

VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI

**B.E. in Automobile Engineering**

**Scheme of Teaching and Examinations 2022**

Outcome Based Education (OBE) and Choice Based Credit System (CBCS)

(Effective from the academic year 2023-24)

III SEMESTER									
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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	C I E Marks	SEE Marks	Total Marks		
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1	PCC	BAU301	Automotive Engines	TD: AU/ME PSB:AU	3	0	0		03	50	50	100	3	
2	IPCC	BAU302	Material Science and Metallurgy	TD: AU/ME PSB:AU	3	0	2		03	50	50	100	4	
3	IPCC	BAU303	Manufacturing Processes	TD: AU/ME PSB:AU	3	0	2		03	50	50	100	4	
4	PCC	BAU304	Engineering Thermodynamics	TD: AU/ME PSB:AU	3	0	0		03	50	50	100	3	
5	PCCL	BAU305	Basic Automobile Engineering Laboratory	TD: AU/ME PSB:AU	0	0	2		03	50	50	100	1	
6	ESC	BAU306x	ESC/ETC/PLC	TD: AU/ME PSB:AU	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	BAU358x	Ability Enhancement Course/Skill Enhancement Course - III	TD and PSB: Concerned department	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)	
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BAU306A	Non-Traditional Machining	BAU306C	Additive Manufacturing
BAU306B	Automotive Transmission	BAU306D	Introduction to AI & ML
<b>Ability Enhancement Course// Skill Enhancement Course – III</b>			
BAU358A	Rural Development	BAU358C	Excel Sheet for Engineers (LAB)
BAU358B	Bharat Stages (BS) of Emission Standards	BAU358D	Clay modelling (LAB)

**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.

**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>VARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI</p> <p><b>B.E. in Automobile Engineering</b></p> <p><b>Scheme of Teaching and Examinations 2022</b></p> <p>Outcome Based Education (OBE) and Choice Based Credit System (CBCS)</p> <p>(Effective from the academic year 2023-24)</p>
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IV SEMESTER	
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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	Self -Study	Duration in hours	CIE Marks	SEE Marks	Total Marks	
1	PCC	BAU401	Theory of Machines	TD: AU/ME PSB:AU	3	0	0		03	50	50	100	3
2	IPCC	BAU402	Mechanical Measurement and Metrology	TD: AU/ME PSB:AU	3	0	2		03	50	50	100	4
3	IPCC	BAU403	Fluid Mechanics and Fluid Machines	TD: AU/ME PSB:AU	3	0	2		03	50	50	100	4
4	PCCL	BAU404	Computer Aided Machine Drawing	TD: AU/ME PSB:AU	0	0	2		03	50	50	100	1
5	ESC	BAU405x	ESC/ETC/PLC	TD: AU/ME PSB:AU	3	0	0		03	50	50	100	3
6	AEC/ SEC	BAU456x	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						
7	BSC	BBOK407	Biology For Engineers	TD / PSB: BT, CHE,	3	0	0		03	50	50	100	3
8	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 all the stream of engineering.

<p><b>Ability Enhancement Course / Skill Enhancement Course - IV</b></p>
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BAU456A	Theory and Applications of Sensors and Actuators	BAU456C	Autonomous vehicles
BAU456B	MATLAB for Engineers (LAB)	BAU456D	Drive Cycles of Electric Vehicles
<b>Engineering Science Course (ESC/ETC/PLC)</b>			
BAU405A	Automotive Pollution and Control	BAU405C	Composite Materials

BAU405B	Maintenance Engineering	BAU405D	Earth Moving Equipment
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