



Chhattisgarh Swami Vivekanand Technical University, Bhilai

Diploma in Mechanical 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	Electrical & Electronics Engineering	2037371(025)	Basic Electrical and Electronics	2	-	1	3
2	Mechanical Engineering	2037372(037)	Strength of Material	2	-	1	3
3	Mechanical Engineering	2037373(037)	Thermal Engineering	2	-	1	3
4	Mechanical Engineering	2037374(037)	Machine Drawing and Computer Aided Drafting	2	-	1	3
5	Mechanical Engineering	2037375(037)	Material Technology	2	-	1	3
6	Electrical & Electronics Engineering	2037361(025)	Basic Electrical and Electronics (Lab)	-	2	-	1
7	Mechanical Engineering	2037362(037)	Strength of Material (Lab)	-	2	-	1
8	Mechanical Engineering	2037363(037)	Thermal Engineering (Lab)	-	2	-	1
9	Mechanical Engineering	2037364(037)	Machine Drawing and Computer Aided Drafting (Lab)	-	4	-	2
10	Mechanical Engineering	2037365(037)	Material Technology (Lab)	-	2	-	1
11	Humanities	-	Health, Hygiene and Yoga	-	2	-	-
12	-	-	Library	-	2	-	-
Total				10	16	05	21

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 Mechanical Engineering

Semester – III

Scheme of Examination :

Session-2020

S. No.	Board of Study	Course Code	Course Titles	Scheme of Examination				
				Theory			Practical	
				ESE	CT	TA	ESE	TA
1	Electrical & Electronics Engineering	2037371(025)	Basic Electrical and Electronics	70	20	30	-	-
2	Mechanical Engineering	2037372(037)	Strength of Material	70	20	30	-	-
3	Mechanical Engineering	2037373(037)	Thermal Engineering	70	20	30	-	-
4	Mechanical Engineering	2037374(037)	Machine Drawing and Computer Aided Drafting	70	20	30	-	-
5	Mechanical Engineering	2037375(037)	Material Technology	70	20	30	-	-
6	Electrical & Electronics Engineering	2037361(025)	Basic Electrical and Electronics (Lab)	-	-	-	30	50
7	Mechanical Engineering	2037362(037)	Strength of Material (Lab)	-	-	-	30	50
8	Mechanical Engineering	2037363(037)	Thermal Engineering (Lab)	-	-	-	30	50
9	Mechanical Engineering	2037364(037)	Machine Drawing and Computer Aided Drafting (Lab)	-	-	-	30	50
10	Mechanical Engineering	2037365(037)	Material Technology (Lab)	-	-	-	30	50
Total				350	100	150	150	250
								1000

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% weightage of total respectively.
- ii. TA in Practical includes performance of PRA, PDA and Viva-voce with weightage of 50% , 40% and 10% weightage of total respectively .
- iii. 85% attendance is essential in theory & Practical classes to appear in examination.

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



Chhattisgarh Swami Vivekanand Technical University, Bhilai

Diploma in Mechanical 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	2037471(037)	Theory of Machines	2	-	1	3
2	Mechanical Engineering	2037472(037)	Manufacturing Process	2	-	1	3
3	Mechanical Engineering	2037473(037)	Industrial Measurements and Controls	2	-	1	3
4	Mechanical Engineering	2037474(037)	Fluid Mechanics and Machinery	2	-	1	3
5	Mechanical Engineering	2037475(037)	Engineering Metrology	2	-	1	3
6	Mechanical Engineering	2037461(037)	Theory of Machines (Lab)	-	2	-	1
7	Mechanical Engineering	2037462(037)	Manufacturing Process (Lab)	-	2	-	1
8	Mechanical Engineering	2037463(037)	Industrial Measurement and Controls(Lab)	-	2	-	1
9	Mechanical Engineering	2037464(037)	Fluid Mechanics and Machinery (Lab)	-	2	-	1
10	Mechanical Engineering	2037465(037)	Engineering Metrology (Lab)	-	2	-	1
11	-	-	Indian Constitution	2	-	-	-
12	-	-	Library	-	2	-	-
13	Humanities	-	Physical and Mental Fitness	-	2	-	-
Total				12	14	5	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 Mechanical Engineering

Semester – IV

Session-2020

Scheme of Examination:

