APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY

(A State Government University)

B. Tech

Curriculum (2024)- Semester I to VIII

Civil Engineering

Branch Code: CE

(Group C)

Ambady Nagar, Sreekaryam

Thiruvananthapuram- 695016

FIRST SEMESTER (July-December): Group C														
10 Days Compulsory Induction Program and UHV														
Sl. No:	**Slot**	**Course Code**	**Course Type**	**Course Category**	**Course Title (Course Name)**	**Credit Structure**				**SS**	**Total Marks**		**Credits**	**Hrs. /Week**
						L	**T**	**P**	**R**		**CIA**	**ESE**		
1	A	GYMAT101	BSC	GC	Mathematics for Physical Science-1	3	0	0	0	4.5	40	60	3	3
2	B S1/ S2	GZPHT121	BSC	GC	Physics for Physical Science	3	0	2	0	5.5	40	60	4	5
		GCCYT122			Chemistry for Physical Science									
3	C	GCEST103	ESC	GC	Engineering Mechanics	3	0	0	0	4.5	40	60	3	3
4	D	GCEST104	ESC	GC	Introduction to Mechanical Engineering & Civil Engineering (Part1: Mechanical Engineering)	2	0	0	0	3	20	30	2+2=4	4
					(Part 2: Civil Engineering)	2	0	0	0	3	20	30		
5	F	UCEST105	ESC	UC	Algorithmic Thinking with Python	3	0	2	0	5.5	40	60	4	5
6	L	GCESL106	ESC	GC	Engineering Workshop	0	0	2	0	1	50	50	1	2
7	I* S1/ S2	UCHWT127	HWP	UC	Health and wellness	1	0	1	0	0	50	0	1	2/3
		UCHUT128	HMC		Life Skills and Professional Communication	2	0	1	0	3	100	0		
8	S_1/ S_2	UCSEM129	SEC	UC	Skill Enhancement Course: Digital 101(30 Hours, NASSCOM)	MOOC				2			-	
Total										**30/ 32**			**20**	**24/ 25**
Bridge Course (Mathematics or Introduction to Computer Science) *: Total 15 Hrs.														

Valuation for HMC courses will be done at college level, Question papers will be provided by the University.
No Grade Points will be awarded for the MOOC course and I slot course.

- L-T-P-R: Lecture-Tutorial-Practical-Project
- SS(Self Study) Hours= 1.5L+0.5 T+0.5P+R
- CIA: Continuous Internal Assessment, ESE: End Semester Examination

Digital 101 (NASSCOM)		
Sl. No:	**Technologies Covered**	**Hours**
1	Artificial intelligence and Big Data Analytics (AI/BDA)	11
2	Internet of Things (IoT)	2.5
3	Cyber Security	2.5
4	Block Chain	2.5
5	Robotic Process Automation	1.5
6	Augmented and Virtual Reality (AR and VR)	2.5
7	Cloud Computing	2.5
8	3 D Printing and Modelling	2
9	Web, Mobile Dev and Marketing	2
10	Responsible AI	1
	Total Hours	**30**

Note: *Engineering Physics, Engineering Chemistry, Health and Safety and Life skill and Life Skills and Professional Communication shall be offered in both S1 and S2. Institutions can advise students belonging to about 50% of the number of branches in the Institution to opt for Engineering Physics/ Engineering Chemistry in slot B and Health and wellness/ Life Skills and Professional Communication in slot in slot I in the first semester and remaining 50% to opt similarly in the second semester*

