ORDINANCES FOR

BACHELOR OF TECHNOLOGY

(Effective from the session 2017-18 to all B. Tech. programmes of the University)

APPROVED BY

The Academic Council in its meeting held on April 04, 2018 &
The Executive Council in its meeting held on April 10, 2018



HARCOURT BUTLER TECHNICAL UNIVERSITY KANPUR-208002 (UP) – INDIA

Dean Academic Affair HBTU Kanpur

First Ordinances

In pursuance of the provision of Section 45 (1-3) of the Uttar Pradesh Harcourt Butler Technical University, Kanpur Act, 2016, these are the first Ordinances for Harcourt Butler Technical University, Kanpur:

1. INTRODUCTION

Short Title, Commencement and Definitions

- **1.1** These Ordinances shall be called the First Ordinances, 2017 of Harcourt Butler Technical University, Kanpur.
- 1.2 They shall come into force from session 2017-18 for new entrants.
- **1.3** Anything contained in Ordinances in violation to provisions of Act shall be void, and the provisions of Act shall prevail.
- 1.4 In these Ordinances, unless the context otherwise requires,
 - a) 'Act' means the Uttar Pradesh Harcourt Butler Technical University Act, 2016 as amended from time to time.
 - b) 'Section' means a section of the Act.
 - c) 'Clause' means a clause of the Ordinances.
 - d) 'University' means the Harcourt Butler Technical University, Kanpur.
- **1.5** Words and expression used herein but not defined in the Act shall have the same meaning as assigned to them in the Act.
- 1.6 The admission of students, eligibility to various courses of study, qualifications, attendance, registration, course structure, grading system, award of degrees, certificates, medals and other academic distinctions are covered in these Ordinances.
 - a) The 'University' may start other Degree, Diploma, Certificate programmes and other academic distinctions as deemed necessary for fulfilling its objectives. The Ordinances for the same shall be as prescribed by the Academic Council and the Executive Council.
 - b) The 'Courses of Study' shall be as prescribed by the Academic Council and approved by the Executive Council.
 - c) Fellowships and Awards shall be instituted as per the requirements with approval of the Vice Chancellor under intimation to the Academic Council and the Executive Council.

2. SCHOOLS AND PROGRAMMES OF STUDY

The University offers various B. Tech. programmes under different Schools of the University as detailed hereunder:

- A. School of Engineering
 - B. Tech. (Electronics Engineering)
 - B. Tech. (Electrical Engineering)
 - B. Tech. (Mechanical Engineering)
 - B. Tech. (Civil Engineering)
 - B. Tech. (Computer Science & Engineering)
 - B. Tech. (Information Technology)

- B. School of Chemical Technology
 - B. Tech. (Chemical Technology-Plastic Technology)
 - B. Tech. (Chemical Technology-Paint Technology)
 - B. Tech. (Chemical Technology- Oil Technology)
 - B. Tech. (Chemical Technology-Biochemical Engineering)
 - B. Tech. (Chemical Technology- Leather Technology)
 - B. Tech. (Chemical Technology- Food Technology)
 - B. Tech. (Chemical Engineering)
- C. School of Basic and Applied Sciences

Presently, no course is offered at the undergraduate level.

D. School of Humanities and Social Sciences

Presently, no course is offered at the undergraduate level.

3. ADMISSIONS

- **3.1** The University offer full time B. Tech. Degree programmes in various disciplines of Engineering and Technology.
- 3.2 Admissions to B. Tech. programmes shall be made as per the rules prescribed by the University from time to time.
- 3.3 The admissions shall be based on the merit of the candidate in JEE (Main) / any other National level entrance examination.
- 3.4 Admission to B. Tech. programme through lateral entry for Diploma holder candidates is allowed directly in Second year (third semester). The admissions shall be based on the merit of the candidates in the National level entrance examination conducted by the University.
- 3.5 The reservation policy as prescribed by the U.P. State Government or its directions regarding admissions issued from time to time shall be adhered to by the University.
- 3.6 A total of 20% supernumerary seats shall be reserved for candidates from outside the state of Uttar Pradesh. For such candidates, the domicile criterion of UP shall not be applicable. However, reservation norms (only vertical reservation) for other state candidates shall remain the same. This clause shall come into effect only after due approval from the State Government.
- 3.7 Admission of a candidate from any other University to Harcourt Butler Technical University on migration shall not be permitted.
- 3.8 If at any time after admission, it is found that a candidate has not fulfilled all the requirements stipulated in the offer of admission or has resorted to some fraudulent means to obtain admission, the University reserves the right to cancel the admission of the candidate.

