

Instructions and Guidelines for Admission to M. Tech. (Computer Science) 2010

The candidate should read the following carefully before filling up the Application form and other information.

ADMISSION PROCEDURE

About the Course:

The M. Tech. (Computer Science) is a two years full time post graduation course spread over four semesters. In this course, the students will be taught, the core courses of Computer Science.

Eligibility:

Candidates, who have passed Master degree with minimum of 55% marks (50% marks for SC/ST category), or equivalent Grade point, in Mathematics/ Physics/ Electronics/ Computer Application (MCA)/ Computer Science/ Information Technology/ 4-years Bachelor's degree in Engineering/ Technology.

OR

Any examination, of university in foreign country, recognized as equivalent for the above purpose by equivalence committee of its own or on recommendation of Association of Indian Universities with 55% marks (50% marks for SC/ST).

Mode of Selection:

The admission to M. Tech. (Computer Science) will be through the merit of an entrance test of duration 3 hours to be conducted by H.P. University, Shimla. The entrance test shall be of 200 MCQ type questions of one mark each, comprising of the following components:

Section	Contents	Marks
A	Logical Ability	40
B	Mathematics of Graduation level	40
C	English and General Awareness	20
D	Computer Ability	100
	Total	200

The Candidates who have qualified GATE/ NET/ SLET in Computer Science or Engineering will be given 20% extra of the marks obtained in the entrance test for calculating the merit for the purpose of admission.

Minimum pass marks in the entrance test shall be 35% i.e. 70 marks out of a total of 200.

Number of Seats:	18 + 01 + 05
Reserved for SC	03
Reserved for ST	01
Open to all	03
Reserved for applicants from HPU/HPKVV/ DYSPUHF	11
Supernumerary Seats	01 (Reserved for single child who is a girl)
Seats for in-Service Candidates	05 (Reserved)

In case, any of these seats (supernumerary and in-service seats for candidates) remain vacant due to the unavailability of suitable eligible candidates, seats for in-service candidates shall remain vacant and under no circumstances, conversions shall be allowed.

Being a self financing course, in case the numbers of selected candidates after entrance exam are less than nine (09), then the course will not be run for that academic year.

Application FEE

The duly filled up application form along with a **demand draft** of requisite amount **in favour of the Chairman, Department of Computer Science, H.P.U. Shimla and payable at Shimla**

shall reach the **Chairman, Department of Computer Science, H.P. University, Summer Hill, Shimla – 171 005** on or before the last date of Submission.

Application Fee for General Category: Rs.650/-

Application Fee for SC/ST/IRDP/Antodaya Category: Rs.350/-

CENTRE FOR THE ENTRANCE TEST

The Entrance Test for admission to the M. Tech. course shall be held at the following centre ONLY:

- a) H.P. University Campus, Summer Hill, Shimla

RESERVATION FOR M. TECH.

As per the H.P. University rules, 25% seats will be filled on all India basis and rest of the 75% seats will be filled out of the candidates who have passed their qualifying examination from Himachal Pradesh University. 15% and 7.5% of the seats shall be reserved for bonafide Himachali Scheduled Castes and Scheduled Tribes candidates respectively who have passed the qualifying examination from any University established by law in India which is equivalent to the qualifying examination of H.P. University. The other reservation rules of H.P. University shall be applicable as per the roster followed in the department for M. Tech admissions. One supernumerary seat shall be reserved for Himachali bonafide only child who is a girl. In this respect, an affidavit issued by a competent authority shall have to be submitted. 5 seats are reserved for in-service applicants.

In-service Candidates:

The 'in-service' candidate shall be a candidate who is an employee (on a regular or contract basis) of Govt. of Himachal Pradesh (including Colleges in & Universities under the Govt.) or Govt. of India or Boards/Corporations under state or centre governments having their headquarters in the state and is serving the organization in which currently employed for at least last 2 years.

An in-service candidate has to submit the following along with the application form:

- a) The appointment letter from the employer and a certificate from the employer that he/she has been working with the concerned organization for at least last two years and shall continue to be on their roll for at least whole of the duration of the course,
- b) NOC on the prescribed proforma provided in the prospectus from his employer that in case the candidate is selected for the admission, he/she shall be granted a study leave for a period of two years from the date of the commencement of the course as mentioned in the prospectus for the course.

