CHAPTER-II

ORDINANCE NO: 11

Choice Based Credit Scheme (CBCS)

(Common to all programs)

(Under Section 35 of the Himachal Pradesh Technical University Act 2014)
(Approved by the Board of Governors and the Academic Council in their meetings held on 25/7/2015 and 21/7/2015 respectively)

1.	**Short title and Commencement**	
	(a)	These ordinances shall be called the "Himachal Pradesh Technical University Ordinances for Bachelor of Technology Programs.
	(b)	They shall come into force with immediate effect.
2.	**SCOPE AND COVERAGE**	
	(a)	The Himachal Pradesh Technical University will offer various courses under different levels of programs within the framework of higher education. All the courses will be conducted through ten (10)levels of programs in the University Departments, recognized institutions and the affiliated colleges. These programs shall be designed by the concerned Board of Studies of the various Departments on the basis of the UGC guidelines and subsequently approved by the Academic Council of the University. The programs shall be conducted at the University Departments, Affiliated Colleges and Recognized institutions within the ambit of the University. The examinations for all semesters of UG and PG programs shall be conducted by the University only. The Examinations for other programs at the Certificate and Diploma levels may be conducted by the colleges and departments as the case may be. The corresponding certificates shall be issued by the University.
	(b)	Choice Based Credit System (herein after called CBCS) and Policy changes such as credit transfer system shall be introduced from the academic session 2015-16that will enable the migration of students to switch between education and jobs and move across the country. Each student has to study core, foundation and elective courses focusing on adding generic proficiency and knowledge enhancement. Students can also take additional courses and acquire more than the required credits.
	(c)	The CBCS shall be applicable to all full-time undergraduate, Post Graduate and Five year integrated Post Graduate Programs of study approved by the Academic Council.
		It is also applicable to any other Program of study approved by the Academic Council that shall be prescribed to follow the CBCS pattern.
		The learning and evaluation is on Semester pattern.
		Eligibility, qualifications and admission procedure for each Program of study shall be as approved by the Academic Council and specified in Information Brochure of the University.

3.		**Definitions**
	(a)	**Programs:** Program is a set of courses that are linked together in an academically meaningful way and generally ends with the award of a Certificate/Diploma or Degree depending on the level of knowledge attained and the total duration of program. Examples include Programs or Courses such as B. Tech, M.Tech, MBA, B.Pharmacy, M. Pharmacy, etc.
	(b)	**Course and Unit:** The course is a component of the program identified by a unique course code. Each course apart from having a course code and syllabus as approved by the respective faculty, has learning objectives and learning outcomes. A course bay be designed to comprise lectures/ tutorials / laboratory work/ field work/ project work/ vocational training/ viva-voce or a combination of these. Students reg1stered for a program must follow the appropriate Course Regulations and take the appropriate courses l1sted for the program. A clear d1stinction is made between the number of credits which a student may attempt in an approved program of study and the credit requirements for the conferral of an award. The standard is based upon the required number and level of the credits. The number of credits to be attempted in a course of study leading to an award is a matter for course developers and the University to determine. A topic within a course is treated as a Unit.
	(c)	**Credit Point:** Credit Points is a numerical value allocated to a course to measure student's workload. It is an index of the number of learning hours deemed for learning of a certain segment. These learning hours broadly classified into hours spent on attending actual lectures/tutorials/laboratory work/seminar etc. and notional hours spent on reading, reflecting, discussing, attending counseling sessions, watching especially prepared videos, writing assignments, preparing for examinations, etc. One credit point corresponds to 25 to 30 learning hours and a single course may be assigned between 2 to 8 credit points taking into account as to how many hours it would take for a learner to complete a single course successfully. The learner is said to have earned the credits on successful completion of the course including the evaluation.
	(d)	**Contact hours:** One teaching period shall be for 60 minutes duration including 10 minutes for discussion/ movement. Tutorial hours per week shall be conducted in addition to regular contact hours for both Hard core and Soft core theory Courses.
	(e)	**Semester System:** Each academic year shall be divided into two semesters each of approx. 6 month durations. Every semester will have number of courses (subjects/papers) that a learner has to study. The learner will be continuously assessed during the semester and evaluated at the end of the semester and the result shall be declared accordingly. Credits will be earned by the student on the successful completion of the course.
4.		**Key Features**
	(a)	**Credit Based System:** The purpose of the credit based system is to deliver skill based education and training to learners and to increase the number of entrants in higher education. The system will provide flexibility for building "Learning Units" through accumulation of credits over time and encourage multi-entry and exit which has truly become a global phenomenon.

