

**SDM College of Engineering and Technology, Dharwad**

**Department of Chemical Engineering**

**2018 Scheme changes from 2015 Scheme highlighted in Yellow**

**Scheme for III Semester**

Course Code	Course category	Course Title	Teaching		Examination				
			L-T-P (Hrs/Week)	Course Credit	CIE	Theory (SEE)*		Practical (SEE)	
					Max Marks	Max Marks	Duration in Hrs	Max Marks	Duration in Hrs
18UMAC300	BS	Engineering Mathematics – III	3-0-0	3	50	100	3	-	-
18UCHC300	PC	Chemical Process Calculations	4-0-0	4	50	100	3	-	-
18UCHC301	PC	Technical Chemistry**	3-0-0	3	50	100	3	-	-
18UCHC302	PC	Fluid Mechanics	4-0-0	4	50	100	3	-	-
18UCHC303	PC	Particulate Technology	4-0-0	4	50	100	3	-	-
18UCHC304	PC	Chemical Engineering Drawing	2-0-2	3	50	100	3	-	-
18UCHL305	PC	Particulate Technology Laboratory	0-0-3	1.5	50	-	-	50	3
18UCHL306	PC	Technical Analysis Laboratory	0-0-3	1.5	50	-	-	50	3
<b>Total</b>			<b>20-0-8</b>	<b>24</b>	<b>400</b>	<b>600</b>		<b>100</b>	

**Scheme for IV Semester**

Course Code	Course category	Course Title	Teaching		Examination				
			L-T-P (Hrs/Week)	Course Credit	CIE	Theory (SEE)*		Practical (SEE)	
					Max Marks	Max Marks	Duration in Hrs	Max Marks	Duration in Hrs
18UMAC400	BS	Engineering Mathematics – IV	3-0-0	3	50	100	3	-	-
18UHC400	PC	Process Heat Transfer	4-0-0	4	50	100	3	-	-
18UHC401	PC	Chemical Reaction Engineering-I	4-0-0	4	50	100	3		
18UHC402	PC	Chemical Engineering Thermodynamics	3-2-0	4	50	100	3	-	-
18UHC403	PC	Pollution Control Engineering	3-0-0	3	50	100	3	-	-
18UHC404	PC	Energy Technology and Management	3-0-0	3	50	100	3	-	-
18UHL405	PC	Computational Methods & Simulation Laboratory	0-0-3	1.5	50	-	-	50	3
18UHL406	PC	Fluid Mechanics Laboratory	0-0-3	1.5	50	-	-	50	3
18UHL407	PC	Introductory Project	0-0-2	1	50	-	-	-	-
<b>Total</b>			<b>20-2-8</b>	<b>25</b>	<b>450</b>	<b>600</b>		<b>100</b>	

**Scheme for V Semester**

Course Code	Course category	Course Title	Teaching		Examination				
			L-T-P (Hrs/Week)	Course Credit	CIE	Theory (SEE)*		Practical (SEE)	
					Max Marks	Max Marks	Duration in Hrs	Max Marks	Duration in Hrs
18UHUC500	HU	Management, Entrepreneurship and IPR	4-0-0	4	50	100	3	-	-
18UCHC500	PC	Chemical Reaction Engineering-II	4-0-0	4	50	100	3	-	-
18UCHC501	PC	Mass Transfer – I	3-2-0	4	50	100	3	-	-
18UCHC502	PC	Chemical Equipment Design-I	3-0-0	3	50	100	3	-	-
18UCHC503	PC	Chemical Process Integration	3-0-0	3	50	100	3	-	-
18UCHE50X	PE	Program Elective – 1	3-0-0	3	50	100	3	-	-
18UCHL504	PC	Heat Transfer Laboratory	0-0-3	1.5	50	-	-	50	3
18UCHL505	PC	Environmental Engineering Laboratory	0-0-3	1.5	50	-	-	50	3
18UCHL506	PC	Minor Project-1	0-0-2	1	50	-	-	-	-
18UHUL507	HU	Soft Skills/Aptitude	0-0-2	1	50	-	-	-	-
<b>Total</b>			<b>20-2-10</b>	<b>26</b>	<b>500</b>	<b>600</b>		<b>100</b>	
<b>Electives</b>									
18UCHE508	PE	Petroleum and Petrochemicals	3-0-0	3	50	100	3	-	-
18UCHE509	PE	Polymer Science and Technology	3-0-0	3	50	100	3	-	-
18UCHE510	PE	Air Pollution and Control Engineering	3-0-0	3	50	100	3	-	-

