



# Chhattisgarh Swami Vivekanand Technical University, Bhilai

## Diploma in Mechanical/Metallurgy/Mining/Chemical Engineering (Group-IB)

### Semester-I

#### Scheme of Studies:

Session-2020

S.No	Board of Study	Course Code	Course Titles	Scheme of Studies (Hours/Week)			
				L	P	T	Credit (C) 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	Mechanical Engineering	2000173(037)	Applied Mechanics	2	-	1	3
4	Applied Science	2000178(011)	Applied Chemistry	2	-	1	3
5	Mechanical Engineering	2000177(037)	Engineering Drawing	2	-	1	3
6	Mechanical Engineering	2000180(037)	Workshop Practice (Theory)	1	-	-	1
7	Mechanical Engineering	2000190(037)	Applied Mechanics (Lab)	-	2	-	1
8	Applied Science	2000191(011)	Applied Chemistry (Lab)	-	2	-	1
9	Mechanical Engineering	2000192(037)	Engineering Drawing (Practical)	-	2	-	1
10	Mechanical Engineering	2000193(037)	Workshop Practice (Practical)	-	4	-	2
11	Humanities	2000194(046)	Seminar & Technical Presentation (Listening, Reading & Speaking) Skills	-	2	-	1
12	-	-	Library	-	2	-	-
13	-	-	Co-curricular & Academic Activity Societies	-	2	-	-
<b>Total</b>				<b>11</b>	<b>16</b>	<b>05</b>	<b>22</b>

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)

**Note:** Leftover periods/week (4 periods/week) shall be utilized for Self Learning (SL) purpose.



# Chhattisgarh Swami Vivekanand Technical University, Bhilai

## Diploma in Mechanical/Metallurgy/Mining/Chemical Engineering (Group-IB)

### Semester-I

#### Scheme of Examinations:

Session-2020

S.No	Board of Study	Course Code	Course Titles	Scheme of Examination					
				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	Mechanical Engineering	2000173(037)	Applied Mechanics	70	20	30	-	-	120
4	Applied Science	2000178(011)	Applied Chemistry	70	20	30	-	-	120
5	Mechanical Engineering	2000177(037)	Engineering Drawing	70	20	30	-	-	120
6	Mechanical Engineering	2000180(037)	Workshop Practice (Theory)	-	-	30	-	-	30
7	Mechanical Engineering	2000190(037)	Applied Mechanics (Lab)	-	-	-	30	50	80
8	Applied Science	2000191(011)	Applied Chemistry (Lab)	-	-	-	30	50	80
9	Mechanical Engineering	2000192(037)	Engineering Drawing (Practical)	-	-	-	30	50	80
10	Mechanical Engineering	2000193(037)	Workshop Practice (Practical)	-	-	-	50	30	80
11	Humanities	2000194(046)	Seminar & Technical Presentation (Listening, Reading & Speaking) Skills	-	-	-	-	50	50
<b>Total</b>				<b>350</b>	<b>100</b>	<b>180</b>	<b>140</b>	<b>230</b>	<b>1000</b>

ESE : End Semester Examination, CT: Class Test, TA: Teachers Assessment

**Note :** i) TA in Theory includes Sessional work (SW) and Attendance (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 each theory and practical subjects to appear in examination.

**Legend:** - PRA: Process Assessment, PDA: Product Assessment



# Chhattisgarh Swami Vivekanand Technical University, Bhilai

## Diploma in Mechanical/Metallurgy/Mining/Chemical Engineering (Group-IB)

### Semester-II

#### Scheme of Studies:

Session-2020

S. No.	Board of Study	Course Code	Course Titles	Scheme of Studies (Hours/Week)			
				L	P	T	Credit (C) 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	Applied Science	2000274 (015)	Applied Physics	2	-	1	3
5	Mechanical Engineering	2000279 (037)	Basic Non-Conventional Energy Sources	1	-	1	2
6	Computer Science and Engineering	2000276 (022)	Computer Fundamentals & Applications	2	-	-	2
7	Applied Science	2000290 (015)	Applied Physics (Lab)	-	2	-	1
8	Mechanical Engineering	2000291 (037)	Basic Non-Conventional Energy Sources (Lab)	-	2	-	1
9	Computer Science and Engineering	2000292 (022)	Computer Fundamentals & Applications (Lab)	-	4	-	2
10	Humanities	2000294 (046)	Seminar & Technical Presentation (Personality Development & Leadership) Skills	-	2	-	1
11	-	-	Library	-	2	-	-
12	-	-	Co-curricular & Academic Activity Societies	-	2	-	-
<b>Total</b>				<b>11</b>	<b>14</b>	<b>05</b>	<b>21</b>

