



**Sabarmati University**  
**BACHELOR of VOCATIONAL**  
**In**  
**CHEMICAL AND PETROCHEMICAL ENGINEERING**  
**(BVO-CPE)**  
  
**Semester I to VI**

### SEMESTER I (NSFQ LEVEL-4)

Subject Code	Subject Name	Credit	Course Category		Examination Scheme		
			General Education	Skill	Internal Assessment	External Assessment	Total
BVO CPE 101	Communication skill	2		--	30	70	100
BVO CPE102	Computer skills	2		--	30	70	100
BVO CPE103	Environmental Studies	2		--	30	70	100
BVO CPE 104	Fundamental Chemistry-I and Industrial Chemistry	3		--	30	70	100
BVO CPE 105	Elementary Physics and Mathematics	3		--	30	70	100
BVO CPE 991	Industrial Training	18	--				750
	<b>Total</b>	<b>30</b>			<b>150</b>	<b>350</b>	<b>1250</b>

#### Industrial Training (750 Marks)

Project Report	250 Marks
Day to Day Work Report (Diary)	200 Marks
Practical (On site)	200 Marks
Viva-Voce (Conduct by University)	100 Marks

Course Category	Proportion	Credits	Total Lecture (In Hours)
General Education Components	40%	12	180 Hrs
Skill Components	60%	18	540 Hrs

**Industrial Training-I:** The students are advised to undergo 540 Hrs (10-12 weeks) training in-house / Industry / Skill Knowledge Provider (SKP) / Sector Skill Council (SSC) and should submit training Certificate for evaluation during the same semester.

**SEMESTER II (NSFQ LEVEL-5)**

Subject Code	Subject Name	Credit	Course Category		Examination Scheme		
			General Education	Skill	Internal Assessment	External Assessment	Total
BVO CPE 201	Personality Development - I	2		--	30	70	100
BVO CPE 202	Disaster Management	2		--	30	70	100
BVO CPE 203	Analytical & electro Chemistry	2		--	30	70	100
BVO CPE 204	Chemistry of Surfactant	2		--	30	70	100
BVO CPE 205	Industrial Chemical Technology	2		--	30	70	100
BVO CPE 206	Surface Coating Techniques	2		--	30	70	100
BVO CPE 992	Industrial Training	18	--				750
	<b>Total</b>	<b>30</b>			<b>180</b>	<b>420</b>	<b>1350</b>

<b>Industrial Training (750 Marks)</b>	
Project Report	250 Marks
Day to Day Observation	200 Marks
Practical (Own side)	200 Marks
Viva-Voce (University)	100 Marks

Course Category	Proportion	Credits	Total Lecture (In Hours)
General Education Components	40%	12	180
Skill Components	60%	18	540

**Industrial Training-II:** The students are advised to undergo 540 Hrs (10-12 weeks) training in-house / Industry / Skill Knowledge Provider (SKP) / Sector Skill Council (SSC) and should submit training Certificate for evaluation during the same semester.

### SEMESTER III (NSFQ LEVEL-6)

Subject Code	Subject Name	Credit	Course Category		Examination Scheme		
			General Education	Skill	Internal Assessment	External Assessment	Total
BVO CPE 301	Personality Development- II	2		--	30	70	100
BVO CPE 302	Indian Economy	2		--	30	70	100
BVO CPE 303	General Geology	2			30	70	100
BVO CPE 304	Refining Operations	2		--	30	70	100
BVO CPE 305	Industrial Unit Process & Operations	2		--	30	70	100
BVO CPE 306	Water Analysis	2		--	30	70	100
BVO CPE 993	Industrial Training*	18	--				750
	<b>Total</b>	<b>30</b>			<b>180</b>	<b>420</b>	<b>1350</b>

<b>Industrial Training (750 Marks)</b>	
Project Report	250 Marks
Day to Day Observation	200 Marks
Practical (Own side)	200 Marks
Viva-Voce (University)	100 Marks

Course Category	Proportion	Credits	Total Lecture (In Hours)
General Education Components	40%	12	180
Skill Components	60%	18	540

**Industrial Training-III:** The students are advised to undergo 540 Hrs (10-12 weeks) training in-house / Industry / Skill Knowledge Provider (SKP) / Sector Skill Council (SSC) and should submit training Certificate for evaluation during the same semester.