SECOND SEMESTER (January-June):Group C														
Sl. No:	**Slot**	**Course Code**	**Course Type**	**Course Category**	**Course Title (Course Name)**	**Credit Structure**				**SS**	**Total Marks**		**Credits**	**Hrs. /Week**
						L	**T**	**P**	**R**		**CIA**	**ESE**		
1	A	GYMAT201	BSC	GC	Mathematics for Physical Science-2	3	0	0	0	4.5	40	60	3	3
2	B S1/S2	GZPHT121	BSC	GC	Physics for Physical Science	3	0	2	0	5.5	40	60	4	5
		GCCYT122			Chemistry for Physical Science									
3	C	GCEST203	ESC	GC	Engineering Graphics and Computer Aided Drawing	2	0	2	0	4	40	60	3	4
4	D	GZEST204	ESC	GC	Basic Electrical & Electronics Engineering (Part 1: Electrical Engineering)	2	0	0	0	3	20	30	2+2=4	4
					(Part 2: Electronics Engineering)	2	0	0	0	3	20	30		
5	E	PCCET205	PC	PC	Mechanics of Solids	3	1	0	0	5	40	60	4	4
6	F	UCEST206	ESC	UC	Engineering Entrepreneurship & IPR	3	0	0	0	4.5	60	40	3	3
7	I* S1/S2	UCHWT127	HWP	UC	Health and wellness	1	0	1	0	0	50	0	1	2/3
		UCHUT128	HMC		Life Skills and Professional Communication	2	0	1	0	3	100	0		
8	L	GCESL218	ESC	GC	Civil Engineering Drafting lab	0	0	2	0	1	50	50	1	2
9	S_1/S_2	UCSEM129	SEC	UC	Skill Enhancement Course: Digital 101(30 Hours, NASSCOM)	MOOC							1	
Total										**34**			**24**	**27/28**

No Grade Points will be awarded for the MOOC course and I slot course.

THIRD SEMESTER (July-December)														
Sl. No:	**Slot**	**Course Code**	**Course Type**	**Course Category**	**Course Title (Course Name)**	**Credit Structure**				**SS**	**Total Marks**		**Credits**	**Hrs./ Week**
						L	**T**	**P**	**R**		**CIA**	**ESE**		
1	A	GYMAT301	BSC	GC	Mathematics for Physical Science-3	3	0	0	0	4.5	40	60	3	3
2	B	PCCET302	PC	PC	Fluid mechanics	3	1	0	0	5	40	60	4	4
3	C	PCCET303	PC	PC	Structural analysis-I	3	1	0	0	5	40	60	4	4
4	D	PBCET304	PC-PBL	PB	Surveying & Geomatics	3	0	0	1	5.5	60	40	4	4
5	F	GNEST305	ESC	GC	Introduction to Artificial Intelligence and Data Science	3	1	0	0	5	40	60	4	4
6	G S3/S4	UCHUT346	HMC	UC	Economics for Engineers	2	0	0	0	3	50	50	2	2
		UCHUT347			Engineering Ethics and Sustainable Development									
7	L	PCCEL307	PCL	PC	Survey Lab	0	0	3	0	1.5	50	50	2	3
8	Q	PCCEL308	PCL	PC	Fluid mechanics Lab	0	0	3	0	1.5	50	50	2	3
9	R/M		VAC		Remedial/minor/course	3	1	0	0	5			4*	4*
Total										**31/ 36**			**25/29***	**27/31***

FOURTH SEMESTER (January-June)														
Sl. No:	**Slot**	**Course Code**	**Course Type**	**Course Category**	**Course Title (Course Name)**	**Credit Structure**				**SS**	**Total Marks**		**Credits**	**Hrs./ Week**
						L	**T**	**P**	**R**		**CIA**	**ESE**		
1	A	GCMAT401	BSC	GC	Mathematics for Physical Science-4	3	0	0	0	4.5	40	60	3	3
2	B	PCCET402	PC	PC	Soil mechanics	3	1	0	0	5	40	60	4	4
3	C	PCCET403	PC	PC	Structural analysis-II	3	1	0	0	5	40	60	4	4
4	D	PBCET404	PC-PBL	PB	Design of concrete structures	3	0	0	1	5.5	60	40	4	4
5	E	PECET41N	PE	PE	PE-1	3	0	0	0	4.5	40	60	3	3
6	G S3/S4	UCHUT346	HMC	UC	Economics for Engineers	2	0	0	0	3	50	50	2	2
		UCHUT347			Engineering Ethics and Sustainable Development									
7	L	PCCEL407	PCL	PC	Materials testing lab	0	0	3	0	1.5	50	50	2	3
8	Q	PCCEL408	PCL	PC	Civil engineering modelling Lab	0	0	3	0	1.5	50	50	2	3
9	R/M /H		VAC		Remedial/Minor/Honours Course	3	1	0	0	5			4*	4*
Total										**31/ 36**			**24/ 28***	**26/ 30***

