

COURSE STRUCTURE

B.Tech. and B.Tech.-M.Tech. Dual Degree (Category-A & B) and Double Major (Chemical Engineering)

		GROUP-I				SEMESTER												NINTH	TENTH
		FIRST (IC)		SECOND (IC)		THIRD		FOURTH		FIFTH		SIXTH		SEVENTH		EIGHTH			
C O U R S E		MCI101	3-1-0-11	MCI102	3-1-0-11	CHC201 (DC1)	3-0-0-9	CHE202 (E/SO3)	3-0-0-9	CHC301 (DC8)	3-0-0-9	CHC306 (DC11)	3-0-0-9	(DE1)	3-0-0-9	(DE3)	3-0-0-9	DUAL DEGREE	DUAL DEGREE
		PHI101	3-0-0-9	CYI101	3-0-0-9	CHC202 (DC2)	3-1-0-11	CHC206 (DC4)	3-0-0-9	CHC302 (DC9)	3-1-0-11	CHC307 (DC12)	3-0-0-9	(DE2)	3-0-0-9	(DE4)	3-0-0-9		
		PHI102	0-0-2-2	CYI102	0-0-2-2	CHC203 (DC3)	3-1-0-11	CHC207 (DC5)	3-1-0-11	CHC303 (DC10)	3-0-0-9	MS	3-0-0-9	OE3	3-0-0-9	OE6	3-0-0-9		
		EEl101 Modular	3-0-0-9 (9/2)	MCI103 Modular	2-2-0-5	(E/SO1) Optional	3-0-0-9	CHC208 (DC6)	3-0-0-9	HSS	3-0-0-9	OE1	3-0-0-9	OE4	3-0-0-9	HSS/OE7	3-0-0-9		
		EEl102 Modular	0-0-3-3 (3/2)	CSI101 Modular	2-1-0-4	CHE201 (E/SO2)	3-0-0-9	CHC209 (DC7)	3-0-0-9	E/SO4 Optional	3-0-0-9	OE2	3-0-0-9	OE5	3-0-0-9	CHC402 (UGP2)	0-0-0-6		
		ECl101 Modular	3-0-0-9 (9/2)	CSI102 Modular	0-0-2-2	CHC204 (DP1)	0-0-2-2	CHC210 (DP3)	0-0-2-2	CHC304 (DP5)	0-0-3-3	CHC308 (DP7)	0-0-3-3	CHC401 UGP-1)	0-0-0-6	--	--		
		ECl102 Modular	0-0-3-3 (3/2)	ESI101	1-0-0-3	CHC205 (DP2)	0-0-2-2	CHC211 (DP4)	0-0-3-3	CHC305 (DP6)	0-0-3-3	CHC309 (DP8)	0-0-2-2	CHS401# (DC13)	0-0-0-0 S/X	--	--		
		CEI101	1-0-3-6	GLI101	1-0-0-3	--	--	--	--	--	--	--	--	--	--	--	--		
		MEI101	3-1-0-11	MEI102	2-0-3-9	--	--	--	--	--	--	--	--	--	--	--	--		
		MSI101	2-0-0-2	HSI101	1-0-2-5	--	--	--	--	--	--	--	--	--	--	--	--		
		CCS101	S/X	CCS102	S/X	--	--	--	--	--	--	--	--	--	--	--	--		
		57		52		53		52		53		50		51		42			

DUAL DEGREE (CATEGORY-A)										DUAL DEGREE (CATEGORY-B)													
FIFTH		SIXTH		SEVENTH		EIGHTH		NINTH		TENTH		FIFTH		SIXTH		SEVENTH		EIGHTH		NINTH		TENTH	
CHC501 DCPG	3-0-0-9	DEPG/ OEPG	3-0-0-9	CHC502 DCPG	3-0-0-9	DEPG/ OEPG	3-0-0-9	CHC597 36 Credits Thesis	DEPG/ OEPG	3-0-0-9	CHC201 DCUG	3-0-0-9	CHC207 DCUG	3-0-0-9	CHC301 DCUG	3-0-0-9	DEPG/ OEPG	3-0-0-9	CHC597 36 Credits Thesis	DEPG/ OEPG	3-0-0-9	DEPG/ OEPG	3-0-0-9
		Any one from the basket given in the next page				Any one from the basket given in the next page				One course from each basket	<ul style="list-style-type: none"> • In place of OE-1 will take (CHC201), • In place of OE-2 will take (CHC207), • In place of OE-3 will take (CHC301), • In place of OE-4 will take (CHC302), 				CHC302 DCUG	3-0-0-9	DEPG/ OEPG	3-0-0-9			DEPG/ OEPG	3-0-0-9	One course from each basket
								CHC598 18 Credits Thesis					All four DCUG courses are prescribed from the Course Structure of the Undergraduate Program where the student will do the M.Tech. Program under Dual Degree (Category-B)				CHC501 DCPG	3-0-0-9	DEPG/ OEPG	3-0-0-9			One course from each basket