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)

**Note:** Leftover periods/week (6 periods/week) shall be utilized for Self Learning (SL) purpose.



# Chhattisgarh Swami Vivekanand Technical University, Bhilai

## Diploma in Mechanical/Metallurgy/Mining/Chemical Engineering (Group-IB)

### Semester-II

#### Scheme of Examination:

Session-2020

S. No	Board of Study	Course Code	Course Titles	Scheme of Examination					
				Theory			Practical		Total Marks
				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	Applied Science	2000274 (015)	Applied Physics	70	20	30	-	-	120
5	Mechanical Engineering	2000279 (037)	Basic Non-Conventional Energy Sources	-	-	70	-	-	70
6	Computer Science and Engineering	2000276 (022)	Computer Fundamentals & Applications	70	20	30	-	-	120
7	Applied Science	2000290 (015)	Applied Physics (Lab)	-	-	-	30	50	80
8	Mechanical Engineering	2000291 (037)	Basic Non-Conventional Energy Sources (Lab)	-	-	-	30	50	80
9	Computer Science and Engineering	2000292 (022)	Computer Fundamentals & Applications (Lab)	-	-	-	30	50	80
10	Humanities	2000294 (046)	Seminar & Technical Presentation (Personality Development & Leadership) Skills	-	-	-	-	60	60
<b>Total</b>				<b>350</b>	<b>130</b>	<b>220</b>	<b>90</b>	<b>210</b>	<b>1000</b>

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

**Note:** i) TA in Theory includes Sessional work (SW) and Attendance (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 each theory and practical subjects to appear in examination.

**Legend:** - PRA: Process Assessment, PDA: Product Assessment.



# Chhattisgarh Swami Vivekanand Technical University, Bhilai

## Diploma in Mining Engineering

### Semester – III

#### Scheme of Studies :

Session-2020

S.No.	Board of Study	Course Code	Course Titles	Scheme of Studies (Hours/Week)			
				L	P	T	Credit L+T+(P/2)
1	Mining Engineering	2039371 (039)	Elements of Mining Technology	2	-	1	3
2	Mining Engineering	2039372 (039)	Mine Transportation	2	-	1	3
3	Mining Engineering	2039373 (039)	Applied Geology	2	-	1	3
4	Mining Engineering	2039374 (039)	Elements of Mine Surveying	2	-	1	3
5	Mining Engineering	2039375 (039)	Mine Ventilation	3	-	1	4
6	Mining Engineering	2039361 (039)	Elements of Mining Technology (Lab)	-	2	-	1
7	Mining Engineering	2039362 (039)	Applied Geology (Lab)	-	2	-	1
8	Mining Engineering	2039363 (039)	Elements of Mine Surveying (Lab)	-	2	-	1
9	Mining Engineering	2039364 (039)	Mine Ventilation (Lab)	-	2	-	1
10	-	-	Library	-	2	-	0
11	Humanities	-	Health and Yoga	-	7	-	0
<b>Total</b>				<b>11</b>	<b>17</b>	<b>05</b>	<b>20</b>

L- Lecture,

T- Tutorial,

P- Practical,

Lecture (L)→ CL Classroom Instruction (Includes different instructional Strategies i.e Lecture and others.)