	(b)	**Credit Accumulation and Credit Transfer System:** The Credit Accumulation and Transfer Scheme is a system which enables learners to accumulate credit and which facilitates the transfer of that credit within and beyond the providing institutions. Credit transfer typically refers to allowing a student of one program to get admitted to other program within the same or other University for receiving or completing any equivalent degree/diploma on the basis of credits obtained by him/her from the parent University. A student thus admitted to host a university need not study such courses which he/she has already completed and are same or equivalent to courses in the new institution. For such courses appropriate credits would be deemed to have been acquired for, and for purposes of fulfilling the requirements for award of a qualification. Credit transfer schemes are sometimes referred to as 'Horizontal Credit Transfer', 'Vertical Credit Transfer' or Block Credit Transfer.	
	(c)	**Course Exemption and Recognition of Prior Learning:** Occasionally, when two academic programs are offered by a single or by more than one university, the programs may have some common or equivalent course contents. The learner who has already completed one of these academic programs shall be allowed to skip these 'equivalent' courses while reg1stering for the new program .If there are "competency gaps" identified in a candidate, a "bridge course" based on modular curricula may be imparted by the University.	
	(d)	**Levels Descriptors:** The levels relate to modules and units of learning and are indicators of complexity and depth of learning. They are associated with assessment criteria, which specify the threshold standards required for the award of credit for any specific module or unit. The University shall adopt NSQF level descriptors to make the various University programs NSQF compliant. Levels 1-2 will be aligned with ITI level certification, 3-4 with diploma level and levels 5-10 will be merged with HRD system for progression to Bachelor, Master and Doctoral level.	
5.	**Structure of the Program**		
	(a)	The structure and syllabi of the courses shall be as recommended by the respective Boards of Studies and notified by the University from time to time. The course structure in all the programs shall be broadly of four types as under:-	
		(i)	**Core Courses:** The Compulsory Courses are basic/unique to a program and are mandatory for a student to study to become eligible to earn a degree in a given program.
		(ii)	**Elective Courses:** These courses are related to a program and provide choice to a candidate to seek specialized knowledge of allied subjects.
		(iii)	**Foundation Courses:** In addition, to core courses, the student will be exposed to Foundation Courses (FC). These courses will help to understand the challenges and work in a hands-on manner to improve their communication, IT and data analysis skills and learning in inter-disciplinary mode.
		(iv)	**Mandatory Courses:** These are courses that must be completed by the student at appropriate time as suggested by the Faculty Adviser or the DUGC/DPGC. Courses that come under this category are as following:
		(v)	**Practical Training:** The practical training course shall range from a few credits to a full semester course. A

