



First Year Teaching Scheme

Admission Year 2026-27

**Diploma in Engineering
Petrochemical Engineering**

Faculty of Engineering & Technology

Parul University

Vadodara, Gujarat, India

Semester – 1

				Teaching Scheme			Internal Marks			External Marks		Passing Marks (Theory + CE)	Passing Marks (Practical)	Total Marks
				(Hours / Week)										
NCrF Credit Level	Subject Code	Subject Name	Credit	Lect	Lab	Tut	T	P	CE	T	P	Int.+Ext.	Int.+Ext.	
3.5		Professional Core Courses (PCC)-I												
	03062801PC01	Basics of Petrochemical Engineering	4	4	-	-	20	-	20	60	-	40	-	100
		Multidisciplinary Open Professional Electives Courses (MOPECs)-I												
	03061701UE01	Energy Conservation	3	3	-	-	20	-	20	60	-	40	-	100
	03062301UE01	Basic Aircraft Science	3	3	-	-	20	-	20	60	-	40	-	100
	03061901UE01	Introduction to Robotics & Automation	3	3	-	-	20	-	20	60	-	40	-	100
	03061601UE01	Programming with Python	3	2	2	-	20	50	20	60	-	40	20	150
	03061501UE01	Pollution Prevention and Control Techniques	3	3	-	-	20	-	20	60	-	40	-	100
	03061601UE02	Internet of Things: Concepts & Application	3	2	2	-	20	50	20	60	-	40	20	150
		Basic Science Courses (BSC)- I												
	03069501BS01	Applied Chemistry	4	3	2	-	20	50	20	60	-	40	20	150
		Basic Science Courses (BSC)- II												
	03069101BS01	Mathematics - I	4	3	-	1	20	-	20	60	-	40	-	100
		Basic Science Courses (BSC)- III												
	03069201BS01	Applied Physics	4	3	2	-	20	50	20	60	-	40	20	150
		Humanities and Social Science, including Management Courses (HSMC)-I												
	03060001HM01	Fundamental of Communication Skills	1	-	2	-	-	50	-	-	-	-	20	50
		Mandatory courses (MNC)-I												
	03061501MC01	Environmental Science	0	1	-	-	20	-	20	-	-	16	-	40
		Total credits		20	17	6	1							

Lect - Lecture, Tut - Tutorial, Lab - Lab, T - Theory, P - Practical, CE - CE, T - Theory, P – Practical

Theory Passing % : 40 Practical Passing % : 50

Semester – 2

				Teaching Scheme (Hours / Week)			Internal Marks			External Marks		Passing Marks (Theory + CE)	Passing Marks (Practical)	Total Marks
NCrF Credit Level	Subject Code	Subject Name	Credit	Lect	Lab	Tut	T	P	CE	T	P	Int.+Ext.	Int.+Ext.	
3.5		Professional Core Courses (PCC)-II												
	03062802PC01	Introduction to Petrochemicals	4	4	-	-	20	-	20	60	-	40	-	100
		Multidisciplinary Open Professional Electives Courses (MOPECs)-II												
	03061802UE01	E-Waste Management	3	3	-	-	20	-	20	60	-	40	-	100
	03061502UE01	Disaster Management	3	3	-	-	20	-	20	60	-	40	-	100
	03061902UE01	Industrial Safety & Risk Management	3	3	-	-	20	-	20	60	-	40	-	100
	03061902UE02	Plant Layout and Fire Safety	3	3	-	-	20	-	20	60	-	40	-	100
	03061602UE01	Digital Marketing	3	3	-	-	20	-	20	60	-	40	-	100
	03061702UE01	Introduction to Electrical Safety & Management	3	2	2	-	20	50	20	60	-	40	20	150
		Basic Science Courses (BSC)-IV												
	03069502BS01	Organic Chemistry	4	3	2	-	20	50	20	60	-	40	20	150
		Basic Science Courses (BSC)-V												
	03069102BS01	Mathematics - II	4	3	-	1	20	-	20	60	-	40	-	100
		Engineering Science courses (ESC)-I												
	03061502ES01	Applied Mechanics	4	3	2	-	20	50	20	60	-	40	20	150
		Humanities and Social Science, including Management Courses (HSMC)-II												
	03060002HM01	Logical Reasoning	2	1	2	-	20	50	20	60	-	40	20	150
		Mandatory courses (MNC)-II												
		Universal Human Values	0	1	-	-	20	-	20	-	-	16	-	40
		Vocational Training / Professional Experience/Courses- (Mandatory for Exit)												
	03062502EX01	Introduction to Process Safety and Risk Analysis	4-6	-	-	-	-	-	-	-	-	-	-	-
	03062502EX03	Chemical Hazards and Process Safety Specialization	4-6	-	-	-	-	-	-	-	-	-	-	-
	03062502EX02	Industrial Training	4-6	-	-	-	-	-	-	-	-	-	-	-
		Total credits	21	18	6	1								790

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Theory Passing % : 40 Practical Passing % : 50