LIST OF MINORS

1.	AEROSPACE ENGINEERING	MINOR		Template No.**AE-5**	
		Title	**AEROSPACE ENGINEEIRNG**		
		C O U R S E S	**Compulsory Course:**		
			AE201A [05]		
			Any **THREE** from:		
			AE211A [11]		
			AE321A [09]		
			AE331A [09]		
			AE650A [09] / AE753A [09] / AE341 [11]		
			32-36		

LIST OF MINORS

2.	BIOLOGICAL SCIENCES AND BIO-ENGINEERING	MINOR		Template No. **BSBE-5**	
		Title	**TISSUE ENGINEERING**		
		C O U R S E S	**BSE211A [09]**		
			BSE411A [11]		
			BSE421A [11]		
			-		
			31		

LIST OF MINORS

3.	CHEMICAL ENGINEERING	MINOR		Template No. CHE-5	
		Title	CHEMICAL ENGINEERING		
		C O U R S E S	CHE251A [09]		
			CHE261A [09]		
			CHE313A [09]		
			CHE331A [09]		
			-		
			36		

LIST OF MINORS

4.	CHEMISTRY

MINOR			Template No. **CHM-5**
Title	**PHYSICAL CHEMISTRY***	**INORGANIC CHEMISTRY**	**ORGANIC CHEMISTRY**
	Compulsory Courses:	**Compulsory Courses:**	**Compulsory Courses:**
C O U R S E S	**CHM321A [09]**	**CHM345A [09]**	**CHM201A [09]****
	CHM322A [09]	**CHM342A [09]**	**CHM202A [09]**
			CHM303A [09]
	Any **TWO** from:	Any **TWO** from:	**CHM402A [09]**
	CHM621A [09] **CHM622A [09]** **CHM626A [09]** **CHM636A [09]** **CHM637A [09]** **CHM650A [09]** **CHM664A [09]** **CHM685A [09]** **CHM689A [09]** **CHM695A [09]** **CHM696A [09]** **CHM699A [09]**	**CHM616A [09]** **CHM631A [09]** **CHM646A [09]** **CHM647A [09]** **CHM651A [09]** **CHM654A [09]** **CHM668A [09]** **CHM691A [09]**	–
	36	**36**	**36**

REMARKS:
1) *CSO202A is a pre-requisite for Minor in Physical Chemistry
2) **EXCEPTION: CHM201A to be done by Y13 and onward batches. Y11 and Y12 batch shall do CHM203A. Course title, content and credits are same. Just the course number has been changed.

LIST OF MINORS

5.	CIVIL ENGINEERING	MINOR		Template No. CE-5	Remark: 1. Minor in Infrastructure Engineering and Management under Civil Engineering department has been discontinued.
		Title	Infrastructure Engineering and Management		
		C O U R S E S	CE241 [09]	[odd semester]	
			CE640 [09]	[odd semester]	
			CE641A [05]	[odd semester]	
			CE643A [05] or CE644A [05]	[even semester]	
			CE667A [05]	[even semester]	

LIST OF MINORS

6.	COMPUTER SCIENCE & ENGINEERING		MINOR				Template No. CSE-4
			ALGORITHMS	COMPUTER SYSTEMS	THEORY OF COMPUTING	ARTIFICIAL INTELLIGENCE@	MACHINE LEARNING & APPLICATIONS
			COMPULSORY COURSE(S):	COMPULSORY COURSE(S):	COMPULSORY COURSE(S):	COMPULSORY COURSE(S):	COMPULSORY COURSE(S):
			CS210A [12]/ ESO207A[12]	CS210A [12]/ ESO207A[12]	CS210A [12]/ ESO207A[12]	CS210A [12/ ESO207A [12]	CS210A [12/ ESO207A [12]
			CS345A [09]		CS340A [09]	CS365A [09]	CS771A [09]
			And, ONE from:	And, TWO from:	And, ONE from:	And, ONE from:	And, ONE from:
			CS645A [09]	CS220A [12]	CS640A [09]	CS671A [09]	CS365A [09]
			CS646A [09]	CS330A [12]	CS641A [09]	CS672A [09]	CS671A [09]
			CS647A [09]	CS315A [09]	CS642A [09]	CS674A [09]	CS676A [09]
			CS648A [09]	CS335A [12]	CS643A [09]	CS675A [09]	CS678A [09]
			CS663A [09]	CS422A [09]	CS644A [09]	CS676A [09]	CS685A [09]
			CS664A [09]	CS425A [09]	CS649A [09]	CS685A [09]	CS698I [09]
			CS719A [09]	CS433A [09]	CS680A [09]	CS686A [09]	CS698N [09]
			CS743A [09]	CS455A [09]	CS681A [09]	CS782A [09]	CS698S [09]
					CS687A [09]		CS772A [09]
					CS740A [09]		CS773A [09]
					CS741A [09]		CS774A [09]
					CS742A [09]		-