			full-time student will complete the Practical Training or the Minor Project at appropriate time stipulated by DUGC/DPGC and reg1ster for it in the following Semester. The duration and the details, including the assessment scheme, shall be decided by the faculty advisor, with approval from DUGC/DPGC.
		(vi)	**Seminar:** This course is a 2-credit course to be completed at appropriate time stipulated by DUGC/DPGC, The student will make presentations on topics of academic interest.
	(b)		Each course shall have an integer number of credits, which shall reflect its weightage. The credits shall ordinarily be assigned to a course based on the following general pattern:
		(i)	Lectures/Tutorials: One lecture /tutorial per hour per week shall normally be assigned one credit.
		(ii)	Practicals: A three hour of laboratory course per week shall normally be assigned two credits, three hours of contact every alternate week or two hours per week one credit only and two hours every alternate week shall be assigned half credit. similarly six hours of laboratory course per week shall normally be assigned four credits. This is for calculating credits only.
		(iii)	A Lab will cons1st of 12 experiments for a 2 credit lab (one session per week) or 6 experiments for a 1 credit lab (one session per 2 weeks).
		(iv)	Practical training, seminar, project, dissertation, group discussion, comprehensive viva-voce etc. shall have credits calculated by converting the load assigned in terms of equivalent lectures per week.
6.	**Qualification Framework**		
			The qualification frameworks focus on certification assigned to completion and competencies acquired after specific levels that will allow for flexible learning paths by facilitating both credit accumulation and transfer. The qualifications shall be divided into levels and shall be aimed at providing multiple entry and exit point to the students. Such qualifications frameworks shall be mapped onto other national or international frameworks. Table (6.1) gives the Qualification at each level of Framework for Higher education qualifications by the HPTU.

Table (6.1): Qualification at each Level of Framework for Higher Education Qualifications

Sr. No.	Level	Eligibility/Input Criteria	Equivalence	Minimum Duration	Delivery Mode
1.	Level 2	Metric pass Or Level 1	L1 Certification	One year /Two semesters	Regular
2.	Level 3	Level 2	L2 Certification	One year / Two semesters	Regular
3.	Level 4	Level 3 but has to qualify in the Entrance Test	Certificate in Higher Education	One year / Two semesters	Regular

			+2 Certification from any Board and has to qualify in the Entrance Test			
	4.	Level 5	Level 4 Certification of University or Diploma from any recognized Board	Diploma in Higher Education	One year/ Two semesters	Regular
	5.	Level 6 & 7	Level 5 Certification of University	Graduate degree	Two years/Four semesters	Regular
	6.	Level 8	Level 7 or Graduate degree from any AICTE approved institution and has to qualify the prescribed Entrance Test	PG Diploma	One year/ Two semesters	Regular
	7.	Level 9	Level 8	PG degree	One year/ Two semesters	Regular
	8.	Level 10	Level 9 or PG degree from any AICTE approved institution	Doctorate	+ X Years	Regular

7. Credit Envelops

(a) There are nationally-recognized volumes of credit for qualifications at all levels of *Framework for Higher Education Qualifications.* One of the key benefits of using a common or similar credit framework is that they will facilitate the student's entry into international education arena and enhance his or her mobility. The details of number of courses and credit requirement for different qualifications are given in Table (7.1).

Table (7.1): Credit Requirement for Qualification Framework

Level	Duration of the Program in Years	Qualification	Minimum credits required for the award of Qualification	Delivery Mode
2	One	L1 Certification	40	Regular
3	Two	L2 Certification	40	Regular
4	One	Certificate in Higher Education	40	Regular
5	One	Diploma in Higher Education	40	Regular
6 & 7	Two	Graduate degree (B. Tech)	80	Regular

	8	One	Honor's Degree/PG Diploma	34	Regular
	9	One	Master's Degree (M. Tech, MBA)	72	Regular
	10	-	Doctorate	180	Regular

8.	**Admission and Reg1stration Criteria**	
		Admissions to different programs offered by the University shall be made as per admission criteria notified by the competent authority from time to time. There shall be multiple entry and exit points. However, students who seek deferral at any time must resume the study within three years to complete the certification for the respective level.
		Admission shall close by notification or through academic calendar on a particular date. A candidate has to reg1ster for the courses on the dates notified before the commencement of instructions for the first semester. A student shall be allowed to attend classes only for those courses for which he/she has reg1stered.
9.	**Attendance**	
	(a)	A student must attend every lecture, tutorial and practical class. To account for approved leave of absence (e.g. representing the University in sports, games or athletics, placement activities, NCC/NSS activities etc.) and /or any other such contingencies like medical emergencies etc., the attendance requirement shall be a *minimum* of 75% of the classes actually conducted. However, the Vice Chancellor may condone attendance to an extent of 10% only in special cases. Each course of semester shall be treated as a separate unit for calculation of the attendance.
	(b)	A candidate, who does not satisfy the attendance requirement, mentioned in **Sub-Clause 9 (a)** as above, shall not be eligible to appear for the Examination of that course and shall be required to repeat that course whenever it will be offered.
	(c)	The Head of the Department will notify regularly, the subject wise l1st of such candidates who fall short of attendance. At the end of semester, the l1st of the candidates falling short of attendance shall be sent to the Reg1strar (Evaluation) with a copy to Reg1strar of the University at least one week prior to the commencement of the examination.
10.	**Grading System**	
	(a)	Each student shall be awarded a letter grade in each subject which he/she completes successfully at the end of the semester by converting the total marks obtained into a letter grade.
	(b)	The letter grade and the grade point to each student studying a course shall be awarded based on the stat1stical parameters, mean ($\bar{x}$) and standard deviation (σ) of the d1stribution of marks. These parameters are defined as follows:

