

**D. Y. PATIL COLLEGE OF ENGINEERING & TECHNOLOGY, KOLHAPUR**  
Teaching and Evaluation Scheme from Year 2024-25 (as per NEP-2020)  
**Second Year B. Tech. Computer Science & Engineering (Data Science)**  
**SEMESTER - III**

Sr. No	Course Code	Course Type	Course Name	Teaching Scheme			Theory			Practical/Tutorial		Total Marks	
				Credits	Contact Hrs			ISE	MSE	ESE	INT		OE/PoE
					L	P	T						
1	231DSPCCL201	PCC	Probability & Statistics	3	3	-	-	20	30	50	-	-	100
2	231DSPCCL202	PCC	Data Structures	3	3	-	-	20	30	50	-	-	100
3	231DSPCCP203	PCC	Data Structures Laboratory	1	-	2	-	-	-	-	25	25	50
4	231DSPCCP204	PCC	Programming Lab - I	3	2	2	-	-	-	-	50	50	100
5	231DSMDML201	MDM-I	Fundamentals of Data Science	2	2	-	-	-	-	50	-	-	50
6	231DSOECL201	OEC-I\$	Data Science for Everyone	3	3	-	-	20	30	50	-	-	100
7	231DSOEC202	OEC-I\$	Data Science for Everyone Laboratory	1	-	2	-	-	-	-	25	-	25
8	231DSFPP201	CEP/FP	Domain Specific Mini Project	2	-	4	-	-	-	-	25	25	50
9	231DSVECL201	VEC	Environmental Studies	2	2	-	-	-	-	50	-	-	50
10	231DSHSSML201	HSSM	Economics and Management for IT	2	2	-	-	-	-	50	-	-	50
11	231DSCCA201	CCA	Liberal Learning	-	-	2*	-	-	-	-	50*	-	Grade
12	231DSMCL201	MC	Finishing School Training - III	-	3*	-	-	-	-	-	50*	-	Grade
<b>Total</b>				<b>22</b>	<b>17</b>	<b>10</b>	<b>-</b>	<b>60</b>	<b>90</b>	<b>300</b>	<b>125</b>	<b>100</b>	<b>675</b>

S - Open & Distance Learning \* - Values are not included in total

Min. Marks for Passing: 40% of total marks of individual course



*[Signature]*  
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Teaching and Evaluation Scheme from Year 2024-25 (as per NEP-2020)

**Second Year B. Tech. Computer Science & Engineering (Data Science)**

**SEMESTER - IV**

Sr. No	Course Code	Course Type	Course Name	Teaching Scheme			Theory			Practical/Tutorial		Total Marks	
				Credits	Contact Hrs			ISE	MSE	ESE	INT		OE/PoE
					L	P	T						
1	231DSPCCL205	PCC	Discrete Mathematical Structure	3	3	-	-	20	30	50	-	-	100
2	231DSPCCL206	PCC	Design and Analysis of Algorithm	3	3	-	-	20	30	50	-	-	100
3	231DSPCCP207	PCC	Programming Lab - II	4	2	4	-	-	-	-	50	50	100
4	231DSMDML202	MDM-II	Introduction to Machine Learning	2	2	-	-	-	-	50	-	-	50
5	231DSOECL203	OEC-II	Introduction to Data Engineering	2	2	-	-	-	-	50	-	-	50
6	231DSAECPP201	AEC	Soft Skill	2	-	4	-	-	-	-	25	25	50
7	231DSVSECP201	VSEC	Web Application Development - I	2	1	2	-	-	-	-	25	25	50
8	231DSVECL202	VEC	Human Values and Ethics	2	2	-	-	-	-	50	-	-	50
9	231DSHSSML202	HSSM	Programming Ethics	2	2	-	-	-	-	50	-	-	50
10	231DSCCA202	CCA	Liberal Learning	-	-	2*	-	-	-	-	50*	-	Grade
11	231DSMCL202	MC	Finishing School Training - IV	-	3*	-	-	-	-	-	50*	-	Grade
<b>Total</b>				<b>22</b>	<b>17</b>	<b>10</b>	<b>-</b>	<b>40</b>	<b>60</b>	<b>300</b>	<b>100</b>	<b>100</b>	<b>600</b>

