

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

COURSE PLAN – PART I			
Course Title	Design and Selection of Materials		
Course Code	MTOE 13/44	No. of Credits	03
Course Code of Pre-requisite subject(s)	Nil		
Session	July 2020	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	OPEN ELECTIVE		
Syllabus			
Refer : https://www.nitt.edu/home/academics/curriculum/B.Tech-MME-2016.pdf			
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	1,5		
2. Know different methods for materials selection	1,2,5		
3. Selection of materials for Specific engineering applications	1,2,5,7,11		

Programme Outcomes:

1. The Metallurgical and Materials Engineering graduates are capable to apply knowledge of mathematics, science and engineering.
2. The Metallurgical and Materials Engineering graduates are capable to design and conduct experiments, as well as to analyze and interpret data.
5. The Metallurgical and Materials Engineering graduates are capable to identify, formulate and solve engineering problems.
7. The Metallurgical and Materials Engineering graduates are capable to communicate effectively.
11. The Metallurgical and Materials Engineering graduates are capable to use the techniques, skills, and modern engineering tools necessary for engineering practice.

COURSE PLAN – PART II				
COURSE OVERVIEW				
The course covers understanding the methodology for selection of materials and processes for the specific requirements and environments.				
COURSE TEACHING AND LEARNING ACTIVITIES				
S.No.	Week/Contact Hours	Topic	Mode of Delivery	
1	I-III	Technologically important properties of materials	On line classes with help of power point	
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-XI	Case studies		
S.No.	Mode of Assessment	Week/Date	Duration (min)	% Weightage
1	Test – I	II	45 mins	20
2	Tutorial – I	VI	45 mins	20
3	Assignment	IX	----	10
4	Tutorial - II	IX-X	45 min	20
5	Compensation Tutorial	1-XII	---	--
6	End semester exam	XIII	120 min	30
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 : brs@nitt.edu Mobile: 9443578303				
<u>ATTENDANCE</u>				
Not Applicable				

COMPENSATION ASSESSMENT

It will be given during IX week for those who are absent on genuine grounds for the tutorial.

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

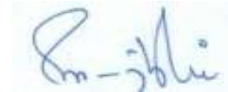
FOR APPROVAL



Course Faculty _____
(B. Ravisankar)



CC-Chairperson _____
(B.Ravisankar)



HOD _____
(Prof.S.Kumaran)