$$\bar{x} = \frac{\sum_{i=1}^{n} x_i}{n} \qquad \sigma = \sqrt{\frac{\sum_{i=1}^{n}\left(x_i - \bar{x}\right)^2}{(n-1)}}$$

where x_i is the aggregate of marks obtained both from continuous assessment if applicable and the end semester assessment by the student in a course. n is the number of students appeared in the course.

(c) Relative grading will be followed if the number of students reg1stered for a course is greater than 10 (Table 10.1).

Table 10.1

Total Marks secured by the Candidate	Grade	Point Value of Grade	Qualitative Assessment
$x_i \geq \left(\bar{x} + 1.75\sigma\right)$	O	10	Outstanding
$\left(\bar{x} + 1.00\sigma\right) \leq x_i < \left(\bar{x} + 1.75\sigma\right)$	E	9	Excellent
$\left(\bar{x} + 0.25\sigma\right) \leq x_i < \left(\bar{x} + 1.00\sigma\right)$	A	8	Very Good
$\left(\bar{x} - 0.50\sigma\right) \leq x_i < \left(\bar{x} + 0.25\sigma\right)$	B	7	Good
$\left(\bar{x} - 1.25\sigma\right) \leq x_i < \left(\bar{x} - 0.50\sigma\right)$	C	6	Average/Fair
$\left(\bar{x} - 2.0\sigma\right) \leq x_i < \left(\bar{x} - 1.25\sigma\right)$	D	4	Pass (minimum pass grade)
$x_i < \left(\bar{x} - 2.0\sigma\right)$	F	-	Unsatisfactory (fail)
-	I	-	Incomplete/Detained due to Shortage of attendance.
-	Z	-	Absent in the End Semester/ Pending due to other reasons
-	S	-	Grade "S" is awarded on satisfactory completion of extra-curricular or general Proficiency activity.
-	U	-	Grade "U" is awarded for not completing extra-curricular or general Proficiency activity satisfactorily.

(d) If the number of students reg1stered for a course is ≤ 10, absolute grading system will be followed (Table 10.2).

Table 10.2:

Total Marks secured by the Candidate	Grade	Point Value of Grade	Qualitative Assessment
91 and above	O	10	Outstanding
81 and above but less than 91	E	9	Excellent
71 and above but less than 81	A	8	Very Good
61 and above but less than 71	B	7	Good
51 and above but less than 61	C	6	Average/Fair
40 and above but less than 51	D	4	Pass (minimum pass grade)
Below 40	F	-	Unsatisfactory (fail)

(e) The minimum grade for successfully completing a theory subject is "D", Practical/ Project/Seminar will be "C" and for extra-curricular activities "S".

(f) A student is considered to have completed a course successfully and earned the credits if he / she secures a letter grade other than F, I , Z or U in that Course.

(g) In a laboratory course, if a student obtains ≥ 51 marks and is graded as 'D' or 'F' based on relative grading, he/she will be graded as 'C'.

(h) A student who obtains 'F' grade has to reappear for the Component-II only. Such a student need not attend the classes and marks obtained in sessional tests, assignments, quizzes and attendance will be carried for the subsequent attempts of the student.

