Visvesvaraya Technological University, Belagavi
SchemeofTeaching andExaminations-2022
Outcome-Based Education(OBE)andChoiceBasedCreditSystem(CBCS)
(Effectivefromtheacademicyear 2022-23)

ISem	ester(Electr	ical & Electro	nics EngineeringStream)	(For Physi									
	CI			Tea	chingHo	urs/Wee	k		Examir	ation			
Sl. No		ourse urseCode	CourseTitle	TD/PSB Theory Lecture Tutorial Practical/ Drawing SDA SDA Duration in hours				Ouration in hours	CIE Marks	SEE Marks	Total Marks	Credits	
					L	T	P	S					
1	*ASC(IC)	BMATE101	Mathematics-I for EEE Streams	Maths	2	2	2	0	03	50	50	100	04
2	#ASC(IC)	BPHYE102	Applied Physics for EEE Stream	PHY	2	2	2	0	03	50	50	100	04
		BEEE103	# Elements of Electrical Engineering		2	2	0	0					
3	ESC		OR	EEE/ECE/TCE			OR		03	50	50	100	03
		BBEE103	## Basic Electronics for EEE stream		3	0	0	0					
4	ESC-I	BESCK104x	Engineering Science Course-I	Respective Engg Dept	3	0	0	0	03	50	50	100	03
	ETC-I	BETCK105x	Emerging Technology Course-I		3	0	0	0	03				
5			OR	Any Dept						50	50	100	03
	PLC-I	BPLCK105x	Programming Language Course-I		2	0	2	0	03				
		BENGK106	Communicative English										
6	AEC		OR	Humanities	1	0	0	0	01	50	50	100	01
		BPWSK106	Professional Writing Skills in English										
	HOMO	BKSKK107/ BKBKK107	Samskrutika Kannada/ Balake Kannada	IIauiti aa	1	0	0	0	0.1	50	F0.	100	0.1
7	HSMC		OR	Humanities					01	50	50	100	01
		BICOK107	Indian Constitution		1	0	0	0					
		BIDTK158	Innovation and Design Thinking	· I		0	0	0	01				
8	AEC/SDC		OR	Any Dept						50	50	100	01
		BSFHK158	Scientific Foundations of Health	Берс	1	0	0	0	01				

	TOTAL						400	400	800	20	
# Electrical & Electronics Engineering Students have to study BEEE103- Element of Electrical Engineering compulsorily ## Where as Electronics and allied stream students have to study BBEE103 Basic Electronics compulsorily											
SDA-Skill Development Activities, TD/PSB- Teaching Department / Paper Setting Board, ASC-Applied Science Course, ESC- Engineering Science Courses, E											
	Emerging Technology Course, <b>AEC</b> - Ability Enhancement Course, <b>HSMS</b> -Humanity and Social Science and Management Course, <b>SDC</b> - Skill Development Course,										
CIE-Continuous Internal Evaluation, SEE- Semester End Examination, IC -	Integrated Course (Th	neory C	ourse Ir	ntegrate	ed with	ı Practic	al Cours	se)			
Credit Definition:	04-Credits courses	are to b	e desig	ned for	50 hoi	ırs of Te	eaching-l	Learning	g Sessio	n	
1-hour Lecture (L) per week=1Credit	04-Credits (IC) are	to be de	signed	for 40 ł	ours'	theory a	nd 12-1	4 hours	of prac	ctical	
2-hoursTutorial(T) per week=1Credit	sessions										
2-hours Practical / Drawing (P) per week=1Credit	03-Credits courses	are to b	e desig	ned for	40 hoı	ırs of Te	eaching-l	Learning	g Sessio	on	
2-hous Skill Development Actives (SDA) per week = 1 Credit	02- Credits courses are to be designed for 25 hours of Teaching-Learning Session										
	01-Credit courses a	re to be	design						ing ses	sions	

**Student's Induction Program:** Motivating (Inspiring) Activities under the Induction program – The main aim of the induction program is to provide newly admitted students a broad understanding of society, relationships, and values. Along with the knowledge and skill of his/her study, students' character needs to be nurtured as an essential quality by which he/she would understand and fulfill the responsibility as an engineer. The following activities are to be covered in 21 days. Physical Activity, Creative Arts, Universal Human Values, Literary, Proficiency Modules, Lectures by Eminent People, Visits to Local areas, Familiarization with Department/Branch and Innovation, etc. For details, refer the ANNEXURE-I of Induction Programs notification of the University published at the beginning of the 1st semester.

