

VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI  
**B.E. in Electronics & Communication (Advanced Communication Technology) (EA)**  
**Scheme of Teaching and Examinations2022**  
 Outcome Based Education (OBE) and Choice Based Credit System (CBCS)  
 (Effective from the academic year 2023-24)

**III SEMESTER**

Sl. No	Course and 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	BEA301	Mathematics for AV Communication	TD-Mathematics	3	0	0		03	50	50	100	3
2	IPCC	BEA302	Analysis and Design of Digital Circuits	TD:EC	3	0	2		03	50	50	100	4
3	IPCC	BEA303	Analog Electronic Circuits	TD:EC	3	0	2		03	50	50	100	4
4	PCC	BEA304	Network Analysis	TD:EC	3	0	0		03	50	50	100	3
5	PCCL	BEAL305	Analog and Digital Electronics Laboratory	TD:EC	0	0	2		03	50	50	100	1
6	ESC	BEA306x	ESC/ETC/PLC	TD:EC	3	0	0		03	50	50	100	3
7	UHV	BSCK307	<b>Social Connect and Responsibility</b>	Any Department	0	0	2		01	100	---	100	1
8	AEC/SEC	BEA358x	Ability Enhancement Course/Skill Enhancement Course– III (Level 1)		1	0	2		1	50	50	100	1
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									
<b>Total</b>									<b>550</b>	<b>350</b>	<b>900</b>	<b>20</b>	

**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)			
BEA306A	Digital System Design using Verilog	BEA306C	Computer Organization and Architecture
BEA306B	Sensors and Instrumentation	BEA306D	Applied Numerical methods
Ability Enhancement Course–III			
BEA358A	LICs Lab using PSPICE	BEA358C	Digital Engineering Course (NASSCOM)
BEA358B	Simu link Programming Basics	BEA358D	IOT for Smart Infrastructure
<p><b>Professional Core Course (IPCC):</b> 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.)2022-22maypleasebe refered.</p>			
<p><b>National Service Scheme /Physical Education/ Yoga:</b> 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 Paper Setting	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	BEA401	Engineering Electro magnetics	TD:EC	2	0	0		03	50	50	100	2
2	IPCC	BEA 402	Principles of Communication Systems	TD:EC	3	0	2		03	50	50	100	4
3	IPCC	BEA 403	Modern Control systems	TD:EC	3	0	2		03	50	50	100	4
4	PCCL	BEAL404	Communication laboratory	TD:EC	0	0	2		03	50	50	100	1
5	ESC	BEA 405x	ESC/ETC/PLC	TD:EC	3	0	0		03	50	50	100	3
6	AEC/ SEC	BEA456x	Ability Enhancement Course/Skill Enhancement Course- IV(Level 2)	TD : Concerned department	1	0	2		01	50	50	100	2
4	BSC	BBOK407	Biology For Engineers	TD / PSB: BT, CHE,	2	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									
<b>Total</b>									<b>500</b>	<b>400</b>	<b>900</b>	<b>20</b>	

**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.

Ability Enhancement Course/Skill Enhancement Course -IV			
BEA456A	Electronic Devices	BEA456C	Lab VIEW Programming
BEA456B	PCB Design	BEA456D	Risk Management in IOT Implementation
Engineering Science Course(ESC/ETC/PLC)			
BEA405A	8051Microcontroller	BEA405C	Operating Systems
BEA405B	Data Structures and Algorithms using Python	BEA405D	Engineering Statistics and Linear Algebra
<p><b>Professional Core Course (IPCC):</b> Refers to Professional Core Course Theory Integrated with practical 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.)2022-22</p> <p><b>National Service Scheme /Physical Education/ Yoga:</b> 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</p> <p>Not be considered for vertical progression as well as for the calculation of SGPA and CGPA, but completion of the courses is mandatory for the award of degree.</p>			