Note: *Economics for Engineers and Engineering Ethics and Sustainable Development shall be offered in both S3 and S4. Institutions can advise students belonging to about 50% of the number of branches in the Institution to opt for Economics for Engineers in S3 and Engineering Ethics & Sustainable Development in S4 and vice versa*.

PROGRAM ELECTIVE I: PECET 41N					
SLOT	COURSE CODE	COURSES	L-T-P-R	HOURS	CREDIT
E	PECET411	Advanced Solid Mechanics	3-0-0-0	**3**	3
	PECET412	Concrete Technology	3-0-0-0		3
	PECET413	Mechanics of Fluid Flow	3-0-0-0		3
	PECET414	Cartography and GIS	3-0-0-0		3
	PECET416	Engineering Geology	3-0-0-0		3
	PECET417	Numerical methods for Engineers	3-0-0-0		3
	PECET418	Environmental law and Policy	3-0-0-0		3
	PECET415	**Architectural Engineering**	3-0-0-0		**5/3**

Note : *Level 5 courses in the B. Tech curriculum carry a total of 5 credits, consisting of 3 credits for the Programme Elective and 2 additional credits. The additional 2 credits shall be awarded only if the student meets the eligibility conditions specified in the B. Tech. -2024 regulations. If those conditions are not fulfilled, the student will receive only 3 credits for the course.*

FIFTH SEMESTER (July-December)														
Sl. No:	**Slot**	**Course Code**	**Course Type**	**Course Category**	**Course Title (Course Name)**	**Credit Structure**				**SS**	**Total Marks**		**Credits**	**Hrs./ Week**
						L	**T**	**P**	**R**		**CIA**	**ESE**		
1	A	PCCET501	PC	PC	Hydrology & water resources engineering	3	1	0	0	5	40	60	4	4
2	B	PCCET502	PC	PC	Transportation engineering	3	1	0	0	5	40	60	4	4
3	C	PCCET503	PC	PC	Environmental engineering	3	0	0	0	4.5	40	60	3	3
4	D	PBCET504	PC-PBL	PB	Foundation engineering	3	0	0	1	5.5	60	40	4	4
5	E	PECET52N	PE	PE	PE-2	3	0	0	0	4.5	40	60	3	3
6	I*	UCHUM506	HMC	UC	Constitution of India (MOOC)	-	-	-	-	2	-	-	1	-
7	L	PCCEL507	PCL	PC	Geotechnical engineering lab	0	0	3	0	1.5	50	50	2	3
8	Q	PCCEL508	PCL	PC	Concrete lab (MT-2)	0	0	3	0	1.5	50	50	2	3
9	R/M/H		VAC		Remedial/Minor/Honours Course	3	1	0	0	5			4*	4*
	S_5/ S_6	Industrial Visit (Maximum 12 Days are permitted, Not Exceeding more than 6 Working Days) /Industrial Training												
Total										**30 / 35**			**23/27***	**24/28***

****No Grade Points will be awarded for the MOOC course and I slot course.***

PROGRAM ELECTIVE 2: PECET 52N					
SLOT	COURSE CODE	COURSES	L-T-P-R	HOURS	CREDIT
E	PECET521	Advanced Structural Analysis	3-0-0-0	3	3
	PECET522	Modern Construction Technology	3-0-0-0		3
	PECET523	Open Channel Hydraulics	3-0-0-0		3
	PECET524	Disaster management	3-0-0-0		3
	PECET526	Applied hydrology and climatology	3-0-0-0		3
	PECET527	Town Planning	3-0-0-0		3
	PECET528	Optimization techniques and operations research for Civil Engineers	3-0-0-0		3
	PECET525	**Design of prestressed concrete**	3-0-0-0		**5/3**