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4. ELIGIBILITY

Qualifications for admission to B. Tech. programme shall be as per the provisions of the Ordinances and decisions of the Admission Committee of the University.

4.1 Admission through Entrance Examination

The candidate should have passed 12^{th} standard of U.P. Board or (10 + 2) examination from any other board with a minimum aggregate of 60% marks (55% in case of the candidates belonging to SC/ST category) in Physics, Chemistry and Mathematics without grace in any of these subjects. In addition, candidate should have studied a minimum of five subjects (including the above three and English) in his / her qualifying examination. In addition, all other eligibility conditions for appearing in JEE (Mains) examination shall be applicable to the candidates.

4.2 Direct Admission to Second Year through Lateral Entry Scheme

Candidates who have passed 3 or 4 year Diploma with a minimum 60% marks from institutions recognized by the U.P. Board of Technical Education or equivalent in the same branch of Engineering / Technology as the one in which he / she intends to take admission in B. Tech. programme shall be eligible for admission directly to the second year. The admission under this category shall be made through a National level entrance examination conducted by the University.

5. PROGRAMME DURATION

- **5.1** The duration of all B. Tech. programmes shall be four academic years (eight semesters).
- 5.2 The duration for Diploma holder candidates admitted through lateral entry in second year shall be of three academic years (six semesters).
- 5.3 The maximum duration for completion of B. Tech. programme is six years while for Diploma holder candidates it shall be five years. Additional relaxation of one year may be granted by the Vice Chancellor on case to case basis on specific recommendation of respective Head of the Department, concerned Dean of School and Dean of Academic Affairs. Admission of the candidates who are not able to complete their degree requirements in above period shall automatically be cancelled.
- **5.4** Each semester shall have a minimum of 90 working days (including the days of examinations) or as prescribed / amended by AICTE / UGC from time to time.
- 5.5 There shall be two regular semesters in an academic year. The semester that begins in July (July to December) is known as the Odd Semester and the one that begins in January (January to May) is known as the Even Semester.

6. CHANGE OF BRANCH

6.1. Change of branch amongst the students in First year (having same eligibility qualifications) shall be allowed after the last date of admission in First semester of the B. Tech. programmes on the basis of respective category wise merit in the JEE (Mains) against the vacant seats subject to Clause 6.3.

- 6.2 Change in branch shall also be allowed in the Second year (III semester) on the basis of performance in B. Tech. First year examinations (both semesters) and branch choice preference for those who pass without any Carryover, subject to the guidelines prescribed by AICTE / Government.
- 6.3 After change of branch, the number of students in that branch shall neither fall below the sanctioned intake by more than seventy five percent nor go above the sanctioned intake. For this purpose, the intake refers to the total sanctioned intake in the class inclusive of NRI students but excluding the admissions granted on supernumerary seats such as the Government nominees, PMSSS, Kashmiri migrants students etc. The branch change option shall not be applicable to the NRI candidates, Government nominees and any other supernumerary seats.
- **6.4** A candidate admitted under Fee-Waiver category shall not be eligible for branch change.
- 6.5 The last date of branch change in the III semester shall be August 31st of that year.
- **6.6** Further change of branch (after III semester) shall not be allowed in any case.

