

**GUJARAT TECHNOLOGICAL UNIVERSITY, AHMEDABAD, GUJARAT**

**COURSE CURRICULUM**

**COURSE TITLE: INDUSTRIAL MANAGEMENT AND ENTREPRENEURSHIP  
(COURSE CODE: 3365102)**

<b>Diploma Programme in which this course is offered</b>	<b>Semester in which offered</b>
Computer Aided Costume Design and Dress Making	Sixth

**1. RATIONALE**

This course will give the basic understanding of practices followed by industrial engineers in industry for optimum use of all kind of resources (man, machine, material etc) and also gives an understanding for the importance of the ergonomics. This course will introduce and prepare a ground where the students view entrepreneurship as a desirable and feasible career option and develop the necessary competency and skills for a career in entrepreneurship.

**2. COMPETENCY**

The course content should be taught and curriculum should be implemented with the aim to develop required skills in the students so that they are able to acquire the following competencies.

- **Manage garment manufacturing enterprise following good business ethics.**

**3. COURSE OUTCOMES (COs)**

The theory should be taught and practical should be carried out in such a manner that students are able to acquire required learning outcomes in cognitive, psychomotor and affective domain to demonstrate following course outcomes:

- Explain work, method and time study.
- Describe working conditions and environment of work places.
- Explain importance of occupational safety and health organization.
- Define entrepreneur and entrepreneurship.
- Explain qualities and functions of an entrepreneur.
- Explain entrepreneurship development.
- Enlist factors affecting management of critical resources.

**4. TEACHING AND EXAMINATION SCHEME**

Teaching Scheme (In Hours)			Total Credits (L+T+P)	Examination Scheme				
				Theory Marks		Practical Marks		Total Marks
L	T	P	C	ESE	PA	ESE	PA	
4	0	0	4	70	30	00	00	100

**Legends:** L-Lecture; T – Tutorial; P -Practical; C – Credit ESE -End Semester Examination; PA - Progressive Assessment.

## 5. COURSE CONTENT DETAILS

Unit	Major Learning Outcomes ( In Cognitive Domain)	Topics and Sub-topics
<b>Unit–1 Work study and Working conditions</b>	1a. Explain work study and its importance	1.1 Work study, Role of human element in industrial engineering.
	1b. Know working conditions and environment of work place.	1.2 Working conditions of the organization Environment of the work place
	1c. Explain importance of occupational safety and health organization.	1.3 Occupational safety and health organization: Safety criteria, Prevention of industrial accidents, Working premises conditions, Housekeeping, Lighting, Noise and vibration, Climatic conditions, Personal protective equipment, Ergonomics, Working time, Work-related welfare facilities
<b>Unit– 2 Method study</b>	2a. Explain method study, its selection, procedure, types, importance and application.	2.1 Method study: Selection of work for method study, Procedure for method study, Different methods for method study, Importance and application of method measurement techniques
	2b. Describe different types of movement of workers.	2.6. Movement of workers in working areas i) Principle of motion economy ii) Flow chart iii) Multiple activity chart iv) Man and machine chart v) String diagram vi) Layout. vii) Left hand right hand chart viii) Development of improved methods
<b>Unit– 3 Work measuremen t</b>	3a. Explain work measurement.	3.1. Work measurement and its importance 3.2. Methods of work measurement 3.3. Work sampling
	3b. Explain time study.	3.4. Time study 3.5. Predetermined time standards (concept of basic time, standard time, rating, allowances, SAM and SMV concepts, elementary breakdown, qualified worker and average worker)
<b>Unit – 4 Concepts of Entrepreneu r and</b>	4a. Explain qualities and functions of an entrepreneur.	4.1 Definition & characteristics of an entrepreneur. 4.2 Qualities of an entrepreneur. 4.3 Functions of an entrepreneur.

<b>Entrepreneurship</b>	4b. Explain entrepreneurship development.	4.4 Definition of entrepreneurship 4.5 Forces developing the entrepreneurship. 4.6 Process of entrepreneurship development. 4.7 Stages of entrepreneurship development.
<b>Unit – 5 Managing Critical Resources</b>	5a. Enlist factors affecting management of critical resources.	5.1 Managing finance (i) Sources of finance- types (ii) Advantages and disadvantages (iii) Methods of cost control & importance (iv) Managing working capital.
		5.2 Materials Management: MRP, JIT
		5.3 Time management: art of managing time
		5.4 Information system: Developing suitable information systems.
<b>Unit –6 Support Agencies for MSME</b>	6a. Differentiate between MSM Enterprises & ancillary industries. 6b. Describe role of support agencies 6c. Analyze different entrepreneurship, technical, marketing and financial support agencies.	6.1 Categorization of MSME, ancillary industries 6.2 Support agencies for entrepreneurship guidance, training, registration. 6.3 Support agencies for technical consultation, technology transfer and quality control. 6.4 Support agencies for marketing and finance.

