				n. 1 ester	Year • - I					
DSC/ SEC/ AECC	Subject		Perio		Conti Inte	Evaluat nuous ernal sment	tion Sche CIA Total	me ESE	Total Marks	Credits
		L	Т	Р	CT	TA	Total			
	1		ТН	EOR	Y					
BAC-C102/ BAC-C202	Engineering Chemistry	3	1	0	20	10	30	70	100	4
BEM-C102	Engineering Mathematics- I	3	1	0	20	10	30	70	100	4
BCE-C102/ BCE-C202	Programming for Problem Solving	3	1	0	20	10	30	70	100	4
BME-C103	Basic Mechanical Engineering	3	1	0	20	10	30	70	100	4
BEN-A103	Environmental Studies	2	0	0	20	10	30	70	100	0
	Induction Program				Onl	y for fi	rst 3 wee	ks		
]	PRA	СТІС	CAL					•
BAC-C151/ BAC-C251	Engineering Chemistry Lab	0	0	2	10	5	15	35	50	1
BCE-C151 BCE-C251	Programming for Problem Solving Lab	0	0	2	10	5	15	35	50	1
BME-C153/ BME-C253	Engineering Graphics and Design Lab	0	0	2	10	5	15	35	50	2
BEG-A151/	Technical Communication	0	0	2	10	5	15	35	50	1
BEG-A251	TOTAL	14	4	8	140	70	210	490	700	21
Course	icals BHU : Hun istry BAP : Phy pline Specific A : Abi e Enha	nanit vsics lity ncen mpul	ties nent sory	Cou ric El	BI BI S	ME : EN :	Mathen Mechar Enviror : Skill E Course ESE	nical nment nhancem	ent Semester Ez	camination
BCE-C 101 LECTURE; CA- TEACHER	→ 0, 5 & 6 stands f → Paper Code T- TUTORIAL;		P- P	RAC	TICAL	;		CT-CUN	ectively ⁄IULATIV	E TESI
-1/2	Der	in .	>				pla	r		

B.Tech. I Year

Department of Computer Science & Engineering, Faculty of Engineering & Technology, GKDU, Haridwar