Upon confirmation of the admission, a letter on the prescribed proforma provided in the prospectus from the employer sanctioning study leave for a period of 2 years is to be submitted in the department on or before the stipulated last date of admission along with an affidavit from the court duly signed by the notary clearly stating that if the information supplied in any of the above mentioned documents is found to be contrary to the facts at any stage, the candidate shall be held responsible for it and the university shall have the right to cancel the admission/degree of the candidate.

The admission of such candidates shall be confirmed only if a letter from the employer sanctioning the study leave of two years is deposited within the stipulated period for the admission as mentioned in the prospectus. The validity of the above mentioned documents shall be assessed by the Department and the Department shall also have the right of corresponding with the employer of the candidate in case of any doubts regarding these documents. The decision of the Department in rejecting or accepting these documents shall be final. In any case, notwithstanding the admission to the said course, if the department finds that the candidate has supplied false or misleading information through any of the above mentioned documents, the university shall have the right to a) cancel the admission/degree of the candidate, and b) to initiate civil/criminal proceeding against the candidate.

FEES STRUCTURE

- a) From all students, except for the in-service candidates, a fee of Rs.30,000/- (Rupees thirty thousand only) p.a. and an Equipment Fee of Rs.5,000/- (Rupees five thousand only) p.a. along with other university dues as mentioned in the prospectus shall be charged by the department. Two demand drafts of Rs.30,000/- and Rs.5,000/- payable at Shimla in favour of the Chairman, Department of Computer Science, HPU, Shimla-5 are to be deposited at the time of admission and subsequently in the beginning of the 2nd year.
- b) For in-service students, the fee shall be Rs.50,000/- (Rupees fifty thousand only) p.a. and an Equipment Fee of Rs.5,000/- (Rupees five thousand only) p.a. along with other university dues as mentioned in the prospectus shall be charged by the department. Two demand drafts of Rs.50,000/- and Rs.5,000/- payable at Shimla in favour of the Chairman, Department of Computer Science, HPU, Shimla-5 are to be deposited at the time of admission and subsequently in the beginning of the 2nd year.
- c) The other university dues as mentioned in the prospectus shall be deposited at the time of admission and in the beginning of the 2nd year on the main cash counter of H.P. University, Shimla.
- d) All the students shall have to pay an amount of Rs.2,500/- (Rupees two thousand five hundred only) as the dissertation thesis submission fee in the beginning of fourth semester in the form of a demand draft in favour of the Chairman, Department of Computer Science, H.P. University, Shimla.

COUNSELING

The counseling shall be held in the Department in the H.P. University campus for admission to the M. Tech. (Computer Science) course. The candidate has to attend the counseling in person along with all the original testimonials such as D.O.B. proof, 10+2, graduation, NET/ SET/ GATE, bonafide resident, proof of only child who is a girl, proof of category etc.

Resolving a Tie:

The following Formulae shall be adopted to resolve a tie for Admission:

- (i) In case of a tie in marks scored in the entrance test, the candidate securing higher %age of marks in the qualifying exam shall be admitted first.
- (ii) Even if the tie is not resolved, the candidate having higher aggregate marks in any two of the following (in which his marks are higher) shall be admitted first: Matriculation/ Hr. Sec. Part-I /Hr. Sec. Part-II/ Prep/ Pre-Med/ Pre-Engineering/Intermediate/any other equivalent examination.
- (iii) Further, if the tie is still not resolved, the candidate younger in age shall be admitted first.

Refusal for Admission:

A candidate will be refused admission to the course if he/she does not fulfill minimum eligibility conditions, provided that the Vice-Chancellor shall have the power to permit age relaxation for reasons to be recorded in writing up to a maximum of 6 months. Provided further that age bar shall not apply in the case of in-service students and the State Govt. / Govt. of India nominees.

