

VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELGAUM
CHOICE BASED CREDIT SYSTEM (CBCS)
SCHEME OF TEACHING AND EXAMINATION 2015-2016
B.E. Chemical 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.] (Common to CH & PC)	04	-	03	80	20	100	4
3	15CH53	Chemical Reaction Engineering-I [D. C.] (Common to CH & PC)	04	-	03	80	20	100	4
4	15CH54	Chemical Equipment Design [D. C.] (Common to CH & PC)	04	-	03	80	20	100	4
5	15CH55X	Professional Elective –I [P. E.]	03	-	03	80	20	100	3
6	15CH56X	Open Elective –I [O.E.]	03	-	03	80	20	100	3
7	15CHL57	Heat Transfer Laboratory	-	1I+2P	03	80	20	100	2
8	15CHL58	Pollution Control & Instrumental Analysis Laboratory	-	1I+2P	03	80	20	100	2
TOTAL			22	06	24	640	160	800	26

15CH55X: Professional Elective-I		15CH56X: Open Elective-I	
15CH551	Oils and Fats Technology	15CH561	Process Waste Water Management
15CH552	Petroleum Refinery Engineering	15CH562	Process Air Pollution & Control
15CH553	Pharmaceutical Technology	15CH563	Solid Waste Management in Process Industries.
15CH554	Polymer Technology	15CH564	Process Safety and Environmental Management
		15NC565	Essentials of NCC

- 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.
- Professional Elective [P.E.]:** Elective relevant to chosen specialization/ branch
- Open Elective [O.E.]:** Electives from other technical and/or emerging subject areas.

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VI SEMESTER

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.] (Common to CH & PC)	04	-	03	80	20	100	4
2	15CH62	Mass Transfer Operations-II [D. C.] (Common to CH & PC)	04	-	03	80	20	100	4
3	15CH63	Industrial Pollution Control [D. C.]	04	-	03	80	20	100	4
4	15CH64	Process Equipment Design and Drawing [D. C.] (Common to CH & PC)	04	-	04	80	20	100	4
5	15CH65X	Professional Elective-II [P.E.]	03	-	03	80	20	100	3
6	15CH66X	Open Elective-II [O.E.]	03	-	03	80	20	100	3
7	15CHL67	Chemical Reaction Engineering Laboratory	-	11+2P	03	80	20	100	2
8	15CHL68	Mass Transfer Operations Laboratory	-	11+2P	03	80	20	100	2
TOTAL			22	06	25	640	160	800	26

15CH65X: Professional Elective-II		15CH66X: Open Elective-II	
15CH651	Electro Chemical Technology	15CH661	Food Technology
15CH652	Petrochemicals	15CH662	Sugar Technology
15CH653	Fermentation Technology	15CH663	Petrochemical Engineering
15CH654	Pulp and Paper Technology	15CH664	Polymer and Plastic Engineering

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VII SEMESTER

Sl. No	Subject Code	Title	Teaching Hours /Week		Examination			Credits	
			Theory	Practical/ Drawing	Duration	I.A. Marks	Theory/ Practical Marks		Total Marks
1	15CH71	Biochemical Engineering [D. C.]	04	-	03	20	80	100	4
2	15CH72	Computer Applications and Modeling [D. C.]	04	-	03	20	80	100	4
3	15CH73	Process Control and Instrumentation [D. C.] (Common to CH & PC)	04	-	03	20	80	100	4
4	15CH74X	Professional Elective-III [P.E.]	03	-	03	20	80	100	3
5	15CH75X	Professional Elective-IV [P.E.]	03	-	03	20	80	100	3
6	15CHL76	Process Control Laboratory	-	1I+2P	03	20	80	100	2
7	15CHL77	Computer Applications and Simulation Laboratory	-	1I+2P	03	20	80	100	2
8	15CHP78	Project Phase –I + Seminar	-	1I+2P	-	100	-	100	2
TOTAL			18	09	21	240	560	800	24

15CH74X : Professional Elective-III		15CH75X : Professional Elective-IV	
15CH741	Applied Mathematics in Chemical Engineering	15CH751	Composite Materials
15CH742	Chemical Process Integration	15CH752	Cement and Ceramic Technology.
15CH743	Transport Process and Modeling of Aquatic Systems	15CH753	Novel Separation Technique
15CH744	Pilot Plant and Scale-up Studies	15CH754	Downstream processing

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- 2. Professional Elective [P.E.]:** Elective relevant to chosen specialization/ branch
- 3. Project work Phase-I:** Literature survey, Problem identification, Objective and Methodology Submission of Synopsis and seminar Presentation

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VIII SEMESTER

Sl. No	Subject Code	Title	Teaching Hours /Week		Examination				Credit
			Theory	Practical/ Drawing	Duration	I.A. Marks	Theory/ Practical Marks	Total Marks	
1	15CH81	Transport Phenomena [D. C.] (Common to CH & PC)	4	-	3	20	80	100	4
2	15CH82	Process Engineering Economics and Management [D. C.]	4	-	3	20	80	100	4
3	15CH83X	Professional Elective-V [P.E.]	3	-	3	20	80	100	3
4	15CH84	Internship / Professional Practice	Industry Oriented		3	50	50	100	2
5	15CHP85	Project Work Phase -II	-	6	3	100	100	200	6
6	15CHS86	Seminar	-	4	-	100	-	100	1
TOTAL			11	10	15	310	390	700	20

15CH83X: Professional Elective-V	
15CH831	Chemical Plant Utilities and Safety
15CH832	Multicomponent Distillation
15CH833	Energy Technology
15CH834	Interfacial Phenomena and Surface Engineering

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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.