AICTE Activity Points to be earned by students admitted to BE/ B.Tech., / B. Plan day college program (For more details refer to Chapter 6, AICTE Activity Point Program, Model Internship Guidelines): Over and above the academic grades, every regular student admitted to the 4 years Degree program and every student entering 4 years Degree programs through lateral entry, shall earn 100 and 75 Activity Points respectively for the award of degree through AICTE Activity Point Program. Students transferred from other Universities to the fifth semester are required to earn 50 Activity Points from the year of entry to VTU. The Activity Points earned shall be reflected on the student's eighth semester Grade Card. The activities can be spread over the years, any time during the semester weekends, and holidays, as per the liking and convenience of the student from the year of entry to the program. However, the minimum hours requirement should be fulfilled. Activity Points (non-credit) do not affect SGPA/CGPA and shall not be considered for vertical progression. In case students fail to earn the prescribed activity Points, an Eighth Semester Grade Card shall be issued only after earning the required activity points. Students shall be admitted for the award of the degree only after the release of the Eighth semester Grade Card.

\*- BMATE101Shall have the 03 hours of theory examination(SEE), however, practical sessions question shall be included in the theory question papers. \*\* The mathematics subject should be taught by a single faculty member per division, with no sharing of the course(subject)module-wise by different faculty members.

#- BPHYE102SEE shall have the 03 hours of theory examination and 02-03 hours of practical examination.

**ESC or ETC of 03 credits Courses** shall have only a theory component (L:T:P:S=3:0:0:0) or if the nature the of course required experimental learning syllabus

shall be designed as an Integrated course (L:T:P:S= 2:0:2:0 ),. **All 01 Credit-** courses shall have the SEE of 01 hours duration and the pattern of the question paper shall be MCO

	(ESC-I) Engineering Science Courses-I					(ETC-I) Emerging Technology Courses-I			
Code	Title	L	T	P	Code	Title	L	T	P
BESCK104A	Introduction to Civil Engineering	3	0	0	BETCK105A	Smart Materials and Systems	3	0	0
BESCK104B	Introduction to Electrical Engineering	3	0	0	BETCK105B	Green Buildings	3	0	0
BESCK104C	Introduction to Electronics	3	0	0	BETCK105C	Introduction to Nano Technology	3	0	0
	Communication								
BESCK104D	Introduction to Mechanical Engineering	3	0	0	BETCK105D	Introduction to Sustainable Engineering	3	0	0
BESCK104E	Introduction to C Programming	2	0	2	BETCK105E	Renewable Energy Sources	3	0	0
					BETCK105F	Waste Management	3	0	0
					BETCK105G	Emerging Applications of Biosensors	3	0	0
					BETCK105H	Introduction to Internet of Things (IOT)	3	0	0
					BETCK105I	Introduction to Cyber Security	3	0	0
					BETCK105J	Introduction to Embedded System	3	0	0
(PLC-I) Prog	ramming Language Courses-I								
Code	Title	L	T	P					
BPLCK105A	Introduction to Web Programming	2	0	2					
BPLCK105B	Introduction to Python Programming	2	0	2					
BPLCK105C	Basics of JAVA programming	2	0	2					
BPLCK105D	Introduction to C++ Programming	2	0	2					

The course BESCK104E, Introduction to C Programming, and all courses under PLC and ETC groupscan be taught by faculty of ANY DEPARTMENT

