Chhattisgarh Swami Vivekanand Technical University, Bhilai

Diploma in Artificial Intelligence and Machine Learning

Semester-I

Scheme of Studies :

S.No	Board of Study	Course Code	Course Titles	Scheme of Studies (Hours/Week)			
				L	P	T	Credit L+T+(P/2)
1	Humanities	2000171(046)	Communication Skills-I	2	-	1	3
2	Applied Science	2000172(014)	Applied Maths-I	2	-	1	3
3	Applied Science	2000174(015)	Applied Physics	2	-	1	3
4	Applied Science	2000178(011)	Applied Chemistry	2	-	1	3
5	Computer Science and Engineering	2000176(022)	Computer Fundamentals & Applications	2	-	0	2
6	Applied Science	2000190(015)	Applied Physics (Lab)	-	2	-	1
7	Applied Science	2000191(011)	Applied Chemistry (Lab)	-	2	-	1
8	Computer Science and Engineering	2000193(022)	Computer Fundamentals & Applications (Lab)	-	4	-	2
9	Electronics & Telecommunication Engineering	2000194(028)	Electronics Work Shop Practice	-	2	-	1
10	Humanities	2000193(046)	Seminar & Technical Presentation (Listening, Reading & Speaking) Skills	-	2	-	1
11	-	-	Library	-	2	-	-
12	-	-	Co-curricular & Academic Activity Societies	-	2	-	-
Total				**10**	**16**	**04**	**20**

L - Lecture, **T** - Tutorial, **P** – Practical

Legend:

Lecture (L) → CI Classroom Instruction (Includes different instructional strategies i.e Lecture and others.)

Practical (P)→ LI Laboratory Instruction (Includes practical performances in Laboratory workshop, field or other locations using different instructional strategies).

Tutorial (T) → Includes sessional work (SW) (assignment, seminar, mini project etc), self Learning (SL)

Note: Leftover periods/week shall be utilized for Self Learning (SL) purpose.

Chhattisgarh Swami Vivekanand Technical University, Bhilai

Diploma in Artificial Intelligence and Machine Learning

Semester-I

Scheme of Examination:

S.No	Board of Study	Course Code	Course Titles	Theory			Practical		Total Marks
				ESE	CT	TA	ESE	TA	
1	Humanities	2000171(046)	Communication Skills-I	70	20	30	-	-	120
2	Applied Science	2000172(014)	Applied Maths-I	70	20	30	-	-	120
3	Applied Science	2000174(015)	Applied Physics	70	20	30	-	-	120
4	Applied Science	2000178(011)	Applied Chemistry	70	20	30	-	-	120
5	Computer Science and Engineering	2000176(022)	Computer Fundamentals & Applications	70	20	30	-	-	120
6	Applied Science	2000190(015)	Applied Physics (Lab)	-	-	-	30	50	80
7	Applied Science	2000191(011)	Applied Chemistry (Lab)	-	-	-	30	50	80
8	Computer Science and Engineering	2000193(022)	Computer Fundamentals & Applications (Lab)	-	-	-	30	50	80
9	Electronics & Telecommunication Engineering	2000194(028)	Electronics Work Shop Practice	-	-	-	30	70	100
10	Humanities	2000193(046)	Seminar & Technical Presentation (Listening, Reading & Speaking) Skills	-	-	-	-	60	60
	Total			350	100	150	120	280	1000

ESE: End of Semester Exam,   **CT:** Class Test,   **TA:** Teachers Assessment

Legend: PRA: Process Assessment, PDA: Product Assessment

Note : i. TA in Theory includes Sessional work (SW) and Attandance (ATT) with weightage of 70% and 30% of total respectively.

ii. TA in Practical includes performance of PRA, PDA and Viva-Voce with weightage of 50%, 40% and 10% of total respectively.

iii. 85% attendance is essential in theory & Practical classes to appear in examination.

