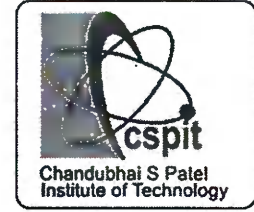




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Analysis of Feedback on Syllabus

AY: 2019-20

● Analysis of Feedback by Teacher

- Some teachers propose changes in the Teaching scheme, and want to add some latest trends used in the current market.

● Analysis of Feedback by Student

- The Teaching Scheme is good to very good as per most of the student's feedback.
- The Examination Scheme is good as per most of the student's feedback.
- Majority of students are satisfied with the updated syllabus.
- As per the feedback of some students, there should not be more than 2 hour's lab work for the same subject in one day.
- Theory and Programming related subjects pedagogy has been revised and focuses more on Practical compared to last few years.

● Analysis of Feedback by Employers

- Add NodeJS and AngularJS as a frontend framework in Web Technologies.
- Cloud technologies and automation should be prior to 7th sem.
- Practical sessions should be more for a few subjects.
- If required funds should be provided to the students for Projects, start-ups, resources etc.

● Analysis of Feedback by Alumni

- Suggestion to incorporate Lab/Practical Session tasks are more connected to the real world rather than just theoretical concepts.
- More weightage to Software Group Projects and real time problems.
- More practical credits required for courses like Web Engineering/Data Science

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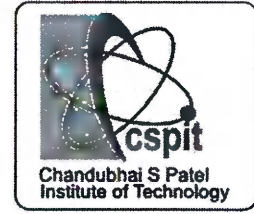
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Summary and Action Taken Report of Feedback on Curriculum

AY: 2019-20

Category	Comments	Action Taken
Alumni	Suggestion to incorporate Lab/Practical Session tasks are more connected to the real world rather than just theoretical concepts.	<ul style="list-style-type: none">Practical lists prepared were more aligned to real world problems.
	More weightage to Software Group Projects and real time problems.	<ul style="list-style-type: none">In each semester SGP is included as a part of curriculum and project definitions are more real-world.
	More practical credits required for courses like Web Engineering/Data Science	<ul style="list-style-type: none">Web Engineering course is offered as practical mode only. Giving more importance to Practical/Web Development.Considered in the 15th BOS 31st Aug,2019.
Employer	Add NodeJS and AngularJS as a frontend framework in Web Technologies subject.	<ul style="list-style-type: none">Talk with faculty members and decide to incorporate it into the next BoS Meeting-2021.
	Practical sessions should be more for a few subjects.	<ul style="list-style-type: none">Some courses pedagogy has been changed to give more focus on Practical.
	If required funds should be provided to the students for Projects, start-ups, resources etc.	<ul style="list-style-type: none">Funds have already been provided and also the university is giving seed money for the projects.
Student	Latest technologies can be offered as an elective course.	<ul style="list-style-type: none">Department started offering all the latest areas relevant to the branch as an elective course in final and pre-final year.Considered in 15th BOS 31st Aug,2019.
	Some latest framework must be included in Web Engineering	<ul style="list-style-type: none">Entire course is conducted in practical mode only and some frameworks like NodeJS/ES6 will be included after getting a nod from BoS.Considered in 15th BOS 31st Aug,2019.
	Number of lab sessions should be increased.	<ul style="list-style-type: none">Department has increased the practical credits of courses which require more practical exposure.Considered in 15th BOS 31st Aug,2019.
Teacher	Modification in, <ul style="list-style-type: none">Teaching scheme,Theory contents,Practical contents of few courses	<ul style="list-style-type: none">Department has considered suggested changes by the teachers into BOS and incorporated it into the new teaching scheme.

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Minutes – 15th Meeting of Board of studies of Department of Information Technology

Date : August 31, 2019

Time : 10:00 am

Venue : Conference Room, Building-II, DEPSTAR, CHARUSAT Campus

The 15th meeting of the Board of studies, Department of Information Technology, FTE, Charotar University of Science & Technology (CHARUSAT) was held on 31st August, 2019 at 10:00 a.m. onwards at conference room, DEPSTAR, CHARUSAT campus.

