



# GUJARAT TECHNOLOGICAL UNIVERSITY

Program Name: Diploma Engineering

Level: Diploma

Branch: Electronics & Communication/Information Communication Technology/  
Automobile /Biomedical/Chemical/Civil/ Computer/Environmental/ Information  
Technology/Mechanical/Mechatronics/Mining/Plastics/Textile Processing/Textile  
Manufacturing/Computer Science & Engi./CACDDM/Fabrication Technology/  
Printing Technology/Textile Designing/Mechanical (CAD/CAM)

Subject Code: DI04000081

Subject Name: Entrepreneurship & Start-up

w. e. f. Academic Year:	2025-26
Semester	4 <sup>th</sup>
Category of the Course:	MOPEC

Prerequisite:	-----
Rationale:	Entrepreneurship plays a vital role in driving economic growth and creating employment. With initiatives like <i>Make in India</i> , <i>Startup India</i> and <i>Vocal for Local</i> , engineers are increasingly expected to become job creators rather than job seekers. This course equips diploma students with the knowledge, skills, and mindset to identify business opportunities, prepare feasible business models, and establish start-ups. It emphasizes innovation, management practices, support mechanisms, and ethical responsibilities, enabling students to convert ideas into scalable enterprises.

## Course Outcome:

The course content should be taught and implemented with the aim of developing different types of skills so that students are able to acquire following competency, after the Completion of the Course:

No	Course Outcomes	RBT Level
01	Understanding the dynamic role of entrepreneurship and Startups by acquiring entrepreneurial spirit, resourcefulness, quality, competency, and motivation.	R, U, A
02	Identify a Business Idea and implement it.	R, U, A
03	Select suitable Management practices like leadership and Ownership, resource institutes.	R, U, A
04	Overview of Support Agencies and Incubators.	R, U
05	Building Project Proposal & knowing CSR, Ethics, Ex-Im, & Exit strategies.	R, U, A

\*Revised Bloom's Taxonomy (RBT)



# GUJARAT TECHNOLOGICAL UNIVERSITY

Program Name: Diploma Engineering

Level: Diploma

Branch: Electronics & Communication/Information Communication Technology/  
Automobile /Biomedical/Chemical/Civil/ Computer/Environmental/ Information  
Technology/Mechanical/Mechatronics/Mining/Plastics/Textile Processing/Textile  
Manufacturing/Computer Science & Engi./CACDDM/Fabrication Technology/  
Printing Technology/Textile Designing/Mechanical (CAD/CAM)

Subject Code: DI04000081

Subject Name: Entrepreneurship & Start-up

## Teaching and Examination Scheme:

Teaching Scheme (in Hours)			Total Credits L+T+ (PR/2)	Assessment Pattern and Marks				Total Marks	
L	T	PR	C	Theory		Tutorial / Practical			
				ESE (E)	PA(M)	PA(I)	ESE(V)		
3	0	0	3	70	30	0	0	100	

## Course Content:

Unit No.	Content	No. of Hours	% of Weightage
1.	<b>Unit-1: Introduction to Entrepreneurship and Start – Ups</b> 1.1 Definition, Traits of an entrepreneur, 1.2 Functions of Entrepreneurship - Job Creation, Innovation, Inspiration, Economic Development 1.3 Types of Entrepreneurship 1.4 Motivation for Intrapreneurship 1.5 Types of Business Structures, 1.6 Similarities and differences between entrepreneurs and managers. 1.7 7-M Resources 1.8 Micro, Small, Medium Enterprise/ MSME - Industry Registration Process 1.9 Startup India, Standup India and SSIP Gujarat & Startup registration process	9	20%



# GUJARAT TECHNOLOGICAL UNIVERSITY

Program Name: Diploma Engineering

Level: Diploma

Branch: Electronics & Communication/Information Communication Technology/  
Automobile /Biomedical/Chemical/Civil/ Computer/Environmental/ Information  
Technology/Mechanical/Mechatronics/Mining/Plastics/Textile Processing/Textile  
Manufacturing/Computer Science & Engi./CACDDM/Fabrication Technology/  
Printing Technology/Textile Designing/Mechanical (CAD/CAM)