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Teaching and Evaluation Scheme from Year 2024-25 (as per NEP-2020)  
**Third Year B. Tech. Computer Science & Engineering (Data Science)**  
**SEMESTER - V**

Sr. No	Course Code	Course Type	Course Name	Teaching Scheme			Theory			Practical/Tutorial		Total Marks	
				Credits	Contact Hrs			ISE	MSE	ESE	INT		OE/PoE
					L	P	T						
1	231DSPCCL301	PCC	Theory of Computation	3	3	-	-	20	30	50	-	-	100
2	231DSPCCL302	PCC	Fundamentals of Computer Network	2	2	-	-	-	-	50	-	-	50
3	231DSPCCL303	PCC	Data Analysis and Visualization using R	3	3	-	-	20	30	50	-	-	100
4	231DSPCCP304	PCC	Data Analysis and Visualization using R Laboratory	1	-	2	-	-	-	-	25	25	50
5	231DSPCCP305	PCC	Programming Lab - III	3	2	2	-	-	-	-	50	50	100
6	231DSMDML301	MDM-III \$	Introduction to Deep Learning	3	3	-	-	20	30	50	-	-	100
7	231DSMDMP302	MDM-III \$	Introduction to Deep Learning Laboratory	1	-	2	-	-	-	-	25	-	25
8	231DSPECL301	PEC-I	Information Security	4	3	-	1	20	30	50	25	-	125
9	231DSPECL302		Operating Systems										
10	231DSPECL303		Software Engineering										
11	231DSOECL301	OEC-III	Business Analysis using Python	2	2	-	-	-	-	50	-	-	50
12	231DSCCA301	CCA	Liberal Learning	-	-	2*	-	-	-	-	50*	-	Grade
13	231DSMCL301	MC	Finishing School Training - V	-	3*	-	-	-	-	-	50*	-	Grade
<b>Total</b>				<b>22</b>	<b>18</b>	<b>6</b>	<b>1</b>	<b>80</b>	<b>120</b>	<b>300</b>	<b>125</b>	<b>75</b>	<b>700</b>

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Teaching and Evaluation Scheme from Year 2024-25 (as per NEP-2020)  
**Third Year B. Tech. Computer Science & Engineering (Data Science)**  
**SEMESTER - VI**

Sr. No	Course Code	Course Type	Course Name	Teaching Scheme			Theory			Practical/Tutorial		Total Marks	
				Credits	Contact Hrs			ISE	MSE	ESE	INT		OE/PoE
					L	P	T						
1	231DSPCCL306	PCC	Database Engineering	3	3	-	-	20	30	50	-	-	100
2	231DSPCCL307	PCC	Machine Learning	3	3	-	-	20	30	50	-	-	100
3	231DSPCCP308	PCC	Database Engineering Laboratory	1	-	2	-	-	-	-	25	25	50
4	231DSPCCP309	PCC	Machine Learning Laboratory	1	-	2	-	-	-	-	25	-	25
5	231DSPCCP310	PCC	Data Analytical Tools - I	2	1	2	-	-	-	-	25	25	50
6	231DSMDML303	MDM-IV	Fundamentals of Business Intelligence	2	2	-	-	-	-	50	-	-	50
7	231DSPECL304	PEC-II	Cyber Security and Forensics	4	3	-	1	20	30	50	25	-	125
8	231DSPECL305		Software Architecture										
9	231DSPECL306		Internet of Things										
10	231DSPECL307	PEC-III	Blockchain Technology	3	3	-	-	20	30	50	-	-	100
11	231DSPECL308		Cloud Computing										
12	231DSPECL309		High Performance Computing										
13	231DSPECP310	PEC-III	Blockchain Technology Laboratory	1	-	2	-	-	-	-	25	-	25
14	231DSPECP311		Cloud Computing Laboratory										
15	231DSPECP312		High Performance Computing Laboratory										
16	231DSVSECP301	VSEC	Web Application Development - II	2	1	2	-	-	-	-	25	25	50
17	231DSCCA302	CCA	Labral Learning	-	-	2*	-	-	-	-	50*	-	Grade
18	231DSMCL302	MCE	Finishing School Training - VI	-	3*	-	-	-	-	-	50*	-	Grade
<b>Total</b>				<b>22</b>	<b>16</b>	<b>10</b>	<b>1</b>	<b>80</b>	<b>120</b>	<b>250</b>	<b>150</b>	<b>75</b>	<b>675</b>