7. ATTENDANCE

- **7.1** Students are required to attend all the classes lectures, tutorials, practicals and other prescribed curricular and co-curricular activities. However, a condonation of 25 per cent in attendance in a subject may be granted in normal course during the semester.
- 7.2 A further relaxation upto 15 percent can be granted by the Dean of Academic Affairs / Vice Chancellor on specific recommendations of the concerned Head of the Department and Dean of School, provided that the student has been absent on medical grounds and / or due to any exigencies beyond the control of the student. However, such absence will require prior permission from the concerned Head of the Department and the Dean of School.
- 7.3 No student shall be allowed to appear in the Mid Semester / End Semester Examination of a subject, if he / she does not have requisite 75 percent (or requisite 60% after availing relaxation as per the provisions of Clause 7.2) in that subject. Students not allowed to appear in the examination due to poor attendance shall be awarded "U" grade. Such candidates shall have to fulfill the eligibility of minimum attendance by re-registering afresh in that subject in subsequent years and clear the subject.
- **7.4** The attendance shall be counted from the date of start of academic session or the actual date of admission / registration. The commencement of classes shall begin one day after the date of registration.

8. CURRICULUM STRUCTURE

8.1 The University follows a credit-based semester system. Every programme shall have a specific curriculum for all semesters (semester I to semester VIII) with a prescribed syllabi consisting of theory, practical, seminar and project work etc. Semester wise course structure for all the B. Tech. programmes of study have a total of 172 Credits

distributed in eight semesters. All the departments are allowed minor modifications / adjustments in course distributions. Different types of courses and their credits are listed in Table 1.

Table 1. Different types of courses and their credits

Different types of courses	Minimum Credits
Basic Science Courses (BSC)	24
Engineering Science Courses (ESC)	26
Hum., Social Sc. & Management Courses (HSMC)	11
Program Core (PCC)	61
Program Elective (PEC)	19
Open Elective Courses (OEC)	13
Seminar	2
Industrial Training	2
Project	14
Mandatory Courses (MC)	No Credits
Total	172

* Upto 20% Elective Courses only may be offered through Massive Open Online Courses (MOOC). The evaluation of such courses shall be through in-house examination. Subject Coordinators will nominated for evaluation of Mid Semester and End Semester Examinations.

Each course is assigned a certain number of credits depending upon the workload for a subject per week. One hour lecture / tutorial is equivalent to one credit while 2 hours practical / project work is equivalent to one credit. First year students have a workload of 20 credits per semester while second year and onwards a work load of 22 credits per semester. Total workload for all B. Tech. degree programmes of the University is uniformly 172 credits.

8.2 Seminar

Seminar is a course wherein a student is expected to do an in-depth study on upcoming field of the respective branch and present it before a duly constituted Department Committee. The study shall involve the state of the art, principles, design criteria and practical applications of the topic.

8.3 Industrial Training

As a part of the curriculum, the students shall have to undergo a 4-6 weeks industrial / practical training at the end of VI semester. This practical training could be carried out in an industry, research organizations, other institute or any other organization of repute in the subject domain. Once the practical training is complete, the student shall have to submit a Report cum Training Dairy to the concerned Head of Department through the Incharge, Practical Training. The evaluation of Practical Training shall be done in the VII semester by a duly constituted Department Committee.

8.4 Mandatory Courses

These are courses which do not carry any credits but a student has to pass in order to be eligible for award of degree.

8.5 NSS Training

Participation in National Service Scheme (NSS) training is compulsory for all the Undergraduate Students. The activities under NSS are designed for character building and to sensitize the students towards social / national issues. Students are required to complete the NSS requirements within the first six semesters. These activities shall normally be conducted during evenings on the week days or Sundays / Holidays. These activities carry no credits but a student should obtain 'S' grade for a satisfactory performance in NSS. The students are also required to participate in Games & Sports / Cultural / Literary / Field Activities under the domain of University Student Activity Council (USAC). These activities carry no credits but a student should obtain 'S' grade for a satisfactory performance in Games & Sports / Cultural / Literary / Field Activities.