BEM-C202 Eng Mat BEE-C202 Basi Eng BET-C202 Elec BHU-S202 Ved Eng Sum Inter BAP-C251 Eng BEE-C251 Basi Eng BET-C251 Elec BME-C152/ Wor BME-C152/ Wor			56	emes	ter - I	1				
BEM-C202 Eng Mat BEE-C202 Basi Eng BET-C202 Elec BHU-S202 Ved Eng Sum Inter BAP-C251 Eng BEE-C251 Basi Eng BEE-C251 Elec BME-C152/ Wor BME-C152/ Wor BME-C252 Phys SP-S251 Phys Yog Coding BCE : Computers BEE : Electricals BAC : Chemistry C : Discipline S Course	Subject		Perio	ds	Cont Int	Evaluatio inuous ernal ssment	on Scher CIA Total	ne ESE	Total marks	Credit
BEM-C202 Eng Mat BEE-C202 Basi Eng BET-C202 Elec BHU-S202 Ved Eng Sum Inter BAP-C251 Eng BEE-C251 Basi Eng BEE-C251 Elec BME-C152/ Wor BME-C152/ Wor BME-C252 Phys SP-S251 Phys Yog Coding BCE : Computers BEE : Electricals BAC : Chemistry C : Discipline S Course		L	Т	Р	CT	TA	-			
BEM-C202 Eng Mat BEE-C202 Basi Eng BET-C202 Elec BHU-S202 Ved Eng Sum Inter BAP-C251 Eng BEE-C251 Basi Eng BEE-C251 Elec BME-C152/ Wor BME-C152/ Wor BME-C252 Phys SP-S251 Phys Yog Coding BCE : Computers BEE : Electricals BAC : Chemistry C : Discipline S Course				EORY						<u> </u>
MatBEE-C202Basi EngBET-C202ElectBHU-S202Ved EngBHU-S202Ved EngBAP-C251EngBEE-C251Basi EngBET-C251ElectBME-C152/ BME-C252WorBME-C152/ BSP-S251Phys YogCodingElectricalsBAC: Chemistry Course	gineering Physics	3	1	0	20	10	30	70	100	4
EngBET-C202ElectBHU-S202VedEngSurrInterSurrBAP-C251EngBEE-C251BasiBME-C152/WorBME-C152/WorBME-C252PhysBSP-S251PhysCodingBCE : ComputersBEE : ElectricalsBAC : ChemistryC: Discipline SCourseCourse	gineering thematics–II	3	1	0	20	10	30	70	100	4
BHU-S202 Ved Eng Sum Inter BAP-C251 Eng BEE-C251 Basi Eng BET-C251 Elec BME-C152/ Wor BME-C152/ Wor BME-C252 BSP-S251 Phy: Yog Coding BCE : Computers BEE : Electricals BAC : Chemistry C : Discipline S Course	sic Electrical gineering	3	1	0	20	10	30	70	100	4
EngSumInterBAP-C251BEE-C251BEE-C251BEE-C251BEE-C252BME-C152/ BME-C252BME-C252BSP-S251Phys YogCodingBCE : Computers BEE : Electricals BAC : Chemistry C : Discipline S Course	ectronic Devices	3	1	0	20	10	30	70	100	4
InterBAP-C251EngBEE-C251Basi EngBET-C251ElecBME-C152/ BME-C252WorBME-C252Phys YogBSP-S251Phys YogCodingBCE : ComputersBEE : ElectricalsBAC : Chemistry C : Discipline S Course	dic Science & gineering	3	1	0	20	10	30	70	100	0
BEE-C251 Basi Eng BET-C251 Elec BME-C152/ Wor BME-C252 Phys Yog Coding BCE : Computers BEE : Electricals BAC : Chemistry C : Discipline S Course	mmer Training and ernship	and the	the other	credit	s will b ertificat	e given i	be pursue n III sem ed by pre	after su	bmitting	
BEE-C251 Basi Eng BET-C251 Elec BME-C152/ Wor BME-C252 Phys Yog Coding BCE : Computers BEE : Electricals BAC : Chemistry C : Discipline S Course	· · DI · I I		1	TICA	1	~	17	25	50	1
Eng BET-C251 Elec BME-C152/ Wor BME-C252 Phys Yog Coding BCE : Computers BEE : Electricals BAC : Chemistry C : Discipline S Course	gineering Physics Lab	0	0	2	10	5	15	35	50	1
BME-C152/ BME-C252 BSP-S251 Physy Yog Coding BCE : Computers BEE : Electricals BAC : Chemistry C : Discipline S Course	sic Electrical gineering Lab	0	0	2	10	5	15	35	50	1
BME-C252 BSP-S251 Phys Yog Coding BCE : Computers BEE : Electricals BAC : Chemistry C : Discipline S Course	ectronic Devices Lab	0	0	2	10	5	15	35	50	1
BSP-S251 Yog Coding Image: Computers BEE : Computers BAC : Chemistry C : Discipline S Course : Course	orkshop Practice	0	0	2	10	5	15	35	50	1
BCE : Computers BEE : Electricals BAC : Chemistry C : Discipline S Course	ysical Training & ga	0	0	2	0	0	50	0	50	0
BCE : Computers BEE : Electricals BAC : Chemistry C : Discipline S Course	TOTAL	15	5	10	140	70	260	490	750	20
	BHU : BAP : Specific A : E	Physi Abilit nhanc Comj	anitie cs zy ceme pulse	es ent ory C	ourse Electiv	BEM BME BEN S	: Mec : Env	se	nt ncement	ester Examinat
BCE-C 101	 → Semester → 0, 5 & 6 stan → Paper Code 	ds for	. The	eory,	Practic	al & Ser	ninar / I	Project	respectiv	ely
L- LECTURE; TA- TEACHER ASS	T- TUTORIAL; SESSMENT;						MINAT		-CUMUL	ATIVE TE

B. Tech. I Year Semester - II

Department of Computer Science & Engineering, Faculty of Engineering & Technology, GKDU, Haridwar