Following members were remained present:

1.	Dr. Parth Shah	Chairman, BoS	HOD, IT Dept
2.	Dr. Amit Ganatra	Member	Dean, Faculty of Tech & Engg, FTE
3.	Mr. Nikunj Patel	External	Director, TechSmith, Ahmedabad
4.	Mr. Rinkesh Arora	External	Vice President, BITSCAPE, Ahmedabad
5.	Mr. Hasteen Patel	External	Delivery Manager, eInfochips, Ahmedabad
6.	Mr. Dipak Patel	Member	Director, Charley Computers, ahmedabad
7.	Dr. Amit Thakkar	Member	Asso. Prof., CSPIT
8.	Mr. Amit Nayak	Member	Asst. Prof., DEPSTAR
9.	Mr. Nirav Bhatt	Member	Asst. Prof., CSPIT
10.	Ms. Purvi Prajapati	Member	Asst. Prof., CSPIT
11.	Mr. Bimal Patel	Member	Asst. Prof., CSPIT

Initiation:

Head of the Department of Information Technology, Prof. Parth Shah welcomed all the members of Board of Studies to the 15th meeting. He briefed the proposed teaching and examination schemes along with the overall activities carried out by the department during last academic year.

Agenda Proceedings & Resolutions:-

Item 15.01: For Discussion and Approval;

To approve the Teaching & Examination Scheme (TES) and syllabus of B Tech 3rd Year (5th and 6th Semesters) and 4th year (7th and 8th Semesters) CBCS courses (2018 Admission Batch).

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Proceedings 15.01:

- Existing TES and syllabus of B Tech 3rd Year and 4th Year has been presented to the experts.

Resolutions 15.01:

- As Experts have found existing TES is appropriate for the upcoming batch of 2018 admitted batch. Hence the TES and syllabus has been approved. (Annexure I)

Item 15.02: For Discussion and Approval;

To approve the syllabus and TES of B Tech effective from 2019-20 Admitted Batch.

Proceedings 15.02.01:

- As per the directive of honorable provost and dean FTE, total credits for the B Tech program should be reduced to 176 from 195. This decision has been taken from the feedback of the students and various stakeholders. The motto behind this decision is to keep free slots for the students and teachers so that they can utilize slots for some extra work and research activities. Hence, to reduce the total credits (approved TES of 2018 batch), Members have found the following courses of the 4th & 6th semesters, credits may be reduced. The courses are selected because teachers are able to complete the syllabus within less time compared to given time.

Suggested Courses
Web Engineering (4 th Sem)
Wireless Communication & Mobile Computing(6 th sem)
Elective II (6 th sem)

Resolutions 15.02.01:

- As per the expert's suggestions, credits of the mentioned courses have been reduced (Annexure II).

Proceedings 15.02.02:

- After reviewing the existing TES, Members have suggested to change the title of the following courses of the 3rd, 4th, 5th and 6th semester based on the detailed syllabus offered (Annexure II). Course equivalence and detailed contents relevancy are the reasons for changing the names.

Proposed Name of Course	Suggestion by Expert
Data Communication (3 rd Sem)	Data Communication & Networking
Web Engineering (4 th Sem)	Web Technologies
Machine Learning & Application (6 th Sem)	Machine Learning
Image Processing(6 th sem)	Computer Vision
Embedded System(5 th sem)	Embedded Programming

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Resolutions 15.02.02:

- As per the expert's suggestions, Names of the courses have been changed accordingly.

Proceedings 15.02.03:

- Members have advised to increase the credit for the following courses of the 4th, 5th, 6th and 7th semester, as courses are more important and in demand for the branch.

Suggested Courses
Computer Architecture & Microprocessor Interfacing(4 th sem)
Data Structures & Algorithms(4 th sem)
Operating System(5 th sem)
Machine Learning(6 th sem)
Language Processor(7 th sem)

Resolutions 15.02.03:

- As per the expert's suggestions, credit of the mentioned courses have been increased accordingly (Annexure II).

Proceedings 15.02.04:

- Experts have suggested to offer the courses Machine Learning, Internet of Thing as regular courses instead of Elective in 6th and 7th semesters respectively. The course Wireless Communication & Mobile Computing may be offered as an Elective in 6th semester.

