

VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI  
**B.E. in Mechanical Engineering**  
**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	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	BME301	Mechanics of Materials	TD- ME PSB-ME	2	2	0		03	50	50	100	3
2	IPCC	BME302	Manufacturing Process	TD: ME PSB: ME	3	0	2		03	50	50	100	4
3	IPCC	BME303	Material Science and Engineering	TD: ME PSB: ME	3	0	2		03	50	50	100	4
4	PCC	BME304	Basic Thermodynamics	TD: ME PSB: ME	2	2	0		03	50	50	100	3
5	PCCL	<b>BMEL305</b>	Introduction to Modelling and Design for Manufacturing	TD: ME PSB: ME	0	0	2		03	50	50	100	1
6	ESC	BME306x	ESC/ETC/PLC	TD: Respective Dept. PSB: Respective Dept.	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	BME358x	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									
<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)[L-T-P::3-0-0]**

BME306A	Electric and Hybrid Vehicle Technology	BME306C	Internet of Things (IoT)
BME306B	Smart Materials & Systems	BME306D	Waste handling and Management

**Ability Enhancement Course – III**

BME358A	Advanced Python Programming [0-0-2]	BME358C	Spreadsheet for Engineers [0-0-2]
BME358B	Introduction to Virtual Reality [0-2-0]	BME358D	Tools in Scientific Computing [0-0-2]

**Professional Core Course (IPCC):** Refers to Professional Core Course Theory Integrated with practical's 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.

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IV 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	Self -Study	Duration in hours	CIE Marks	SEE Marks		Total Marks
					L	T	P	S					
1	PCC	BME401	Applied Thermodynamics	TD: ME PSB:ME	2	2	0		03	50	50	100	3
2	IPCC	BME402	Machining Science & Metrology	TD: ME PSB:ME	3	0	2		03	50	50	100	4
3	IPCC	BME403	Fluid Mechanics	TD: ME PSB:ME	3	0	2		03	50	50	100	4
4	PCCL	BME404	Mechanical Measurements and Metrology lab	TD: ME PSB:ME	0	0	2		03	50	50	100	1
5	ESC	BME405x	ESC/ETC/PLC	TD: Respective Dept. PSB: Respective Dept.	3	0	0		03	50	50	100	3
6	AEC/ SEC	BME456x	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									
<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.

**Engineering Science Course (ESC/ETC/PLC) [L-T-P::3-0-0]**

BME405A	Non Traditional Machining	BME405C	Micro Electro Mechanical Systems
BME405B	Environmental Studies	BME405D	Robotics and Automation

**Ability Enhancement Course / Skill Enhancement Course - IV**

BME456A	Introduction to AI & ML [0-0-2]	BME456C	Introduction to Data Analytics [0-0-2]
BME456B	Digital Marketing [0-2-0]	BME456D	Introduction to Programming in C++ [0-0-2]

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