SIXTH SEMESTER (January-June)														
Sl. No:	**Slot**	**Course Code**	**Course Type**	**Course Category**	**Course Title (Course Name)**	**Credit Structure**				**SS**	**Total Marks**		**Credits**	**Hrs/ Week**
						L	**T**	**P**	**R**		**CIA**	**ESE**		
1	A	PCCET601	PC	PC	Quantity surveying & valuation	3	0	0	0	4.5	40	60	3	3
2	B	PCCET602	PC	PC	Design of steel structures	3	0	0	0	4.5	40	60	3	3
3	C	PECET63N	PE	PE	PE-3	3	0	0	0	4.5	40	60	3	3
4	D	PBCET604	PC-PBL	PB	Construction project management	3	0	0	1	5.5	60	40	4	4
5	F	GCEST605	ESC	GC	Design Thinking and Product Development (Group Specific Syllabus)	2	0	0	0	3	40	60	2	2
6	O	OECET61N /IECET61N	OE/ILE	OE/IE	OE/ILE-1	3	0	0	0	4.5	40	60	3	3
7	L	PCCEL607	PCL	PC	Transportation engineering lab	0	0	3	0	1.5	50	50	2	3
8	P	PCCEP608	PWS	PC	Mini Project: Socially Relevant Project	0	0	0	3	3	50	50	2	3
9	Q	PCCEL609	PCL	PC	Environmental engineering lab	0	0	2	0	1	50	50	1	2
10	R/ M/ H		VAC		Remedial/Minor/Honours Course	3	0	0	0	5			3*	3*
	S5 / S6	Industrial Visit (Maximum 12 Days are permitted, Not Exceeding more than 6 Working Days) /Industrial Training												
Total										**32 / 37**			**23/26***	**26/29***

Note: Open Electives are such courses which will be offered by other departments. Like CSE department students have to opt open electives from ECE/ME/EEE etc. departments.

PROGRAM ELECTIVE 3: PECET 63N					
SLOT	COURSE CODE	COURSES	L-T-P-R	HOURS	CREDIT
C	PECET 631	Advanced Design of Concrete Structures	3-0-0-0	**3**	3
	PECET 632	Irrigation and Drainage Engineering	3-0-0-0		3
	PECET 633	Ground Improvement Techniques	3-0-0-0		3
	PECET 634	Repair and rehabilitation of structures	3-0-0-0		3
	PECET 636	Solid and Hazardous Waste Management	3-0-0-0		3
	PECET 637	Traffic Engineering and Management	3-0-0-0		3
	PECET 635	**Advanced foundation Engineering**	3-0-0-0		**5/3**

OPEN ELECTIVE 1: OECET 61N					
SLOT	COURSE CODE	COURSES	L-T-P-R	HOURS	CREDIT
O	OECET 611	Introduction to Construction Engineering	3-0-0-0	3	3
	OECET 612	Environmental Laws and Policy	3-0-0-0		3
	OECET 613	Disaster management	3-0-0-0		3
	OECET 614	Environmental Impact Assessment	3-0-0-0		3
	OECET 615	Structural Geology	3-0-0-0		3
	OECET 616	Applied Earth Systems	3-0-0-0		3

