



**REGULATION 2024**  
**B. TECH. CHEMICAL ENGINEERING**  
**CHOICE BASED CREDIT SYSTEM**  
**CURRICULUM FOR I TO VIII SEMESTERS**  
**SEMESTER I**

S. NO	COURSE CODE	COURSE TITLE	CATE- GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1.		Induction Programme		-	-	-	-	0
<b>THEORY</b>								
1.	24EN1R001	Professional English – I	HSMC	2	0	2	4	3
2.	24MA1R001	Matrices and Calculus	BSC	3	1	0	4	4
3.	24PH1R001	Engineering Physics	BSC	3	0	0	3	3
4.	24BE1R001	Basic Electrical and Electronics Engineering	ESC	2	0	2	4	3
5.	24GE1R001	Problem Solving and Programming in Python	ESC	3	0	0	3	3
6.	24TA1R001	தமிழ்மூலக் கலை/Heritage of Tamils	HSMC	1	0	0	1	1
<b>PRACTICAL</b>								
7.	24GE1R002	Programming in Python Laboratory	ESC	0	0	3	3	1.5
8.	24PH1R003	Physics Laboratory	BSC	0	0	3	3	1.5
<b>TOTAL</b>				<b>14</b>	<b>1</b>	<b>10</b>	<b>25</b>	<b>20</b>

**SEMESTER II**

S. NO	COURSE CODE	COURSE TITLE	CATE- GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
<b>THEORY</b>								
1.	24EN2R002	Professional English – II	HSMC	2	0	2	4	3
2.	24MA2R002	Transforms and Partial Differential Equations	BSC	3	1	0	4	4
3.	24CY1R001	Engineering Chemistry	BSC	3	0	0	3	3
4.	24GE2R004	Engineering Graphics	ESC	2	0	4	6	4
5.	24CH2R001	Introduction to Chemical Engineering	PCC	3	0	0	3	3
6.	24TA2R002	Tamils and Technology	HSMC	1	0	0	1	1
<b>PRACTICAL</b>								
7.	24GE2R005	Basics of Civil & Mechanical Engineering Laboratory	ESC	0	0	3	3	1.5
8.	24CY1R002	Chemistry Laboratory	BSC	0	0	3	3	1.5
<b>TOTAL</b>				<b>14</b>	<b>1</b>	<b>12</b>	<b>27</b>	<b>21</b>

### SEMESTER III

S. NO	COURSE CODE	COURSE TITLE	CATE- GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
<b>THEORY</b>								
1	24MA3R005	Numerical Methods	BSC	3	1	0	4	4
2	24CH3R002	Instrumental Methods of Analysis	ESC	3	0	0	3	3
3	24CH3R003	Mechanics of Solids	ESC	3	0	0	3	3
4.	24CH3R004	Chemical Process Calculations	PCC	2	1	0	3	3
5.	24CH3R005	Fluid Mechanics for Chemical Engineers	PCC	2	1	0	3	3
6.	24CH3R006	Chemical Process Industries	PCC	3	0	0	3	3
<b>PRACTICAL</b>								
7.	24CH3R007	Technical Analysis Laboratory	ESC	0	0	3	3	1.5
8.	24CH3R008	Fluid Mechanics Laboratory	PCC	0	0	3	3	1.5
<b>TOTAL</b>				<b>16</b>	<b>3</b>	<b>6</b>	<b>25</b>	<b>22</b>

### SEMESTER IV

S. NO	COURSE CODE	COURSE TITLE	CATE- GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
<b>THEORY</b>								
1.	24MA4R008	Statistics and Differential Equations	BSC	3	1	0	4	4
2.	24CH4R009	Mass Transfer I	PCC	2	1	0	3	3
3.	24CH4R010	Mechanical Operations	PCC	2	1	0	3	3
4.	24CH4R011	Chemical Engineering Thermodynamics – I	PCC	2	1	0	3	3
5.	24CH4R012	Heat Transfer	PCC	2	1	0	3	3
6.	24GE4R008	Environmental Sciences and Sustainability	BSC	2	0	0	2	2
<b>PRACTICAL</b>								
7.	24CH4R013	Heat Transfer Laboratory	PCC	0	0	3	3	1.5
8.	24CH4R014	Mechanical Operations Laboratory	PCC	0	0	3	3	1.5
<b>TOTAL</b>				<b>13</b>	<b>5</b>	<b>6</b>	<b>24</b>	<b>21</b>