			.Tec Seme								
DSC/ SEC/ AECC	Subject	L		erioc		Con In	Evalu Itinuo Iternal essme	CIA	ne ESE	Total Marks	Credits
			L	Т	Р	СТ	ТА	Totul			
				IEO					•		
BEM-C302	Engineering Mathematics	– III	3	1	0	20	10	30	70	100	4
BET-C306	Digital System Design			0	0	20	10	30	70	100	3
BCE-C307	Python Programming		3	0	0	20	10	30	70	100	3
BCE-C305/ BCE-C405	Data Structure-I		3	0	0	20	10	30	70	100	3
BCE-C306	Computer Architecture & Organization		3	0	0	20	10	30	70	100	3
			PRA	CT	ICA	L					
BCE-C355	Digital System Design La	b	0	0	2	10	5	15	35	50	1
BCE-C354	Python Programming lab		0	0	2	10	5	15	35	50	1
BCE-C355/ BCE-C454	Data Structure-I Lab		0	0	2	10	5	15	35	50	1
BEM-C356	Presentation		0	0	2	10	5	15	35	50	1
	TOTAL		15	1	8	140	70	210	490	700	20
BEE : Elec BAC : Che	nputers BET etricals BHU mistry BAP cipline Specific A rse	: Electron : Human : Physics : Ability Enhance Compu	ities ment Ilsory	V Co			AE EN	: Mathemat : Mechanic : Environm : Skill Enh Course	al ent	ent	
E : Discip BCE-C 101 —	line ElectiveCourse → Semester → 0, 5 & 6 st → Paper Coc	ands for T	Gene heor				Semir	ESE nar / Projec		emester Ez	kamination
L- LECTURI ΓΑ- TEACH	E; T- TUTORIA ER ASSESSMENT;					-		C INATION	T-CUM	IULATIV	TE TEST
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B.Tech. II Year

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Department of Computer Science & Engineering, Faculty of Engineering & Technology, GKDU, Haridwar

			Se	mest	er - 1	/				
					E	valuati	on Schen	ne		Credit
Subject code	Subject	P	Periods			nuous rnal	CIA Total	ESE	Total marks	
		L	Т	Р	Asses CT	sment TA	-	LOL		
			_	-		IA				
		-	1	CORY				- 0	100	
BEM-C403	Discrete Mathematics	3	1	0	20	10	30	70	100	4
BCE-C408	Database Management	3	0	0	20	10	30	70	100	3
	System									
BCE-C406	Object Oriented	3	0	0	20	10	30	70	100	3
	Programming using Java									
BCE-C407	Operating System	3	0	0	20	10	30	70	100	3
BET-C411	Microprocessor and				20					3
	Interfacing	3	0	0		10	30	70	100	
BKT-A403	Bhartiya Gyan	2	0	0	20	10	30	70	100	0
	Parampara (IKT)									
	Summer training and	То	be p	ursue	d durin	g sumn	ner vaca	tions, ce	ertificate o	of
	Internship	con	nplet	ion to) be sub	mitted	in the de	epartme	nt	
		P	RAC	TICA	AL					
BCE-C455	DBMS Lab	0	0	2	10	5	15	35	50	1
BCE-C456	Object Oriented	0	0	2	10	5	15	35	50	1
	Programming using Java									
	Lab									
BET-C461	Microprocessor and	0	0	2	10	5	15	35	50	1
	Interfacing Lab									
BCE-A460	MOOC (Soft Skills)	0	0	2	10	5	15	35	50	1
	TOTAL	17	1	8	160	80	240	560	800	20