SEVENTH SEMESTER (July-December)														
Sl. No:	**Slot**	**Course Code**	**Course Type**	**Course Category**	**Course Title (Course Name)**	**Credit Structure**				**SS**	**Total Marks**		**Credits**	**Hrs/ Week**
						L	**T**	**P**	**R**		**CIA**	**ESE**		
1	A	PECET74N / PECEM74N	PE	PE	PE-4 (Internship Students: Self Study/MOOC Approved by the University/Online Classes)	3	0	0	0	4.5	40	60	3	3
2	B	PECET75N/ PECEM75N	PE	PE	PE-5 (Internship Students: Self Study/MOOC Approved by the University/Online Classes)	3	0	0	0	4.5	40	60	3	3
3	O	OECET72N /IECET72N/ OECEM72N	OE/ ILE	OE/IE	OE/ILE-2 (Internship Students: Self Study/MOOC Approved by the University/Online Classes)	3	0	0	0	4.5	40	60	3	3
4	I*	UEHUT704 / UEHUM70N	HMC	UE	Elective (Internship Students: Self Study/MOOC Approved by the University/Online Classes)	2	0	0	0	3	50	50	2	2
5	S	PCCES705	PWS	PC	Seminar	0	0	3	0	1.5	50	0	2	3
6	P	PCCEP706/ PCCEI706	PWS	PC	Option 1: Major Project Option 2: Internship (4-6 Months)	0	0	0	12	12	100	0	4	8
7	R/H		VAC		Remedial/Honours Course	3	0	0	0	4.5			3*	3*
Total										**26/ 31**			**17/20***	**22/25***

**No Grade Points will be awarded for the I slot courses*

**The students can take the internship option either in 7th or in 8th semester.*

** Option 1: Work on a Project in the institute/department under the mentorship of faculty members.*
*Option 2: Full semester Internship in Industry/organization (**7th or 8th semester**)*

Note: Open Electives are such courses which will be offered by other departments.

PROGRAM ELECTIVE 4: PECET 74N					
SLOT	COURSE CODE	COURSES	L-T-P-R	HOURS	CREDIT
A	PECET741	Structural Dynamics	3-0-0-0	**3**	3
	PECET742	Formwork Engineering	3-0-0-0		3
	PECET743	Environmental Geotechnology	3-0-0-0		3
	PECET744	Airport Planning and Design	3-0-0-0		3
	PECET746	Highway Material & Design	3-0-0-0		3
	PECET747	River Engineering	3-0-0-0		3
	PECET745	**Pavement Design and Construction**	3-0-0-0		**5/3**

PROGRAM ELECTIVE 5: PECET 75N					
SLOT	COURSE CODE	COURSES	L-T-P-R	HOURS	CREDIT
B	PECET751	Groundwater Engineering	3-0-0-0	3	3
	PECET752	Sustainable Construction Practices	3-0-0-0		3
	PECET753	Advanced Geotechnical Investigation	3-0-0-0		3
	PECET754	Railway,Port and Harbor Engineering	3-0-0-0		3
	PECET756	Air and Noise Pollution Control Engineering	3-0-0-0		3
	PECET757	Finite element method	3-0-0-0		3
	PECET755	**Design of hydraulic structures**	3-0-0-0		**5/3**

OPEN ELECTIVE 2: OECET 72N					
SLOT	COURSE CODE	COURSES	L-T-P-R	HOURS	CREDIT
O	OECET721	Intelligent Transportation Systems	3-0-0-0	3	3
	OECET722	Environment Health and Safety	3-0-0-0		3
	OECET723	Watershed Conservation and Management	3-0-0-0		3
	OECET724	Forensic Engineering	3-0-0-0		3
	OECET725	Finance for Engineers	3-0-0-0		3

SL. No	Course Code	Slot I: HMC Elective
1	UEHUT704	Project Management: Planning, Execution, Evaluation and Control
2	UEHUM701	Proficiency course in French. (MOOC) (B1 level)
3	UEHUM702	Proficiency Course in German (B1 Level). (MOOC)
4	UEHUM703	Proficiency Course in Spanish (B1 Level) (MOOC)
5	UEHUM704	Introduction to Japanese Language and Culture (N5 level). (MOOC)