**SEMESTER IV (NSFQ LEVEL-6)**

Subject Code	Subject Name	Credit	Course Category		Examination Scheme		
			General Education	Skill	Internal Assessment	External Assessment	Total
BVO 401	<b>Value Education and Human Rights</b>	2		--	30	70	100
BVO 402	Petroleum & Petrochemicals	2		--	30	70	100
BVO 403	Polymer Chemistry	3		--	30	70	100
BVO 404	Polymer Technology	2		--	30	70	100
BVO 405	Petroleum Analysis	3		--	30	70	100
BVO 994	Industrial Training*	18	--				750
	<b>Total</b>	<b>30</b>			<b>150</b>	<b>350</b>	<b>1250</b>

<b>Industrial Training (750 Marks)</b>	
Project Report	250 Marks
Day to Day Observation	200 Marks
Practical (Own side)	200 Marks
Viva-Voce (University)	100 Marks

Course Category	Proportion	Credits	Total Lecture (In Hours)
General Education Components	40%	12	180
Skill Components	60%	18	540

**Industrial Training-IV:** The students are advised to undergo 540 Hrs (10-12 weeks) training in-house / Industry / Skill Knowledge Provider (SKP) / Sector Skill Council (SSC) and should submit training Certificate for evaluation during the same semester.

**SEMESTER V (NSFQ LEVEL-7)**

Subject Code	Subject Name	Credit	Course Category		Examination Scheme		
			General Education	Skill	Internal Assessment	External Assessment	Total
BVO CPE 501	Stereo Chemistry Organic Reactions Mechanism	3		--	30	70	100
BVO CPE 502	Biochemistry	3		--	30	70	100
BVO CPE 503	MAT- Modern Analytical Techniques	3		--	30	70	100
BVO CPE 504	Drilling Technology	3		--	30	70	100
BVO CPE 995	Industrial Training*	18	--				750
	<b>Total</b>	<b>30</b>			<b>120</b>	<b>280</b>	<b>1150</b>

<b>Industrial Training (750 Marks)</b>			
Project Report		250 Marks	
Day to Day Observation		200 Marks	
Practical (Own side)		200 Marks	
Viva-Voce (University)		100 Marks	
Course Category	Proportion	Credits	Total Lecture (In Hours)
General Education Components	40%	12	180
Skill Components	60%	18	540

**Industrial Training-V:** The students are advised to undergo 540 Hrs (10-12 weeks) training in-house / Industry / Skill Knowledge Provider (SKP) / Sector Skill Council (SSC) and should submit training Certificate for evaluation during the same semester.

**SEMESTER VI (NSFQ LEVEL-7)**

Subject Code	Subject Name	Credit	Course Category		Examination Scheme		
			(Contact Hours)		Internal Assessment	External Assessment	Total
		General Education	Skill				
BVO CPE 601	Pharmaceutical Technology	3		--	30	70	100
BVO CPE 602	Industrial Formulation & GLP	3		--	30	70	100
BVO CPE 603	Pharmaceutical (Medicinal) Chemistry	3		--	30	70	100
BVO CPE 604	Petroleum Reservoir Engineering	3		--	30	70	100
BVO CPE 996	Industrial Training*	18	--				750
	<b>Total</b>	<b>30</b>			<b>120</b>	<b>280</b>	<b>400</b>

Industrial Training (750 Marks)			
Project Report		250 Marks	
Day to Day Observation		200 Marks	
Practical (Own side)		200 Marks	
Viva-Voce (University)		100 Marks	
Course Category	Proportion	Credits	(In Hours)
General Education Components	40%	12	180
Skill Components	60%	18	270

**Industrial Training-VI** The students are advised to undergo 540 Hrs (10-12 weeks) training in-house / Industry / Skill Knowledge Provider (SKP) / Sector Skill Council (SSC) and should submit training Certificate for evaluation during the same semester.