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Teaching and Evaluation Scheme from Year 2024-25 (as per NEP-2020)  
**Final Year B. Tech. Computer Science & Engineering (Data Science)**  
**SEMESTER - VII**

Sr. No	Course Code	Course Type	Course Name	Teaching Scheme			Theory			Practical/Tutorial		Total Marks	
				Credits	Contact Hrs			ISE	MSE	ESE	INT		OE/PoE
					L	P	T						
1	231DSPCCL401	PCC	Deep Learning	3	3	-	-	20	30	50	-	-	100
2	231DSPCCP402	PCC	Deep Learning Laboratory	1	-	2	-	-	-	-	25	25	50
3	231DSPCCP403	PCC	Data Analytical Tools - II	2	1	2	-	-	-	-	25	25	50
4	231DSMDML401	MDM-V	Introduction to Natural Language Processing	2	2	-	-	-	-	50	-	-	50
5	231DSPECL401	PEC-IV	Business Intelligence and Analytics	3	3	-	-	20	30	50	-	-	100
6	231DSPECL402		Software Project Management										
7	231DSPECL403		Social Network Analysis										
8	231DSPECL404	PEC-V	Advanced Database System	3	3	-	-	20	30	50	-	-	100
9	231DSPECL405		Natural Language Processing										
10	231DSPECL406		Advanced Machine Learning										
11	231DSRM401	RM	Research Methodology	4	3	-	1	20	30	50	25	-	125
12	231DSPRJ401	PR	Project	4	-	8	-	-	-	-	75	75	150
13	231DSCCA401	CCA	Liberal Learning	-	-	2*	-	-	-	-	50*	-	Grade
<b>Total</b>				<b>22</b>	<b>15</b>	<b>12</b>	<b>1</b>	<b>80</b>	<b>120</b>	<b>250</b>	<b>150</b>	<b>125</b>	<b>725</b>

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Teaching and Evaluation Scheme from Year 2024-25 (as per NEP-2020)

**Final Year B. Tech. Computer Science & Engineering (Data Science)**

**SEMESTER - VIII**

Sr. No	Course Code	Course Type	Course Name	Teaching Scheme			Theory			Practical/Tutorial		Total Marks	
				Credits	Contact Hrs			ISE	MSE	ESE	INT		OE/PoE
					L	P	T						
1	231DSPCCL404	PCC \$	Big Data Analytics	3	3	-	-	20	30	50	-	-	100
2	231DSPCCP405	PCC \$	Big Data Analytics Laboratory	1	-	2	-	-	-	-	25	-	25
3	231DSMDML402	MDM-VI \$	Deep Learning for Computer Vision	2	2	-	-	-	-	50	-	-	50
4	231DSPECL407	PEC-VI \$	Edge Computing	2	2	-	-	-	-	50	-	-	50
5	231DSPECL408		Human Computer Interaction										
6	231DSPECL409		Augmented and Virtual Reality										
7	231DSINT401	INT	Internship	12	-	24	-	-	-	-	100	300	400
<b>Total</b>				<b>20</b>	<b>7</b>	<b>26</b>	<b>-</b>	<b>20</b>	<b>30</b>	<b>150</b>	<b>125</b>	<b>300</b>	<b>625</b>

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