EIGHTH SEMESTER (January-June)														
Sl. No:	**Slot**	**Course Code**	**Course Type**	**Course Category**	**Course Title (Course Name)**	**Credit Structure**				**SS**	**Total Marks**		**Credits**	**Hrs/ Week**
						L	**T**	**P**	**R**		**CIA**	**ESE**		
1	A	PECET86N / PECEM86N	PE	PE	PE-6 (Internship Students: Self Study/MOOC Approved by the University/Online Classes)	3	0	0	0	4.5	40	60	3	3
2	O	OECET83N /IECET83N / OECEM83N	OE/ILE	OE/IE	OE/ILE-3 (Internship Students: Self Study/MOOC Approved by the University/Online Classes)	3	0	0	0	4.5	40	60	3	3
3	I*	UEHUT803 / UEHUM803	HMC	UC	Organizational Behavior and Business Communication (Internship Students: Self Study/MOOC Approved by the University/Online Classes)	2	0	0	0	3	50	50	1	2
4	P	PCCEP806/ PCCEI806/ PCCEJ806	PWS	PC	Option 1: Major Project Option 2: Internship (4-6 Months) Option 3: Major Project Phase -II (For the students who have not opted for internship in S7/S8)	0	0	0	8	12	100	0	4	8
Total										**20**			**11**	**16**

No Grade Points will be awarded for the I slot courses

** Option 2: Full semester Internship in Industry/organization (**7th or 8th semester**)*

PROGRAM ELECTIVE 6: PECET 86N					
SLOT	COURSE CODE	COURSES	L-T-P-R	HOURS	CREDIT
A	PECET861	Water and air quality management	3-0-0-0	**3**	3
	PECET862	Valuation of Real Properties	3-0-0-0		3
	PECET863	Contracts Management	3-0-0-0		3
	PECET864	Advanced Design of steel Structures	3-0-0-0		3
	PECET866	Urban Transportation Planning.	3-0-0-0		3
	PECET867	Rural Water Supply and Onsite Sanitation Systems	3-0-0-0		3
	PECET865	**Design of Earthquake Resistant Structures**	3-0-0-0		**5/3**

OPEN ELECTIVE 3: OECET 83N					
SLOT	COURSE CODE	COURSES	L-T-P-R	HOURS	CREDIT
O	OECET831	Waste management	3-0-0-0	3	3
	OECET832	Rainwater harvesting	3-0-0-0		3
	OECET833	Public Transportation Systems	3-0-0-0		3
	OECET834	Fundamentals of building planning	3-0-0-0		3
	OECET835	Hydrogeology	3-0-0-0		3

HMC Courses				
Sl. No:	**Semester**	**Course Code**	**Course Area**	**Credits**
1	**S1/S2**	UCHUT128	Life Skills and Professional Communication	1
2	**S3 /S4**	UCHUT346	Economics for Engineers	2
3		UCHUT347	Engineering Ethics and Sustainable Development	2
4	**S5**	UCHUM506	Constitution Of India. (MOOC)	1
5	**S7**	UEHUT704 /UEHUM70N	Elective (Project Management/Foreign Languages)	2
6	**S8**	UEHUT803 / UEHUM803	Organizational Behavior and Business Communication	1
Total Credits				**9**

BSC Courses			
Sl. No:	**Semester**	**Course Area**	**Credits**
1	**S1**	Mathematics for Physical Science-1	**3**
2	**S1/S2**	Physics for Physical Science	4
3		Chemistry for Physical Science	4
4	**S2**	Mathematics for Physical Science-2	3
5	**S3**	Mathematics for Physical Science-3	3
6	**S4**	Mathematics for Physical Science-4	3
Total Credits			**20**

ESC Courses (Group C)			
Sl. No:	**Semester**	**Course Area**	**Credits**
1	**S1**	Engineering Mechanics	**3**
2		Introduction to Mechanical Engineering/ Civil Engineering	4
3		Algorithmic Thinking with Python	4
4		Engineering Workshop	1
5	**S2**	Engineering Graphics and Computer Aided Drawing	3
6		Basic Electrical and Electronics Engineering	4
7		Engineering Entrepreneurship and IPR	3
8		Civil Engineering drafting lab	1
9	**S3**	Introduction to Artificial Intelligence and Data Science	4
10	**S6**	Design Thinking and Product Development (Group Specific Syllabus)	2
Total Credits			**29**