**Scheme for VI Semester**

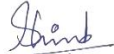
Course Code	Course category	Course Title	Teaching		Examination				
			L-T-P (Hrs/Week)	Course Credit	CIE	Theory (SEE)*		Practical (SEE)	
					Max Marks	Max Marks	Duration in Hrs	Max Marks	Duration in Hrs
18UCHC600	PC	Mass Transfer – II	4-0-0	4	50	100	3	-	-
18UCHC601	PC	Chemical Equipment Design-II	4-0-0	4	50	100	3	-	-
18UCHE60X	PE	Program Elective – 2	3-0-0	3	50	100	3	-	-
18UCHE60X	PE	Program Elective – 3	3-0-0	3	50	100	3	-	-
18UCHO60X	OE	Open Elective	3-0-0	3	50	100	3	-	-
18UCHL602	PC	Mass Transfer Laboratory	0-0-3	1.5	50	-	-	50	3
18UCHL603	PC	Chemical Reaction Engineering Laboratory	0-0-3	1.5	50	-	-	50	3
18UCHL604	PC	Minor Project– 2	0-0-4	2	50	-	-	50	3
18UHUL605	HU	Soft Skills/Aptitude	0-0-2	1	50	-	-	-	-
<b>Total</b>			<b>17-0-12</b>	<b>23</b>	<b>450</b>	<b>500</b>		<b>150</b>	
<b>Electives</b>									
18UCHE606	PE	Transport Phenomena	3-0-0	3	50	100	3	-	-
18UCHE607	PE	Catalyst Technology	3-0-0	3	50	100	3	-	-
18UCHE608	PE	Plant utilities and Industrial Safety	3-0-0	3	50	100	3	-	-
18UCHE609	PE	Drug and Pharmaceutical Technology	3-0-0	3	50	100	3	-	-
18UCHE610	PE	Food Engineering	3-0-0	3	50	100	3	-	-
18UCHE611	PE	Applied Mathematics in Chemical Engineering	3-0-0	3	50	100	3	-	-
18UCHO612	OE	Advanced Waste Water Treatment	3-0-0	3	50	100	3	-	-
18UCHO613	OE	Biology for Engineers	3-0-0	3	50	100	3	-	-
18UCHO614	OE	Composite Materials	3-0-0	3	50	100	3	-	-

**Scheme for VII Semester B. E**

Course Code	Course category	Course Title	Teaching		Examination				
			L-T-P (Hrs/Week)	Course Credit	CIE	Theory (SEE)*		Practical (SEE)	
					Max Marks	Max Marks	Duration in Hrs	Max Marks	Duration in Hrs
18UCHC700	PC	Process Dynamics and Control	3-2-0	4	50	100	3	-	-
18UCHC701	PC	Chemical Technology	4-0-0	4	50	100	3	-	-
18UCHE70X	PE	Program Elective -4	3-0-0	3	50	100	3	-	-
18UCHO70X	OE	Open elective	3-0-0	3	50	100	3	-	-
18UCHL702	PC	Process Control Laboratory	0-0-2	1	50	-	-	50	3
18UCHL703	PC	Major Project – 1	0-0-4	2	50	-	-	50	3
18UCHL704	PC	Internship	4 Weeks	2	50	-	-	50	3
<b>Total</b>			<b>13-2-6</b>	<b>19</b>	<b>350</b>	<b>400</b>		<b>150</b>	
<b>Electives</b>									
18UCHE705	PE	Novel Separation Techniques	3-0-0	3	50	100	3	-	-
18UCHE706	PE	Process Instrumentation	3-0-0	3	50	100	3	-	-
18UCHE707	PE	Process Modeling and Simulation in Chemical Engineering	3-0-0	3	50	100	3		
18UCHO708	OE	Biochemical Engineering	3-0-0	3	50	100	3	-	-
18UCHO709	OE	Instrumental Methods of Analysis	3-0-0	3	50	100	3	-	-
18UCHO710	OE	Nanotechnology	3-0-0	3	50	100	3	-	-