Resolutions 15.02.04:

- The suggestions have been accepted (Annexure II).

Proceedings 15.02.05:

- Cybersecurity has slowly transformed into an evergreen industry. Like air pollution was a by-product of the industrial revolution, cyber-attacks are a similar by-product of the digital revolution. Keeping this situation in mind, and looking at the advances, expert have suggested to introduce the course on Cyber Security.

Resolutions 15.02.05:

- As per the expert's suggestions, Cyber Security has been introduced in 6th semester elective (Annexure II).
- First Year teaching scheme has been circulated through email and prior approval was taken from the members of BoS.

Item 15.03: For Discussion and Approval;

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Preparation, Discussion, and approval of the Elective Courses (University, Institute, and Program Electives) effective from 2019-20 Admitted Batch.

Proceedings 15.03.01:

- Following groups of electives has been presented before the experts. Experts have suggested to arrange the electives in such a way that they should look like a group of specialization.

ELECTIVES	Code	Programme Elective - I	Code	Programme Elective - II	Code	Programme Elective - III
	IT371	Advanced Java programming	IT375	Service Oriented Computing	IT471	Internet of Things
	IT374	Python Programming	IT376	Image Processing	IT474	Blockchain Technologies
	IT373	Embedded Systems	IT377	--	IT473	Artificial Intelligence

Resolutions 15.03.01:

- As per the suggestion of experts, three groups of specialization has been decided based in the current need of the market.
 - Computer Networking
 - Computational Intelligence
 - Information Security
- Final group structure is as follows:

ELECTIVES	Code	Programme Elective - I	Code	Programme Elective - II	Code	Programme Elective - III
	IT371	Embedded Programming	IT378	Wireless Communication & Mobile Computing	IT471	Foundation of Modern Networking
	IT374	Python Programming	IT379	Computer Vision	IT473	Artificial Intelligence
	IT373	Advanced Java Programming	IT380	Cyber Security	IT474	Blockchain Technologies

Item 15.04: For Discussion and suggestions;

Discussion on effective implementation of Outcome Based Education (OBE) and utilization of Smart Class Room (ICT) based Teaching Learning.

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Proceedings 15.04.01:

- It is very essential to opt the OBE, to understand the impact of learning the course as well to get the idea for effective transaction of the course.

Resolutions 15.04.01:

- Experts have suggested to assess the course based on the OBE mapping from the next BOS onwards.

Item 15.05: For Discussion and suggestions;

Proceedings 15.05.01:

Discussion on the preparation of NBA and NAAC done by all the departments. Experts are requested to provide their views to improve it further.

- University is applying for NAAC accreditation (second cycle), for which the survey conducted by IQAC, which shows that department is lacking at certain points as mentioned below:
 - Sponsored/Funded project allotted to the department by other organization
 - Research Paper publication in reputed journals
 - Chapter/Book publication
 - Usage of Learning management system
 - Improvement in teaching-learning methodology

Resolution 15.05.01:

- Teachers had a discussion about the funding for research projects and make area-wise research clubs, so that innovative research projects can be developed. In the same regard, Prof. Parth Shah, Prof. Amit Thakkar, Prof. Bimal Patel, Prof. Nirav Bhatt, Prof. Purvi Prajapati, Prof. Hemant Yadav are requested to prepare and submit the research proposal on or before 30th August'2019.
- All the PhD pursuing teachers are encouraged to write the research papers in reputed journals. Remaining faculty members are informed to prepare at least 1 paper to publish in the conference for A.Y 2019-20.
- Mr. Mrudang Pandya is asked to share the knowledge about how to write the book chapter.
- All the teachers are extensively using varied LMS (Learning Management System) which helps to do course administration, skill gap analysis, tracking progress, and reporting.

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- All the teachers are requested to encourage the students for NPTEL registration and undergo online learning for skill enhancement.
- Faculty members are requested to review the NAAC Criterion wise Key Indicators, which will be shared by Ms. Purvi Prajapati and work accordingly in the same direction.

Item 15.06: For Discussion and suggestions;

Evaluating the Quality of the Question papers.

Proceedings 15.06.01:

- Expert have found the quality of the question papers good. However, they have suggested to keep more questions based on the problem solving to inculcate students overall skill level.