- The student has to select one course from the ESC-I group.
- **EEE** Students shall opt for any one of the courses from the ESC-I group **except**, BESCK104B**-Introduction to Electrical Engineering** and **ECE/ETC/BM/ML** students shall opt any one of the courses from ESC-I **except** BESCK104C **Introduction to Electronics** Engineering
- ullet The students have to opt for the courses from ESC group without repeating the course in either 1st or 2nd semester
- The students must select one course from either ETC-I or PLC-I group.
- If students study the subject from ETC-I in 1st semester he/she has to select the course from PLC-II in the 2nd semester and vice-versa

# Visvesvaraya Technological University, Belagavi SchemeofTeaching and Examinations-2022 Outcome-Based Education(OBE)andChoiceBasedCreditSystem(CBCS) (Effectivefromtheacademicyear 2022-23)

IISem	ester (Electri	cal & Electron	ics EngineeringStream)	(For the students		tende	d 1st sem	ester	under P	hysics G	roup)		
					Teaching Hours/Week			F	Examinatio	n			
Sl. No		nd Course de	Course Title	TD/PSB	Theory Lecture	Tutorial	Practical/ Drawing	SDA	Duration in hours	CIE Marks	SEE Marks	Total Marks	Credits
1	*ASC(IC)	BMATE201	Mathematics-II for EESI	Maths	L 2	<b>T</b> 2	Р 2	<b>S</b> 0	03	50	50	100	04
1	ASC(IC)	DMAIEZUI	Mathematics-II for EESI	Matris				U	03	30	30	100	04
2	#ASC(IC)	BCHEE202	<b>Chemistry</b> for EES	Chemistry	2	2	2	0	03	50	50	100	04
3	ESC	BCEDK203	Computer-Aided Engineering Drawing	Civil/Mech Engg dept	2	0	2	0	03	50	50	100	03
4	ESC-II	BESCK204x	Engineering Science Course-II	Respective Engg Dept	3	0	0	0	03	50	50	100	03
	PLC-II	BPLCK205x	Programming Language Course-II		2	0	2	0	03				
5			OR	Any Dept						50	50	100	03
	ETC-II	BETCK205x	Emerging Technology Course-II		03	0	0	0	03				
		BPWKS206	Professional Writing Skills in English										
6	AEC		OR	Humanities	1	0	0	0	01	50	50	100	01
		BENGK206	Communicative English										
		BICOK207	Indian Constitution										
7	HSMS		OR	Humanities	1	0	0	0	01	50	50	100	01
•		BKSKK207/ BKBKK207	Samskrutika Kannada/ Balake Kannada										
		BSFHK258	Scientific Foundations of Health		1	0	0	0	01				
8	HSMS		OR	Any Dept.						50	50	100	01
		BIDTK258	Innovation and Design Thinking	2000	1	0	0	0	01				
				TOTAL						400	400	800	20

SDA-Skill Development Activities, TD/PSB- Teaching Department / Paper Setting Board, ASC-Applied Science Course, ESC- Engineering Science Courses, ETC- Emerging Technology Course, AEC- Ability Enhancement Course, HSMS-Humanity and Social Science and Management Course, SDC- Skill Development Course, CIE -Continuous Internal Evaluation, SEE- Semester End Examination, IC – Integrated Course (Theory Course Integrated with Practical Course)

\*- BMATE201Shall have the 03 hours of theory examination(SEE), however, practical sessions question shall be included in the theory question papers. \*\* The mathematics subject should be taught by a single faculty member per division, with no sharing of the course(subject)module-wise by different faculty members.