Subject Code: DI04000081

Subject Name: Entrepreneurship & Start-up

<p><b>Unit-2: Business Ideas &amp; their Implementation (Idea to Start-up)</b></p> <p>2.1 Discovering ideas and visualizing the 2.2 business with Activity map</p> <ul style="list-style-type: none"><li>2.2.1 Idea Generation</li><li>2.2.2 Product Identification</li></ul> <p>2.3 Business Plan- The Marketing Plan &amp; Financial Plan/ Sources of Capital</p> <p>2.4 Business opportunity identification &amp; evaluation</p> <ul style="list-style-type: none"><li>2.4.1 Market research</li><li>2.4.2 Questionnaire design</li><li>2.4.3 Sampling</li><li>2.4.4 Market survey</li><li>2.4.5 Data analysis &amp; interpretation</li></ul> <p>2.5 Marketing Mix (4Ps- product, price, Promotion, place)</p> <ul style="list-style-type: none"><li>2.5.1 Identifying the target market</li><li>2.5.2 Competition evaluation &amp; Strategy adoption</li><li>2.5.3 Market Segmentation</li><li>2.5.4 Marketing, Advertising &amp; Branding</li><li>2.5.5 Digital Marketing</li><li>2.5.6 B2B, E-commerce and GeM</li></ul> <p>2.6 Product Terms- PLC, Mortality Curve and New product Development Steps, Inventory, Supply Chain Management</p> <p>2.7 Importance &amp; concept of Innovation, Sources &amp; Process</p> <p>2.8 Risk analysis &amp; mitigation by SWOT Analysis</p>	9	20%
---	---	-----



# GUJARAT TECHNOLOGICAL UNIVERSITY

Program Name: Diploma Engineering

Level: Diploma

Branch: Electronics & Communication/Information Communication Technology/  
Automobile /Biomedical/Chemical/Civil/ Computer/Environmental/ Information  
Technology/Mechanical/Mechatronics/Mining/Plastics/Textile Processing/Textile  
Manufacturing/Computer Science & Engi./CACDDM/Fabrication Technology/  
Printing Technology/Textile Designing/Mechanical (CAD/CAM)

Subject Code: DI04000081

Subject Name: Entrepreneurship & Start-up

3.	<p><b>Unit-3: Management Practices</b></p> <p>3.1 Industry, Commerce and Business 3.2 Types of ownership in the organization -Definition, Characteristics, Merits &amp; Demerits 3.3 Different Leadership Models 3.4 Functions of Management- Merits &amp; Demerits     3.4.1 Planning     3.4.2 Company's Organization Structure     3.4.3 Directing     3.4.4 Controlling     3.4.5 Staffing-Recruitment &amp; management of talent. 3.5 Financial organization and management 3.6 Differences between Management and Administration</p>	12	27%
4.	<p><b>Unit-4: Support Agencies and Incubators</b></p> <p>4.1 State &amp; National Level Support agencies and Current Promotional Schemes for new Enterprise 4.2 Start-up Incubation and modalities 4.3 Communication of Ideas to potential investors – Investor Pitch 4.4 Legal Issues     4.4.1 Contracts     4.4.2 Copyrights     4.4.3 Insurance     4.4.4 IPR     4.4.5 Licensing     4.4.6 Patents     4.4.7 Trade Secrets     4.4.8 Trademarks</p>	8	18%
5.	<p><b>Unit-5: Project Proposal &amp; Exit strategies</b></p> <p>5.1 Project Planning     i. Project planning and report     ii. Feasibility study     iii. Project cost estimation     iv. Breakeven point,</p>	7	15%



# GUJARAT TECHNOLOGICAL UNIVERSITY

Program Name: Diploma Engineering

Level: Diploma

**Branch: Electronics & Communication/Information Communication Technology/  
Automobile /Biomedical/Chemical/Civil/ Computer/Environmental/ Information  
Technology/Mechanical/Mechatronics/Mining/Plastics/Textile Processing/Textile  
Manufacturing/Computer Science & Engi./CACDDM/Fabrication Technology/  
Printing Technology/Textile Designing/Mechanical (CAD/CAM)**