9. GRADING AND EVALUATION SCHEME

9.1 Grading System

Student is evaluated out a maximum mark of 100 in each subject. On the basis of marks obtained by the student in the subject, grades shall be awarded as per the grading scheme presented in Table 2. On the basis of performance of the students in all the subjects offered during the semester, Semester Grade Point Average (SGPA) is calculated.

9.2 Evaluation Scheme

The evaluation of performance shall comprise of continuous assessment throughout the semester in the Mid Semester Examinations, End Semester Examinations, Attendance in class and Teacher Assessment through class work and Tutorials. Evaluation scheme is presented in Table 3, 4 & 5 for different types of courses.

Description

Table 2: Grading Scheme

Marks (Out of 100)

Grade Obtained

Grade Points

	100)	Grade Obtained	Points	Bescription
	90 and above	A1	10	Outstanding
	80 and above	A	9	Excellent
	70 and above	В	8	Very Good
	60 and above	C	7	Good
	50 and above	D	6	Average
	40 and above	P	5	Barely Passed
	Less than 40	F	0	Fail
Ŋ		W		Withdrawn
8/1	1	U		Short Attendance
8		I		Incomplete
		S		Satisfactory

9.3 Calculation of SGPA and CGPA

The performance of a student shall be evaluated in terms of two indices; viz. the Semester Grade Point Average (SGPA) which is the Grade Point Average for a semester and Cumulative Grade Point Average (CGPA) which is the Grade Point Average for all the completed semesters at any point in time considered cumulatively.

SGPA =
$$\frac{\sum \text{(Total Credits of respective subject } \mathbf{X} \text{ Grade Point earned in the subject)}}{\text{Total Credits offered during Semester}}$$

Cumulative Grade Point Average (CGPA)

The CGPA is calculated on the basis of all passed courses with 'P and above grades' except courses in which 'S' grade is awarded in all completed semesters.

9.4 Award of Division

8.000 or above First Division with Honors

6.500 or above First Division 5.000 or above Second Division

9.5 Conversion of CGPA to Absolute Percentage

 $CGPA \times 10 = Absolute Percentage$

Table 3: Evaluation Scheme for Theory Courses & Theory cum Laboratory Courses

Sr.	Course Title	Sessional Marks				ESM	Total	
No.		MSE	AT	TA	Lab	Total		Marks
1.	Theory Course X (L-T-P)	30	10	10	-	50	50	100
2.	Theory cum Lab. Courses X (L-T-P)	15	10*	10*	15	50	50	100

^{*} To be divided equally in Theory and Laboratory classes.

Table 4: Evaluation Scheme for Seminar and Industrial Training

Sr. No.	Course Title	Quality of Seminar Topic / Organization of practical training	Presentation & Viva voce (two numbers in each semester, 25 marks each)	Attendance	Total marks
1	Seminar 2(0-0-4)	30	50	20	100**
2	Industrial Training 2(0-0-4)	30	50	20	100**

The evaluation of all internal presentation shall be carried out by a Department Committee.



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Table 5: Evaluation Scheme for Project Work

Sr. No.	Course Title	Identification, Quality and innovativeness of Problem	Presentation & Viva voce (two numbers in each semester, 25 marks each)	Attendance	Total marks
1.	Project (VII Semester) 4(0-0-8)	30	50**	20	100
2.	Project (VIII Semester) 10(0-0-20)	-	30*+50***	20	100

^{*} Internal Presentation in VIII Semester shall be of 30 marks.

9.6 Make-up Examination

Students who are not able to appear in Mid Semester Examination for genuine reasons such as hospitalization or representing the University for sports meet / conference etc. are required to seek prior permission from their Head of Departments and Dean of the concerned school for grant of make-up examination. They may be permitted only one Make up examination. The Make-up test will be conducted one week before the End Semester Examination and shall cover the whole syllabus covered up to that point of time.

9.7 Grant of Permission for Extended Internship

In case, a student gets an opportunity for Extended Internship / Industrial Project in India / Abroad for a period of six months after VII semester, he / she may be allowed to complete his course work through Massive Open Online Courses (MOOC). In such situations, the modalities / grant of permission will be decided on case to case basis by the Vice Chancellor on the specific recommendations of Head of the Department and Dean of concerned School.

