NATIONAL INSTITUTE OF TECHNOLOGY, TIRUCHIRAPPALLI

Course Title &	Foundry Metallurgy	8 MT 704	
Code	r sandry wetandrgy	Q IVI 704	
Programme &	M.Tech(IM) & II	No. of	03
Semester	Semester	Credits	00
Department	MME	Faculty	Dr.S.P.Kumaresh Babu
Pre-requisites Course Code	Foundry Technolog	y –MT 704	The state of the s
Course Coordinator(s) (if, applicable)	NA		
Other Course Teacher(s)/Tutor(s) E-mail	NA	Telephone No. Email	3451 babu@nitt.edu
Course Type	Core course		
COURSE OVERVIEW		to the second second	
This course is said			
This course is primar	ily intended to dovo	lon and famili :	
concepts of ferrous an	rily intended to deve	lop and familiaris	se the foundry metallurgy
COURSE OBJECTIVE	S	s well as solidifica	ation techniques.
To know the basic connonferrous alloys and s	cepts of physical met	alluray involved in	se the foundry metallurgy ation techniques. I casting of ferrous and
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Able to distinguish the solidification pattern for alloys and pure metals (1,2,3,4, 6)

Develop and design gating and risering systems based on the alloys properties (4, 5,6,)

- and applying modern tools to resolve the complex engineering problems
- Industrial Metallurgy post graduates are competent to work in research, industrial sectors and with multi-faceted team
- Industrial Metallurgy post graduates have the capacity to design, plan and execute complex processes adhering to environmental considerations and cost effectiveness.

COURSE TEACHING AND LEARNING ACTIVITIES

S.No. Week		Topic	Mode of Delivery	
1.	I-IV	Introduction to metallurgy of casting, Importance of foundry metallurgy, Foundry metallurgy of ferrous and nonferrous alloys. Cast iron and its types, Furnaces used for melting ferrous and nonferrous alloys.	Classroom teaching by Chalk and Talk + PPTs and Industrial visits + Facilities at NITT	
2.	V-VIII	Specifications, Gating and Risering system design	SURBIE OUTCOMES (UT NICE Outcomes	
3.	IX-X	Foundry metallurgy of Nonferrous alloys	os elda et Ser hesbi	
4.	XI-XIII	Solidification of pure metals, alloys	cultatern issues to edit wo	

COURSE ASSESSMENT METHODS

S.No.	Mode of Assessment	Week/Date	Duration	% Weightage
1	First Cycle Test	IV week	60 min	20
2	Second Cycle test	VIII week	60 min	20
3	Seminar/Quiz	XII week	- bris sour	10
4	Re-test	XIII week	60 min	20 (If any student misses 1st cycle test for medical reasons)

5	Attendance		-	Minimum 50% attendance required for writing the
6	End semester exam based on classroom teaching	XV	3 h	semester examination 50
FSSE	ENTIAL PEADINGS			

ESSENTIAL READINGS: Textbooks, Reference books

Text Book

- 1. Heine R. W., Loper C. R., Rosenthal P. C., " Principles of Metal Casting",2nd Edition, Tata McGraw Hill Publishers, 1985
- 2. Flinn R.A., "Fundemenatls of Metal casting", 3rd Edition, Addision Wesley, 1963

REFERENCES

1. Murphy.A.J."Non Ferous Foundry Metallurgy", Pergoman press, USA, 1984

COURSE EXIT SURVEY (mention the ways in which the feedback about the course is assessed and indicate the attainment also)

The exit survey will be assessed based on the questionnaire prepared by the Institute/class teacher and the expected attainment to be greater 75%.

The feedback collected from students by the Institute is to be informed to the teacher to improve the course in future semesters.

COURSE POLICY

(Including plagiarism, academic honesty, attendance, grading etc.)

The students are expected to attend all the classes except for medical reasons.
 Minimum attendance of 50% (including the concession for on-duty and medical reasons) is required for writing the semester examination.

- 2. Apart from technical content and presentation, plagiarism will be checked for the assignments.
- 3. The relative grading policy will be followed and the passing minimum marks will be fixed based on Institute guidelines.

ADDITIONAL COURSE INFORMATION

Students can contact the faculty at any time through email/phone. The faculty is available for consultation by appointment through email/phone. The faculty email id/phone number are available in this course plan.

FOR SENATE'S CONSIDERATION

Course Faculty (Dr.S.P.KUmaresh Babu) (Dr.S.Muthukuamran)

Class Committee Chairman

(Dr.S.P Kumaresh Babu)