



CHHATTISGARH SWAMI VIVEKANAND TECHNICAL UNIVERSITY

Courses of Study and Scheme of Examination

Scheme of Teaching and Examination

M. TECH IN STEEL TECHNOLOGY

THIRD SEMESTER

S.No	Board of Study	Subject Code	Subject	Periods Per Week			Scheme of Examination			Total Marks	Credit [(L+T+P)] 2
				L	T	P	Theory/Practical				
							ESE	CT	TA		
1	Metallurgical Engineering	556311 (38)	Advanced Iron Making	3	1	0	100	20	20	140	4
2	Metallurgical Engineering	556312 (38)	Advanced Steel making & Continuous Casting	3	1	0	100	20	20	140	4
3	Metallurgical Engineering	556321 (38)	Preliminary work on Dissertation and On Job Training	-	-	28	100	-	100	200	14
4	Metallurgical Engineering	556322 (38)	Seminar on Industrial Training and Dissertation	-	-	03	-	-	20	20	2
TOTAL				6	2	31	300	40	160	500	24

L-Lecture, T-Tutorial, P-Practical, ESE – End Semester Exam, CT- Class Test, TA- Teacher's Assessment

**CHHATTISGARH SWAMI VIVEKANAND TECHNICAL UNIVERSITY
BHILAI (C.G.)**

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

Subject: **Advanced Iron Making**

Total Theory Periods: **40**

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

Minimum number of Class tests to be conducted: **Two**

Branch: **Metallurgical Engg.**

Code: **556311 (38)**

Total Tutorial Periods: **12**

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 (C.G.)**

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

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

Total Theory Periods: **40**

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

Minimum number of Class tests to be conducted: **Two**

Branch: **Metallurgical Engg.**

Code: **556312 (38)**

Total Tutorial Periods: **12**

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 & Tundish. Improvement in refractory life.

**CHHATTISGARH SWAMI VIVEKANAND TECHNICAL UNIVERSITY
BHILAI (C.G.)**

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

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

Total Practical Periods: --

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

Minimum number of Class tests to be conducted: **Two**

Branch: **Metallurgical Engg.**

Code: **556321 (38)**

Total Tutorial Periods: **NII**

UNIT-I : Iron Making

UNIT-II : Steel Making

**CHHATTISGARH SWAMI VIVEKANAND TECHNICAL
UNIVERSITY, BHILAI**

Semester : **M. Tech.- III**
Subject : **Seminar on Industrial Training
& Dissertation**

Branch : **M. Tech. Steel Technology**
Code : 556322 (38)