#- BCHEE202- SEE shall have the 03 hours of theory examination and 02-03 hours of practical examination

**ESC or ETC of 03 credits Courses** shall have only a theory component (L:T :P:S=3:0:0:0) or if the nature the of course required practical learning, syllabus shall be designed as an Integrated course (L:T:P:S= 2:0:2:0)

All 01 Credit- courses shall have the SEE of 01 hours duration and the pattern of the question paper shall be MCQ

	(ESC-II) Engineering Science Courses-II					(ETC-II) Emerging Technology Courses-II			
Code	Title	L	T	P	Code	Title	L	T	P
BESCK201A	Introduction to Civil Engineering	3	0	0	BETCK205A	Smart materials and Systems	3	0	0
BESCK202B	Introduction to Electrical Engineering	3	0	0	BETCK205B	Green Buildings	3	0	0
BESCK203C	Introduction to Electronics	3	0	0	BETCK205C	Introduction to Nano Technology	3	0	0
	Communication								
BESCK204D	Introduction to Mechanical Engineering	3	0	0	BETCK205D	Introduction to Sustainable Engineering	3	0	0
BESCK205E	Introduction to C Programming	2	0	2	BETCK205E	Renewable Energy Sources	3	0	0
					BETCK205F	Waste Management	3	0	0
					BETCK205G	Emerging Applications of Biosensors	3	0	0
					ВЕТСК205Н	Introduction to Internet of Things(IoT)	3	0	0
					BETCK205I	Introduction to Cyber Security	3	0	0
					BETCK205J	Introduction to Embedded System	3	0	0
(PLC-II) Prog	gramming Language Courses-II								
Code	Title	L	T	P					
BPLCK205A	Introduction to Web Programming	2	0	2					
BPLCK205B	Introduction to Python Programming	2	0	2					
BPLCK205C	Basics of JAVA programming	2	0	2					
BPLCK205D	Introduction to C++ Programming	2	0	2					

The course BESCK205E, Introduction to C Programming, and all courses under PLC and ETC groups can be taught by faculty of ANY DEPARTMENT

- The student has to select one course from the ESC-II group.
- **EEE** Students shall opt for any one of the courses from the ESC-I group **except**, BESCK202-**Introduction to Electrical Engineering and ECE/ETC/BM/ML** students shall opt any one of the courses from ESC-I **except** BESCK203**Introduction to Electronics** Engineering
- The students have to opt for the courses from ESC group without repeating the course in either 1st or 2nd semester
- The students must select one course from either ETC-II or PLC-II group.
- If students study the subject from ETC-I in 1st semester he/she has to select the course from PLC-II in the 2nd semester and vice-versa

## Visvesvaraya Technological University, Belagavi SchemeofTeaching and Examinations-2022 Outcome-Based Education(OBE)andChoiceBasedCreditSystem(CBCS) (Effectivefromtheacademicyear 2022-23)

ISeme	ester (Electri	cal & Electron	ics Engineering Stream)	cacademicycai 202	,				(Fo	or Chemi	stry Gro	up)	
					Tea	chingH	ours/Wee	k	F	Examinatio	n		
SI. No		nd Course de	Course Title	TD/PSB	Theory	Tutorial	Practical/ Drawing	SDA	Duration in hours	CIE Marks	SEE Marks	Total Marks	Credits
		1			L	T	P	S					
1	*ASC(IC)	BMATE101	Mathematics-I for EES	Maths	2	2	2	0	03	50	50	100	04
2	#ASC(IC)	BCHEE102	Chemistry for EES	Chemistry	2	2	2	0	03	50	50	100	04
3	ESC	BCEDK103	Computer-Aided Engineering Drawing	Mechanical	2	0	2	0	03	50	50	100	03
4	ESC-I	BESCK104x	Engineering Science Course-I	Respective Engg Dept	3	0	0	0	03	50	50	100	03
	ETC-I	BETCK105x	Emerging Technology Course-I		3	0	0	0	03				
5			OR	Any Dept						50	50	100	03
	PLC-I	BPLCK105x	Programming Language Course-I		2	0	2	0	03				
		BPWSK106	Professional Writing Skills in English										
6	AEC		OR	Humanities	1	0	0	0	01	50	50	100	01
		BENGK106	Communicative English										
		BICOK107	Indian Constitution										
7	HSMS		OR	Humanities	1	0	0	0	01	50	50	100	01
		BKSKK107/ BKBKK107	Samskrutika Kannada/ Balake Kannada		_								
		BSFHK158	Scientific Foundations of Health		1	0	0	0	01				
8	HSMS		OR	— Any — Dept.						50	50	100	01
		BIDTK158	Innovation and Design Thinking	Dopu	1	0	0	0	01				
				TOTAL						400	400	800	20

