

Course Number and Name	
BME011 - PROCESS PLANNING AND COST ESTIMATION	
Credits and Contact Hours	
3&45	
Course Coordinator's Name	
Mr.Golden Renjith Nimal	
Text Books and References	
TEXTBOOKS:	
1. M.Adithian and B.S. Pabla, Estimation and Costing, Konark publishers Pvt. Ltd., 1989.	
2. A.K.Chitale and R.C.Gupta, Product Design and Manufacturing, Prentice Hall Pvt. Ltd., 2005	
REFERENCES :	
1. Namua Singh, System Approach to computer integrated Design and Manufacturing, John Wiley & Sons,Inc.,1996.	
3. Joseph G Monks, Operation Management, Theory & Problems, McGraw Hill Book Company, 1987.	
4. T.R.Banga and S.C.Sharma, Estimations and Costing, Khanna Publishers,1988.	
5. G.B.S.Narang and V.Kumar, Production and Costing, Khanna Publishers, 1995.	
6. https://books.google.com/books?id=A9-ZXblNrPoC	
Course Description	
To introduce the process planning concepts to make cost estimation for various products after process planning	
Prerequisites	Co-requisites
Industrial Engineering	Nil
required, elective, or selected elective (as per Table 5-1)	
Core elective	
Course Outcomes (COs)	
CO1	Understand the various processes planning.
CO2	Learn to estimate cost
CO3	Learn to estimate various cost elements
CO4	Learn to estimate production cost
CO5	Learn to fix foundry cost
CO6	Learn the find machining time estimation

Student Outcomes (SOs) from Criterion 3 covered by this Course													
COs/SOs	a	b	c	d	e	f	g	h	i	j	k	l	
CO1	H												
CO2				H							H		
CO3	M						H		H				H
CO4				H		M					H		
CO5							M		H				H
CO6	L												H
List of Topics Covered													
UNIT I PROCESS PLANNING										12			
Types of production, standardization, simplification, production design and selection - Process Planning, selection and analysis – Steps involved in manual and experienced based planning and computer aided process planning – Retrieval, Generative – Selection of process analysis – Break even analysis.													
UNIT II ESTIMATION AND COSTING										12			
Aim and objective of cost estimation – Functions of estimation – Costing – Importance and aims of costing – Difference between costing and estimation. Importance of realistic estimates – Estimation procedure.													
UNIT III COST ELEMENTS										12			
Material cost – Determination of material cost, Labour cost - Determination of labour cost, Expenses — Analysis of overhead expenses – Factory expenses, Administrative expenses – Selling and Distributing expenses – Allocation of over head expenses. Cost of product – Illustrative examples													
Depreciation: Depreciation – Causes of Depreciation – Methods of Depreciation.													
UNIT IV ESTIMATION OF PRODUCTION COST										12			
Estimation in forging shop – Losses in forging – forging cost – Illustrative examples. Estimation in welding shop – Gas cutting – Electric welding - Illustrative examples. Estimation in foundry shop – Estimation of pattern cost and casting cost - Illustrative examples.													
UNIT V MACHINING TIME ESTIMATION										12			
Estimation of Machining Timefor Lathe operations – Estimation of Machining TimeforDrilling, Boring, Shaping, Planning, Milling and Grinding operations - Illustrative examples.													