Resolution 15.06.01:

- Teachers of the department are requested to ask such kind of the problems in the unit test(s).

Item 15.07: For Discussion and suggestions;

Analysis and discussion on the semester end results of the students and steps taken for the remedial actions. Suggestions for adopting new teaching, learning and examination pedagogies or any update in the existing pedagogies. Analysis and discussion on the semester end results of the students and steps taken for the remedial actions. Introducing MOOC for the students.

Proceedings 15.07.01:

- Discussion regarding pedagogy and planning of Unit test/Internal examination for the current semesters.
- As per the current need, to make students acquainted with online competitive examinations, ICT-based examination should be conducted.
- Focus on weak students who are unable to clear the internal evaluation scheme and have below 12 marks, a strategic planning must be initiated.
- Discussion about a research slot in the academic time-table for all the teachers.
- Expert have suggested to introduce coursera, NPTEL (swayam) etc in the regular curriculum.
- Experts have found the average results of the students good (Annexure III). However remedial actions to be taken for the weaker students.

Resolution 15.07.01:

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- For each course, two unit tests have been scheduled on every Monday as per Annexure-I. Each unit test would be of 30 marks. The pedagogy of the internal examination is as follows:
 - 15 Marks (Marks of two unit tests)
 - 10 Marks Assignments (Students require to enroll the MOOC and submit the assignment given by the instructor)
 - 5 Marks of Attendance

100-90%	05 marks
85-89%	04 marks
80-84%	03 marks
75-79%	02 marks
70-74%	01 mark
< 69%	00 marks

- Teachers, who are taking the subjects, are requested to conduct one of the ICT-based unit tests.
- All the faculty members are requested to identify the students, having marks less than 12 in certain subjects. As a remedy measure, students have to solve the question paper (of past two years unit test papers) and submit it as a part of the assignment. Student must submit the assignment before appearing for the second unit test. Once the student submits the assignment, his/her marks can be scaled to 12. Same strategy can be applied for the second unit test also.
- Additionally, Prof. Kamlesh Makwana is asked to make proactive arrangement of remedial classes for slow learners and inform to students about the same, in order to improve academics effectively.
- An extra unit test will be arranged for the genuine students who fail to appear in the either unit tests at the end of the semester.
- Unit test supervisions and academic teaching load will be as per the faculty research slots, causing no hindrance to their research schedule.
- Introduction of MOOC as a credit courses in the regular curriculum needs approval from the governing body and board of management. Hence, that will be decided based on the discussion in governing body and board of management discussion.

Item 15.08: For Discussion and suggestions;

Analysis of campus placement and related activities to enhance them further.

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Proceedings 15.08.01:

- Experts have reviewed the placement of the current academic year (Annexure IV). However, they have suggested to invite the more MNC from Bengaluru, Pune, and Hyderabad. This will attract more students at the time of placement and provide more satisfaction to existing students.

Resolution 15.08.01:

- Department has planned to visit Bengaluru, with due permission of university. Objective of visit is to invite them for campus placement. If they will not be agreed to visit then we will try to convince them to conduct placement at their premises for the group of students.