B. Tech. II Year Semester - IV

Coding

BCE : Computers	BET	: Electronics	BEM	: Mathemat	ics	
BEE : Electricals	BHU	: Humanities	BME	: Mechanica	al	
BAC : Chemistry	BAP	: Physics	BEN	: Environment		
C : Discipline Specific	А	: Ability	S	: Skill Enhancement		
Course		Enhancement		Course		
		Compulsory Course				
E : Discipline ElectiveCourse	;	G : Generic Electiv	e	ESE	: End Semester Examination	
0,	mester 5 & 6 sta per Cod	ands for Theory, Practica le	al & Semi	inar / Projec	t respectively	
L- LECTURE; T- TU	TORIA	L; P- PRACTIC	AL:	C	Γ-CUMULATIVE TEST;	
TA- TEACHER ASSESSMEN		ESE-ENDSEMESTE		INATION		
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Department of Computer Science & Engineering, Faculty of Engineering & Technology, GKDU, Haridwar

B. Tech. Third Year Syllabus in accordance with AICTE Model Curriculum

	1		SE	VIES I	ER-V					
DSC/SEC/DS		PE	PERIODS			ALUAT	FION SCH	Subject		
E/AEC	SUBJECT					ESSION ALUA'		EXAM	Total	Credits
		L	Т	Р	СТ	TA	Total	ESE		
			THE	ORY						
BCE-C511	Computer Network	3	1	0	20	10	30	70	100	4
BCE-C512	Advance Data Structure	3	1	0	20	10	30	70	100	4
BCE-C513	Design & Analysis of Algorithm	3	1	0	20	10	30	70	100	4
BCE-C514	Cloud Computing	3	1	0	20	10	30	70	100	4
BCE-M001	Universal Human Values	3	0	0	20	10	30	70	100	0
BCE-P5XX	Program Elective - I	3	0	0	20	10	30	70	100	3
BCE-O5XX	Open Elective - I	3	0	0	20	10	30	70	100	3
		Р	RAC	ГІСА	L					
BCE-C561	Advance Data Structure Lab	0	0	2	10	5	15	35	50	1
BCE-C562	Cloud Computing Lab	0	0	2	10	5	15	35	50	1
BCE-S570	Summer Training and Internship Program-II Presentation*	0	0	2	10	5	15	35	50	1
	TOTAL	21	04	06	170	85	255	595	850	25

SEMESTER-V

*For the Summer Training and Internship program done in summer break after IV semester examination, A certificate of completion to be submitted along with the presentation in the department. In case a student is unable to do an internship in some company, he may do any one extra online skill enhancement course.





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Program Elective - I

BCE-P515	Object Oriented Programming Using CPP
BCE-P516	Computer Graphics
BCE-P517	Machine Learning – I
BCE-P518	Software Engineering
BCE-P519	Data Analytics -1
BCE-P520	Complexity Theory

Open Elective Subject List -1

BCE-0530	Advance Operating System
BCE-0531	Functional Programming Principles with Scala
BET-0532	Signals and Systems
BCE-O533	Business Economics and Financial Analysis
BCE-0534	Introduction to AI
BCE-0535	Linux and Shell Programming

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B. Tech. Third Year Syllabus in accordance with AICTE Model Curriculum

SEMESTER-VI

		DE	DIOI)S	EVA	ALUATI	ION SCH	IEME	Subjec	Credits
DSC/SEC/DS E/AEC	SUBJECT	PERIODS -			~~	ESSION ALUAT		EXAM	t Total	
		L	Т	Р	СТ	ТА	Total	ESE		
THEORY										
BCE-C611	Distributed Systems	3	1	0	20	10	30	70	100	4
BCE-C612	Formal Languages and Automata Theory	3	1	0	20	10	30	70	100	4
BET-C613	Embedded Systems	3	1	0	20	10	30	70	100	4
BCE-M002	Intellectual Property Rights	3	0	0	20	10	30	70	100	3
BCE-P6XX	Program Elective – II	3	0	0	20	10	30	70	100	3
BCE-O6XX	Open Elective-II	3	0	0	20	10	30	70	100	3
]	PRACT	ICAL							
BCE-C661	Distributed Systems Lab	0	0	2	10	5	15	35	50	1
BET-C662	Embedded Systems Lab	0	0	2	10	5	15	35	50	1
BCE-P663	Project	0	0	2	10	5	15	35	50	1
BCE-S670	Seminar on Latest Technologies	0	0	2	10	5	15	35	50	1
	TOTAL	18	03	08	160	80	240	560	800	25