Remarks:

1) For each Minor stream, the minimum total credit requirement is **30**.
2) In each minor stream any related course(s), even if not mentioned in the list of optional courses, may be taken as optional with the permission of the CSE DUGC.
3) @Only for students graduating till 2017.

LIST OF MINORS

7.	ELECTRICAL ENGINEERING		MINOR					Template No.**EE-4**
		Title	MICROELECTRONICS/ DIGITAL SYSTEMS	POWER	COMMUNICATIONS & SIGNAL PROCESSING	CONTROLS	RF & PHOTONICS	
		C O U R S E S	EE200A [11] EE210A [11] EE311A [09]/ EE370A [11]	EE200A [11] EE330A [11] EE360A [09]	EE200A [11] EE320A [11] EE321A [09]/ EE301A [09]	EE200A [11] EE250A [11] EE650A [09]	EE200A [11] EE340A [11] EE612A [09]/ EE642A [09]/ EE648A [09]	
			31/33	31	31	31	31	

LIST OF MINORS

8.	HUMANITIES & SOCIAL SCIENCES (New Template)	MINOR		Template No. HSS-1
		Title	**LINGUISTIC THEORY**	**ENGLISH LITERATURE**
			Pre-requisite: Completion of a Level-I course in Linguistics with at least a B grade.	**Pre-requisite**: Completion of any one Literature course with at least a B grade.
		C O U R S E S	**ONE course from following:** ENG122A [11] ENG124A [11] **and, TWO courses from following:** ENG408A [09] ENG423A [09] ENG443A [09] ENG447A [09] ENG448A [09] ENG449A [09] ENG452A [09] ENG467A [09] ENG748A [09] ENG754A [09] ENG759A [09] **Total Required Credits for Minor: 29**	**THREE courses from following:** ENG123A [11] ENG125A [11] ENG431A [09] ENG432A [09] ENG433A [09] ENG434A [09] ENG435A [09] ENG436A [09] ENG437A [09] ENG438A [09] ENG439A [09] ENG440A [09] ENG445A [09] ENG446A [09] ENG456A [09] ENG457A [09] ENG458A [09] ENG460A [09] ENG466A [09] HSS405A [09] ENG719A [09] ENG733A [09] ENG743A [09] ENG744A [09] ENG750A [09] ENG 752 [09] ENG 753 [09] ENG 764 [09] **Total Required Credits for Minor: 27-31**
	Remarks: If a student has done a course in English other than those listed above and wishes to have a Minor in English (Linguistics or English Literature), he/she may request the DUGC, HSS, to approve of the same.			

LIST OF MINORS

9.	INDUSTRIAL AND MANAGEMENT ENGINEERING			Template No. **IME-3**
		Title	INDUSTRIAL AND MANAGEMENT ENGINEERING	
		C O U R S E S	DE PG-1	
			DE PG-2	
			DE PG-3	
			-	
			27	

REMARKS:
1) DE PG may be from IME or MBA courses.

10.	MATERIALS SCIENCE & ENGINEERING	MINOR		Template No.**MSE-5**	
		Title	**FUNCTIONAL MATERIALS**		
		C O U R S E S	Any **THREE** from:		
			MSE604A [09]		
			MSE624A [09]		
			MSE628A [09]		
			MSE631A [09]		
			MSE693A [09]		
			27		

LIST OF MINORS

11.	MATHEMATICS AND SCIENTIFIC COMPUTING	MINOR		Template No. **BS-MTH-5**	**Remark:**
		Title	APPLIED MATHEMATICS		**1. Minor in Applied Mathematics under Mathematics and Scientific Computing department has been discontinued.**
		C			
		O	MTH308A [11]		
		U			
		R	MTH428A [11]		
		S	MTH426A [09]		
		E			
		S			
			31		

