

GUJARAT TECHNOLOGICAL UNIVERSITY (GTU)**VI- SEMESTER****Course Title: Estimation and Costing**

(Course Code: 1363404)

| Diploma Programme in which this course is offered | Semester in which offered |
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| Mechanical (Manufacturing Technology) | Sixth Semester |

| Module. | Topics | Hours |
|----------------|--|--------------|
| Module 1 | Importance of Estimation 1.1 Estimation – Meaning - Definition, Aims of Estimation 1.2 Over and Under Estimation- Identification 1.3 Quality of an Estimator 1.4 Source of error in Estimation | 3 h |
| Module 2 | Importance of Costing 2.1 Meaning of costing- definition 2.2 Aims of costing- explanation 2.3 Constituents of estimates: 2.3.1 Design time 2.3.2 Drafting time 2.3.3 Planning and Production 2.3.4 Design and arrangements of special items 2.3.4.1 Experimental work- material 2.3.4.2 Labour – overheads 2.4 Time allowances 2.4.1 Set up time 2.4.2 Operation time 2.4.3 Tear down time 2.4.4 Miscellaneous allowances | 4 h |
| Module 3 | Selling Price of a component 3.1 Elements of cost 3.1.1 Direct material 3.1.2 Indirect materials 3.1.3 Direct labour 3.1.4 Indirect labour 3.1.5 Direct expense 3.1.6 Indirect expense 3.2 Components of cost 3.2.1 Prime cost 3.2.2 Factory cost 3.2.3 Office cost 3.2.4 Total cost 3.2.5 Selling price 3.3 Numerical problems | 5 h |

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| Module 4 | Basic machine hour rate 4.1 Factors in finding basic machine hour rate 4.1.1 Capital cost 4.1.2 Depreciation 4.1.3 Interest on capital cost 4.1.4 Energy cost 4.1.5 Space cost 4.1.6 Maintenance and servicing cost 4.1.7 Scrap value 4.2 Numerical calculations | 4 h |
| Module 5 | Cost of component 5.1 Elements of cost – Direct & indirect material and labour expenses 5.2 Prime cost, Factory cost, Office cost, Total cost, selling price 5.3 Numerical Calculation | 4 h |