**Scheme for VIII Semester B. E**

Course Code	Course category	Course Title	Teaching		Examination				
			L-T-P (Hrs/Week)	Course Credit	CIE	Theory (SEE)*		Practical (SEE)	
					Max Marks	Max Marks	Duration in Hrs	Max Marks	Duration in Hrs
18UCHC800	PC	Process Engineering Economics and Management	4-0-0	4	50	100	3	-	-
18UCHE80X	PE	Program Elective -5	3-0-0	3	50	100	3	-	-
18UCHO80X	OE	Open elective	3-0-0	3	50	100	3	-	-
18UCHL801	PC	Technical Seminar	0-0-2	1	50	-	-	-	-
18UCHL802	PC	Major Project –2	0-0-12	7	50	-	-	50	3
<b>Total</b>			<b>10-0-16</b>	<b>18</b>	<b>250</b>	<b>300</b>		<b>50</b>	
<b>Electives</b>									
18UCHE803	PE	Sugar Technology	3-0-0	3	50	100	3	-	-
18UCHE804	PE	Advance Bioprocess Engineering	3-0-0	3	50	100	3	-	-
18UCHE805	PE	Scale up in Chemical Process	3-0-0	3	50	100	3	-	-
18UCHO806	OE	Solid Waste Management	3-0-0	3	50	100	3	-	-
18UCHO807	OE	Green Technology	3-0-0	3	50	100	3	-	-
18UCHO808	OE	Environmental Impact Assessment	3-0-0	3	50	100	3	-	-

  
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Department of Chemical Engineering

2015 Scheme the previous scheme used

Scheme for III Semester

Course Code	Course Title	Teaching		Examination				
		L-T-P (Hrs/Week)	Credits	CIE	Theory (SEE)		Practical (SEE)	
				Max. Marks	*Max. Marks	Duration in hours	Max. Marks	Duration In hours
15UMAC300	Engineering Mathematics – III	4-0-0	4	50	100	3		
15UCHC300	Technical Chemistry**	3-0-0	3	50	100	3		
15UCHC301	Chemical Process Calculations	3-2-0	4	50	100	3		
15UCHC302	Fluid Mechanics	4-0-0	4	50	100	3		
15UCHC303	Particulate Technology	4-0-0	4	50	100	3		
15UCHC304	Chemical Engineering Drawing	0-0-4	2	50	100	3		
15UHL305	Particulate Technology Laboratory	0-0-3	1.5	50			50	3
15UHL306	Chemical Analysis Laboratory	0-0-3	1.5	50			50	3
<b>Total</b>		<b>18-2-10</b>	<b>24</b>					

**Scheme for IV Semester**

Course Code	Course Title	Teaching		Examination				
		L-T-P (Hrs/Week)	Credits	CIE	Theory (SEE)		Practical (SEE)	
				Max. Marks	*Max. Marks	Duration in hours	Max. Marks	Duration In hours
15UMAC400	Engineering Mathematics – IV	4-0-0	4	50	100	3		
15UCHC400	Process Heat Transfer	4-0-0	4	50	100	3		
15UCHC401	Chemical Engineering Thermodynamics	4-0-0	4	50	100	3		
15UCHC402	Chemical Reaction Engineering – I	4-0-0	4	50	100	3		
15UCHC403	Mass Transfer – I	3-2-0	4	50	100	3		
15UCHC404	Pollution Control Engineering	3-0-0	3	50	100	3		
15UCHL405	Computational methods in chemical Engineering Laboratory	0-0-3	1.5	50			50	3
15UCHL406	Fluid mechanics Laboratory	0-0-3	1.5	50			50	3
<b>Total</b>		<b>22-2-6</b>	<b>26</b>					



**Scheme for V Semester**

Course Code	Course Title	Teaching		Examination				
		L-T-P (Hrs/Week)	Credits	CIE	Theory (SEE)		Practical (SEE)	
				Max. Marks	*Max. Marks	Duration in hours	Max. Marks	Duration In hours
15UCHC500	Chemical Reaction Engineering – II	4-0-0	4	50	100	3		
15UCHC501	Mass Transfer – II	4-0-0	4	50	100	3		
15UCHC502	Chemical Equipment Design	4-0-0	4	50	100	3		
15UCHC503	Chemical Plant Utilities and Safety	4-0-0	4	50	100	3		
15UCHL504	Heat Transfer Laboratory	0-0-3	1.5	50			50	3
15UCHL505	Environmental Engineering Laboratory	0-0-3	1.5	50			50	3
15UCHE50X	Elective-1	4-0-0	4	50	100	3		
15UCHE50X	Elective-2	4-0-0	4	50	100	3		
<b>Total</b>		<b>24-0-6</b>	<b>27</b>					
15UCHE506	Process Instrumentation	4-0-0	4	50	100	3		
15UCHE507	Energy Technology and Management	4-0-0	4	50	100	3		
15UCHE508	Solution Thermodynamics	4-0-0	4	50	100	3		
15UCHE509	Food Technology	4-0-0	4	50	100	3		
15UCHE510	Fertilizer Technology	4-0-0	4	50	100	3		