## SEMESTER V

S. NO	COURSE CODE	COURSE TITLE	CATE- GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
<b>THEORY</b>								
1.	24CH5R015	Chemical Engineering Thermodynamics – II	PCC	2	1	0	3	3
2.	24CH5R016	Mass Transfer II	PCC	2	1	0	3	3
3.	24CH5R017	Chemical Reaction Engineering – I	PCC	2	1	0	3	3
4.		Professional Elective I	PEC	3	0	0	3	3
5.		Professional Elective II	PEC	3	0	0	3	3
6.		Open Elective – I	OEC	3	0	0	3	3
7.	24CH5M001	Mandatory Course-I	MC	3	0	0	3	Non-Credit Course
<b>PRACTICAL</b>								
8.	24CH5R018	Computational Chemical Engineering Laboratory	PCC	0	0	3	3	1.5
9.	24CH5R019	Mass Transfer Laboratory	PCC	0	0	3	3	1.5
10.	24CH7I001	Internship*	EEC	-	-	-	-	-
11	24CH5P001	Mini Project	EEC	0	0	2	2	1
<b>TOTAL</b>				<b>18</b>	<b>3</b>	<b>8</b>	<b>29</b>	<b>22</b>

Open Elective - I(Shall be chosen from the list of open electives offered by other Programmes)

Mandatory Course-I is a Non-credit Course (Student shall select one course from the list given under MC-I)

\*Two weeks of internship carries one credit. Internship during V Semester Summer Vacation will be evaluated in VII semester

## SEMESTER VI

S. NO	COURSE CODE	COURSE TITLE	CATE- GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
<b>THEORY</b>								
1.	24CH6R020	Chemical Reaction Engineering – II	PCC	2	1	0	3	3
2.	24CH6R021	Process Dynamics and Control	PCC	2	1	0	3	3
3.		Professional Elective III	PEC	3	0	0	3	3
4.		Professional Elective IV	PEC	3	0	0	3	3
5.		Open Elective – II	OEC	3	0	0	3	3
6.		Elective – Management	HSMC	3	0	0	3	3
7.	24CH6M002	Mandatory Course-II	MC	3	0	0	3	Non-Credit Course
<b>PRACTICAL</b>								
8.	24CH6R022	Chemical Reaction Engineering Laboratory	PCC	0	0	3	3	1.5
9.	24CH6R023	Process Control Laboratory	PCC	0	0	3	3	1.5
10.	24CH7I001	Internship*	EEC	-	-	-	-	-
11.	24CH6P002	Mini-Project	EEC	0	0	2	2	1
<b>TOTAL</b>				<b>19</b>	<b>2</b>	<b>8</b>	<b>29</b>	<b>22</b>

Open Elective – II (Shall be chosen from the list of open electives offered by other Programmes)

Elective- Management shall be chosen from the Elective Management courses

\*Two weeks of internship carries one credit. Internship during VI Semester Summer Vacation will be evaluated in VII semester Mandatory Course-II is a Non-credit Course (Student shall select one course from the list given under MC- II

## SEMESTER VII

S. NO	COURSE CODE	COURSE TITLE	CATE- GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
<b>THEORY</b>								
1.	24CH7R024	Chemical Process Equipment Design	PCC	2	1	0	3	3
2.	24CH7R025	Transport Phenomena	PCC	2	1	0	3	3
3.	24CH7R026	Process Engineering Economics	PCC	2	1	0	3	3
4.	24GE7R007	Human values and Ethics	HSMC	2	0	0	2	2
5.		Professional Elective V	PEC	3	0	0	3	3
6.		Professional Elective VI	PEC	3	0	0	3	3
7.		Open Elective – III	OEC	3	0	0	3	3
8		Open Elective – IV	OEC	3	0	0	3	3
<b>PRACTICAL</b>								
9.	24CH7I001	Internship*	EEC	-	-	-	-	2
10.	24CH7P003	Project Phase – I	EEC	0	0	4	4	2
				<b>TOTAL</b>	<b>20</b>	<b>3</b>	<b>4</b>	<b>27</b>
								<b>27</b>

Open Elective - III and IV (Shall be chosen from the list of open electives offered by other Programmes)

\*Two weeks of internship carries one credit. Internship during V & VI Semester Summer Vacation will be evaluated in VII semest.

## SEMESTER VIII

S. NO	COURSE CODE	COURSE TITLE	CATE- GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
<b>THEORY</b>								
1.	24CH8P004	Project Phase – II	EEC	0	0	16	16	8
				<b>TOTAL</b>	<b>0</b>	<b>0</b>	<b>16</b>	<b>16</b>
								<b>8</b>

## SUMMARY

S.No	Subject Area	Credits Per Semester								Total Credits
		I	II	III	IV	V	VI	VII	VIII	
1	HSMC	4	4	-	-	-	3	2	-	13
2	BSC	8.5	8.5	4	6	-	-	-	-	27
3	ESC	7.5	5.5	7.5	-	-	-	-	-	20.5
4	PCC	-	3	10.5	15	12	9	9	-	58.5
5	PEC	-	-	-	-	6	6	6	-	18
6	OEC	-	-	-	-	3	3	6	-	12
7	EEC	-	-	-	-	1	1	4	8	14
8	Non-Credit / Mandatory	-	-	-	-	✓	✓	✓	-	-
Total		<b>20</b>	<b>21</b>	<b>22</b>	<b>21</b>	<b>22</b>	<b>22</b>	<b>27</b>	<b>8</b>	<b>163</b>