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ANNEXURE I

**EXISTING TEACHING & EXAMINATION
SCHEMES**

FOR

**B TECH 5TH TO 8TH SEMESTERS
INFORMATION TECHNOLOGY**

**EFFECTIVE FROM
(CHARUSAT 2018 ADMITTED BATCH)**

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CHAROTAR UNIVERSITY OF SCIENCE & TECHNOLOGY													
TEACHING & EXAMINATION SCHEME FOR B TECH (CBCS) PROGRAMME IN IT (Effective for 2018 Admitted Batch)													
Course Code	Course Title	Teaching Scheme						Examination Scheme					
		Contact Hours			Credit			Theory			Practical/Project		
		Theory	Practical	Tutorial	Project	Theory	Practical	Internal	External	Internal	External	Internal	External
TY Sem-5	IT341	4	2	0	0	4	1	30	70	25	25	150	
	IT342	2	2	0	0	2	1	30	70	25	25	150	
	IT343	4	2	0	0	4	1	30	70	25	25	150	
	IT344	4	2	0	0	4	1	30	70	25	25	150	
	HS124.01.A	0	2	0	0	0	2	0	0	30	70	100	
TY Sem-6	Elective-1	2	4	0	0	2	2	30	70	50	50	200	
	Software Group Project-II	0	0	0	4	0	2	0	0	50	50	100	
	Summer Internship-1	0	0	0	3	0	3	0	0	75	75	150	
	Assignment Practices/Student Counseling/Remedial Classes	0	2	0	0	0	0	0	0	0	0	0	
		16	16	0	7	16	13	150	350	305	345	1150	
IT347	Software Engineering	4	2	0	0	4	1	30	70	25	25	150	
IT348	Cryptography & Network Security	4	2	0	0	4	1	30	70	25	25	150	
IT349	Wireless Communication & Mobile Computing	4	4	0	0	4	2	30	70	50	50	200	
TY Sem-6	Elective-II	4	2	0	0	4	1	30	70	25	25	150	
	Software Group Project-III	0	0	0	4	0	2	0	0	50	50	100	
	HS Elective-IV	0	2	0	0	0	2	30	70	0	0	100	
	Assignment Practices/Student Counseling/Remedial Classes	0	4	0	0	0	0	0	0	0	0	0	
		16	16	0	4	16	9	150	350	175	175	850	

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CHAROTAR UNIVERSITY OF SCIENCE & TECHNOLOGY													
TEACHING & EXAMINATION SCHEME FOR B TECH (CBCS) PROGRAMME IN IT (Effective for 2018 Admitted Batch)													
Course Code	Course Title	Teaching Scheme						Examination Scheme					
		Contact Hours			Credit			Theory		Practical/Project		Total	
		Theory	Practical	Tutorial	Project	Theory	Practical	Internal	External	Internal	External		
IT441	Data Science	3	2	0	0	0	3	1	30	70	25	25	150
IT442	Advanced Computing	3	2	0	0	0	3	1	30	70	25	25	150
IT443	Language Processors	4	2	0	0	0	4	1	30	70	25	25	150
IT444	Internet of Things	3	2	0	0	0	3	1	30	70	25	25	150
	Elective III	3	2	0	0	0	3	1	30	70	25	25	150
IT445	Software Group Project-IV	0	0	0	4	0	0	2	0	0	50	50	100
IT446	Summer Internship-II	0	0	0	3	0	0	3	0	0	75	75	150
	Assignment Practices/Student Counseling/Remedial Classes	0	6	0	0	0	0	0	0	0	0	0	0
		16	16	0	7	16	10	10	150	350	250	250	1000
IT447	Software Project Major	0	36	0	0	0	0	20	0	0	250	350	600
		0	36	0	0	0	0	20	0	0	250	350	600
	Total	115	135	3	26	116	78	78	1250	2450	1560	1740	7000

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CHAROTAR UNIVERSITY OF SCIENCE & TECHNOLOGY					
TEACHING & EXAMINATION SCHEME FOR B TECH (CBCS) PROGRAMME IN IT (Effective for 2018 Admitted Batch)					
LIST OF ELECTIVE SUBJECTS FOR B TECH IN IT					
Code	Programme Elective - I	Code	Programme Elective - II	Code	Programme Elective - III
IT371	Advanced Java programming	IT375	Service Oriented Computing	IT471	Foundation of Modern Networking
IT374	Python Programming	IT376	Image Processing	IT472	High Performance Computer Architecture
IT373	Embedded Systems	IT377	Machine Learning & Applications	IT473	Artificial Intelligence