Programme Core Courses (PC) (CE)			
Sl. No:	**Semester**	**Course Area**	**Credits**
1	**S2**	Mechanics of solids	4
2	**S3**	Fluid mechanics	4
3		Structural analysis-I	4
4		Survey lab	2
5		Fluid mechanics lab	2
6	**S4**	Soil mechanics	4
7		Structural analysis-II	4
8		Materials testing lab	2
9		Civil engineering modelling Lab	2
10	**S5**	Hydrology & water resources engineering	4
11		Transportation engineering	4
12		Environmental engineering	3
13		Geotechnical engineering lab	2
14		Concrete lab (MTL-2)	2
15	**S6**	Quantity surveying & valuation	3
16		Design of steel structures	3
17		Transportation engineering lab	2
19		Environmental engineering lab	1
Total Credits (Theory -10, Lab-8)			**52**

Programme Core-Project Based Learning (PBL)			
Sl. No:	**Semester**	**Course Area**	**Credits**
1	**S3**	Surveying & geomatics	4
2	**S4**	Design of concrete structures	4
3	**S5**	Foundation engineering	4
4	**S6**	Construction project management	4
Total Credits			**16**

Programme Elective Courses (PE)			
Sl. No:	**Semester**	**Course Type**	**Credits**
1	S4	PE-1	3
2	**S5**	PE-2	3
3	**S6**	PE-3	3
4	**S7**	PE-4	3
5		PE-5	3
6	**S8**	PE-6	3
Total Credits			**18**

Open Elective Courses/Industry Elective(OE/IEL)			
Sl. No:	**Semester**	**Course Type**	**Credits**
1	**S6**	OE/ILE-1	3
2	**S7**	OE/ILE-2	3
3	**S8**	OE/ILE-3	3
Total Credits			**9**

Project/ Internship and Seminar			
Sl. No:	**Semester**	**Course Type**	**Credits**
1	**S6**	Mini Project	2
2	**S7**	Seminar	2
3		Major Project/Internship	4
4	**S8**	Major Project/Internship/Research Project	4
Total Credits			**12**

Activity Points				
Sl. No.	**Group**	**Courses**	**Credits**	**Minimum Credit Requirements**
1	I	NSS, NCC, NSO (National Sports Organization)	1 (40 Points)	3 Credits (One credit from each Group)
2		Arts/Sports/Games		
3		Union/Club Activities		
4	II	English Proficiency Certification (TOFEL, IELTS, BEC etc.)	1 (40 Points)	
5		Aptitude Proficiency Certification (GRE, CAT, GMAT etc.)/ Valid Gate Score.		
6		Short Term Internship (Minimum 2 weeks), Clinical Exposure/Training (Minimum 2 weeks), Conferences/Paper Presentation/ Workshop Activities/ Professional Body Activities, Participation in University level/State Level/ National Level Hackathons		
7	III	Journal Publication, Patents, Start-Up, Innovation, Winners of National/ International Level Hackathons	1 (40 Points)	
8		**Skilling Certificates** (Approved by the University)		

- ***Students are required to acquire a minimum of 120 activity points, with at least 40 points per group, to fulfill the curriculum requirement of 3 activity credits.***
- ***For B. Tech Lateral Entry students, 30 points per group are required. A minimum of 90 activity points must be acquired to obtain the 3 activity credits mandated by the curriculum.***

Course classifications of the B. Tech Programmes and Overall Credit Structure			
Sl. No	**Category**	**Code**	**Credits**
1	Humanities and Social Sciences including Management Courses	HMC	9
2	Basic Science Courses	BSC	20
3	Engineering Science Courses	ESC	29
4	Programme (Professional) Core Courses	PCC	52
5	Programme (Professional) Core Courses-Project Based Learning	PBL	16
6	Programme Elective Courses	PEC	18
7	Open Elective Courses/Industry Linked Elective	OEC/ILE	9
8	Mini Project,Project Work/Internship and Seminar	PWS	12
9	Health and Wellness	HWP	1
10	Skill Enhancement Courses (Digital 101)	SEC	1
11	Mandatory Student Activities	MSA	3
Total Credits			**170**