Practical (P)→ 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 Mining Engineering

### Semester – III

#### Scheme of Examination :

Session-2020

S.No.	Board of Study	Course Code	Course Titles	Scheme of Studies (Hours/Week)					
				Theory			Practical		Total Marks
				ESE	CT	TA	ESE	TA	
1	Mining Engineering	2039371 (039)	Elements of Mining Technology	70	20	30	-	-	120
2	Mining Engineering	2039372 (039)	Mine Transportation	70	20	30	-	-	120
3	Mining Engineering	2039373 (039)	Applied Geology	70	20	30	-	-	120
4	Mining Engineering	2039374 (039)	Elements of Mine Surveying	70	20	30	-	-	120
5	Mining Engineering	2039375 (039)	Mine Ventilation	70	20	30	-	-	120
6	Mining Engineering	2039361 (039)	Elements of Mining Technology (Lab)	-	-	-	40	60	100
7	Mining Engineering	2039362 (039)	Applied Geology (Lab)	-	-	-	40	60	100
8	Mining Engineering	2039363 (039)	Elements of Mine Surveying (Lab)	-	-	-	40	60	100
9	Mining Engineering	2039364 (039)	Mine Ventilation (Lab)	-	-	-	40	60	100
10	Humanities	-	Health and Yoga	-	-	-	-	-	-
<b>Total</b>				<b>350</b>	<b>100</b>	<b>150</b>	<b>160</b>	<b>240</b>	<b>1000</b>

ESE : End of semester exam

CT : Class Test

TA : Teachers Assessment

**Legend :-** PRA : Process Assessment, PDA : Product Assessment

- Note :-**
- TA in Theory includes Sessional work (SW) and Attendance (ATT) with weightage of 70% and 30% weightage of total respectively .
  - TA in Practical includes performance of PRA, PDA and Viva-voce with weightage of 50% , 40% and 10% weightage of total respectively .
  - 85% attendance is essential in theory & Practical classes to appear in examination.



# Chhattisgarh Swami Vivekanand Technical University, Bhilai

## Diploma in Mining Engineering

### Semester – IV

#### Scheme of Studies :

Session-2020

S.No.	Board of Study	Course Code	Course Titles	Scheme of Studies (Hours/Week)			
				L	P	T	Credit L+T+(P/2)
1	Mechanical Engineering	2000475 (037)	Entrepreneurship Development and Management	2	-	1	3
2	Mining Engineering	2039471 (039)	Mine Surveying -I	3	-	1	4
3	Mining Engineering	2039472 (039)	Winning and Working Metal	2	-	1	3
4	Mining Engineering	2039473 (039)	Mine Environment & Pollution Control	2	-	1	3
5	Mining Engineering	2039474 (039)	Winning and Working (Coal)	2	-	1	3
6	Mining Engineering	2039461 (039)	Mine Surveying–I (Lab)	-	2	-	1
7	Mining Engineering	2039462 (039)	Winning and Working Coal (Lab)	-	2	-	1
8	Mining Engineering	2039463 (039)	Mine Environment & Pollution Control(Lab)	-	2	-	1
9	Mining Engineering	2039464 (039)	Minor Project	-	2	-	1
10	-	-	Library	-	2	-	0
11	-	-	Sports	-	5	-	0
<b>Total</b>				<b>11</b>	<b>15</b>	<b>05</b>	<b>20</b>

L- Lecture,

T- Tutorial,

P- Practical,

Lecture (L)→ CL Classroom Instruction (Includes different instructional Strategies i.e Lecture and others.)

Practical (P)→ 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 Mining Engineering

### Semester – IV

#### Scheme of Examination :

Session-2020

S.No.	Board of Study	Course Code	Course Titles	Scheme of Studies (Hours/Week)					
				Theory			Practical		Total Marks
				ESE	CT	TA	ESE	TA	
1	Mechanical Engineering	2000475 (037)	Entrepreneurship Development and Management	70	20	30	-	-	120
2	Mining Engineering	2039471 (039)	Mine Surveying -I	70	20	30	-	-	120
3	Mining Engineering	2039472 (039)	Winning and Working Metal	70	20	30	-	-	120
4	Mining Engineering	2039473 (039)	Mine Environment & Pollution Control	70	20	30	-	-	120
5	Mining Engineering	2039474 (039)	Winning and Working (Coal)	70	20	30	-	-	120
6	Mining Engineering	2039461 (039)	Mine Surveying –I (Lab)	-	-	-	40	60	100
7	Mining Engineering	2039462 (039)	Winning and Working Coal (Lab)	-	-	-	40	60	100
8	Mining Engineering	2039463 (039)	Mine Environment & Pollution Control (Lab)	-	-	-	40	60	100
9	Mining Engineering	2039464 (039)	Minor Project	-	-	-	40	60	100
10	-	-	Library	-	-	-	-	-	-
11	-	-	Sports	-	-	-	-	-	-
<b>Total</b>				<b>350</b>	<b>100</b>	<b>150</b>	<b>160</b>	<b>240</b>	<b>1000</b>