10. CARRYOVER EXAMINATION

- **10.1.** Student with F grade in any subject shall be required to appear in the Carryover Examination along with regular End Semester Examination in the subsequent years. However, the sessional marks obtained by these students will remain the same as earned in the first attempt.
- **10.2.** For the benefit of passing out students, there shall be a special examination in the month of July (only for final year students after the declaration of final result). These students having carryover in any subjects shall be eligible to appear in this special examination.

11. ACADEMIC CRITERIA FOR CONTINUATION

11.1 First year student must secure a minimum CGPA of 3.500 in order to be promoted to next year. If a student fails to fulfill this requirement of 3.500 CGPA, he / she shall be considered 'Fail' and have to repeat the First year by taking readmission





^{**} The evaluation of all internal presentation shall be carried out by a Department Committee

^{***} Evaluation of VIII Semester B. Tech. project shall be carried out by Committee comprising of the Head of Department, Supervisor and an External Examiner.

in the subsequent academic year. If a student after taking readmission again fails to fulfill the requirement of 3.500 CGPA, his / her registration shall stand cancelled and such students shall have to leave the B. Tech programme.

11.2 Students of Second year and onwards shall have to maintain a minimum CGPA of 5.000 at the end of each year, failing which he / she shall be considered 'fail' and have to repeat the year after taking readmission in the same class by paying full fee.

12. AWARD OF DIVISION, RANK AND MEDALS

- 12.1 A candidate who completes the course requirements for B.Tech. programme securing 'P and above grades' in all the courses in the stipulated maximum duration for the B. Tech. programme shall be declared to have qualified for the award of degree subject to the fulfillment of the requirements of **Clause 11**.
- 12.2 A candidate who qualifies for the award of the degree securing 'P or above grades' in all the subjects in his / her first attempt in eight consecutive semesters (six consecutive semesters for Lateral Entry) and secures a CGPA of 8.000 or above shall be awarded FIRST DIVISION WITH HONOURS.
- 12.3 A candidate who qualifies for the award of the degree by securing 'P or above grades' in all the subjects in the stipulated maximum duration for the B.Tech. programme and secures a CGPA not less than 6.500 shall be awarded FIRST DIVISION.
- 12.4 All other candidates who qualify for the award of degree by securing 'P or above grades' in all subjects in the stipulated maximum duration for the B.Tech. programme and secures a CGPA less than 6.500 shall be awarded SECOND DIVISION.
- 12.5 Best three performers in each branch of study will be awarded rank in form of Certificate of Merit. It is mandatory for such candidates to pass all the subjects in first attempt. The overall topper amongst all branches of study will be adjudged 'University Topper' on the basis of highest CGPA.
- **12.6** Following Medals shall be awarded annually by the University to the passing out students:

a. Chancellor's Gold Medal

'University Topper' of all B. Tech. programmes who secures highest CGPA at the end of eight semesters in first attempt will be awarded Chancellor's Gold Medal.

b. Vice-Chancellor's Gold Medal

A student securing highest CGPA at the end of eight semesters in first attempt in their his / her branch will be awarded Vice-Chancellor's Gold Medal.

c. Vice-Chancellor's Silver Medal

A student securing second highest CGPA at the end of eight semesters in first attempt in his / her branch will be awarded Vice-Chancellor's Silver Medal.

d. Vice-Chancellor's Bronze Medal

A student securing third highest CGPA at the end of eight semesters in first attempt in his / her branch will be awarded Vice-Chancellor's Bronze Medal. This Medal will be awarded only in the branches where the sanctioned intake is 60 or more.