**SDA**-Skill Development Activities, **TD/PSB**- Teaching Department / Paper Setting Board, **ASC**-Applied Science Course, **ESC**- Engineering Science Courses, **ETC**- Emerging Technology Course, **AEC**- Ability Enhancement Course, **HSMS**-Humanity and Social Science and Management Course, **SDC**- Skill Development Course, **CIE** -Continuous Internal Evaluation, **SEE**- Semester End Examination, **IC** – Integrated Course (Theory Course Integrated with Practical Course)

\*- BMATE101Shall have the 03 hours of theory examination (SEE), however, practical sessions question shall be included in the theory question papers. \*\* The mathematics subject should be taught by a single faculty member per division, with no sharing of the course(subject)module-wise by different faculty members.

#- BCHEE102- SEE shall have the 03 hours of theory examination and 02-03 hours of practical examination

**ESC or ETC of 03 credits Courses** shall have only a theory component (L:T :P:S=3:0:0:0) or if the nature the of course required practical learning syllabus shall be designed as an Integrated course (L:T:P:S= 2:0:2:0) **All 01 Credit-** courses shall have the SEE of 01 hours duration and the pattern of the question paper shall be MCQ

	The second secon
Credit Definition:	04-Credits courses are to be designed for 50 hours of Teaching-Learning Session
1-hour Lecture <b>(L)</b> per week= <b>1Credit</b>	04-Credits (IC) are to be designed for 40 hours' theory and 12-14 hours of practical sessions
2-hoursTutorial(T) per week=1Credit	03-Credits courses are to be designed for 40 hours of Teaching-Learning Session
2-hours Practical / Drawing (P) per week=1Credit	02- Credits courses are to be designed for 25 hours of Teaching-Learning Session
2-hous Skill Development Actives (SDA) per week = 1 Credit	01-Credit courses are to be designed for 12-15 hours of Teaching-Learning sessions

**Student's Induction Program:** Motivating (Inspiring) Activities under the Induction program – The main aim of the induction program is to provide newly admitted students a broad understanding of society, relationships, and values. Along with the knowledge and skill of his/her study, students' character needs to be nurtured as an essential quality by which he/she would understand and fulfill the responsibility as an engineer. The following activities are to be covered in 21 days. Physical Activity, Creative Arts, Universal Human Values, Literary, Proficiency Modules, Lectures by Eminent People, Visits to Local areas, Familiarization with Department/Branch and Innovation, etc. For details, refer the ANNEXURE-I of Induction Programs notification of the University published at the beginning of the 1st semester.

AICTE Activity Points to be earned by students admitted to BE/ B.Tech., / B. Plan day college program (For more details refer to Chapter 6, AICTE Activity Point Program, Model Internship Guidelines): Over and above the academic grades, every regular student admitted to the 4 years Degree program and every student entering 4 years Degree programs through lateral entry, shall earn 100 and 75 Activity Points respectively for the award of degree through AICTE Activity Point Program. Students transferred from other Universities to the fifth semester are required to earn 50 Activity Points from the year of entry to VTU. The Activity Points earned shall be reflected on the student's eighth semester Grade Card. The activities can be spread over the years, any time during the semester weekends, and holidays, as per the liking and convenience of the student from the year of entry to the program. However, the minimum hours' requirement should be fulfilled. Activity Points (non-credit) do not affect SGPA/CGPA and shall not be considered for vertical progression. In case students fail to earn the prescribed activity Points, an Eighth Semester Grade Card shall be issued only after earning the required activity points. Students shall be admitted for the award of the degree only after the release of the Eighth semester Grade Card.