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Program Elective Subject List- II

BCE-P614	Machine Learning - 2
BCE-P615	Advance Database Management System
BCE-P616	Software Project Management
BET-P617	Digital Signal Processing
BCE-P618	High Performance Computer Architecture
BCE-P619	Full Stack Web Development
BCE-P620	Data Analytics -2
BCE-P621	Cyber Forensics
BCE-P622	Augmented Reality and Virtual Reality

Open Elective –II

BCE-0630	Applied AI
BET-O631	Digital Image Processing
BCE-0632	Industrial Economics and Business Administration
BCE-0633	Introduction to Data Science and Design Thinking
BCE-0634	Data Mining
BCE-0635	Natural Language Processing
BCE-0636	E-commerce & Social Media Analysis
BCE-0637	Java Programming and Introduction to Python**
BCE-0657	Java Programming and Introduction to Python Lab**

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B. Tech. Fourth Year Syllabus in accordance with AICTE Model Curriculum

					171V- A 1					
DSC/SEC/DSE/ AEC	SUBJECT		PERIODS -			LUAT SSION		HEME EXA	Subject Total	Credits
		L	Т	Р	СТ	ТА	Total	M ESE		
THEORY										
BCE-C711	Compiler Design	3	1	0	20	10	30	70	100	4
BCE-C712	Linux System Administration	3	1	0	20	10	30	70	100	4
BCE-P7XX	Program Elective -III	3	0	0	20	10	30	70	100	3
BCE-07XX	Open Elective –III /	3	0	0	20	10	30	70	100	3
	PR	RACTI	CAL	1						
BCE-C762	Linux System Administration Lab	0	0	2	10	5	15	35	50	1
BCE-P770	Minor Project with research paper	0	0	8	20	10	30	70	100	6
TOTAL			2	10	110	55	165	385	550	21

SEMESTER-VII



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BCE-P713	Wireless Networks
BCE-P714	Information and Network Security
BCE-P716	Human Computer Interaction
BCE-P717	Block Chain
BCE-P718	Deep Learning
BCE-P719	Fuzzy logic and Neural Networks
BCE-P720	Real Time Operating System
BET-P721	Internet of Things

Program Elective Subject List - III

Open Elective –III

	1
BCE-0731	Optimization Techniques in Computing
BCE-0732	Parallel and Distributed System
BCE-0733	Adhoc and Sensor Networks
BET-0734	BioMedical Signal Processing
BCE-0735	Ecommerce
BCE-0736	Human Resource and Organization Behaviour
BCE-0737	Soft Computing
BCE-0738	Storage Management
BCE-0739	Quantum Computing
BCE-O740	Computer Vision
BCE-O741	AI in Healthcare
BCE-O742	Neural Networks and Deep Learning



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B. Tech. Fourth Year Syllabus in accordance with AICTE Model Curriculum

		-	DE I	11201	L'IV- V	111				
DSC/SEC/DSE /AEC	SUBJECT	PERIODS			EVALUATION SCH SESSIONAL EVALUATION			EME EXA	Subject Total	Credits
		L	Т	Р	СТ	ТА	TOTAL	M ESE		
			THE	ORY						
BCE-O8XX	MOOC- I	3	1	0	20	10	30	70	100	4
BCE-O8XX	MOOC- II	3	1	0	20	10	30	70	100	4
BCE-O8XX	MOOC- III	3	1	0	20	10	30	70	100	4
PRACTICAL										
BCE-P861	Major Project with Research paper	0	0	16	0	100	100	300	400	6+3
TOTAL		09	03	16	60	130	190	510	700	21

SEMESTER-VIII

List of MOOC courses shall be decided by the departmental committee in each semester depending upon the list from SWAYAM/NPTEL and other recognized online platforms. Students have to study from Online Platform doubt sessions shall be held by Internal teachers and exams shall be taken by university. If a student wishes he can give exam of Online Platform for certification. SWAYAM courses to run every year from July onwards (Odd Semester) are declared in the month of May and for courses to run every year from January onwards(Even Semester) are declared in the month of December on website https://swayam.gov.in/.