Chhattisgarh Swami Vivekanand Technical University, Bhilai

Diploma in Artificial Intelligence and Machine Learning

Semester-II

Scheme of Studies: **Session-2021**

S.No	Board of Study	Course Code	Course Titles	Scheme of Studies (Hours/Week)			
				L	P	T	Credit L+T+(P/2)
1	Humanities	2000271(046)	Communication Skills-II	2	-	1	3
2	Applied Science	2000272(014)	Applied Maths-II	2	-	1	3
3	Civil Engineering	2000273(020)	Environmental Engineering & Sustainable Development	2	-	1	3
4	Computer Science and Engineering	2022274(022)	Programming in 'C'	2	-	1	3
5	Electronics & Telecommunication Engineering	2028275(028)	Basic Electronics Engineering	2	-	1	3
6	Computer Science and Engineering	2022290(022)	Programming in 'C' (Lab)	-	4	-	2
7	Electronics & Telecommunication Engineering	2028291(028)	Basic Electronics Engineering (Lab)	-	4	-	2
8	Humanities	2000292(046)	Seminar & Technical Presentation (Personality Development & Leadership) Skills	-	2	-	1
9	-	-	Library	-	2	-	-
10	-	-	Co-curricular & Academic Activity Societies	-	2	-	-
Total				**10**	**14**	**05**	**20**

L - Lecture,   **T** - Tutorial,   **P** – Practical

Legend:

Lecture (L) → CI Classroom Instruction (Includes different instructional strategies i.e Lecture and others.)

Practical (P)→ LI Laboratory Instruction (Includes practical performances in Laboratory workshop, field or other

locations using different instructional strategies).

Tutorial (T) → Includes sessional work (SW) (assignment, seminar, mini project etc), self Learning (SL)

Note: Leftover periods/week shall be utilized for Self Learning (SL) purpose.

Chhattisgarh Swami Vivekanand Technical University, Bhilai

Diploma in Artificial Intelligence and Machine Learning

Semester-II

Scheme of Examinations:

S.No	Board of Study	Course Code	Course Titles	Scheme of Examination					Total Marks
				Theory			Practical		
				ESE	CT	TA	ESE	TA	
1	Humanities	2000271(046)	Communication Skills-II	70	20	30	-	-	120
2	Applied Science	2000272(014)	Applied Maths-II	70	20	30	-	-	120
3	Civil Engineering	2000273(020)	Environmental Engineering & Sustainable Development	70	50	30	-	-	150
4	Computer Science and Engineering	2022274(022)	Programming in 'C'	70	50	50	-	-	170
5	Electronics & Telecommunication Engineering	2028275(028)	Basic Electronics Engineering	70	50	50	-	-	170
6	Computer Science and Engineering	2022290(022)	Programming in 'C' (Lab)	-	-	-	30	70	100
7	Electronics & Telecommunication Engineering	2028291(028)	Basic Electronics Engineering (Lab)	-	-	-	30	70	100
8	Humanities	2000292(046)	Seminar & Technical Presentation (Personality Development & Leadership) Skills	-	-	-	-	70	70
	Total			**350**	**190**	**190**	**60**	**210**	**1000**

ESE: End of Semester Exam,   **CT:** Class Test,   **TA:** Teachers Assessment

Legend: PRA: Process Assessment, PDA: Product Assessment

Note : i.   TA in Theory includes Sessional work (SW) and Attandance (ATT) with weightage of 70% and 30% of total respectively.

ii. TA in Practical includes performance of PRA, PDA and Viva-Voce with weightage of 50%, 40% and 10% of total respectively.

iii. 85% attendance is essential in theory & Practical classes to appear in examination.

Chhattisgarh Swami Vivekanand Technical University, Bhilai

Diploma in Artificial Intelligence and Machine Learning

Semester-III

Scheme of Studies:

S. No.	Board of Study	Course Code	Course Titles	Scheme of Studies (Hours/Week)			
				L	P	T	Credit L+T+(P/2)
1	Computer Science Engg.	2109371 (022)	Operating Systems with Linux	2	0	1	3
2	Computer Science Engg.	2109372 (022)	Basics of Big Data	3	0	0	3
3	Computer Science Engg.	2109373 (022)	Object-Oriented Programming using C++	2	0	0	2
4	Computer Science Engg.	2109374 (022)	Database Management System	3	0	0	3
5	Computer Science Engg.	2109375 (022)	HTML and Cascading Style Sheet (CSS)	2	0	0	2
6	Computer Science Engg.	2109361 (022)	Operating Systems with Linux (Lab)	0	4	0	2
7	Computer Science Engg.	2109362 (022)	Object-Oriented Programming using C++ (Lab)	0	4	0	2
8	Computer Science Engg.	2109363 (022)	Database Management System (Lab)	0	2	0	1
9	Computer Science Engg.	2109364 (022)	HTML and Cascading Style Sheet (CSS) (Lab)	0	4	0	2
10	Humanities	2109365 (046)	NSS/ Sports/ Yoga/ Technical Presentation/ Library Activities	As per CSVTU minutes 09 hours are allocated to mentioned activities			
Total				**12**	**14**	**01**	**20**

L - Lecture,   **T** - Tutorial,   **P** - Practical

Lecture (L)→ CI Classroom Instruction (Includes different instructional strategies i.e. Lecture and others.)