_	(ESC-I) Engineering Science Courses-I	(ETC-I) Emerging Technology Courses-I								
Code	Title	L	T	P	Code	Title	L	T	P	
BESCK104A	Introduction to Civil Engineering	3	0	0	BETCK105A	Smart Materials and Systems	3	0	0	
BESCK104B	Introduction to Electrical Engineering	3	0	0	BETCK105B	Green Buildings	3	0	0	
BESCK104C	Introduction to Electronics	3	0	0	BETCK105C	Introduction to Nano Technology	3	0	0	
	Communication									
BESCK104D	Introduction to Mechanical Engineering	3	0	0	BETCK105D	Introduction to Sustainable Engineering	3	0	0	
BESCK104E	Introduction toC Programming	2	0	2	BETCK105E	Renewable Energy Sources	3	0	0	
					BETCK105F	Waste Management	3	0	0	
					BETCK105G	Emerging Applications of Biosensors	3	0	0	
					ВЕТСК105Н	Introduction to Internet of Things (IOT)	3	0	0	
					BETCK105I	Introduction to Cyber Security	3	0	0	
					BETCK105J	Introduction to Embedded System	3	0	0	
(PLC-I) Prog	ramming Language Courses-I									
Code	Title	L	T	P						
BPLCK105A	Introduction to Web Programming	2	0	2						
BPLCK105B	Introduction to Python Programming	2	0	2						
BPLCK105C	Basics of JAVA programming	2	0	2						
BPLCK105D	Introduction to C++ Programming	2	0	2						

The course BESCK104EIntroduction to C Programming, and all courses under PLC and ETC groupscan be taught by faculty of ANY DEPARTMENT

- The student has to select one course from the ESC-I group.
- **EEE** Students shall opt for any one of the courses from the ESC-I group **except**, BESCK104B**-Introduction to Electrical Engineering and ECE/ETC/BM/ML** students shall opt any one of the courses from ESC-I **except** BESCK104C **Introduction to Electronics** Engineering
- The students have to opt for the courses from ESC group without repeating the course in either 1st or 2nd semester
- The students must select one course from either ETC-I or PLC-I group.
- If students study the subject from ETC-I in 1st semester he/she has to select the course from PLC-II in the 2nd semester and vice-versa

## Visvesvaraya Technological University, Belagavi SchemeofTeaching and Examinations-2022 Outcome-Based Education(OBE)andChoiceBasedCreditSystem(CBCS) (Effectivefromtheacademicyear 2022-23)

II Ser	nester (Elect	rical & Electro	onics Engineering Stream)	(I					st semes	ter unde	er Chemi	istry Gr	oup)	
						Teachin	gHours/V	Veek		Exami	nation			
Sl. No		and Course ode	Course Title	TD/PSB	Theory	Tutorial	Practical/ Drawing	SDA	Duration in hours	CIE Marks	SEE Marks	Total Marks	Credits	
1	*ASC(IC)	BMATE201	Mathematics-II for EES	Maths	2	т 2	2	0	03	50	50	100	04	
2	#ASC(IC)	ВРНҮЕ202	Applied Physics for EES	PHY	2	2	2	0	03	50	50	100	04	
		BEEE203	# Elements of Electrical Engineering		2	2	0	0						
3	ESC OR		EEE/ECE/TCE			,		03	50	50	100	03		
		BBEE203	## Basic Electronics		3	0	0	0						
4	ESC-II	BESCK204x	Engineering Science Course-II	Respective Engg Dept.	3	0	0	0	03	50	50	100	03	
	PLC-II	BPLCK205x	Programming language Course-II		2	0	2	0	03					
5			OR	Any Dept						50	50	100	03	
	ETC-II	BETCK205x	Emerging Technology Course-II		3	0	0	0	03					
		BENGK206	Communicative English											
6	AEC		OR	Humanities	1	0	0		01	50	50	100	01	
		BPWSK206	Professional Writing Skills in English											
	HOMO	BKSKK207/ BKBKK207	Samskrutika Kannada/ Balake Kannada	- Humanities	1	0	0	0	01	50	50	100	01	
7	HSMC		OR	- Humanides					01	50	50	100	01	
		BICOK207	Indian Constitution		1	0	0	0						
		BIDTK258	Innovation and Design Thinking			1 0	0		0	01				
8	AEC/SDC		OR	Any Dept						50	50	100	01	
		BSFHK258	Scientific Foundations of Health	Бері	1	0	0	0	01					
				TOTAL						400	400	800	20	

