

Title of Skill Course: Nanotechnology Industrial Marketing Techniques

1. Department: Department of Nanoscience and Technology
2. Title: Nanotechnology Industrial Marketing Techniques.
3. Sector: 6
4. Eligibility-B.Sc-I
5. Year of implementation:2020

Course Structure

Skill Level	Theory Hours	Practical Hours	Total Hours	Credits	No. of students in batch
5	15	30	45	02	30

Syllabus**Learning Objectives:**

1. Fundamental concepts of product designing in area of nanotechnology
2. Opportunities afforded by this new field in accelerating Nano materials development and deployment efforts.

Theory Syllabus (Contact Hrs: 15, Credits: 01)**Unit I: Designing of Nano-Materials (08)**

Concept Generation: Creativity & Brainstorming, Concepts & Prototypes Product Architecture, Industrial Design Process and Management, assessing the quality of Industrial Design, Establishing the product specification, Product selection criteria.

Unit II- Management in Nano-materials (07)

Scientific Management and Development of nanomaterial , Functions of management - planning and organization of Nano products, Enterprise Resource planning and supply chain management for design Nano products.

Practical Syllabus (Credit 1)**List of Experiments 30hrs**

- 1) Identify Market opportunities for Nano-materials
- 2) Design Concept /Ideation of product in area of Nanotechnology.
- 3) Study Feasibility of product and design planning.
- 4) To study development product to minimize Assess and mitigate risks of Failure
- 5) To generate management methods for design planning
- 6) To study product section criteria based on nanoproducts.
- 7) Study Testing and Verification of end product.
- 8) To study Design theme of Marketing.
- 9) To Design Launch Plans for your product.
- 10) Study CAPA process and management.

Learning Outcomes:

1. Design with manufacturing mind-set
2. Develop skills regarding product design

Reference Books:

- 1) Ulrich Karl T, Product Design and Development, McGraw Hill, 5th edition 2011
- 2) Selikoff Steven, The Complete book of Product Design development and Manufacturing –, 1st Edition Product developmentAcademy,2020
- 3) Goel Anup, Shaikh Ubaid, Product Design development for SPPU- 2nd Edition Technical Publication,2020.

BOS Sub Committee:

- 1) Miss.Shinde Snehal S (Chairman)
- 2) .Mr.Mane Sharad S

Expert:

1. Name of Academic Expert- Mr. Anil Dhole
2. Name of Industrial Expert- Dr. Rishabh Sharma