts; carbylamine reaction;
- **Carbohydrates:** Classification; mono- and di-saccharides (glucose and sucrose); Oxidation, reduction.
- **Amino acids and peptides:** General structure (only primary structure for peptides) and physical properties.
- **Properties and uses of some important Polymers:** Natural rubber, cellulose, nylon, teflon and PVC.

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

# Mathematics

- **Algebra:** Algebra of complex numbers, modulus and argument, triangle inequality,  $n$ th roots of unity. Theory of quadratic equations and quadratic expressions, relationship between the roots and coefficients, sign of a quadratic expression, greatest and least values of quadratic expression. Arithmetic geometric and harmonic progressions, sums of arithmetic, geometric and harmonic progressions, Infinite geometric series, sums of the squares and cubes of the first  $n$  natural numbers. Mathematical induction, permutations and combinations, Binomial theorem for a positive integral index. Determinants of order two and three, solutions of simultaneous linear equations in two and three variables.
  - **Trigonometry:** Trigonometric functions and their graphs, addition and subtraction formulae, formula involving multiple and sub multiple angles, general solution of trigonometric equations, relations between the sides and angles of triangle, properties of a triangle, solutions of triangles, heights and distances, trigonometric functions.
  - **Analytical Geometry of Two Dimensions:** Equation of straight line in various forms, angle between two lines, distance of a point from a line, line through the point of intersection of two given lines, concurrency of lines. Equation of a circle in various forms, equations of tangent and normal, intersection of a circle with a straight line, equation of a circle through the points of intersection of two circles and that of a circle and a straight, line. Equations of the conic sections in the standard form, focus, directrix, eccentricity of the conic section, parametric equations, equations of tangent and normal.
  - **Calculus:** Into, onto and one-to-one functions, Sum, difference, product and quotient of two functions, composite function; absolute value, greatest integer, polynomial, rational, trigonometric, exponential and logarithmic functions, even and odd functions, inverse of a function. Limit and continuity of a function, limit and continuity of the sum, difference, product and quotient of two functions, continuity of composite function. Derivative of a function, derivative of composite and implicit functions, derivatives of polynomial, rational, trigonometric, inverse trigonometric, exponential and logarithmic functions. Geometrical interpretation of derivative, tangents and normal. Monotonicity, maximum and minimum values of a function. Derivatives up to order three.
  - **Integration, Differential Equations:** Integration as the inverse proves of differentiation, integration by parts, integration by the methods of substitution and partial fraction, Definite integral and its application for the determination of areas. Properties of definite integrals. Formational of differential equations. First order equation, variables separable and homogeneous equations. Probability: Addition and multiplication laws of probabilities, conditional probabilities. Vectors: Addition and vectors, scalar products, cross product, scalar and vector triple products, applications in geometry.
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# SAMPLE QUESTIONS

## PHYSICS

1. Planck's constant has the dimensions of  
a) Energy            b) Mass            c) Frequency            d) Angular momentum
2. The light travels as  
a) Longitudinal waves            b) Mechanical waves  
c) Transverse waves            d) Stationary waves
3. The photoelectric effect is based upon the law of conservation of  
a) Momentum    b) Energy            c) Angular momentum            d) Mass

## CHEMISTRY

1. What will be the molarity of a solution, which contains 5.85 g of NaCl(s) per 500 mL?  
a) 4 mol L<sup>-1</sup>    b) 20 mol L<sup>-1</sup>    c) 0.2 mol L<sup>-1</sup>    d) 2 mol L<sup>-1</sup>
2. The shape of IF<sub>7</sub> molecule is  
a) Octahedral            b) Tetrahedral  
c) Trigonal bi-pyramidal            d) Pentagonal bi-pyramidal
3. Which of the following is an alicyclic compound?  
a) Benzene    b) Hexane            c) Cyclohexane            d) Furon

## MATHEMATICS

1. The value of  $\cos 20^\circ \cos 40^\circ \cos 60^\circ \cos 80^\circ$  is  
a) 1/8            b) 1/20            c) 1/16            d) 1/32
2. How many numbers having 6 digits, which are not divisible by 5, can be formed from the digits 4, 5, 6, 7, 8, 9, no digit being repeated?  
a) 720            b) 120            c) 620            d) 600
3. In an ellipse, the distance between its foci is 6 and minor axis is 8. Then its eccentricity is  
a) 3/5            b) 1/2            c) 4/5            d) 7

## Department of Applied Sciences, Management and Humanity



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UIT-CO-ORDINATOR



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**Mr. Pradeep Kumar** NET Assistant Professor (Physics)

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**Dr. Jasmine Kaur Saini** GATE Ph.D. Assistant Professor



