

VISVESVARAYA TECHNOLOGICA UNIVERSITY, BELGAUM
CHOICE BASED CREDIT SYSTEM (CBCS)
SCHEME OF TEACHING AND EXAMINATION 2015-16
B.E. PETROCHEM ENGINEERING

V SEMESTER

Sl. No	Subject Code	Title	Teaching Hours /Week		Examination				Credits
			Theory	Practical/ Drawing	Duration	Theory/ Practical Marks	I.A. Marks	Total Marks	
1	15CH51	Process Industry Management [D.C.] (Common to CH & PC)	04		03	80	20	100	4
2	15CH52	Mass Transfer Operations – I [D.C.] [Comm. To CH & PC]	04		03	80	20	100	4
3	15CH53	Chemical Reaction Engineering – I [D.C.] [Comm. To CH & PC]	04		03	80	20	100	4
4	15CH54	Chemical Equipment Design [D. C.] [Comm. To CH & PC]	04		03	80	20	100	4
5	15PC55X	Professional Elective-I [P.E]	03		03	80	20	100	3
6	15PC56X	Open Elective-I [O.E]	03		03	80	20	100	3
7	15PCL57	Mass Transfer Laboratory		1I+2P	03	80	20	100	2
8	15PCL58	Numerical Methods and Computer Application in Chemical Engineering Laboratory		1I+2P	03	80	20	100	2
TOTAL			22	06	24	640	160	800	26

15PC55X : PROFESSIONAL ELECTIVE - I		15PC56X: OPEN ELECTIVE - I	
15PC551	POLYMER SCIENCE AND TECHNOLOGY	15PC561	COMPOSITE MATERIALS
15PC552	PROBABILITY AND STATISTICS	15PC562	ORGANIC CHEMISTRY
15PC553	GREEN CHEMISTRY	15PC563	RESERVOIR ROCKS AND FLUID PROPERTIES
15PC554	PROFESSIONAL ETHICS IN ENGINEERING	15PC564	NATURAL GAS PROCESSING
		15 NC 565	Essentials of NCC

- 1. Departmental Core [D.C.]:** This is the course, which is to be compulsorily studied by a student as a core requirement to complete the requirement of a programme in a said discipline of study.
- 2. Professional Elective [P.E.]:** Elective relevant to chosen specialization/ branch
- 3. Open Elective [O.E.]:** Electives from other technical and/or emerging subject areas.

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Sl. No	Subject Code	Title	Teaching Hours /Week		Examination			Credits	
			Theory	Practical/ Drawing	Duration	Theory/ Practical Marks	I.A. Marks		Total Marks
1	15CH61	Chemical Reaction Engineering- II [D.C.] [Comm. To CH & PC]	04	--	03	80	20	100	4
2	15CH62	Mass Transfer Operations- II [D.C.] [Comm. To CH & PC]	04	--	03	80	20	100	4
3	15PC63	Reservoir Engineering [D.C]	04	--	03	80	20	100	4
4	15CH64	Process Equipment Design and Drawing [D. C.] [Comm. To CH & PC]	04		04	80	20	100	4
5	15PC65X	Professional Elective-II [P.E]	03	--	03	80	20	100	3
6	15PC66X	Open Elective-II [O.E]	03	--	03	80	20	100	3
7	15PCL67	Chemical Reaction Engineering Laboratory	--	1I+2P	03	80	20	100	2
8	15PCL68	Petroleum Product Analysis Laboratory	--	1I+2P	03	80	20	100	2
TOTAL			22	6	25	640	160	800	26

15PC65X : PROFESSIONAL ELECTIVE - II		15PC66X : OPEN ELECTIVE -II	
15PC651	PETROLEUM TRANSPORTATION ENGINEERING	15PC661	MODERN SEPARATION TECHNIQUES
15PC652	MECHANICAL OPERATIONS	15PC662	PROCESS MODELING AND SIMULATION
15PC653	CHEMICAL PLANT UTILITIES AND SAFETY	15PC663	MATERIAL SCIENCE FOR PETROCHEMICAL ENGINEERING
15PC654	WELL DRILLING EQUIPMENTS AND OPERATION	15PC664	CATALYSIS SCIENCE AND TECHNOLOGY