**Scheme for VI Semester**


Course Code	Course Title	Teaching		Examination				
		L-T-P (Hrs/Week )	Credits	CIE	Theory (SEE)		Practical (SEE)	
				Max. Marks	*Max. Marks	Duration in hours	Max. Marks	Duration In hours
15UCHC600	Management, Entrepreneurship and Protection of Intellectual Property Rights	4-0-0	4	50	100	3		
15UCHC601	Chemical Process Integration	4-0-0	4	50	100	3		
15UCHC602	Process Equipment Design and Drawing	3-0-2	4	50	100	4		
15UCHL603	Mass Transfer Laboratory	0-0-3	1.5	50			50	3
15UCHL604	Chemical Reaction Engineering Laboratory	0-0-3	1.5	50			50	3
15UCHL605	Mini Project	0-0-8	4	50			50	3
15UCHE60X	Elective – 3	4-0-0	4	50	100	3		
15UCHE60X	Elective – 4	4-0-0	4	50	100	3		
<b>Total</b>		<b>18-2-16</b>	<b>27</b>					
15UCHE606	Petroleum and Petrochemicals	4-0-0	4	50	100	3		
15UCHE607	Catalyst Technology	4-0-0	4	50	100	3		
15UCHE608	Applied Mathematics in Chemical Engineering	4-0-0	4	50	100	3		
15UCHE609	Polymer Science and Technology	4-0-0	4	50	100	3		
15UCHE610	Composite Materials	4-0-0	4	50	100	3		

**Scheme for VII Semester**

Course Code	Course Title	Teaching		Examination				
		L-T-P (Hrs/Week)	Credits	CIE	Theory (SEE)		Practical (SEE)	
				Max. Marks	*Max. Marks	Duration in hours	Max. Marks	Duration In hours
15UCHC700	Process Dynamics and Control	4-0-0	4	50	100	3		
15UCHC701	Chemical Technology	4-0-0	4	50	100	3		
15UCHC702	Biochemical Engineering	3-0-0	3	50	100	3		
15UCHL703	Major Project-Phase 1	0-0-6	4	50			50	3
15UCHL704	Process Control Laboratory	0-0-3	1.5	50			50	3
15UCHL705	Computer Applications in Chemical Engineering and Simulation Laboratory	0-0-3	1.5	50			50	3
15UCHE70X	Elective – 5	4-0-0	4	50	100	3		
15UCHE70X	Elective – 6	4-0-0	4	50	100	3		
<b>Total</b>		<b>19-0-12</b>	<b>26</b>					
15UCHE706	Pilot Plant and Scale up Methods	4-0-0	4	50	100	3		
15UCHE707	Transport Phenomena	4-0-0	4	50	100	3		
15UCHE708	Process Modeling and Simulation in Chemical Engineering	4-0-0	4	50	100	3		
15UCHE709	Novel Separation Techniques	4-0-0	4	50	100	3		
15UCHE710	Wastewater Treatment and Engineering	4-0-0	4	50	100	3		

**Scheme for VIII Semester**

Course Code	Course Title	Teaching		Examination				
		L-T-P (Hrs/Week)	Credits	CIE	Theory (SEE)		Practical (SEE)	
				Max. Marks	*Max. Marks	Duration in hours	Max. Marks	Duration In hours
15UCHC801	Seminar	0-0-3	2	50				
15UCHC800	Process Engineering Economics and Management	4-0-0	4	50	100	3		
15UCHL802	Major Project- Phase 2	0-0-12	10	50			50	3
15UCHE80X	Elective – 7	4-0-0	4	50	100	3		
15UCHL80X	Elective – 8	4-0-0	4	50	100	3		
<b>Total</b>		<b>12-0-15</b>	<b>24</b>					
15UCHE803	Solid Waste Management	4-0-0	4	50	100	3		
15UCHE804	Instrumental Methods of Analysis*	4-0-0	4	50	100	3		
15UCHE805	Sugar Technology	4-0-0	4	50	100	3		
15UCHE806	Bioprocess Engineering	4-0-0	4	50	100	3		
15UCHE807	Unit Processes in Organic Synthesis*	4-0-0	4	50	100	3		

  
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