

**SCHOOL OF CHEMICAL SCIENCES,  
SOLAPUR UNIVERSITY, SOLAPUR**

**M.Sc. Industrial Chemistry  
Choice Based Credit System  
Revised w.e.f June 2018-19**

Semester	Code	Title of the Paper	Semester exam			L	T	P	Credits
<b>I</b>		<b>Hard core</b>	<b>Theory</b>	<b>IA</b>	<b>Total</b>				
I.C.	HCT1.1	Inorganic Chemistry -I	70	30	100	4		-	4
	HCT1.2	Organic Chemistry -I	70	30	100	4		-	4
	HCT1.3	Physical Chemistry -I	70	30	100	4		-	4
		<b>Soft Core (Any one)</b>							
	SCT1.1	Analytical Chemistry -I	70	30	100	4		0	4
	SCT1.2	Chemistry in Life Sciences	70	30	100	4		0	
	<b>T1</b>	<b>Tutorial</b>					1		1
		<b>Practical</b>							
	HCT 1.1	Practical HCP 1.1	35	15	50	-	-	2	6
	HCP1.2	Practical HCP 1.2	35	15	50	-	-	2	
	HCP1.3	Practical HCP 1.3	35	15	50	-	-	2	
		<b>Soft core (Any one)</b>							
	SCP1.1	Practical SCP1.1	35	15	50	-	-	2	2
	SCP1.2	Practical SCP1.2	35	15	50	-	-	2	
		<b>Total for first semester</b>	<b>420</b>	<b>180</b>	<b>600</b>				<b>25</b>
<b>II</b>		<b>Hard core</b>							
I.C.	HCT2.1	Inorganic Chemistry –II	70	30	100	4		-	4
	HCT2.2	Organic Chemistry –II	70	30	100	4		-	4
	*HCT/ P2.3	Communicate in English Confidently	55	20	75	3		1	3
		<b>Soft core (Any one)</b>							
	SCT2.1	Physical Chemistry –II	70	30	100	4		-	4
	SCT2.2	Green Chemistry	70	30	100	4		-	
		<b>Open elective (Any one)</b>							
	OET2.1	Medicinal Chemistry	70	30	100	4		-	4
	OET2.2	Instrumental methods of analysis	70	30	100	4		-	
	<b>T2</b>	<b>Tutorial</b>			25		1		1
		<b>Practical</b>							
	HCP 2.1	Practical HCP 2.1	35	15	50	-	-	2	4
	HCP2.2	Practical HCP 2.2	35	15	50	-	-	2	
		<b>Soft core (Any one)</b>							
	SCP2.1	Practical SCP2.1	35	15	50	-	-	2	2
	SCP2.2	Practical SCP2.2	35	15	50	-	-	2	
		<b>Open elective (Any one)</b>							
	OEP2.1	Practical OEP2.1	35	15	50	-	-	2	2
	OEP2.2	Practical OEP2.2	35	15	50	-	-	2	
		<b>Total for second semester</b>	<b>475</b>	<b>200</b>	<b>675</b>				<b>28</b>

<b>III</b>		<b>Hard core</b>							
I.C.	<b>HCT3.1</b>	Unit operations of chemical Engineering	70	30	100	4		-	4
	<b>HCT3.2</b>	Unit processes in Chemical technology	70	30	100	4		-	4
	<b>* HCT/P3.3</b>	Technical English Communication Skills	55	20	75	3		1	3
		<b>Soft core (Any one)</b>							
	<b>SCT3.1</b>	Instrumental Analysis	70	30	100	4		-	
	<b>SCT3.2</b>	Advanced Topics in Industrial Chemistry-II	70	30	100	4		-	4
		<b>Open elective (Any one)</b>							
	<b>OET3.1</b>	Advanced Topics in Industrial Chemistry-I	70	30	100	4		-	4
	<b>OET3.2</b>	Advanced Organic Chemistry-II	70	30	100	4		-	
	<b>T3</b>	Tutorial			25		1		1
		<b>Practical</b>							
	<b>HCP 3.1</b>	Practical HCP 3.1	35	15	50	-	-	2	2
	<b>HCP3.2</b>	Practical HCP 3.2	35	15	50	-	-	2	2
	<b>SCP 3.1</b>	Practical SCP 3.1	35	15	50	-	-	2	2
		<b>Open elective (Any one)</b>							
	<b>OEP3.1</b>	Practical OEP3.1	35	15	50	-	-	2	
	<b>OEP3.2</b>	Practical OEP3.2	35	15	50	-	-	2	2
		<b>Total for third semester</b>	<b>475</b>	<b>200</b>	<b>600</b>				<b>28</b>
<b>IV</b>		<b>Hard core</b>							
I.C.	<b>HCT4.1</b>	Chemical Industries	70	30	100	4		-	4
	<b>HCT4.2</b>	Pollution Monitoring and Control	70	30	100	4		-	4
	<b>HCT 4.3</b>	Nanotechnology and Instrumental Analysis	70	30	100	4		-	4
		<b>Soft core (Any one)</b>							
	<b>SCT4.1</b>	Industrial Management and Material Balance	70	30	100	4		-	
	<b>SCT4.2</b>	Chemical Industries-II	70	30	100	4		-	
	<b>T4</b>	Tutorial			25		1		1
		<b>Practical</b>							
	<b>HCP 4.1</b>	Practical HCP 4.1	35	15	50	-	-	2	2
	<b>HCP4.2</b>	Practical HCP 4.2	35	15	50	-	-	2	2
	<b>SCP 4.3</b>	Practical SCP 4.3	35	15	50	-	-	2	2
	<b>HCMP4.4</b>	Major Project	35	15	50	-	-	2	2
		<b>Total for four semester</b>	<b>420</b>	<b>180</b>	<b>600</b>				<b>25</b>
	<b>Total</b>								<b>100</b>

L = Lecture T = Tutorials P = Practical

4 Credits of Theory = 4 Hours of teaching per week

2 Credit of Practical = 4 hours per week

HCT = Hard core theory, SCT = Soft core theory

HCP = Hard core practical, SCP = Soft core practical

OET = Open elective theory, OEP = Open elective practical

HCMP = Hard core main project, HCT/P=Hard Core Theory / Project

\* HCT/P is mandatory for every student who seeks M.Sc. / M.A./ M.C.A. degree and has to earn 3 credits in Sem.-II & Sem.-III. In Order to pass in the above course the student should secure at least 27 marks for theory and 10 marks for Internal Assessment. However these credits will not be accumulated for CGPA. In case student fails in these courses he will be declared as fail.