

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

COURSE PLAN – PART I			
Course Title	Design and Selection of Materials		
Course Code	MT 614	No. of Credits	03
Course Code of Pre-requisite subject(s)	NIL		
Session	Jan 2018	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	Elective course		
Syllabus (approved in BoS)			
Refer : https://www.nitt.edu/home/academics/curriculum/MTech-MSE-2015.pdf - Page No 17			
COURSE OBJECTIVES			
To know different types of materials and properties and to select better materials for different applications			
COURSE OUTCOMES (CO)			
Course Outcomes	Aligned Programme Outcomes (PO)		
1. Understand types of materials and properties	Materials Science and Engineering post graduates are capable to apply knowledge of mathematics, science and engineering		
2. Know different methods for materials selection	Materials Science and Engineering post graduates capable to design and conduct experiments, as well as to analyze and interpret data		
3. Know different methods for process selection	Materials Science and Engineering post graduates are capable to identify, formulate and solve engineering problems.		
4. Selection of materials for Specific engineering applications	Materials Science and Engineering post graduates have the understanding of professional and ethical responsibility.		
	Materials Science and Engineering post graduates have knowledge of contemporary /current issues.		

COURSE PLAN – PART II				
COURSE OVERVIEW				
The course covers the procedure for selecting materials and manufacturing route for specific applications. It also covers brief professing about the various materials and processes. It includes cost modelling also				
COURSE TEACHING AND LEARNING ACTIVITIES				
S.No.	Week/Contact Hours	Topic	Mode of Delivery	
1	I-III	Technologically important properties of materials	Class room lecture with both calk & talk and power point+ guest lectures	
2	IV-V	Types of design, design tools and Materials data		
3	Vi-VII	Methodology for selection of materials		
4	VIII-IX	Methodology for selection of Processes		
5	X-XII	Case studies		
COURSE ASSESSMENT METHODS (shall range from 4 to 6)				
S.No.	Mode of Assessment	Week/Date	Duration (min)	% Weightage
1	Tutorial I	II	45	20
2	Tutorial II	IV	45	20
3	Assignment	VI	---	10
4	Seminar	X	Individual for 10 mins	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.)				
<u>MODE OF CORRESPONDENCE (email/ phone etc)</u>				
Email/Mobile				
<u>ATTENDANCE</u>				
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 tutorials

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 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 CC-Chairperson S.Muthukumar HOD Prof.V.Muthupand
(B.Ravisankar) 17 JAN 2018 (Dr.S.Muthukumaran) (Prof.V.Muthupand)