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Sl. No	Subject Code	Title	Teaching Hours /Week		Examination				Credits
			Theory	Practical/ Drawing	Duration	I.A. Marks	Theory/ Practical Marks	Total Marks	
1	15PC71	Research Methodology [D.C]	04	--	03	20	80	100	4
2	15PC72	Drilling Fluids and Cementing Techniques [D.C]	04	--	03	20	80	100	4
3	15CH73	Process Control and Instrumentation [D.C] [Comm. To CH & PC]	04	--	03	20	80	100	4
4	15PC74X	Professional Elective-III [P.E.]	03	--	03	20	80	100	3
5	15PC75X	Professional Elective-IV [P.E.]	03	--	03	20	80	100	3
6	15PCL76	Process Control and Instrumentation Laboratory	--	1I+2P	03	20	80	100	2
7	15PCL77	Geology Laboratory	--	1I+2P	03	20	80	100	2
8	15PCP78	Project Phase –I + Seminar	--	1I+2P		100	-	100	2
TOTAL			18	09	21	240	560	800	24

15PC74X : PROFESSIONAL ELECTIVE - III		15PC75X : PROFESSIONAL ELECTIVE - IV	
15PC741	OPTIMIZATION TECHNIQUES FOR PROCESS INDUSTRIES	15PC751	ENVIRONMENTAL SCIENCE AND SOLID WASTE MANAGEMENT
15PC742	PROCESS ENGINEERING AND PLANT DESIGN	15PC752	BIOCHEMICAL ENGINEERING
15PC743	FERMENTATION TECHNOLOGY	15PC753	INTEGRATED OIL/GAS FIELD EVALUATION
15PC744	ONSHORE AND OFFSHORE ENGINEERING AND TECHNOLOGY	15PC754	OILS AND FATS TECHNOLOGY

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- 3. Project Phase I+ Seminar:** Literature Survey, Problem Identification, Objective & Methodology Submission of Synopsis & Seminar Presentation

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VIII SEMESTER

Sl. No	Subject Code	Title	Teaching Hours /Week		Examination				Credit
			Theory	Practical/ Drawing	Durati on	I.A. Marks	Theory/ Practical Marks	Total Marks	
1	15CH81	Transport Phenomena [DC] [Comm. To CH & PC]	4	-	3	20	80	100	4
2	15PC82	Petroleum Corrosion Technology [DC]	4	-	3	20	80	100	4
3	15PC83X	Professional Elective-V [P.E.]	3	-	3	20	80	100	3
4	15PC84	Internship / Professional Practice	Industry Oriented		3	50	50	100	2
5	15PC85	Project Work Phase - II	-	6	3	100	100	200	6
6	15PC86	Seminar	-	4	-	100	-	100	1
TOTAL			11	10	15	310	390	700	20

15PC83X: PROFESSIONAL ELECTIVE - V	
15PC831	RISK ASSESSMENT AND SAFETY ENGINEERING
15PC832	PHARMACEUTICAL TECHNOLOGY
15PC833	PETROLEUM ECONOMICS
15PC834	PILOT PLANT AND SCALE UP METHODS

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- 2. Professional Elective [P.E.]:** Elective relevant to chosen specialization/ branch
- 3. Internship / Professional Practice:** To be carried out for four weeks between the 6th and 7th semester vacation or 7th and 8th semester vacation period.
- 4. Project work Phase-II:** Design, Development, Implementation, Demonstration, Testing, Presentation and Project Report Submission.
- 5. Seminar:** On current topics of Engineering and Technology related to said discipline of study. Preparation of Seminar report and presentation.