Notwithstanding anything contained in the foregoing rules, a student shall be refused admission if his conduct during any previous stay in University has been unsatisfactory. Such student shall, however, have the right to appeal to the Vice-Chancellor whose decision shall be final. A student who has been expelled or rusticated shall not be admitted to any course of study in the University without the prior approval of the Vice-Chancellor.

SCHEME OF EXAMINATION

English will be the medium of instruction and examination.

1. Each theory paper shall be of 3 hours duration and shall carry 100 marks (75 marks for end semester theory examination and 25 marks for continual internal assessment).

2. In each theory paper, nine questions are to be set. Two questions are to set from each Unit and candidate is required to attempt one question from each unit. Question number nine will be compulsory, which will be of short answer type with 5-10 parts, out of the entire syllabus. In all, five questions are to be attempted.
3. Each practical paper shall be of 3 hours duration and will carry 100 marks (50 marks for end semester practical examination and 50 marks for continual internal assessment).
4. In the III semester each student shall be:
 - a) Attached to a teacher of the Department who shall act as a guide for seminar, minor project and Dissertation work of the students in III & IV semesters.
 - b) Assigned a topic by the guide and the students are required to prepare and present a seminar.
 - c) Assigned a topic for carrying out a minor project which normally may be related to the findings of a thorough study on a research area of significance which is relevant to the field of Computer Science. At the end of III semester, each student has to submit 4 nos. of copies of spiral bound report of his findings on the topic allotted to him/her in the office of the Department along with the softcopy of the same on a CDROM/DVD.
 - d) Assessed and evaluated for minor project by an external examiner.
5. In the IV semester, each student is required to:
 - a) Work on a topic in a significant area of research relevant to the field of Computer Science for dissertation thesis under the guidance of his/her guide.
 - b) Submit 5 nos. of hard bound copies of the dissertation work in the office of the Department along with the softcopy of the same on a CDROM/DVD.
 - c) Ensure the quality of the research work carried out by them in the III & IV semester, each student, hence is required to participate in some relevant regional/national level conferences/ workshops/ seminars during these semesters. Therefore, it is mandatory for each student to publish at least one research paper (Full paper or abstract or extended abstract in the proceedings in print version/ e-version) in a regional/ national level conference/ workshop/ Seminar. The certificate/proof of the published paper along with the paper shall form the part of the submitted dissertation work. The students shall not be allowed to submit their dissertation work without completing this requirement.
6. A copy of the Dissertation work of each candidate shall be sent to the external examiner well in advance by the examination branch of HPU before the conduct of the viva-voce examination.
7. The dissertation will be jointly evaluated by internal guide and external examiner.
8. Internal assessment will be given on the basis of class tests (best of 2 in a semester), seminars, surprise quizzes, class participation and regularity of the student in the class.

Promotion Rule:

The promotion norms in the MCA course are to be followed for the M. Tech. course too.

Curriculum Schema:

First Semester					
Paper No.	Title	Periods per Week	Max Marks (Theory)	Continual Internal Assessment	Exam Duration Hours
MT-101	Computer Architecture and Parallel Processing	4	75	25	3
MT-102	Software Engineering	4	75	25	3
MT-103	Computer Oriented Optimization Method	4	75	25	3
MT-104	Data Structure & Algorithm Analysis in C	4	75	25	3
MT-105	Operating System and Case Study	4	75	25	3
MT-106	Practical on MT-103	6	50	50	3
MT-107	Practical on MT-104	6	50	50	3

Second Semester					
Paper No.	Title	Periods per Week	Max Marks (Theory)	Continual Internal Assessment	Exam Duration Hours
MT-201	Object Oriented Programming with JAVA	4	75	25	3
MT-202	Computer Networks	4	75	25	3
MT-203	Distributed Data Base Management System	4	75	25	3
MT-204	Data Warehousing and Data Mining	4	75	25	3
MT-205	Software Quality and Testing	4	75	25	3
MT-206	Practical on MT-201	6	50	50	3
MT-207	Practical on MT-203	6	50	50	3

Third Semester					
Paper No.	Title	Periods per Week	Max Marks (Theory)	Continual Internal Assessment	Exam Duration Hours
MT-301	Computer Graphics	4	75	25	3
MT-302	Elective – 1	4	75	25	3