Practical (P)→ LI Laboratory Instruction (Includes practical performances in Laboratory workshop, field or other locations using different instructional strategies).

Tutorial (T) → Includes sessional work (SW) (assignment, seminar, mini project etc), self Learning (SL).

Chhattisgarh Swami Vivekanand Technical University, Bhilai

Diploma in Artificial Intelligence and Machine Learning

Semester-III

Scheme of Examination:

S. No.	Board of Study	Course Code	Course Titles	Scheme of Examination					Total Marks
				Theory			Practical		
				ESE	CT	TA	ESE	TA	
1	Computer Science Engg.	2109371 (022)	Operating Systems with Linux	70	30	30	0	0	130
2	Computer Science Engg.	2109372 (022)	Basics of Big Data	70	30	30	0	0	130
3	Computer Science Engg	2109373 (022)	Object-Oriented Programming using C++	70	30	30	0	0	130
4	Computer Science Engg.	2109374 (022)	Database Management System	70	30	30	0	0	130
5	Computer Science Engg.	2109375 (022)	HTML and Cascading Style Sheet (CSS)	70	30	30	0	0	130
6	Computer Science Engg.	2109361 (022)	Operating Systems with Linux (Lab)	0	0	0	30	50	80
7	Computer Science Engg.	2109362 (022)	Object-Oriented Programming using C++ (Lab)	0	0	0	30	50	80
8	Computer Science Engg.	2109363 (022)	Database Management System (Lab)	0	0	0	30	50	80
9	Computer Science Engg.	2109364 (022)	HTML and Cascading Style Sheet (CSS) (Lab)	0	0	0	30	50	80
10	Humanities	2109365 (046)	Technical Presentation	0	0	0	0	30	30
		Total		350	150	150	120	230	1000

ESE: End of Semester Exam,   **CT:** Class Test,   **TA:** Teachers Assessment

Chhattisgarh Swami Vivekanand Technical University, Bhilai

Diploma in Artificial Intelligence and Machine Learning

Semester-IV

Scheme of Studies:

S. No.	Board of Study	Course Code	Course Titles	Scheme of Studies (Hours/Week)			
				L	**P**	**T**	**Credit L+T+(P/2)**
1	Computer Science Engg.	2109471 (022)	Introduction to Artificial Intelligence	3	0	0	3
2	Computer Science Engg.	2109472 (022)	Basics of Data Structure	2	0	0	2
3	Computer Science Engg.	2109473 (022)	Computer Organization & Microprocessor	2	0	0	2
4	Computer Science Engg.	2109474 (022)	Scripting Language (Java)	2	0	1	3
5	Computer Science Engg.	2109475 (022)	Basics of Data Science	2	0	1	3
6	Computer Science Engg.	2109461 (022)	Introduction to Artificial Intelligence (Lab)	0	4	0	2
7	Computer Science Engg.	2109462 (022)	Basics of Data Structure (Lab)	0	4	0	2
8	Computer Science Engg.	2109463 (022)	Computer Organization & Microprocessor (Lab)	0	4	0	2
9	Computer Science Engg.	2109464 (022)	Scripting Language (Java) (Lab)	0	2	0	1
10	Humanities	2109465 (046)	NSS/Sports/Yoga/Technical Presentation/ Library Activities	As per CSVTU minutes 09 hours are allocated to mentioned activities			
Total				**11**	**14**	**02**	**20**

L - Lecture,   **T** - Tutorial,   **P** - Practical

Lecture (L)→ CI Classroom Instruction (Includes different instructional strategies i.e. Lecture and others.)

Practical (P)→ LI Laboratory Instruction (Includes practical performances in Laboratory workshop, field or other locations using different instructional strategies).

Tutorial (T) → Includes sessional work (SW) (assignment, seminar, mini project etc), self Learning (SL).

