

SWAMI VIVEKANAND UNIVERSITY, SIRONJA, SAGAR (M.P.)



SYLLABUS

For

**B.Tech in Petrochemical Engineering
Course Code : BTPCE**

Department of Petrochemical Engineering
Faculty of Engineering

Duration of Course	:	Four Year
Examination Mode	:	Semester
Examination System	:	Grading

Swami Vivekanand University, Sironja Sagar (M.P.)
2014-2015



Swami Vivekanand University, Sagar(M.P.)



Faculty : Engineering Department : Petrochemical Engineering
 Scheme of Course : B.Tech Petrochemical Engineering Course Code : BTPCE
 Semester III

Paper Code	Title of the Paper	Periods Per week				Distribution of Marks								Total (i= d+h)
		L	T	P	C	Theory		MST (c)	Total (d= a+c)	Practical		TW (g)	Total (h= e+g)	
						Max (a)	Min (b)			Max (e)	Min (f)			
BTPCE-0301	Mathematics III	3	1	-	4	80	25	20	100	-	-	-	-	100
BTPCE-0302	Organic Chemistry	3	1	-	4	80	25	20	100	-	-	-	-	100
BTPCE-0303	Material Technology	3	1	-	4	80	25	20	100	-	-	-	-	100
BTPCE-0304	Industrial Chemical Technology	3	1	-	4	80	25	20	100	-	-	-	-	100
BTPCE-0305	Data Structures	3	1	-	4	80	25	20	100	-	-	-	-	100
BTPCE-0306	Organic Chemistry Laboratory	-	-	2	2	-	-	-	-	50	15	50	100	100
BTPCE-0307	Computer Aided Process Calculations	-	-	2	2	-	-	-	-	50	15	50	100	100
BTPCE-0308	Data Structures Laboratory	-	-	2	2	-	-	-	-	50	15	50	100	100
BTPCE-0309	Self study (Internal assesment)	-	-	2	2	-	-	-	-	-	-	100	100	100
BTPCE-0310	seminar	-	-	2	2	-	-	-	-	-	-	100	100	100
	Grand Total	15	5	10	30	400	-	100	500	150	-	350	500	1000



Swami Vivekanand University, Sagar(M.P.)



Faculty : Engineering

Department : Petrochemical Engineering

Scheme of Course : B.Tech Petrochemical Engineering

Course Code : BTPCE

Semester - IV

Paper Code	Title of the Paper	Periods Per week				Distribution of Marks								Grand Total (i= d+h)
		L	T	P	C	Theory		MST (c)	Total (d= a+c)	Practical		TW (g)	Total (h= e+g)	
						Max (a)	Min (b)			Max (e)	Min (f)			
BTPCE-0401	Physical Chemistry	3	1	-	4	80	25	20	100	-	-	-	-	100
BTPCE-0402	Engineering Thermodynamics	3	1	-	4	80	25	20	100	-	-	-	-	100
BTPCE-0403	Process Calculations	3	1	-	4	80	25	20	100	-	-	-	-	100
BTPCE-0404	Fluid Flow Operations	3	1	-	4	80	25	20	100	-	-	-	-	100
BTPCE-0405	Mechanical Operations	3	1	-	4	80	25	20	100	-	-	-	-	100
BTPCE-0406	Physical Chemistry Laboratory	-	-	2	2	-	-	-	-	50	15	50	100	100
BTPCE-0407	Fluid Flow Operations Laboratory	-	-	2	2	-	-	-	-	50	15	50	100	100
BTPCE-0408	Mechanical Operations Laboratory	-	-	2	2	-	-	-	-	50	15	50	100	100
BTPCE-0409	Self study (Internal assesment)	-	-	2	2	-	-	-	-	-	-	100	100	100
BTPCE-0410	seminar	-	-	2	2	-	-	-	-	-	-	100	100	100
	Total	15	5	10	30	400	-	100	500	150	-	350	500	1000



Swami Vivekanand University, Sagar(M.P.)



Faculty : Engineering

Department : Petrochemical Engineering

Scheme of Course : B.Tech Petrochemical Engineering

Course Code : BTPCE

Semester - V

Paper Code	Title of the Paper	Periods Per week				Distribution of Marks								Grand Total (i= d+h)
		L	T	P	C	Theory		MST (c)	Total (d= a+c)	Practical		TW (g)	Total (h= e+g)	
						Max (a)	Min (b)			Max (e)	Min (f)			
BTPCE-0501	Environmental Science and Technology	3	1	-	4	80	25	20	100	-	-	-	-	100
BTPCE-0502	Thermodynamics	3	1	-	4	80	25	20	100	-	-	-	-	100
BTPCE-0503	Petroleum Exploration and Exploitation Techniques	3	1	-	4	80	25	20	100	-	-	-	-	100
BTPCE-0504	Chemical Reaction Technology	3	1	-	4	80	25	20	100	-	-	-	-	100
BTPCE-0505	Natural Gas technology	3	1	-	4	80	25	20	100	-	-	-	-	100
BTPCE-0506	Mass Transfer II	3	1	-	4	80	25	20	100	-	-	-	-	100
BTPCE-0507	Heat Transfer Laboratory	-	-	2	2	-	-	-	-	50	15	50	100	100
BTPCE-0508	Technical Analysis Laboratory	-	-	2	2	-	-	-	-	50	15	50	100	100
BTPCE-0509	Communication Skills Laboratory	-	-	2	2	-	-	-	-	50	15	50	100	100
BTPCE-0510	Seminar/Group Discussion	-	-	2	2	-	-	-	-	-	-	100	100	100
	Total	18	6	4	32	480	-	120	600	150	-	250	400	1000



Swami Vivekanand University, Sagar(M.P.)



