

Scheme of Teaching and Examination B.E. in Industrial Internet of Things Outcome Based Education(OBE) and Choice Based Credit System (CBCS) Effective from the academic year 2023-24													
III SEMESTER													
Sl. No	Course	Course Code	Course Title	Teaching Department (TD) and Question Paper Setting Board (PSB)	Teaching Hours /Week				Examination				Credits
					Theory Lecture	Tutorial	Practical/ Drawing	SDA	Duration in hours	CIE Marks	SEE Marks	Total Marks	
					L	T	P	S					
1	PCC/BSC	BIO301	Maths	Maths	3	0	0		03	50	50	100	3
2	IPCC	BIO302	Analysis and Design of Digital Circuits	ECE	3	0	2		03	50	50	100	4
3	IPCC	BIO303	Analog Electronic Circuits	ECE	3	0	2		03	50	50	100	4
4	PCC	BIO304	Network Analysis	ECE	3	0	0		03	50	50	100	3
5	PCCL	BIOL305	Analog and Digital Electronics Laboratory	ECE	0	0	2		03	50	50	100	1
6	ESC	BIO306x	ESC/ETC/PLC	ECE	3	0	0		03	50	50	100	3
7	UHV	BSCK307	Social Connect and Responsibility	Any Department	0	0	2		01	100	---	100	1
8	AEC/ SEC	BIO358x	Ability Enhancement Course/Skill Enhancement Course - III		If the course is a Theory				01	50	50	100	1
					1	0	0						
					If a course is a laboratory				02				
					0	0	2						
9	MC	BNSK359	National Service Scheme (NSS)	NSS coordinator	0	0	2			100	---	100	0
		BPEK359	Physical Education (PE) (Sports and Athletics)	Physical Education Director									
		BYOK359	Yoga	Yoga Teacher									
									Total	550	350	900	20
PCC: Professional Core Course, PCCL: Professional Core Course laboratory, UHV: Universal Human Value Course, MC: Mandatory Course (Non-credit), AEC: Ability Enhancement Course, SEC: Skill Enhancement Course, L: Lecture, T: Tutorial, P: Practical S= SDA: Skill Development Activity, CIE: Continuous Internal Evaluation, SEE: Semester End Evaluation.K :This letter in the course code indicates common to all the stream of engineering. ESC: Engineering Science Course, ETC: Emerging Technology Course, PLC: Programming Language Course													

Engineering Science Course (ESC/ETC/PLC)			
BIO306A	Digital System Design using Verilog	BIO306C	Computer Organization and Architecture
BIO306B	Sensors and Instrumentation	BIO306D	Applied Numerical methods
Ability Enhancement Course – III			
BIO358A(L:T:P)	Robotics and Industrial Automation Lab-Design Robots-Level1	BIO358C(L:T:P)	IOT-Connecting the World - Level1
BIO358B(L:T:P)	Lab VIEW -Graphical Programming -Level1	BIO358D(L:T:P)	
<p>Professional Core Course (IPCC): Refers to Professional Core Course Theory Integrated with practicals of the same course. Credit for IPCC can be 04 and its Teaching– Learning hours (L : T : P) can be considered as (3 : 0 : 2) or (2 : 2 : 2). The theory part of the IPCC shall be evaluated both by CIE and SEE. The practical part shall be evaluated by only CIE (no SEE). However, questions from the practical part of IPCC shall be included in the SEE question paper. For more details, the regulation governing the Degree of Bachelor of Engineering /Technology (B.E./B.Tech.) 2022-23 may please be referred.</p> <p>National Service Scheme /Physical Education/Yoga: All students have to register for any one of the courses namely National Service Scheme (NSS), Physical Education (PE)(Sports and Athletics), and Yoga(YOG) with the concerned coordinator of the course during the first week of III semesters. Activities shall be carried out between III semester to the VI semester (for 4 semesters). Successful completion of the registered course and requisite CIE score is mandatory for the award of the degree. The events shall be appropriately scheduled by the colleges and the same shall be reflected in the calendar prepared for the NSS, PE, and Yoga activities. These courses shall not be considered for vertical progression as well as for the calculation of SGPA and CGPA, but completion of the course is mandatory for the award of degree.</p>			

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IV SEMESTER													
Sl. No	Course and Course Code		Course Title	Teaching Department (TD) and Question and Paper Setting Board (PSB)	Teaching Hours /Week				Examination				Credits
					Theory Lecture	Tutorial	Practical/ Drawing	Self -Study	Duration in hours	CIE Marks	SEE Marks	Total Marks	
					L	T	P	S					
1	PCC/BSC	BIO401	Engineering Electromagnetics		3	0	0		03	50	50	100	3
2	IPCC	BIO402	Principles of Communication Systems		3	0	2		03	50	50	100	4
3	IPCC	BIO403	Modern Control systems		3	0	2		03	50	50	100	4
4	PCCL	BIIOL404	Communication laboratory		0	0	2		03	50	50	100	1
5	ESC	BIO405x	ESC/ETC/PLC		3	0	0		03	50	50	100	3
6	AEC/ SEC	BIOX456x	Ability Enhancement Course/Skill Enhancement Course- IV	TD and PSB: Concerned department	If the course is Theory				01	50	50	100	1
					1	0	0						
					If the course is a lab				02				
0	0	2											
4	BSC	BBOK407	Biology For Engineers	TD / PSB: BT, CHE,	3	0	0		03	50	50	100	3
7	UHV	BUHK408	Universal human values course	Any Department	1	0	0		01	50	50	100	1
9	MC	BNSK459	National Service Scheme (NSS)	NSS coordinator	0	0	2			100	---	100	0
		BPEK459	Physical Education (PE) (Sports and Athletics)	Physical Education Director									
		BYOK459	Yoga	Yoga Teacher									
Total									500	400	900	20	
PCC: Professional Core Course, PCCL: Professional Core Course laboratory, UHV: Universal Human Value Course, MC: Mandatory Course (Non-credit), AEC: Ability Enhancement Course, SEC: Skill Enhancement Course, L: Lecture, T: Tutorial, P: Practical S= SDA: Skill Development Activity, CIE: Continuous Internal Evaluation, SEE: Semester End Evaluation. K : This letter in the course code indicates common to allthe stream of engineering.													

Ability Enhancement Course / Skill Enhancement Course - IV			
BXX456A(L:T:P)	Robotics and Industrial Automation Lab-Design Robots- Level2	BXX456C(L:T:P)	IOT-Connecting the World-Level2
BXX456B(L:T:P)	LabVIEW -Graphical Programming -Level2	BXX456D(L:T:P)	
Engineering Science Course (ESC/ETC/PLC)			
BXX405A	8051 Microcontroller	BXX405C	Operating Systems
BXX405B	Data Structure and Algorithms using Python	BXX405D	Engineering Statistics and Linear Algebra
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