Chhattisgarh Swami Vivekanand Technical University, Bhilai

Diploma in Artificial Intelligence and Machine Learning

Semester-IV

Scheme of Examination:

S. No.	Board of Study	Course Code	Course Titles	Theory			Practical		Total Marks
				ESE	CT	TA	ESE	TA	
1	Computer Science Engg.	2109471 (022)	Introduction to Artificial Intelligence	70	30	30	0	0	130
2	Computer Science Engg.	2109472 (022)	Basics of Data Structure	70	30	30	0	0	130
3	Computer Science Engg	2109473 (022)	Computer Organization & Microprocessor	70	30	30	0	0	130
4	Computer Science Engg.	2109474 (022)	Scripting Language (Java)	70	30	30	0	0	130
5	Computer Science Engg.	2109475 (022)	Basics of Data Science	70	30	30	0	0	130
6	Computer Science Engg.	2109461 (022)	Introduction to Artificial Intelligence (Lab)	0	0	0	30	50	80
7	Computer Science Engg.	2109462 (022)	Basics of Data Structure (Lab)	0	0	0	30	50	80
8	Computer Science Engg.	2109463 (022)	Computer Organization & Microprocessor (Lab)	0	0	0	30	50	80
9	Computer Science Engg.	2109464 (022)	Scripting Language (Java) (Lab)	0	0	0	30	50	80
10	Humanities	2109465 (046)	Technical Presentation	0	0	0	0	30	30
Total				**350**	**150**	**150**	**120**	**230**	**1000**

ESE: End of Semester Exam,   **CT:** Class Test,   **TA:** Teachers Assessment

Chhattisgarh Swami Vivekanand Technical University, Bhilai

Diploma in Artificial Intelligence and Machine Learning

Semester-V

Scheme of Studies:

S. No.	Board of Study	Course Code	Course Titles	Scheme of Studies (Hours/Week)			
				L	P	T	Credit L+T+(P/2)
1	Computer Science Engg.	2109571 (022)	Python Programming	2	0	1	3
2	Computer Science Engg.	2109572 (022)	Cyber Security and Software Piracy	2	0	1	3
3	Computer Science Engg.	2109573 (022)	Web Development Using PHP	2	0	1	3
4	Computer Science Engg.	2109574 (022)	Basics of Data Mining with Machine Learning	2	0	1	3
5	Computer Science Engg.	2109575 (022)	Software Engineering	2	0	1	3
6	Computer Science Engg.	2109561 (022)	Python Programming (Lab)	0	2	0	1
7	Computer Science Engg.	2109562 (022)	Cyber Security and Software Piracy (Lab)	0	2	0	1
8	Computer Science Engg.	2109563 (022)	Web Development Using PHP (Lab)	0	4	0	2
9	Computer Science Engg.	2109564 (022)	Industrial Training/Seminar*	0	2	0	1
10	Humanities	2109565 (046)	NSS / Sports / Yoga / Technical Presentation / Library Activities	As per CSVTU minutes 11 hours are allocated to mentioned activities			
Total				**10**	**10**	**05**	**20**

L - Lecture,   **T** - Tutorial,   **P** - Practical

Lecture (L)→ CI Classroom Instruction (Includes different instructional strategies i.e. Lecture and others.)

Practical (P)→ LI Laboratory Instruction (Includes practical performances in Laboratory workshop, field or other locations using different instructional strategies).

Tutorial (T) → Includes sessional work (SW) (assignment, seminar, mini project etc), self Learning (SL).

Chhattisgarh Swami Vivekanand Technical University, Bhilai

Diploma in Artificial Intelligence and Machine Learning

Semester-V

Scheme of Examination:

S. No.	Board of Study	Course Code	Course Titles	Theory			Practical		Total Marks
				ESE	CT	TA	ESE	TA	
1	Computer Science Engg.	2109571 (022)	Python Programming	70	30	30	0	0	130
2	Computer Science Engg.	2109572 (022)	Cyber Security and Software Piracy	70	30	30	0	0	130
3	Computer Science Engg.	2109573 (022)	Web Development Using PHP	70	30	30	0	0	130
4	Computer Science Engg.	2109574 (022)	Basics of Data Mining with Machine Learning	70	30	30	0	0	130
5	Computer Science Engg.	2109575 (022)	Software Engineering	70	30	30	0	0	130
6	Computer Science Engg.	2109561 (022)	Python Programming (Lab)	0	0	0	30	50	80
7	Computer Science Engg.	2109562 (022)	Cyber Security and Software Piracy (Lab)	0	0	0	30	50	80
8	Computer Science Engg.	2109563 (022)	Web Development Using PHP (Lab)	0	0	0	30	50	80
9	Computer Science Engg.	2109564 (022)	Industrial Training/Seminar*	0	0	0	30	50	80
10	Humanities	2109565 (046)	NSS / Sports / Yoga / Technical Presentation / Library Activities	0	0	0	0	30	30
	Total			**350**	**150**	**150**	**120**	**230**	**1000**

ESE: End of Semester Exam,   **CT:** Class Test,   **TA:** Teachers Assessment

Chhattisgarh Swami Vivekanand Technical University, Bhilai

Diploma in Artificial Intelligence and Machine Learning

Semester-VI

Scheme of Studies:

S. No.	Board of Study	Course Code	Course Titles	Scheme of Studies (Hours/Week)			
				L	P	T	Credit L+T+(P/2)
1	Computer Science Engg.	2109671 (022)	Multimedia Technology	3	0	1	4
2	Computer Science Engg.	2109672 (022)	Cloud Computing	2	0	1	3
3	Computer Science Engg.	2109673 (022)	Java Programming	2	0	1	3
4	Computer Science Engg.	2109674 (022)	Computer Troubleshooting and Maintenance	2	0	1	3
5	Computer Science Engg.	2109661 (022)	Multimedia Technology (Lab)	0	2	0	1
6	Computer Science Engg.	2109662 (022)	Cloud computing (Lab)	0	2	0	1
7	Computer Science Engg.	2109663 (022)	Java Programming (Lab)	0	4	0	2
8	Computer Science Engg.	2109664 (022)	Computer Troubleshooting and Maintenance (Lab)	0	2	0	1
9	Computer Science Engg.	2109665 (022)	Major Project	0	4	0	2
10	Humanities	2109666 (046)	NSS / Sports / Yoga / Technical Presentation / Library Activities	As per CSVTU minutes 09 hours are allocated to mentioned activities			
Total				**09**	**14**	**04**	**20**

L - Lecture, **T** - Tutorial, **P** - Practical

Lecture (L)→ CI Classroom Instruction (Includes different instructional strategies i.e. Lecture and others).

Practical (P)→ LI Laboratory Instruction (Includes practical performances in Laboratory workshop, field or other locations using different instructional strategies).

Tutorial (T) → Includes sessional work (SW) (assignment, seminar, mini project etc), self Learning (SL).

Chhattisgarh Swami Vivekanand Technical University, Bhilai

Diploma in Artificial Intelligence and Machine Learning

Semester-VI

Scheme of Examination:

S. No.	Board of Study	Course Code	Course Titles	Scheme of Examination					Total Marks
				Theory			Practical		
				ESE	CT	TA	ESE	TA	
1	Computer Science Engg.	2109671 (022)	Multimedia Technology	70	30	30	0	0	130
2	Computer Science Engg.	2109672 (022)	Cloud Computing	70	30	30	0	0	130
3	Computer Science Engg	2109673 (022)	Java Programming	70	30	30	0	0	130
4	Computer Science Engg.	2109674 (022)	Computer Troubleshooting and Maintenance	70	30	30	0	0	130
5	Computer Science Engg.	2109661 (022)	Multimedia Technology (Lab)	0	0	0	30	50	80
6	Computer Science Engg.	2109662 (022)	Cloud computing (Lab)	0	0	0	30	50	80
7	Computer Science Engg.	2109663 (022)	Java Programming (Lab)	0	0	0	30	50	80
8	Computer Science Engg.	2109664 (022)	Computer Troubleshooting and Maintenance (Lab)	0	0	0	30	50	80
9	Computer Science Engg.	2109665 (022)	Major Project	0	0	0	80	50	130
10	Humanities	2109666 (046)	NSS / Sports / Yoga / Technical Presentation / Library Activities	0	0	0	0	30	30
Total				**280**	**120**	**120**	**200**	**280**	**1000**

ESE: End of Semester Exam,   **CT:** Class Test,   **TA:** Teachers Assessment