Paper No.	Title	Periods per Week	Max Marks	Continual Internal Assessment	Evaluation Marks
MT-303	Seminar	8 in computer lab 4 in library	100	25	75 (by Department)
MT-304	Minor Project	8 in computer lab 4 in library	200	100	100 (by External Examiner)

Fourth Semester						
Paper No.	Title	Periods per Day	Marks			
			Maximum Marks	Continual Internal Assessment	<u>Publications</u>	Viva-Voce Examination
MT-401	Dissertation	5	600	100	<u>100</u>	300

List of Electives:

- MT-E01 Advanced Software Engineering Concepts
- MT-E02 Artificial Intelligence & Expert System
- MT-E03 Automata Theory and Compiler Design
- MT-E04 Cyber Law
- MT-E05 Cloud Computing
- MT-E06 Distributed Systems
- MT-E07 Graph Theory
- MT-E08 Research Methodology
- MT-E09 Service Oriented Architecture

APPLICATION FORM SUBMISSION

Duly filled in application form, ADMIT CARD and RESULT / INTERVIEW CARD (with postage stamps of Rs.6/- affixed on each card on the space provided) must reach the Chairman, Department of Computer Science, H.P. University, Shimla-5 by the last date fixed for the purpose. The fee deposited will not be refundable under any circumstances.

Note:

Merely appearing in the entrance exam does not entitle the candidate for the right to admission unless the candidate fulfills the eligibility criteria for admission to the M. Tech. course. The candidate has to submit duly attested copies of the following certificates at the time of attending the counseling:

- a) Proof of Age (Matriculation/ Xth class certificate)
- b) 10+2 certificate

- c) Graduation certificate
- d) B.E./ B. Tech./ MCA/ M. Sc. or equivalent certificate
- e) Category certificate i.e. SC/ST/IPDP/Antodaya, if applicable
- f) Single girl child affidavit, if applicable
- g) Certificates supporting In-service candidature

It will be the entire responsibility of the candidate(s) to procure the prospectus well in time and submit the application form complete in all respects within the stipulated date and time. The University will not be responsible for any postal delay for non-receipt or in case of misplacement or loss of prospectus in transit. All disputes are subject to legal jurisdiction of courts in Shimla only.

IMPORTANT DATES:

(A) Application Form Submission:

Last date for the receipt of application forms in the office of the Chairman of the Department:

Date	Day	Time
11-09-2010	Thursday	4:00 pm

(B) Date of Entrance Test:

Date	Day	Time
23-09-2010	Thursday	2:00 PM to 5:00 PM

(C) Date of declaration of result:

Date	Day
09-10-2010	Saturday

Note:

- i) The candidates shall be called for Counselling/Admissions in order of merit in the ratio 1:3 i.e. three times the number of available seats.
- ii) Result-cum-Counselling Card shall clearly state if the candidate is called for the counselling or not.
- iii) The counselling for the applicants for admission to M. Tech. course shall be held in the Department from the **list to be displayed on 13/10/2010 in the Department** as per the following schedule:

Date of Interview/ Admission	Day	Time for reporting for interview in the office of the Department	
		From	To
15-10-2010	Friday	10:00 A.M.	2:00 P.M.

- iv) The last date for admission with the Permission of Vice-Chancellor, i.e. the deadline for closing admission, even if some seats remain vacant:

Date	Day
25-10-2010	Monday

(D) Teaching / Vacations Schedule:

The following schedule shall be followed for the academics in the M. Tech. (CS) courses for the session 2010-2011 in the Department of Computer Science, H.P. University, Shimla:

Regular Teaching			
(i)	I / III Semester	22-10-2010	31-12-2010
		21-02-2011	19-03-2011
Vacation Schedule			
(i)	Winter Vacation	01-01-2011	19-02-2011
(ii)	Summer Vacation	20-06-2011	25-06-2011

Attendance:

In order to be eligible to appear in the University examinations a candidate should have secured 75% attendance in each of the concerned courses in theory as well as practical.