

**CHHATTISGARH SWAMI VIVEKANAND TECHNICAL
UNIVERSITY, BHILAI**

SCHEME OF TEACHING AND EXAMINATION

M. Tech. in Steel Technology

THIRD SEMESTER

S. No.	Board of studies	Subject Code	Subject	Period per week			Scheme of Exam			Total Marks	Credits L+(T+P)/2
				L	T	P	ESE	CT	TA		
1	Metallurgical Engineering		Advanced Iron Making	3	1	-	100	20	20	140	4
2	Metallurgical Engineering		Advanced Steel Making & Continuous Casting	3	1	-	100	20	20	140	4
3	Metallurgical Engineering		Preliminary work on Dissertation and On Job Training	-	-	28	100	-	100	200	14
4	Metallurgical Engineering		Seminar on Industrial Training and Dissertation	-	-	03	-	-	20	20	2
Total				6	2	31	300	40	160	500	24

ESE : End Semester Examination CT : Class Test TA : Teacher's Assessment
L : Lecture T : Tutorial Practical

**CHHATTISGARH SWAMI VIVEKANAND TECHNICAL
UNIVERSITY, BHILAI**

Semester : **M. Tech.- III**

Branch : **M. Tech. Steel Technology**

Subject : **Advanced Iron Making**

Code :

Total Theory Periods : **28**

Total Tutorial Periods : **10**

Total Marks in End Semester Examination : **100**

Minimum number of class tests to be conducted : **02**

UNIT-I

Characterization of Raw materials & their effects in sinter & Iron making

UNIT-II

Burden distribution & aerodynamics

UNIT-III

Thermodynamics & kinetics of Iron Ore Reduction.

UNIT-IV

Mathematical modeling of Blast Furnace process.

UNIT-V

Blast furnace practices & future trends in advanced countries.

**CHHATTISGARH SWAMI VIVEKANAND TECHNICAL
UNIVERSITY, BHILAI**

Semester : **M. Tech.- III**

Branch : **M. Tech. Steel Technology**

Subject : **Advanced Steel Making &
Continuous Casting**

Code :

Total Theory Periods : **28**

Total Tutorial Periods : **10**

Total Marks in End Semester Examination : **100**

Minimum number of class tests to be conducted : **02**

UNIT-I

Fundamental considerations in Slag-Metal-Gas Equilibrium in Steel making.

UNIT-II

Heat & Mass Balance in BOF Steel Making. Heat Flow in continuous casting.

UNIT-III

Design aspects in BOF & Continuous casting.

UNIT-IV

Automation in Steel making process.

UNIT-V

Refractories in Steel making –BOF, Ladle & Tunidish. Improvement in refractory life.

**CHHATTISGARH SWAMI VIVEKANAND TECHNICAL
UNIVERSITY, BHILAI**

Semester : **M. Tech.- III**

Branch : **M. Tech. Steel Technology**

Subject : **Preliminary work on Dissertation
and On Job Training**

Code :

Total Theory Periods : **28**

Total Tutorial Periods : **10**

Total Marks in End Semester Examination : **100**

Minimum number of class tests to be conducted : **02**

UNIT-I : Iron Making

UNIT-II : Steel Making

**CHHATTISGARH SWAMI VIVEKANAND TECHNICAL
UNIVERSITY, BHILAI**

Semester : M. Tech.- III

Branch : M. Tech. Steel Technology

**Subject : Seminar on Industrial Training
& Dissertation**

Code :