DOUBLE MAJOR (SECOND MAJOR IN OTHER DEPARTMENT)																Department Practical, if any			
MONSOON SEMESTER		CHE201* (ESO)	3-0-0-9	CHC201 DC	3-0-0-9	CHC202 DC	3-1-0-11	CHC203 DC	3-1-0-11	CHC302 DC	3-1-0-11	DE1	3-0-0-9	DE2	3-0-0-9	CHC304			
WINTER SEMESTER		CHE202* (ESO)	3-0-0-9	CHC206 DC	3-0-0-9	CHC207 DC	3-0-0-9	CHC208 DC	3-0-0-9	CHC306 DC	3-0-0-9	DE3	3-0-0-9	DE4	3-0-0-9	CHC210			

NOTE: (1) *Two ESOs guided/optional prescribed in the course structure of Double Major program and the same is taken by the students for completion of the course work of the Double Major in the slot of their optional ESO, both the ESOs will fulfil the ESO credit requirement of the Double Major program as well as B.Tech. degree. **(2)** In lieu of Four DCUG (DCPG if the second department does not have any UG program) courses of the Dual Degree (Category-B & C) and Double Major Program will be considered as OE-1, OE-2, OE-3 & OE-4 of the B.Tech. program of Parent Department and the credits of these courses will be counted for fulfilment of the OE credit requirements.

LIST OF COURSES FOR COMPLETION OF MINOR

MONSOON SEMESTER		WINTER SEMESTER	
CHC201	Chemical Process Calculations	CHC206	Chemical Engineering Thermodynamics
CHC301	Separation Process Calculations		

TITLE OF THE MINOR: **Minor in Separation and Purification Technology**

DETAILS OF THE MINIMUM CREDIT REQUIREMENTS FOR COMPLETION OF B.TECH. PROGRAM AND LIST OF ESO, DE AND OE COURSES

Minimum Credit requirements for Graduation:

- Institute Core (IC) : 109 Credits
- Department Compulsory : 116
- Department Elective : 36
- Department Practical : 20
- Engineering/Science Option : 36
- Open Elective : 63
- HSS+MS : 18 (9+9)
- UGP-1 & UGP-2 : 12 (6+6)

Total : **410**

LIST OF E/SO	
Guided	Offered
CHE201	CHE202

LIST OF DEPARTMENTAL ELECTIVES (DE)	
Basket-I	Basket-II
CHD401	CHD411
CHD402	CHD412
CHD403	CHD413
CHD404	CHD414
CHD405	CHD415
CHD406	CHD416
CHD407	CHD417
CHD408	CHD418

LIST OF OPEN ELECTIVES (OE)	
CHO301	CHO401
CHO302	CHO402

Minimum Credit requirements for completion of Additional Academic Program

Dual Degree (Category-A)		Dual Degree (Category-B)		Double Major	
<ul style="list-style-type: none"> • Departmental Core (DCPG) • DEPG/OEPH • Thesis 	18 Credits 36 Credits 54 Credits Total: 108 Credits	<ul style="list-style-type: none"> • Departmental Core (4 DCUG) of Second Department (Extra credits to be counted in B.Tech part as OE credits) • 2 DCPG & 4 DEPG/OEPG or 1 DCPG & 5 DEPG/OEPG • Thesis 	36 Credits (Not to be counted in M.Tech. Part) 54 Credits 54 Credits Total: 108 Credits	<ul style="list-style-type: none"> • Two ESO courses • Departmental Core (8 DCUG) of Second Department • 4 DE of Second Department 	18 Credits (Not to be counted in the Second Major) 72 Credits 54 Credits Total: 108 Credits

LIST OF DEPARTMENTAL ELECTIVES (DEPG)				
Basket-A DE-1	Basket-B DE-2	Basket-C DE-3	Basket-D DE-4	Basket-E DE-5
CHD502	CHD504	CHD506	CHD507	CHD505
CHD503	CHD505	CJD501	CHD502	CHD506
			CHD503	CHD501

OPEN ELECTIVE	
CHO501	CHO502