ELECTIVES

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ANNEXURE II

**APPROVED TEACHING & EXAMINATION
SCHEMES**

FOR

**B TECH ALL SEMESTERS
INFORMATION TECHNOLOGY**

**EFFECTIVE FROM
(CHARUSAT 2019 ADMITTED BATCH)**

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CHAROTAR UNIVERSITY OF SCIENCE & TECHNOLOGY														
TEACHING & EXAMINATION SCHEME FOR B TECH (CBCS) PROGRAMME IN IT (Effective From 2019 Batch)														
Sem	Course Code	Course Title	Teaching Scheme						Examination Scheme					
			Contact Hours			Credit			Theory		Practical/Project		Total	
			Theory	Practical	Tutorial	Project	Theory	Practical	Internal	External	Internal	External		
FY Sem-1	MA143	Engineering Mathematics-I	4	0	1	0	0	4	0	30	70	0	0	100
	CE143	Computer Concepts & Programming	3	4	0	0	3	2	30	70	50	50	200	
	EE145	Basics of Electronics & Electrical Engineering	3	2	0	0	3	1	30	70	25	25	150	
	CL142.01	Environmental Sciences	2	2	0	0	0	2	30	70	30	70	100	
	HSXXX	HS Elective-I	2	2	0	0	0	2	30	70	30	70	100	
FY Sem-2	IT144	ICT Workshop	0	2	0	0	0	1	25	25	25	25	50	
		Assignment Practices/Student Counseling/Remedial Classes/Library/Sports/Extra curricular &												
	MA144	Engineering Mathematics-II	14	12	1	1	10	8	90	210	160	240	700	
	CE144	Object Oriented Programming with C++	4	0	1	0	4	0	30	70	0	0	100	
	ME145	Elements of Engineering	3	4	0	0	3	2	30	70	50	50	200	
FY Sem-2			3	2	1	0	3	1	30	70	25	25	150	
	PY141.01	Engineering Physics	3	2	0	0	3	1	30	70	25	25	150	
	HS126.01 A	Communication Skills - I	2	2	0	0	2	0	30	70			100	
		Assignment Practices/Student Counseling/Remedial Classes/Library/Sports/Extra curricular &				0								
			15	10	1	0	15	4	150	350	100	100	700	

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CHAROTAR UNIVERSITY OF SCIENCE & TECHNOLOGY

TEACHING & EXAMINATION SCHEME FOR B TECH (CBCS) PROGRAMME IN IT (Effective From 2019 Batch)

Course Code	Course Title	Teaching Scheme										Examination Scheme				
		Contact Hours				Credit		Theory		Practical/Project		Total				
		Theory	Practical	Tutorial	Project	Theory	Practical	Internal	External	Internal	External					
		4	0	0	0	4	0	30	70	0	0	100				
MA245	Discrete Mathematics	3	2	0	0	3	1	30	70	25	25	150				
IT250	Digital Electronics	3	4	0	0	3	2	30	70	50	50	200				
IT251	Java Programming	2										100				
XXXXX	University Elective- I	2										100				
		3	2	0	0	3	1	30	70	25	25	150				
SY Sem 3	Data Communication & Networking	2	0	0	0	2	0	30	70	0	0	100				
	HS Elective-II	0	0	0	2	0	1	0	0	25	25	50				
IT253	Software Group Project-I	0	6	0	0			0	0	0	0	0				
	Assignment Practices/Student Counseling/Remedial Classes	17	14	0	2	17	5	250	350	125	125	850				
		4	0	0	0	4	0	30	70	0	0	100				
MA244	Probability and Numerical Techniques	4	2	0	0	4	1	30	70	25	25	150				
IT254	Computer Architecture & Microprocessor Interfacing	0	2	0	0	0	1	0	0	25	25	50				
IT255	Web Technologies	4	2	0	0	4	1	30	70	25	25	150				
IT256	Data Structures & Algorithms	4	2	0	0	4	1	30	70	25	25	150				
IT257	Database Management System	0	0	0	2	0	1	0	0	25	25	50				
IT258	Software Group Project	0	2	0	0	0	2	30	70	0	0	100				
	HS Elective-III	2										100				
XXXXX	University Elective- II	2										100				
	Assignment Practices/Student Counseling/Remedial Classes	0	4	0	0			0	0	0	0	0				
		18	14	0	2	18	7	250	350	125	125	850				

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TEACHING & EXAMINATION SCHEME FOR B TECH (CBCS) PROGRAMME IN IT (Effective From 2019 Batch)