13. REGISTRATION AND ENROLMENT

- 13.1 The students must register at the beginning of each semester on the prescribed dates announced in the Academic Calendar, student till she / he completes the programme. If a student does not register in a particular semester, her / his studentship is liable to be cancelled. Without registration, any academic activity undertaken by a student shall not be considered towards the fulfillment of requirements of her / his degree.
- 13.2 Registration should be carried out by the student himself / herself on stipulated date. A student is allowed registration for 10 working days including the date of registration with a fine of Rs.100 per day after which the student's name will be struck off from roll. Such students shall have to register at the start of next academic session.
- 13.3 Every student admitted shall have his / her unique Roll number. The roll number shall have nine digits. First two digit shall indicate the year of admission; next two the degree programme; next two the branch of study, and last three digits the serial number of students. Every student shall be identified by this roll number throughout his stay in the University.
- 13.4 Students having any kind of outstanding dues to the University or hostel shall be permitted to register only after clearing the outstanding dues.
- 13.5 In-absentia registration may be allowed only in rare cases with the permission of the Vice- Chancellor in case of serious illness / natural calamities / unavoidable circumstances upon the recommendation of Dean of Academic Affairs.
- 13.6 Every student admitted and registered in the University shall be required to submit the enrollment form within one month of registration for getting enrolled with the University. Non-compliance will lead to cancellation of admission.

14. TEMPORARY DISCONTINUATION OF COURSE

- 14.1 Discontinuation of the course shall not be allowed to B. Tech. first year students. However, if a student of other years wishes to temporarily discontinue the course for valid reasons, she / he shall apply through the Head of Department, Dean of concerned School and Dean of Academic Affairs to the Vice Chancellor in advance and obtain a written order to this effect.
- 14.2 A candidate after temporary discontinuance may rejoin the course only at the commencement of the semester at which she / he discontinued, provided he / she pays the prescribed fees to the University for the discontinuation period also. The total period of completion of the course reckoned from the commencement of the first semester to which the candidate was admitted shall not, in any case, exceed six academic years (five academic years for lateral entry), including the period of discontinuance shall be governed as per the provisions of Clause 2.3.

15. USE OF UNFAIR MEANS

- 15.1 If the student is found using unfair means in the Mid Semester Examination and the material recovered is relevant to the subject / paper, the Mid Semester Examination of this subject will be cancelled and 'zero' marks will be awarded.
- 15.2 If the student is found using unfair means in the End Semester Examination and unauthorized material is found with the student in form of written document, mobile phone, electronic gadget like Bluetooth device, programmable calculators etc, his / her entire End Semester Examination of all subjects will be cancelled and 'zero' marks will be awarded in all the subjects.
- 15.3 If the student is found possessing substantial cheating material in the form of notes, books or in soft form such as Bluetooth device, programmable calculators etc in End Semester Examination, his / her entire semester will be scrapped out and he / she will not be allowed to register in the next semester.
- 15.4 In addition to either of the above charges, if a student is found misbehaving with the teachers / staff or creating indiscipline in the examination premises, provision of punishment of para '15.3' shall apply.
- 15.5 For the cases not covered in above paras '15.1 to 15.4', the Board of Examination of the University shall decide suitable punishment to the student on case to case basis.

16. GENERAL ELIGIBILITY FOR AWARD OF B. TECH. DEGREE

A student shall be declared to be eligible for award of the B. Tech. Degree if he / she has:

- a. Registered and successfully passed with 'P and above grades' in all the courses and all other requirements of the programme as prescribed in the Ordinances or as prescribed by the University from time to time.
- b. Completed the NSS and Games and Sports, Cultural / Literary activities.
- c. Has no dues to the University, Hostels, Library and USAC etc., and
- d. No disciplinary action is pending against the student.

17. POWER TO MODIFY

Not with standing all that has been stated above, the Academic Council of the University has the right to modify partly or completely the provisions of above Ordinances with the approval of the Executive Council. Under extreme exceptional circumstances arising out of certain inconsistency in the Ordinance or otherwise, the Vice-Chancellor can take suitable decision in deference to the laid down provisions, provided standard of evaluation is not compromised and the same shall be reported to the ensuing Academic Council/Executive Council with suitable justification. Such actions of the Vice Chancellor shall not be treated as precedence under any circumstance.

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