(i) Grade "I" (Incomplete) is awarded to a student if he/she has shortage of attendance or does not obtain the minimum pass marks in the internal assessment (Component-I). Such a student has to re-reg1ster for the course during the summer term or whenever it is offered next.

(j) The grade "Z" is awarded to a candidate if he/she is reported to have compelling grounds to absent himself/herself from the end semester examination on account of:

(i) Illness or accident which disabled him from appearing at the examination or

(ii) Any exigency in the family at the time of the examination, which, in the opinion of the Institute, required the student to be away from the campus

Provided his/her attendance and performance in internal assessment are complete and satisfactory. Such a student shall have to appear only in the end semester examination only during the summer term or along with the next semester examinations provided he/she reg1sters for the same. The grade shall be converted in to appropriate letter grade depending upon his/her combined performance in the sessional and end semester examination.

	(i)	**Transitional Grades U:** A student who has been awarded "U" grade in extra-curricular or general proficiency activity will have to reg1ster for the same and improve his/her performance. The grade "U" will be converted to grade "S" on satisfactory completion of the activity.
11.	**Performance Indices**	
	(a)	At the end of every semester, a student's academic standing shall be determined by **Semester Grade Point Average (SGPA), and a Cumulative Grade Point Average (CGPA).**
	(b)	The SGPA is the credit-weighted average of grade points of all courses pursued by the student during a semester and is computed as follows: $$SGPA = \frac{\sum_{i=1}^{n} C_i G_i}{\sum_{i=1}^{n} C_i}$$ where, 'C_i' is the course Credits allotted to ith subject, 'G_i' the grade-points earned and 'n' is the number of courses pursued by the student during the semester. It would indicate the performance of the student in the semester to which it refers.
	(c)	The CGPA is the credit-weighted average of grade points of all courses except "Graduating Course" passed by a student in all the semesters since admission. Starting from the second semester, at the end of each semester S, a Cumulative Grade Point Average (CGPA) will be computed for every student as follows: $$CGPA = \frac{\sum_{i=1}^{m} C_i G_i}{\sum_{i=1}^{m} C_i}$$ where, 'm' is the total number of subjects the student has reg1stered from the first semester onwards up to and including the semester S.
	(d)	Both SGPA and CGPA will be rounded off to the second place of decimal and recorded as such.
12.	**Credit Transfer And Accumulation**	
	(a)	University offers Credit Accumulation and Credit Transfer frame work for promoting and facilitating inter University transfer and mobility of students across different Indian and Foreign Universities and Educational institutions.
	(b)	The courses credited elsewhere, in Indian or foreign University/Institutions/ Colleges by students during their study period at HPTU or in its affiliated colleges/Institutions may count towards the credit requirements for the award of degree. The credits transferred will reduce the number of courses to be reg1stered by the student.
	(c)	The maximum number of credits that can be transferred by a student shall be limited to 20.

	(d)	B.Tech students with cons1stent good academic performance and CGPA ≥ 7.5 can credit courses approved by the concerned DUGC of the program, in other Institutions during 3rd and 4th year and during summer breaks.	
	(e)	PG students with cons1stent good academic performance and CGPA ≥ 7.5 can credit courses, approved by the concerned DPGC of the program in other Institutions during the summer vacation /project work.	
	(f)	The University will accept the transfer of credits earned by a student from the following Institutions/Universities only:	
		(i)	Universities recognized under section 12(b) of the UGC Act.
		(ii)	Universities as members of the Association of Indian Universities.
		(iii)	Institutions established by the State and Central Governments.
		(iv)	Any Industry/Organization/Institution/University which has an Agreement/ MOU with HPTU.
	(g)	A student must provide all details (original or attested authentic copies)such as course contents, number of contact hours, course instructor /project guide and evaluation system for the course for which he is requesting a credits transfer. These details will be evaluated by the concerned departmental academic bodies (DUGC or DPGC) to decide the number of equivalent credits the student will get for such course(s) in HPTU before giving the approval. The complete details will then be forwarded to Dean (A) for approval.	