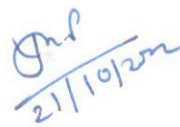


**Semester Wise Course Structure & Evaluation Scheme
(School of Engineering)- 2022-23
B.Tech. Information Technology
Harcourt Butler Technical University, Kanpur**

(As per NEP-2020)




21/10/22


21/10/22


21/10/22


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III Semester

Sl no.	Course Type	Subject Code	Course Title	Credits (L-T-P)	Sessional Marks				ESE	Total Marks
					MSE	TA	Lab	Total		
1	BSC		Engineering Math-II	4 (3-0-2)	15	20	15	50	50	100
2	ESC		Digital Electronics	4 (3-0-2)	15	20	15	50	50	100
3	PCC		Data Structures using C	5(3-1-2)	15	20	15	50	50	100
4	PCC		Python Programming	4(2-1-2)	15	20	15	50	50	100
5	PCC		Computer Organization	3(2-1-0)	30	20	-	50	50	100
6	PCC		Introduction to Emerging Technologies in ICT	4(3-1-0)	30	20	-	50	50	100
Total Credits					24					600

IV Semester

Sl no.	Course Type	Subject Code	Course Title	Credits (L-T-P)	Sessional Marks				ESE	Total Marks
					MSE	TA	Lab	Total		
1	BSC		Engineering Maths-III	4(3-1-0)	30	20	-	50	50	100
2	ESC		Internet & Web Technology	4(3-0-2)	15	20	15	50	50	100
3	PCC		Principles of Programming Languages	4(3-1-0)	30	20	-	50	50	100
4	PCC		Software Engineering	5(3-1-2)	15	20	15	50	50	100
5	PCC		Operating Systems	4(3-1-0)	30	20	-	50	50	100
6	HSMC		Engineering Economics & Management	3(2-1-0)	30	20	-	50	50	100
Total Credits					24					600

V Semester

Sl no.	Course Type	Subject Code	Course Title	Credits (L-T-P)	Sessional Marks				ESE	Total Marks
					MSE	TA	Lab	Total		
1	PCC		Computer Networks	4(3-0-2)	15	20	15	50	50	100
2	PCC		Data Base Management Systems	4(3-0-2)	15	20	15	50	50	100
3	PCC		Design and Analysis of Algorithms	4(3-0-2)	15	20	15	50	50	100
4	PCC		Theory of Automata and Formal Languages	4(3-1-0)	30	20	-	50	50	100
5	PCC		Data Science	4(3-0-2)	15	20	15	50	50	100
6	*OEC-I		Open Elective-i	2(2-0-0)	30	20	-	50	50	100
Total Credits					22					600

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OEC1:

1. Human Values
2. Cyber Security
3. Indian Knowledge Tradition
4. Environment and Ecology
5. One course offered by each degree awarding department
6. One course offered by each School of basic & Applied Sciences
7. One course offered by School of Humanities & social Sciences

