

S.N.

**DEPARTMENT OF METALLURGICAL and MATERIALS ENGINEERING
NATIONAL INSTITUTE OF TECHNOLOGY, TIRUCHIRAPPALLI**

COURSE PLAN – PART I			
Course Title	METALLIC MATERIALS		
Course Code	MT 656	No. of Credits	03
Course Code of Pre-requisite subject(s)	NIL		
Session	Jan 2019	Section (if, applicable)	NA
Name of Faculty	B.Ravisankar	Department	MME
Email	brs@nitt.edu	Telephone No.	9443578303
Name of Course Coordinator(s) (if, applicable)	NA		
E-mail	----	Telephone No.	----
Course Type	Core		
Syllabus (approved in BoS)			
Refer : https://www.nitt.edu/home/academics/curriculum/MTech-MSE-2015.pdf - Page No 11			
COURSE OBJECTIVES			
Understand the basics of metallic materials- classifications and their properties and applications			
COURSE OUTCOMES (CO)			
Course Outcomes	Aligned Programme Outcomes (PO)		
1. Understand major types of special steels such as HSLA, TRIP, Dual and Tool steels and cast-irons	Materials Science and Engineering post graduates are attaining knowledge of materials and their science & Engineering		
2. Understand the structure and properties of nonferrous metals and alloys	Materials Science and Engineering post graduates are attaining knowledge of materials and their science & Engineering		
3. Identify the phases present in different alloy systems by analyzing the phase diagrams	Materials Science and Engineering post graduates are attaining knowledge of materials and their science & Engineering		
4. Apply the basic principles of ferrous and non-ferrous physical metallurgy for selecting materials for specific applications.	Materials Science and Engineering post graduates are talented to formulate and analyse the engineering data.		

COURSE PLAN – PART II**COURSE OVERVIEW**

The course covers the microstructure, properties and applications of metallic materials procedure for selecting materials for specific applications.

COURSE TEACHING AND LEARNING ACTIVITIES

S.No.	Week/Contact Hours	Topic	Mode of Delivery
1	I-III	Classification of Materials – Ferrous metals and alloys	Class room lecture with both chalk & talk and power point+ guest lectures
2	IV-V	Types, properties and applications of aluminium and its alloys	
3	Vi-VII	Types, properties and applications of copper and its alloys	
4	VIII-IX	Types, properties and applications of titanium & magnesium and its alloys	
5	X-XII	Types, properties and applications of lead, tin, zinc, antimony, silver, gold, platinum and its alloys	

COURSE ASSESSMENT METHODS (shall range from 4 to 6)

S.No.	Mode of Assessment	Week/Date	Duration (min)	% Weightage
1	Cycle Test I (objective)	II	45	20
2	Cycle Test II	IV	45	20
3	Seminar	VIII	10	10
4	Assignment	X	Individual	10
CPA	Compensation Assessment	IX	45	20
5	End semester Examination	XIII	180	40

COURSE EXIT SURVEY (mention the ways in which the feedback about the course shall be assessed)

The exit survey will be assessed based on the questionnaire prepared by the class teacher and expected attainment is 75% on 1-10 scale basis

COURSE POLICY (preferred mode of correspondence with students, policy on attendance, compensation assessment,, academic honesty and plagiarism etc.)**MODE OF CORRESPONDENCE (email/ phone etc)**

Email/Mobile

ATTENDANCE

Minimum 75% excluding ODs. Medical certificate for genuine cases is permitted

COMPENSATION ASSESSMENT

It will be given during IX week for those who are absent on genuine grounds for any one of the cycle tests.

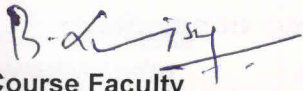
ACADEMIC HONESTY & PLAGIARISM

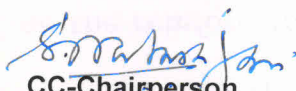
Plagiarism will be checked for assignments.

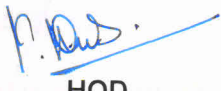
ADDITIONAL INFORMATION

The Course faculty is available for consultation at any time. Students can also contact him at any time through phone or by mail. The phone number and mail id will be given to the students at the beginning of the course

FOR APPROVAL


Course Faculty _____
(B.Ravisankar)
05 JAN 19


CC-Chairperson _____
(Dr.S.Natarajan) *


HOD _____
(Prof.V.Muthupandi)