Faculty : Engineering Department : Petrochemical Engineering
 Scheme of Course : B.Tech Petrochemical Engineering Course Code : BTPCE
 Semester / Year – 6 sem

Paper Code	Title of the Paper	Periods Per week				Distribution of Marks								Grand Total (i= d+h)
		L	T	P	C	Theory		MST (c)	Total (d= a+c)	Practical		TW (g)	Total (h= e+g)	
						Max (a)	Min (b)			Max (e)	Min (f)			
BTPCE-0601	Process Heat Transfer	3	1	-	4	80	25	20	100	-	-	-	-	100
BTPCE-0602	Process Dynamics and Control	3	1	-	4	80	25	20	100	-	-	-	-	100
BTPCE-0603	Equipment Design and Drawing-I	3	1	-	4	80	25	20	100	-	-	-	-	100
BTPCE-0604	Petroleum Crude Processing Technology	3	1	-	4	80	25	20	100	-	-	-	-	100
BTPCE-0605	Water Treatment and Management	3	1	-	4	80	25	20	100	-	-	-	-	100
BTPCE-0606	Instrumentation and Instrumental Analysis	3	1	-	4	80	25	20	100	-	-	-	-	100
BTPCE-0607	Mass Transfer Laboratory	-	-	2	2	-	-	-	-	50	15	50	100	100
BTPCE-0608	Petroleum Physical Properties Testing Laboratory	-	-	2	2	-	-	-	-	50	15	50	100	100
BTPCE-0609	Chemical Reaction Engineering Laboratory	-	-	2	2	-	-	-	-	50	15	50	100	100
BTPCE-0610	Seminar/Group Discussion	-	-	2	2	-	-	-	-	-	-	100	100	100
	Total	18	06	08	32	480	-	120	600	150	-	250	400	1000



Swami Vivekanand University, Sagar(M.P.)



Faculty : _ Engineering

Department : Petrochemical Engineering

Scheme of Course : B.Tech Petrochemical

Course Code : BTPCE Semester - VII

Paper Code	Title of the Paper	Periods Per week				Distribution of Marks								Grand Total (i= d+h)
		L	T	P	C	Theory		MST (c)	Total (d= a+c)	Practical		TW (g)	Total (h= e+g)	
						Max (a)	Min (b)			Max (e)	Min (f)			
BTPCE-0701	Transport Phenomena	3	1	-	4	80	25	20	100	-	-	-	-	100
BTPCE-0702	Equipment Design and Drawing-II	3	1	-	4	80	25	20	100	-	-	-	-	100
BTPCE-0703	Petroleum Secondary Processing Technology	3	1	-	4	80	25	20	100	-	-	-	-	100
BTPCE-0704	Process Engineering Economics	3	1	-	4	80	25	20	100	-	-	-	-	100
BTPCE-0705	Refinery Process Design	3	1	-	4	80	25	20	100	-	-	-	-	100
BTPCE-0706	Elective - I	3	1	-	4	80	25	20	100	-	-	-	-	100
BTPCE-0707	Process Dynamics and Control Laboratory	-	-	2	2	-	-	-	-	50	15	50	100	100
BTPCE-0708	Petrochemical Analysis Laboratory	-	-	2	2	-	-	-	-	50	15	50	100	100
BTPCE-0709	Petroleum Product Testing Laboratory	-	-	2	2	-	-	-	-	50	15	50	100	100
BTPCE-0710	Seminar/Group Discussion	-	-	2	2	-	-	-	-	-	-	100	100	100
	Total	18	6	4	32	480	-	120	600	150	-	250	400	1000



Faculty : engineering Department : Petrochemical Engineerin
Scheme of Course : B.Tech Petrochemical Engineering Course Code : BTPCE
Semester VIII

Paper Code	Title of the Paper	Periods Per week				Distribution of Marks								Grand Total (i= d+h)
		L	T	P	C	Theory		MST (c)	Total (d= a+c)	Practical		TW (g)	Total (h= e+g)	
						Max (a)	Min (b)			Max (e)	Min (f)			
BTPCE-0801	Total Quality Management	3	1	-	4	80	25	20	100	-	-	50	-	150
BTPCE-0802	Safety and Risk Management	3	1	-	4	80	25	20	100	-	-	50	-	150
BTPCE-0803	Elective -II	3	1	-	4	80	25	20	100	-	-	-	100	200
BTPCE-0804	Project Work	-	-	2	2	-	-	-	-	200	-	200	400	400
BTPCE-0805	Seminar	-	-	2	2	-	-	-	-	-	-	100	100	100
	Total	9	3	4	16	240	-	60	300	200	-	400	700	1000

Elective -II

S.No.	Paper Code	Title of the Paper
1	BTPCE0803 A	ENERGY MANAGEMENT IN CHEMICAL INDUSTRIES
2	BTPCE0803 B	NOVEL SEPARATION PROCESS
3	BTPCE0803 C	MULTICOMPONENT DISTILLATION
4	BTPCE0803 D	POLYMER TECHNOLOGY