ESE : End of semester exam

CT : Class Test

TA : Teachers Assessment

**Legend :-** PRA : Process Assessment, PDA : Product Assessment

- Note :-**
- TA in Theory includes Sessional work (SW) and Attendance (ATT) with weightage of 70% and 30% weightage of total respectively.
  - TA in Practical includes performance of PRA, PDA and Viva-voce with weightage of 50% , 40% and 10% weightage of total respectively.
  - 85% attendance is essential in theory & Practical classes to appear in examination.





# Chhattisgarh Swami Vivekanand Technical University, Bhilai

## Diploma in Mining Engineering

### Semester – V

Scheme of Studies:

Session-2020

S.No.	Board of Study	Course Code	Course Titles	Scheme of Studies (Hours/Week)			
				L	P	T	Credit L+T+(P/2)
1	Mining Engineering	2039571 (039)	Advance Mining Geology	2	-	1	3
2	Mining Engineering	2039572 (039)	Mine Legislation	2	-	1	3
3	Mining Engineering	2039573 (039)	Mine Machinery	3	-	1	4
4	Mining Engineering	2039574 (039)	Strata Control and Roof Support	2	-	1	3
5	Mining Engineering	2039575 (039)	Drilling and Blasting Practice in Mines	2	-	1	3
6	Mining Engineering	2039561 (039)	Advance Mining Geology (Lab)	-	2	-	1
7	Mining Engineering	2039562 (039)	Mine Machinery (Lab)	-	2	-	1
8	Mining Engineering	2039563 (039)	Drilling and Blasting Practice in Mines (Lab)	-	2	-	1
9	Mining Engineering	2039564 (039)	Industrial Training (Lab)	-	2	-	1
10	Mandatory Course	--	Environmental Science	2	-	-	-
<b>Total</b>				<b>13</b>	<b>08</b>	<b>05</b>	<b>20</b>

L-Lecture,

T-Tutorial,

P- Practical,

Lecture (L)→ CL Classroom Instruction (Includes different instructional Strategies i.e Lecture and others.)

Practical (P)→ 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 Mining Engineering

### Semester – V

#### Scheme of Examination:

Session-2020

S. No.	Board of Study	Course Code	Course Titles	Scheme of Studies (Hours/Week)					
				Theory			Practical		Total Marks
				ESE	CT	TA	ESE	TA	
1	Mining Engineering	2039571 (039)	Advance Mining Geology	70	20	30	-	-	120
2	Mining Engineering	2039572 (039)	Mine Legislation	70	20	30	-	-	120
3	Mining Engineering	2039573 (039)	Mine Machinery	70	20	30	-	-	120
4	Mining Engineering	2039574 (039)	Strata Control and Roof Support	70	20	30	-	-	120
5	Mining Engineering	2039575 (039)	Drilling and Blasting Practice in Mines	70	20	30	-	-	120
6	Mining Engineering	2039561 (039)	Advance Mining Geology (Lab)	-	-	-	40	60	100
7	Mining Engineering	2039562 (039)	Mine Machinery (Lab)	-	-	-	40	60	100
8	Mining Engineering	2039563 (039)	Drilling and Blasting Practice in Mines (Lab)	-	-	-	40	60	100
9	Mining Engineering	2039564 (039)	Industrial Training (Lab)	-	-	-	40	60	100
10	Mandatory Course	--	Environmental Science	-	-	-	-	-	-
<b>Total</b>				<b>350</b>	<b>100</b>	<b>150</b>	<b>160</b>	<b>240</b>	<b>1000</b>