## 6. SUGGESTED SPECIFICATION TABLE WITH HOURS & MARKS (Theory)

Unit No.	Unit Title	Teaching Hours	Distribution of Theory Marks			
			R Level	U Level	A Level	Total
I	Work study and Working Conditions	12	05	06	06	17
II	Method Study	10	04	03	03	10
III	Work Measurement	06	04	03	03	10
IV	Concepts of Entrepreneur and Entrepreneurship	12	05	06	04	15
V	Managing Critical Resources	08	04	03	03	10
VI	Support Agencies for MSME	08	02	02	04	08
	<b>Total</b>	<b>56</b>	<b>24</b>	<b>23</b>	<b>23</b>	<b>70</b>

**Legends:** R = Remember, U = Understand, A= Apply and above Level (Bloom's revised taxonomy)

**Note:** This specification table shall be treated as a general guideline for students and teachers. The actual distribution of marks in the question paper may vary slightly from above table.

## 7. SUGGESTED EXERCISES/PRACTICALS

-N.A.-

**8. SUGGESTED STUDENT ACTIVITIES**

Following is the list of proposed activities, students may prepare a portfolio of the completed activities for future use

- i. Interview at least four entrepreneurs or businessman and prepare a report on their successes and failures and learning from them
- ii. Choose any product/ advertisement and analyse its good and bad points/ cost sheet/ supply chain etc
- iii. Study schemes for entrepreneurship promotion of any bank.
- iv. Visit to a mall and prepare report about different showrooms, their range of garments, their price range and the market segment to which they cater, comment on their business viability/profitability etc..
- v. Conduct a market survey for a small design, make and sell boutique. Collect data on machinery specifications, price, output/hr, power consumption, manpower requirement, wages, raw material requirement, specification, price, competitor's product price, features, dealer commissions, marketing mix etc.

**9. SPECIAL INSTRUCTIONAL STRATEGIES (if any)**

- i. Show video film to demonstrate the occupational safety and health organization.
- ii. Arrange a visit to nearby industry to understand the working conditions and environment of work place.
- iii. Show PowerPoint presentation on work, method and time study.
- iv. Entrepreneurship development games can be conducted for student.
- v. Invite entrepreneurs from garment sector, industry officials, bankers for interaction.
- vi. Show video/animation film / presentation slides to demonstrate various management functions, traits of entrepreneur etc..
- vii. Give a mini project on setting a small boutique to students and prepare a proposal for applying for loan to a bank, showing initial capital and working capital required (for manpower, machine, material, marketing etc.), profitability, loan required and payback time etc.
- viii. Use following additional pedagogical tools wherever appropriate:
  - (a) Role Playing
  - (b) Case Studies of successful as well as failure cases of entrepreneurship for their reasons for success/failure
  - (c) Quiz on Management and Entrepreneurship
  - (d) Management/Entrepreneurship games

**10. SUGGESTED LEARNING RESOURCES****A) Books**

<b>Sr. No.</b>	<b>Title of Book</b>	<b>Author</b>	<b>Publication</b>
1.	A Complete Guide to Successful Entrepreneurship	Pandey G.N.	Vikas Publishing House P. Ltd., 1993
2.	The Oxford Handbook Of Entrepreneurship	Casson M, Yeung B, Basu A,	Oxford University Press, 2008, ISBN: 0199546991

Sr. No.	Title of Book	Author	Publication
3.	Entrepreneurial Development – Principles, Policies & Programmes	.Saravanel P	Ess Pee Kay Publishing House, 2nd Edition reprint
4.	Youth Entrepreneurship Everywhere – To turn Job-seekers into Job-creators,	Peter A,	-----
5.	Technology of clothing Manufacturers	Carr H & Latham B	Wiley, 1994
6.	Apparel Manufacturing Analysis	Solinger J	Textile Book Publishers, 1961

**B). Major Equipment/ Instrument with Broad Specifications  
N.A**

**C). Software/Learning Websites**

- i. [www.iitg.ac.in/spal/work](http://www.iitg.ac.in/spal/work)
- ii. [www.ie.eme.edu.tr/development/dosyalar](http://www.ie.eme.edu.tr/development/dosyalar)
- iii. [www.ibscdc.org/entrepreneurship\\_case\\_studies.asp](http://www.ibscdc.org/entrepreneurship_case_studies.asp)

**11. COURSE CURRICULUM DEVELOPMENT COMMITTEE**

**Faculty Members from Polytechnics**

- **Prof. (Mrs.) Neerja A. Atrey**, I/C HOD, CACDDM, C.U.Shah Polytechnic, Surendranagar.
- **Dr. J. R. Jhala**, I/C HOD, CACDDM, A.V.P.T.I., Rajkot.
- **Prof. (Ms.) K. P. Shah**, I/C HOD, CACDDM ,Govt. Polytechnic for Girls, Ahmedabad.
- **Dr. F. V. Kugahshiya**, Lecturer, CACDDM , Govt. Polytechnic for Girls, Ahmedabad.
- **Dr. R. O. Yadav**, Lecturer, CACDDM, C.U. Shah Polytechnic, Surendranagar.
- **Prof. (Mrs.) Shweta B. Dave**, Lecturer, CACDDM ,Govt. Polytechnic , Dahod.

**Faculty Members from NIFT Gandhinagar.**

- **Prof. Pavan Godiawala**, Director and Project Coordinator
- **Prof. Nupur Chopra**, Assistant Professor, Fashion Technology

**Coordinator and Faculty Members from NITTTR Bhopal**

- **Dr Shashi Kant Gupta**, Professor and Coordinator for State of Gujarat.
- **Dr. Joshua Earnest**, Professor, Department of Electrical & Electronics Engineering,