## # Electrical & Electronics Engineering Students have to study BEEE203 Elements of Electrical Engineering compulsorily ## Whereas Electronics and allied stream students have to study BBEE203 Basic Electronics compulsorily

**SDA**-Skill Development Activities, **TD/PSB**- Teaching Department / Paper Setting Board, **ASC**-Applied Science Course, **ESC**- Engineering Science Courses, **ETC**- Emerging Technology Course, **AEC**- Ability Enhancement Course, **HSMS**-Humanity and Social Science and Management Course, **SDC**- Skill Development Course, **CIE**-Continuous Internal Evaluation, **SEE**- Semester End Examination, **IC** – Integrated Course (Theory Course Integrated with Practical Course)

\*- BMATE201Shall have the 03 hours of theory examination(SEE), however, practical sessions question shall be included in the theory question papers. \*\* The mathematics subject should be taught by a single faculty member per division, with no sharing of the course(subject)module-wise by different faculty members.
#- BPHYE202SEE shall have the 03 hours of theory examination and 02-03 hours of practical examination.

**ESC or ETC of 03 credits Courses** shall have only a theory component (L:T:P:S=3:0:0:0) or if the nature the of course required practical learning syllabus shall be designed as an Integrated course (L:T:P:S= 2:0:2:0),. **All 01 Credit-** courses shall have the SEE of 01 hours duration and the pattern of the question paper shall be MCQ

	(ESC-II) Engineering Science Courses-II	(ETC-II) Emerging Technology Courses-II								
Code	Title	L	T	P	Code	Title	L	T	P	
BESCK204A	Introduction to Civil Engineering	3	0	0	BETCK205A	Smart materials and Systems	3	0	0	
BESCK204B	Introduction to Electrical Engineering	3	0	0	BETCK205B	Green Buildings	3	0	0	
BESCK204C	Introduction to Electronics	3	0	0	BETCK205C	Introduction to Nano Technology	3	0	0	
	Communication									
BESCK204D	Introduction to Mechanical Engineering	3	0	0	BETCK205D	Introduction to Sustainable Engineering	3	0	0	
BESCK204E	Introduction to C Programming	2	0	2	BETCK205E	Renewable Energy Sources	3	0	0	
					BETCK205F	Waste Management	3	0	0	
					BETCK205G	Emerging Applications of Biosensors	3	0	0	
					ВЕТСК205Н	Introduction to Internet of Things(IoT)	3	0	0	
					BETCK205I	Introduction to Cyber Security	3	0	0	
					BETCK205J	Introduction to Embedded System	3	0	0	
(PLC-II) Prog	gramming Language Courses-II									
Code	Title	L	T	P						
BPLCK205A	Introduction to Web Programming	2	0	2						
BPLCK205B	Introduction to Python Programming	2	0	2						
BPLCK205C	Basics of JAVA programming	2	0	2						
BPLCK205D	Introduction to C++ Programming	2	0	2						

The course BESCK204E, Introduction to C Programming, and all courses under PLC and ETC groupscan be taught by faculty of ANY DEPARTMENT

- The student has to select one course from the ESC-II group.
- **EEE** Students shall opt for any one of the courses from the ESC-I group **except**, BESCK204B**-Introduction to Electrical Engineering and ECE/ETC/BM/ML** students shall opt any one of the courses from ESC-I **except** BESCK204C**Introduction to Electronics** Engineering
- The students have to opt for the courses from ESC group without repeating the course in either 1st or 2nd semester
- The students must select one course from either ETC-II or PLC-II group.
- If students study the subject from ETC-I in 1st semester he/she has to select the course from PLC-II in the 2nd semester and vice-versa