LIST OF MINORS

12.	MECHANICAL ENGINEERING	**MINOR**		Template No. **ME-5**
		Title	**MANURACTURING SCIENCES**	**COMPUTATIONAL TECHNIQUES IN MECHANICAL ENGINEERING**
		C O U R S E S	Any **THREE** from:	Any **THREE** from:
			ME661A [09] (Prerequisite TA202A)	**ME623A [09]** (Prerequisite ESO202A, MSO203B)
			ME662A [09] (Prerequisite TA202A)	**ME630A [09]** (Prerequisite ESO201A, ESO204A, MSO203B)
			ME663A [09] (Prerequisite ESO202A, MSO203B)	**ME685A [09]** (Prerequisite – No backlog in core courses)
			ME664A [09] (Prerequisite TA202A, ESO204A or Equivalent Heat Transfer Course)	**ME751A [09]** (Prerequisite TA101A)
			ME665A [09] (Prerequisite TA202A)	**MEXXXA [09]** (Nonlinear Finite Element Techniques in Solid Mechanics)
			ME774A [09] (Prerequisite ESO202A, MSO203B)	**MEXXXA [09]** (Atomistic Simulations in Engineering)
			ME751A [09] (Prerequisite TA101A)	-
			ME761A [09] (Prerequisite TA202A)	
			27	**27**

LIST OF MINORS

13.	PHYSICS	MINOR		Template No. BS-PHY-5	
		Title	STATISTICAL MECHANICS	QUANTUM MECHANICS	
		C			
		O	PSO201A [08]	PSO201A [08]	
		U			
		R	PHY210A [06]	PHY210A [06]	
		S	PHY226B [06]	PHY226B [06]	
		E			
		S	PHY412A [11]	PHY431A [11]	
			31	**31**	

LIST OF MINORS

14.	COGNITIVE SCIENCE				Remark:

MINOR		Template No. **CONG.-1**	Remark:
			1.Updated template of Minor in Cognitive Science was approved by the Senate in its 550th Meeting (item No. 6).
Title	**COGNITIVE SCIENCE**		
	Compulsory courses:		

		Remark continued
C O U R S E S	CGS401A [09]	2. The updated template is applicable from July-2022 onwards.
	CGS402A [09]	
	and, ONE courses from following list:	3. ** The project course is a semester long project that a student must take with any ONE or Jointly (more than one) of the faculty from the Department of Cognitive Science.
	CGS702A [09]**	
	CGS621A [09]	
	CGS622A [09]	
	CGS609A [09]	
	CGS698D [09]	
	CGS691A [09]	
	CGS671A [09]	
	CGS651A [09]	
	CS786A [09]	
	BSE656A [09]	
	BSE662A [09]	
	27	

LIST OF MINORS

15.	NUCLEAR ENGINEERING TECHNOLOGY			
		MINOR	Template No. **BS-NET 2**	**Remark:**
				1. Minor in Nuclear Engineering Technology has been discontinued. Students may request for retrospective Minor if they completed the course requirements.
		Title	NUCLEAR ENGINEERING TECHNOLOGY	
		C O U R S E S		
			NT602A [09]	
			NT611A [09]	
			NT614A [09]	
			-	
			27	

LIST OF MINORS

16.	STATISTICS AND DATA SCIENCE		
		MINOR	Template No. **BS-SDS**
		Title	**STATISTICS AND DATA SCIENCE**
		C O U R S E S	
			MSO205A[11] or HSO201A[11] or CS203B[5]
			MTH211A[11]
			MTH411A[10]
			MTH208A[5]
			31-37

LIST OF MINORS

17.	Sustainable Energy Engineering	**MINOR**		Template No. **SEE-1**	Remark:
		Title	**Sustainable Energy Engineering**		As per this template, a student has to take minimum 2 courses from departmental electives. Out of the two, if a student wishes, s/he can take maximum one course from courses listed as PG-DE (MBA681A, MBA683A, MBA782A) but then the remaining second department elective course, s/he has to choose from optional department electives.
			Compulsory courses:		
		C O U R S E S	**SEE604A [09]**		
			SEE605A [09]		
			and, TWO optional courses from following list:		
			SEE606A [09]		
			SEE607A [09]		
			SEE608A [09]		
			EE698D [09]		
			EE630A [09]		
			EE660A [09]		
			EE631A [09]		
			MSE673 [09]		
			SEE602A [09]		
			SEE611A [09]		
			SEE612A [09]		
			SEE613A [09]		
			SEE614A [09]		
			SEE615A [09]		
			SEE616A [09]		
			SEE617A [09]		
			ME743A [09]		
			ME686A [09]		
			At most only one of the following courses if taken as PG-DE:		
			MBA681A [09]		
			MBA683A [09]		
			MBA782A [09]		
			36		

The End