S. No.	Board of Study	Course Code	Course Titles	Scheme of Examination					
				Theory			Practical		Total Marks
				ESE	CT	TA	ESE	TA	
1	Mechanical Engineering	2037471(037)	Theory of Machines	70	20	30	-	-	120
2	Mechanical Engineering	2037472(037)	Manufacturing Process	70	20	30	-	-	120
3	Mechanical Engineering	2037473(037)	Industrial Measurements and Controls	70	20	30	-	-	120
4	Mechanical Engineering	2037474(037)	Fluid Mechanics and Machinery	70	20	30	-	-	120
5	Mechanical Engineering	2037475(037)	Engineering Metrology	70	20	30	-	-	120
6	Mechanical Engineering	2037461(037)	Theory of Machines (Lab)	-	-	-	30	50	80
7	Mechanical Engineering	2037462(037)	Manufacturing Process (Lab)	-	-	-	30	50	80
8	Mechanical Engineering	2037463(037)	Industrial Measurements and Controls (Lab)	-	-	-	30	50	80
9	Mechanical Engineering	2037464(037)	Fluid Mechanics and Machinery (Lab)	-	-	-	30	50	80
10	Mechanical Engineering	2037465(037)	Engineering Metrology (Lab)	-	-	-	30	50	80
Total				350	100	150	150	250	1000

ESE: End semester exam

CT: Class Test

TA: Teachers 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.
- Industrial training of 4 weeks duration will be carried out after completion of IV semester and its evaluation will be done in V semester.

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



Chhattisgarh Swami Vivekanand Technical University, Bhilai

Diploma in Mechanical 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	SL	Credit (C) L+T+(P/2)
1	Mechanical Engineering	2037571 (037)	Automobile Engineering	2	-	1	*	3
2	Mechanical Engineering	2037572 (037)	Machine Design, Estimation and Costing	2	-	1	*	3
3	Mechanical Engineering	2037573 (037)	Machine Tool Technology	2	-	1	*	3
4	Mechanical Engineering	2037574 (037)	Refrigeration & Air conditioning	2	-	1	*	3
5	Mechanical Engineering	2037575 (037)	Fluid Power Engineering	2	-	1	*	3
6	Mechanical Engineering	2037561 (037)	Automobile Engineering (Lab)	-	2	-	-	1
7	Mechanical Engineering	2037562 (037)	Machine Tool Technology (Lab)	-	2	-	-	1
8	Mechanical Engineering	2037563 (037)	Refrigeration & Air conditioning (Lab)	-	2	-	-	1
9	Mechanical Engineering	2037564 (037)	Fluid Power Engineering (Lab)		2		-	1
10	Mechanical Engineering	2037565 (037)	Industrial Training	-	2	-	-	1
11	Mechanical Engineering	--	Major Project		2		-	▲
12	Humanities	--	Library	-	2	-	-	-
Total				10	14	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)

Note: 1)* Leftover periods/week (07 periods/week) shall be utilized for Self Learning purpose.

07 periods/week i.e. 07 hours/week shall be equally allocated among 5 theory subjects with 1.4 hrs/week each for Self Learning without any credit.

2) ^ One credit for evaluation of Major Project during Vth semester is carried forward to VI semester.



Chhattisgarh Swami Vivekanand Technical University, Bhilai

Diploma in Mechanical Engineering Semester – V

Scheme of Examination:

Session-2020

S. No.	Board of Study	Course Code	Course Titles	Scheme of Examination						Total Marks	
				Theory			Practical				
				ESE	CT	TA	ESE	TA			
1	Mechanical Engineering	2037571 (037)	Automobile Engineering	70	20	30	-	-	120		
2	Mechanical Engineering	2037572 (037)	Machine Design, Estimation and Costing	70	20	30	-	-	120		
3	Mechanical Engineering	2037573 (037)	Machine Tool Technology	70	20	30	-	-	120		
4	Mechanical Engineering	2037574 (037)	Refrigeration & Air conditioning	70	20	30	-	-	120		
5	Mechanical Engineering	2037575 (037)	Fluid Power Engineering	70	20	30	-	-	120		
6	Mechanical Engineering	2037561 (037)	Automobile Engineering (Lab)	-	-	-	30	50	80		
7	Mechanical Engineering	2037562 (037)	Machine Tool Technology (Lab)	-	-	-	30	50	80		
8	Mechanical Engineering	2037563 (037)	Refrigeration & Air conditioning (Lab)	-	-	-	30	50	80		
9	Mechanical Engineering	2037564 (037)	Fluid Power Engineering (Lab)	-	-	-	30	50	80		
10	Mechanical Engineering	2037565 (037)	Industrial Training	-	-	-	50	30	80		
Total				350	100	150	170	230	1000		

ESE : End of 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 theory & Practical classes to appear in examination.

iv. Industrial training of 4 weeks duration will be carried out after completion of IV semester. Evaluation of industrial training will be done in V semester.