ESE : End of semester exam

CT : Class Test TA :

Teachers Assessment

**Legend:** PRA: Process Assessment,

PDA : Product Assessment

- Note:-**
- TA in Theory includes Sessional work (SW) and Attendance (ATT) with weightage of 70% and 30% weightage of total respectively.
  - TA in Practical includes performance of PRA, PDA and Viva-voce with weightage of 50% , 40% and 10% weightage of total respectively.
  - 85% attendance is essential in theory & Practical classes to appear in examination.



# Chhattisgarh Swami Vivekanand Technical University, Bhilai

## Diploma in Mining Engineering

### Semester – VI

Scheme of Studies:

Session-2020

S.No.	Board of Study	Course Code	Course Titles	Scheme of Studies (Hours/Week)			
				L	P	T	Credit L+T+(P/2)
1	Mining Engineering	2039671 (039)	Mine Hazards	2	-	1	3
2	Mining Engineering	2039672 (039)	Surface Mining	2	-	1	3
3	Mining Engineering	2039673 (039)	Mine Surveying-II	3	-	1	4
4	Mining Engineering	2039674 (039)	Mine Management and Economics	2	-	1	3
5	Mining Engineering	2039675 (039)	Mine Safety and Legislation	2	-	1	3
6	Mining Engineering	2039661 (039)	Mine Hazards (Lab)	-	2	-	1
7	Mining Engineering	2039662 (039)	Mine Surveying-II (Lab)	-	2	-	1
8	Mining Engineering	2039663 (039)	Major project	-	2	-	1
9	Mining Engineering	2039664 (039)	Industrial Training – II (Lab)	-	2	-	1
10	Mandatory Course	--	Essence of Indian Knowledge and Tradition	2	-	-	0
<b>Total</b>				<b>13</b>	<b>08</b>	<b>05</b>	<b>20</b>

L-Lecture,

T-Tutorial,

P- Practical,

Lecture (L)→ CL Classroom Instruction (Includes different instructional Strategies i.e Lecture and others.)

Practical (P→ 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 Mining Engineering

### Semester – VI

Scheme of Examination:

Session-2020

S.No.	Board of Study	Course Code	Course Titles	Scheme of Studies (Hours/Week)					
				Theory			Practical		Total Marks
				ESE	CT	TA	ESE	TA	
1	Mining Engineering	2039671 (039)	Mine Hazards	70	20	30	-	-	120
2	Mining Engineering	2039672 (039)	Surface Mining	70	20	30	-	-	120
3	Mining Engineering	2039673 (039)	Mine Surveying-II	70	20	30	-	-	120
4	Mining Engineering	2039674 (039)	Mine Management and Economics	70	20	30	-	-	120
5	Mining Engineering	2039675 (039)	Mine Safety and Legislation	70	20	30	-	-	120
6	Mining Engineering	2039661 (039)	Mine Hazards	-	-	-	40	60	100
7	Mining Engineering	2039662 (039)	Mine Surveying-II	-	-	-	40	60	100
8	Mining Engineering	2039663 (039)	Major project	-	-	-	40	60	100
9	Mining Engineering	2039664 (039)	Industrial Training -II	-	-	-	40	60	100
10	Mandatory Course	--	Essence of Indian Knowledge and Tradition	-	-	-	-	-	-
<b>Total</b>				<b>350</b>	<b>100</b>	<b>150</b>	<b>160</b>	<b>240</b>	<b>1000</b>

**ESE** : End of semester exam

**CT** : Class Test

**TA** : Teachers Assessment

**Legend:** PRA: Process Assessment,

**PDA:** Product Assessment

- Note :-**
- TA in Theory includes Sessional work (SW) and Attendance (ATT) with weightage of 70% and 30% weightage of total respectively.
  - TA in Practical includes performance of PRA, PDA and Viva-voce with weightage of 50% , 40% and 10% weightage of total respectively.
  - 85% attendance is essential in theory & Practical classes to appear in examination.