

Branch Name:	Civil / Mechanical / Electrical Engineering
Program Code:	-
Course Title:	Entrepreneurship and Start-ups
Course Code:	2ET4000501
Pre-requisiteCourse:	-

Course Objectives:

1. Develop an entrepreneurial mind set in students, to view problems as potential opportunities to create innovative solutions.
2. Provide students an understanding of the concepts, relevant theoretical frameworks and multiple approaches in the processes of new venture creation. Select appropriate agency for technical and financial support.
3. Studying entrepreneurship and innovation enhances one's analytical and logical skills that enable one to solve any problem. Explain SWOT analysis and strategies to achieve goals.

Teaching and Examination Scheme:

Teaching Scheme (Hours per week)				Evaluation Scheme (Marks)				
Lecture (L)	Tutorial (T)	Practical (P)	Credit	Theory (Marks)		Practical (Marks)		Total (Marks)
				University Assessment	Continuous Assessment	University Assessment	Continuous Assessment	
0	0	2	1	0	0	0	50	50

Course Contents:

Unit No	Topic	Total Hours	Weightage (%)
1	Introduction to self-employment and entrepreneurship development: 1.1 Introduction of self-employment i. Concept and need in present Indian job market context. ii. Characteristics of self-employment areas for mechanical engineering field. iii. Broader ways to identify self-employment areas in mechanical engineering. 1.2 Creativity-concept, examples related to applications in mechanical engineering, ways to develop. 1.3 Innovativeness-concept, examples related to applications in mechanical engineering, ways to develop. 1.4 Entrepreneurship development: i. Concept and need. ii. Scope in local and global market. iii. Qualities of entrepreneur and Characteristics of Diploma holder as a self- employer like developing networking and personal contacts, communication skills, transferable work skills, positive work skills, conflict resolution, professional dress, workplace legal issues, work ethic, etc. 1.5 Concept and importance of productivity, quality, cost consciousness and customers' satisfaction. 1.6 Types of enterprise -i. Sole partnership. ii. Partnership firm. iii. Joint stock company. iv. Co-operative society.	4	15
2	Entrepreneurial support agencies: 2.1. Definition–Micro, small and medium industries. 2.2. Registration process of an enterprise with Government agencies. Name, type and role of state and national level support agencies for : i. Sources of information. ii. Financial assistance. iii. Technical assistance. iv. Training. 2.3. Current state & national level promotional schemes for establishment of new enterprise.	4	15

3	Project setup planning: 3.1 Product (Physical and service both having mechanical features) selection: i. Concept and importance ii. Product selection iii. Effect of competitive or similar types of products on product selection iv. Product development stages. 3.2 Process Selection: i. Concept and importance. ii. Factors affecting process selection. iii. Technology life cycle. iv. Productivity-concept & importance. v. Flexibility. 3.3 Process Conversion-Capacity Planning: i. Concept. ii. Importance. iii. Basic method to assess/estimate capacity. 3.4 Selection of location and layouts: i. Concept. ii. Factors affecting selection of location. iii. Objectives and types of plant layout. iv. Factors affecting plant layout.	6	20
4	Project proposal planning: 4.1 7-M resources. 4.2 Marketing-definition, need for enterprise, 4 Ps channels (product, price, place and promotion). 4.3 Market survey-concept, need and methods. 4.4 Managing finance: i. Terminology used in financial management. ii. Concept of financial statement and types (balance sheet, profit & loss statement and funds flow statement). 4.5 Project report preparation for mechanical feature-based product: i. Meaning of project planning and report. ii. Feasibility study. iii. Details required for preparing project plan. iv. Project cost estimation. v. Cost, Volume and Profit (CVP) analysis. vi. Preliminary project report (PPR) and detailed project report (DPR).	6	20
5	Enterprise and risk management: 5.1 Concept of risk in the context of enterprise /project. 5.2 Uncertainty and certainty of project elements. 5.3 Decision making under risk. 5.4 Methods of risk management. 5.5 Strength, Weakness, Opportunity and Threat (SWOT) analysis.	4	15
6	Case studies: 6.1 Case studies of entrepreneur and self-employer.: (at least two for success and two for failure.) i. Important features. ii. Reasons for success and failures. iii. Analyzing success and failure criteria. iv. Integration of case analysis conclusions in enterprise management for improvement.	4	15

Text Books:

List of Open-Source Software / learning website:

- i. <http://www.ediindia.org>
- ii. <http://niesbud.nic.in/docs/SelfEmploymentBook.pdf>
- iii. <http://smallb.in/>
- iv. <http://www.msme.gov.in/>
- v. <http://nimsme.org/>
- vi. <http://www.nsic.co.in/>
- vii. <http://iie.nic.in/>
- viii. http://msme.gov.in/guidelines_pmegp_24092008.pdf
- ix. <http://www.gujagro.org/pdf/guidelines.pdf>
- x. <http://www.entrepreneurshipsecret.com/8-factors-to-be-considered-in-products-selection/#sthash.goWj3LcV.dpbs>

S. No.	Title of Book	Author	Publication
1.	Developing Entrepreneurship		By Pareek & Co. Learning systems, Delhi.
2.	Planning an Industrial unit	J.N. Vyas.	
3.	Entrepreneurship & Venture-Management	Clifford and Bombak, Joseph R. Momanso	
4.	Small Industries management	Karmakar M.B.	
5.	Manual for the preparation of industrial -feasibility studies		UNIDO
6.	New project opportunities		GITCO
7.	Creativity	Pradeep Khandwala	
8.	EDI Study Material	EDI, Bhat, Ahmedabad	Website: www.ediindia.org
9.	Entrepreneurship development and Management	R.K. Singal	S.K. Kataria and Sons

Course Learning Outcomes (CLO): On completion of this course, the students will be able to:

CLO	Description	Bloom's Taxonomy Level
CLO1	Identify entrepreneurial quality.	2 Understand, 3 Applying
CLO2	Develop the ability to select potential areas for self-employment	2 Understand, 3 Applying
CLO3	Develop sense to select appropriate agency for technical and financial support	2 Understand, 3 Applying
CLO4	Prepare project setup planning and project report	2 Understand, 3 Applying, 4 Analyze,
CLO5	Understand SWOT analysis and strategies to achieve goals	2 Understand, 3 Applying, 4 Analyze,
CLO6	Identify risk factors of project and their remedial measures	2 Understand,

Course Learning Outcomes	Program Outcomes (Pos)												Program Specific Outcomes (PSOs)		
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CLO1	L						L		M		M		L	M	M
CLO2		M	M	M					M	L	M		M	M	H
CLO3							L	L	M				M	M	L
CLO4						L	L	L	M	M	H		M	L	H
CLO5									M		M		L	H	H
CLO6							L					M	M	M	M

H: High, M: Medium, L: Low