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



Chhattisgarh Swami Vivekanand Technical University, Bhilai

Diploma in Mechanical Engineering

Semester – VI

Session-2020

Scheme of Studies:

S. No	Board of Study	Course Code	Course Titles	Scheme of Studies (Hours/Week)				
				L	P	T	SL	Credit L+T+(P)/2
1	Mechanical Engineering	2037671 (037)	Industrial Engineering and Production Management	2	-	1	*	3
2	Mechanical Engineering	2037672 (037)	Power Plant Engineering	2	-	1	*	3
3	Mechanical Engineering	2037674 (037)	Computer Aided Modeling and Manufacturing	1	-	1	*	2
4	Mechanical Engineering	2000673 (037)	Entrepreneurship Development and Management	2	-	1	*	3
5	Mechanical Engineering	2037675 (037)	Industrial Maintenance and Safety	2	-	1	*	3
6	Mechanical Engineering	Refer Table A/B	Elective (Production Group/Thermal Group)	2	-	1	*	3
7	Mechanical Engineering	2037661 (037)	Computer Aided Modeling and Manufacturing (Lab)	-	4	-	-	2
8	Mechanical Engineering	Refer Table A/B	Elective (Production Group/Thermal Group) (Lab)	-	2	-	-	1
9	Mechanical Engineering	2037662 (037)	Major Project	-	2	-	-	2 ^A
10	Humanities	--	Library		2		-	
Total				11	10	6	-	22

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

Note: 1)* Leftover periods/week (09 periods/week) shall be utilized for Self Learning purpose. 09 periods/week i.e. 09 hours/week shall be equally allocated among 6 theory subjects with 1.5 hrs/week each for Self Learning without any credit.

2) ^ One credit is carried forward from the Vth semester Major Project evaluation.

3) (a) **Elective (Production Group):** Jigs , Fixtures and Press Tool Design OR Advance Manufacturing Processes.

(b) **Elective (Thermal Group):** Industrial Refrigeration OR Wind and Solar Energy Appliances (Installation, Maintenance & Operation) OR Energy Management and Audit.



Elective Subjects of VI Semester

Table A) Elective- (Production Group)

S.No	Course Code	Course Titles
1	2037681(037)	Jigs, Fixtures and Press Tool Design
2	2037682(037)	Advance Manufacturing Processes
3	2037691(037)	Jigs, Fixtures and Press Tool Design (Lab)
4	2037692(037)	Advance Manufacturing Processes (Lab)

Table B) Elective- (Thermal Group)

S.No	Course Code	Course Titles
1	2037683(037)	Industrial Refrigeration
2	2037684(037)	Wind and Solar Energy Appliances (Installation, Maintenance & Operation)
3	2037685(037)	Energy Management and Audit
4	2037693(037)	Industrial Refrigeration (Lab)
5	2037694(037)	Wind and Solar Energy Appliances (Installation, Maintenance & Operation) (Lab)
6	2037695(037)	Energy Management and Audit (Lab)



Chhattisgarh Swami Vivekanand Technical University, Bhilai

Diploma in Mechanical Engineering

Semester – VI

Scheme of Examination :

Session-2020

S. No	Board of Study	Course Code	Course Titles	Scheme of Examination					
				Theory			Practical		
				ESE	CT	TA	ESE	TA	
1	Mechanical Engineering	2037671 (037)	Industrial Engineering and Production Management	70	20	30	-	-	120
2	Mechanical Engineering	2037672 (037)	Power Plant Engineering	70	20	30	-	-	120
3	Mechanical Engineering	2037674 (037)	Computer Aided Modeling and Manufacturing	70	20	30	-	-	120
4	Mechanical Engineering	2000673 (037)	Entrepreneurship Development and Management	70	20	30	-	-	120
5	Mechanical Engineering	2037675 (037)	Industrial Maintenance and Safety	70	20	30	-	-	120
6	Mechanical Engineering	Refer Table A/B	Elective (Production Group/Thermal Group)	70	20	30	-	-	120
7	Mechanical Engineering	2037661 (037)	Computer Aided Modeling and Manufacturing (Lab)	-	-	-	50	30	80
8	Mechanical Engineering	Refer Table A/B	Elective (Production Group/Thermal Group) (Lab)	-	-	-	30	50	80
9	Mechanical Engineering	2037662 (037)	Major Project	-	-	-	80	40	120
Total				420	120	180	160	120	1000

ESE : End semester exam

CT : Class Test

TA : Teachers Assessment

Note :

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

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