**Er. Sandeep Kumar** M.Tech. Assistant Professor

Guest Faculty:-

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2. Er. Swati Sharma





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**Dr. Richa Chandel**  
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Assistant Professor



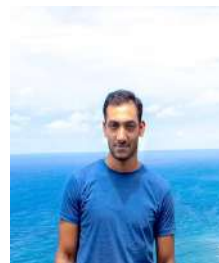
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**Dr. Manish Kumar**  
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NORWAY  
Assistant Professor



**Mr. Atul**  
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**Dr. Raj Kumari**  
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M. Tech.  
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### Guest Faculty:-

1. Er. Minakshi Bhardwaj
2. Er. Vishal Thakur
3. Er. Satish Kumar
4. Er. Pratistha Gautam
5. Er. Deepak Kumar





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Assistant Professor



**Dr. Disha Thakur**

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**Er. Ravi Kumar**

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M.Tech.

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**Er. Praveen**

**Bhardwaj** GATE

M.Tech.

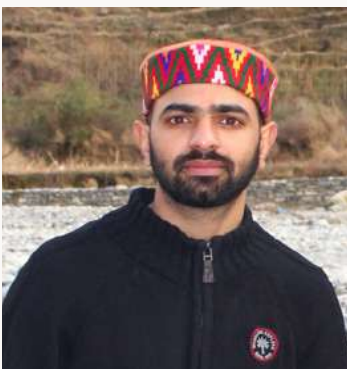
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**Er. Rakesh Kumar**

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**Er. Daljeet Singh**

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Assistant Professor

**Guest Faculty:-**

1. Er. Ajay Bali



## *MINISTERIAL STAFF*

1. SH. RAKESH KUMAR SHARMA	ASSISTANT REGISTRAR
2. SH. KHUSHAL CHAND	SUPERINTENDENT(GR-II)
3. SH. LALIT KUMAR	CLERK
4. SH. DINESH KUMAR	CLERK
5. SH. BHUPENDER KUMAR	CLERK
6. SH. RAJESH	PEON
7. SH. BABU RAM	PEON

## *LIBRARY STAFF*

SH. SANJEEV KUMAR SHARMA	SENIOR PROFESSIONAL ASSISTANT
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## *LABORATORY STAFF*

1. SH. MAHENDER KUMAR	LABORATORY TECHNICIAN
2. SH. VIKAS SHARMA	COMPUTER LABORATORY ATTENDANT
3. MS. SARLA KUMARI	COMPUTER LABORATORY ATTENDANT
4. SH. VIJAY KUMAR	LABORATORY ATTENDANT

## *OUT-SOURCED MINISTERIAL STAFF (NIELIT)*

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2. MS. RITU	COMPUTER OPERATOR
3. SH. BHUPESH	COMPUTER OPERATOR
4. MS. GEETANJALI THAKUR	JOA (IT)

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2. MR. DALEEP KUMAR	SECURITY GUARD
3. MRS. SWARUPI DEVI	SECURITY GUARD
4. MR. PRAVEEN KUMAR	SECURITY GUARD

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1. CLEANLINESS SERVICES(SULABH):	MS. GUDDI DEVI MS. KAMLA DEVI MS. KIRAN MS. KAMLA
2. VEHICLE (TAXI)	MR. MUNISH-DRIVER
3. CAFETERIA:	MR. MANSA RAM (CONTRACTOR) MR. RAMESH



## IMPORTANT DATES

1. Date of activation of online application form  
(Fresh entry & Lateral entry) : **30-04-2026**
2. Last Date of submission of online application form  
Fresh Entry to **First-Year** : **30-05-2026**  
Lateral Entry to **Second Year** : **20-07-2026**
3. Last date of correction in application form (Fresh Entry) : **03-06-2026**
4. Activation of downloadable Admit Card : To be announced later
5. Date of Entrance test for Fresh entry : To be announced later
6. Date of Declaration of Entrance Exam Result : To be announced later
7. Display of Counseling Schedule on University/UIT website : To be announced later
8. Last date of Withdrawal of Admission without deduction :  
a.) For fresh entry to first year : 16-08-2026  
b.) For Lateral entry to 2nd year : 31-08-2026
9. Last Date of Admission Last Date of Admission (Reference dates for fee refund policy)  
a.) For fresh entry to first year : 31-08-2026  
b.) For Lateral entry to 2nd year : 15-09-2026

### NOTE:-

Any extension of the last date of admission by the approval from the Hon'ble Vice-Chancellor, shall be applicable for admission purpose only and shall not be considered as the reference dates for the fee refund policy.

### Application Fee:

For General (open)	: Rs. 1400/-
For SC/ST	: Rs. 1250/-
For General EWS	: Rs. 1250/-
For Person with Disability (PwD)	: Rs. 1250/-