**Subject Code: DI04000081**

**Subject Name: Entrepreneurship & Start-up**

v. Return on investment & Return on sales 5.2 Corporate Social Responsibilities & Economic Performance 5.3 Business Ethics 5.4 Ex-Im policies 5.5 Succession and harvesting strategy 5.6 Bankruptcy and avoidance		
<b>Total</b>	<b>45</b>	<b>100</b>

### Suggested Specification Table with Marks (Theory):

Distribution of Theory Marks (in %)					
R Level	U Level	A Level	N Level	E Level	C Level
35%	32%	33%	--	--	--

Where R: Remember; U: Understanding; A: Application, N: Analyze and E: Evaluate C: Create (as per Revised Bloom's Taxonomy)

### References/Suggested Learning Resources:

#### (a) Books:

No.	Authors	Title	Publisher	ISBN
1	Coulter	Entrepreneurship in Action	PHI	978-8120332978
2	E. Gordon & K. Natarajan	Entrepreneurship Development	Himalaya	978-9350230471
3	Robert D. Hisrich & Mathew J. Manimala	Entrepreneurship	McGraw Hill	978-9355324214
4	S S Khanka	Entrepreneurial Development	S. Chand	978-8121925580
5	A. K. Singh	Entrepreneurship Development & Management	J. B. Agency	
6	R.K. Singal	Entrepreneurship Development & Management	Kataria	978-9351761591



# GUJARAT TECHNOLOGICAL UNIVERSITY

Program Name: Diploma Engineering

Level: Diploma

Branch: Electronics & Communication/Information Communication Technology/  
Automobile /Biomedical/Chemical/Civil/ Computer/Environmental/ Information  
Technology/Mechanical/Mechatronics/Mining/Plastics/Textile Processing/Textile  
Manufacturing/Computer Science & Engi./CACDDM/Fabrication Technology/  
Printing Technology/Textile Designing/Mechanical (CAD/CAM)

Subject Code: DI04000081

Subject Name: Entrepreneurship & Start-up

7	Vasant Desai	Small Scale Industries and Entrepreneurship	Himalaya	978-8183189017
8	Roy Rajeev	Entrepreneurship	Oxford	978-0199458275
9	O.P. Khanna	Industrial Engineering & Management	Dhanpat Rai	978-8174091630
10	Tara Chand	Industrial Organization & Management	Nem Chand	
11	V. K. Sharma	Industrial Management & Entrepreneurship	Scientific Publishers	978-8172337993
12	Poornima M. Charantimath	Entrepreneurship Development & Small Business Enterprise	Pearson	978-9332546305
13	Anil Kumar	Entrepreneurship Development	New Age	978-8122433560
14	Steve Blank & Bob Dorf	The Startup Owner's Manual	K & S Ranch	978-0984999309
15	Eric Ries	The Lean Startup	Penguin UK	978-0670921607
16	Adrian Slywotzky	Demand	Headline	978-0753516893
17	Clayton Christensen	The Innovator's Dilemma	Harvard	978-1633691780
18	Brian Finch	How to write a business plan	Kogan Page	978-0749469189

(b) Open-source software and website:

1. Ministry of Commerce and Industry (MoCI) – <https://www.india.gov.in/website-ministry-commerce-and-industry>
2. MSME Portal – <https://msme.gov.in/>
3. MSMEx Startup Schemes – <https://www.msmex.in/learn/government-schemes-for-startups-and-msmes-in-india/>
4. Startup India – <https://www.startupindia.gov.in/>
5. Stand-up India – <https://www.standupmitra.in>
6. SSIP Gujarat – <https://www.ssipgujarat.in/>
7. Make in India – <https://www.makeinindia.com/>
8. Atmanirbhar Bharat Abhiyan – <https://indiancc.mygov.in/uploads/2021/08>
9. Skill India – <https://skillindia.gov.in/>



# GUJARAT TECHNOLOGICAL UNIVERSITY

Program Name: Diploma Engineering

Level: Diploma

Branch: Electronics & Communication/Information Communication Technology/  
Automobile /Biomedical/Chemical/Civil/ Computer/Environmental/ Information  
Technology/Mechanical/Mechatronics/Mining/Plastics/Textile Processing/Textile  
Manufacturing/Computer Science & Engi./CACDDM/Fabrication Technology/  
Printing Technology/Textile Designing/Mechanical (CAD/CAM)