Course Code	Course Title	Teaching Scheme										Examination Scheme				
		Contact Hours			Credit			Theory		Practical/Project		Total				
		Theory	Practical	Tutorial	Project	Theory	Practical	Internal	External	Internal	External					
	IT351	3	2	0	0	0	3	1	30	70	25	25	150			
	IT342	2	2	0	0	0	2	1	30	70	25	25	150			
	IT343	4	2	0	0	0	4	1	30	70	25	25	150			
	IT352	3	2	0	0	0	3	1	30	70	25	25	150			
TY Sem-5	HS124.01A	0	2	0	0	0	0	2	0	0	30	70	100			
	Elective-I	2	4	0	0	0	2	2	30	70	50	50	200			
	IT353	0	0	0	2	0	0	1	0	0	25	25	50			
	IT346	0	0	0	3	0	0	3	0	0	75	75	150			
	Assignment Practices/Student Counseling/Remedial Classes	0	2	0	0	0	0	0	0	0	0	0	0			
		14	16	0	5	14	12	12	150	350	280	320	1100			
	IT354	4	4	0	0	0	4	2	30	70	50	50	200			
	IT348	4	2	0	0	0	4	1	30	70	25	25	150			
	IT355	3	2	0	0	0	3	1	30	70	25	25	150			
	Elective-II	3	2	0	0	0	3	1	30	70	25	25	150			
TY Sem-6	IT356	0	0	0	2	0	0	1	0	0	25	25	50			
	HS Elective-IV	0	2	0	0	0	0	2	30	70	0	0	100			
	Assignment Practices/Student Counseling/Remedial Classes	0	4	0	0	0	0	0	0	0	0	0	0			
		14	16	0	2	14	8	8	150	350	150	150	800			

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TEACHING & EXAMINATION SCHEME FOR B TECH (CBCS) PROGRAMME IN IT (Effective From 2019 Batch)

Course Code	Course Title	Teaching Scheme										Examination Scheme			
		Contact Hours					Credit		Theory			Practical/Project		Total	
		Theory	Practical	Tutorial	Project	0	Theory	Practical	Internal	External	Internal	External			
IT448	Data Science	4	2	0	0	0	4	1	30	70	25	25	150		
IT449	Cloud Computing	3	2	0	0	0	3	1	30	70	25	25	150		
IT443	Language Processors	4	2	0	0	0	4	1	30	70	25	25	150		
IT444	Internet of Things	3	2	0	0	0	3	1	30	70	25	25	150		
	Elective III	3	2	0	0	0	3	1	30	70	25	25	150		
IT450	Software Group Project-IV	0	0	0	2	0	0	1	0	0	25	25	50		
IT446	Summer Internship-II	0	0	0	3	0	0	3	0	0	75	75	150		
	Assignment Practices/Student Counseling/Remedial Classes	0	6	0	0	0	0	0	0	0	0	0	0		
		17	16	0	5	17	9	9	150	350	225	225	950		
IT447	Software Project Major	0	36	0	0	0	0	18	0	0	250	350	600		
		0	36	0	0	0	0	18	0	0	250	350	600		
	Total	109	134	2	16	105	71	71	1190	2310	1415	1635	6550		

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LIST OF ELECTIVE COURSES FOR B TECH IN IT

ELECTIVES		Programme Elective - I	Code	Programme Elective - II	Code	Programme Elective - III
IT371	Embedded Programming		IT378	Wireless Communication & Mobile Computing	IT471	Foundation of Modern Networking
IT374	Python Programming		IT379	Computer Vision	IT473	Artificial Intelligence
IT373	Advanced Java Programming		IT380	Cyber Security	IT474	Blockchain Technologies

HS Elective - I
HS101.01 A - Painting
HS102.01 A - Photography
HS103.01 A - Sculpting
HS104.01 A - Pottery and Ceramic Arts
HS105.01 A - Media and Graphic Design
HS106.01 A - Art and Craft
HS107.01 A - Fashion Designing
HS108.01 A - Interior Designing
HS109.01 A - Dramatics
HS110.01 A - Contemporary Dance
HS112 A - Academic English

HS Elective - II
HS122 A - Values and Ethics
HS131 A - Philosophy

HS Elective - III
HS123.01 A - Critical Thinking and Logic
HS127.01 A - Communication Skills - II
HS133 A - Creativity, Problem Solving and Innovation

HS Elective - IV
HS125.01 A - Society, Governance and International Studies
HS130 A - Law & Justice
HS134 A - Contributor Personality Development

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