VI Semester

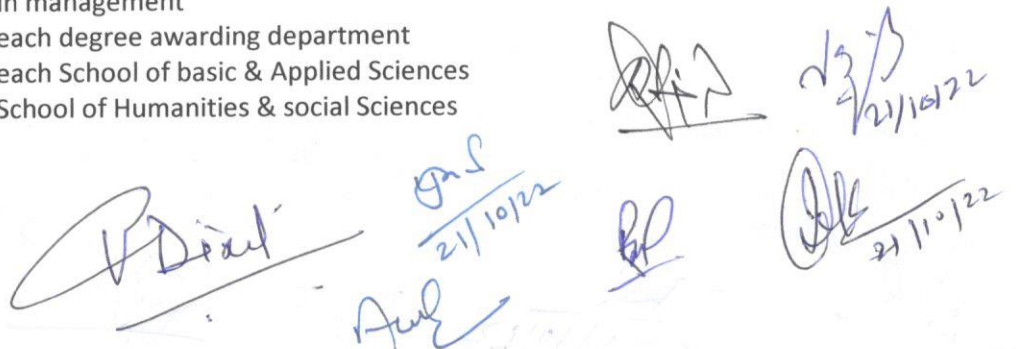
Sl no.	Course Type	Subject Code	Course Title	Credits (L-T-P)	Sessional Marks				ESE	Total Marks
					MSE	TA	Lab	Total		
1	PCC		Compiler Design	4(3-1-0)	30	20	-	50	50	100
2	PCC		Object Oriented Programming Systems	4(2-1-2)	15	20	15	50	50	100
3	PCC		Computer Graphics	4(2-1-2)	15	20	15	50	50	100
4	PCC		Artificial Intelligence	4(3-1-0)	30	20	-	50	50	100
5	PEC-I		Programme Elective-I	4(3-1-0)	30	20	-	50	50	100
6	HSMC		Entrepreneurship	2(2-0-0)	30	20	-	50	50	100
Total Credits					22					600

VII Semester

Sl no.	Course Type	Subject Code	Course Title	Credits (L-T-P)	Sessional Marks				ESE	Total Marks
					MSE	TA	Lab	Total		
1	*PEC-II		Programme Elective-II	4 (3-1-0)	30	20	-	50	50	100
2	*PEC-III		Programme Elective-III	3(2-1-0)	30	20	-	50	50	100
3	*PEC-IV		Programme Elective-IV	3(2-1-0)	30	20	-	50	50	100
4	Seminar		Seminar	2(0-0-4)	-	20	30	50	-	50
5	Industrial Training		Industrial Training	2(0-0-4)	-	-	-	-	50	50
6	Minor Project		Minor Project	6(0-0-12)	-	20	30	50	50	100
7	OEC-II		Open Elective-II	2 (2-0-0)	30	20	-	50	50	100
Total Credits					22					600

OEC-II:

1. Soft Computing
2. Artificial Intelligence
3. 3D Printing
4. Logistic and supply chain management
5. One course offered by each degree awarding department
6. One course offered by each School of basic & Applied Sciences
7. One course offered by School of Humanities & social Sciences



 V. Dixit
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VIII Semester

Sl no.	Course Type	Subject Code	Course Title	Credits (L-T-P)	Sessional Marks				ESE	Total Marks
					MSE	TA	Lab	Total		
1	*PEC-V		Programme Elecive-V	4 (3-1-0)	30	20	-	50	50	100
2	OEC-III		Open Elective-III	2(2-0-0)	30	20	-	50	50	100
3	Project		Project	16(0-0-32)	-	100	100	200	200	400
Total Credits					22					600

OEC-III:

1. Robotics
2. Data Sciences
3. Machine learning
4. Sustainable Development
5. One course offered by each degree awarding department
6. One course offered by each School of basic & Applied Sciences
7. One course offered by School of Humanities & social Sciences

Note: (*) 1. The elective courses in the curriculum can be revamped and kept open so that each year the new courses as per industrial needs can be incorporated.

(*) 2. In Final year, during industrial internship, students may be allowed to opt their elective course as MOOCs on NPTEL/ Swayam etc. platform in online mode under the mentorship of Head of the department/faculty member.

The block contains several handwritten signatures and dates in blue ink.
 - Top left: A signature with the name 'Dixit' visible below it.
 - Top center: A signature with the name 'Gaur' written above it and the date '21/10/22' below it.
 - Top right: A signature with the name 'Vishal' written above it and the date '21/10/22' below it.
 - Middle left: A signature with the name 'Dixit' written below it.
 - Middle center: A signature with the name 'Raj' written below it.
 - Middle right: A signature with the name 'Dixit' written below it and the date '21/10/22' below it.
 - Bottom center: A signature with the name 'Dixit' written below it and the date '21/10/22' below it.
 - Bottom right: A signature with the name 'Dixit' written below it.