Subject Code: DI04000081

Subject Name: Entrepreneurship & Start-up

---

10. MSDE (Ministry of Skill Development & Entrepreneurship) – <https://www.msde.gov.in/>
11. Vibrant Gujarat – <https://www.vibrantgujarat.com/>
12. NABARD – <http://www.nabard.com/>
13. PAN Registration (NSDL)  
<https://www.onlineservices.nsdl.com/paam/endUserRegisterContact.html>
14. i-Hub Gujarat – <https://ihubgujarat.in>
15. GSTIN Registration – <https://reg.gst.gov.in/registration>
16. DGFT (IEC Code) – <https://www.dgft.gov.in/CP>
17. Mudra Yojana – <https://www.mudra.org.in/>
18. Export-Import Portal – <http://niryatbandhu.iift.ac.in/exim/>
19. NSIC – <https://www.nsic.co.in/>
20. District Industries Centre (DIC) – <https://ic.gujarat.gov.in/dic-contact.aspx>
21. EDI India – <https://www.ediindia.org/>
22. Centre for Entrepreneurship Development (CED Gujarat) – <https://ced.gujarat.gov.in/home>
23. NIESBUD – <https://www.niesbud.nic.in/>
24. Startup Talky – <https://startuptalky.com/list-of-government-initiatives-for-startups/>
25. Invest India – <https://www.investindia.gov.in/startup-india-hub>
26. Indian Chamber of Commerce- <https://www.indianchamber.org/>
27. FICCI- <https://www.ficci.in/api/home>
28. GCCI- <https://www.gujaratchamber.org/>

**(c) Suggested Project List:**

1. Entrepreneur Traits and Behavior Modelling
2. Various State and Central Entrepreneurship Promotional Schemes and Start-up Policies
3. Business Model for a Startup and study of Unicorns
4. Make your own Product / Service portfolio/ Proposal with USP, logo, advertisement (print, radio, and television), jingle, packaging, labelling and branding for it.
5. Work as a leader/a team member (while doing a micro-project)
6. Practice ethics and consider methods/ processes that reduce waste and/or possibly conserve environment in designing a new business till its commercialization.

**(d) Suggested Activities for Students:**

1. Prepare a collage for 'Traits of successful entrepreneurs'.
2. Take Interview of at least four entrepreneurs and identify common traits.



# GUJARAT TECHNOLOGICAL UNIVERSITY

Program Name: Diploma Engineering

Level: Diploma

Branch: Electronics & Communication/Information Communication Technology/  
Automobile /Biomedical/Chemical/Civil/ Computer/Environmental/ Information  
Technology/Mechanical/Mechatronics/Mining/Plastics/Textile Processing/Textile  
Manufacturing/Computer Science & Engi./CACDDM/Fabrication Technology/  
Printing Technology/Textile Designing/Mechanical (CAD/CAM)

Subject Code: DI04000081

Subject Name: Entrepreneurship & Start-up

---

3. Mock Business Model – design USP, brand name, logo, and advertisement.
4. Develop your own website to share strengths and weaknesses.
5. Visit industrial exhibitions, trade fairs and prepare reports.
6. Present your Dream Start-up story as a seminar.
7. Analyze two products from Shark Tank program.
8. Develop two products from household waste (attach photographs)
9. Choose any product/ advertisement and analyze its good and bad points/ cost sheet/ supply chain etc. (individuals should select different ads)
10. Compare schemes for entrepreneurship promotion of any bank.
11. Organize industrial visit and suggest modifications for process improvement. Conduct a market survey for a product /project before visiting. In the visit collect data on machinery specifications, price, output/hour, power consumption, manpower requirement, wages, raw material requirement, specification, price, competitor's product price, features, dealer commissions, marketing mix etc. Make a detailed report at the end of the visit
12. Select a social cause, set objectives, plan and work for its accomplishment. Find details about some famous NGOs.

\*\*\*\*\*