

ENTREPRENEURSHIP DEVELOPMENT AND STARTUPS**Course Code : 315002****Programme Name/s**

: Artificial Intelligence/ Artificial Intelligence and Machine Learning/ Automation and Robotics/ Cloud Computing and Big Data/
 Civil Engineering/ Chemical Engineering/ Computer Technology/ Computer Engineering/
 Civil & Rural Engineering/ Construction Technology/ Computer Software Technology/
 Computer Science & Engineering/
 Digital Electronics/ Data Sciences/ Electrical Engineering/ Electronics & Tele-
 communication Engg./
 Electrical and Electronics Engineering/ Electrical Power System/ Electronics &
 Communication Engg./ Electronics Engineering/
 Computer Hardware & Maintenance/ Industrial Electronics/ Information Technology/
 Computer Science & Information Technology/
 Civil & Environmental Engineering/ Computer Science/ Electronics & Computer Engg.

Programme Code

: AI/ AN/ AO/ BD/ CE/ CH/ CM/ CO/ CR/ CS/ CST/ CW/ DE/ DS/ EE/ EJ/ EK/ EP/
 ET/ EX/ HA/ IE/ IF/ IH/ LE/ SE/ TE

Semester

: Fifth

Course Title

: ENTREPRENEURSHIP DEVELOPMENT AND STARTUPS

Course Code

: 315002

I. RATIONALE

Entrepreneurship and Startups are introduced in this curriculum to develop the entrepreneurial traits among the students before they enter into professional life. Exposing and interacting with entrepreneurship and startup eco-system, students will develop entrepreneurial mind set. The innovative thinking with risk-taking ability along with other traits will be inculcated in the students through micro-projects and training. This exposure will be instrumental in orienting the students in transforming them to become job generators after completion of Diploma in Engineering.

II. INDUSTRY / EMPLOYER EXPECTED OUTCOME

Develop project proposals for launching small scale enterprises and starts up.

III. COURSE LEVEL LEARNING OUTCOMES (COS)

Students will be able to achieve & demonstrate the following COs on completion of course based learning

- CO1 - Identify one's entrepreneurial traits.
- CO2 - Use information collected from stakeholder for establishing/setting up/founding starts up
- CO3 - Use support systems available for Starts up
- CO4 - Prepare project plans to manage the enterprise effectively

IV. TEACHING-LEARNING & ASSESSMENT SCHEME

| Course Code | Course Title | Abbr | Course Category/s | Learning Scheme | | | Credits | Paper Duration | Assessment Scheme | | | Based on SL | Total Marks | | | | |
|-------------|---|------|-------------------|--------------------------|-----|-----|---------|----------------|-------------------|-------|-------|-------------|-------------|--------|---|---|----|
| | | | | Actual Contact Hrs./Week | | | | | Theory | | | | | | | | |
| | | | | SLH | | | | | NLH | | | | | | | | |
| | | | | CL | TL | LL | | | FA-TH | SA-TH | Total | FA-PR | SA-PR | SLA | | | |
| | | | | Max | Max | Max | | | Max | Min | Max | Min | Max | Min | | | |
| 315002 | ENTREPRENEURSHIP DEVELOPMENT AND STARTUPS | ENDS | AEC | 1 | - | 2 | - | 3 | 1 | - | - | 50 | 20 | 25@ 10 | - | - | 75 |

ENTREPRENEURSHIP DEVELOPMENT AND STARTUPS**Course Code : 315002****Total IKS Hrs for Sem. : Hrs**

Abbreviations: CL- ClassRoom Learning , TL- Tutorial Learning, LL-Laboratory Learning, SLH-Self Learning Hours, NLH-Notional Learning Hours, FA - Formative Assessment, SA -Summative assessment, IKS - Indian Knowledge System, SLA - Self Learning Assessment

Legends: @ Internal Assessment, # External Assessment, *# On Line Examination , @\\$ Internal Online Examination
Note :

1. FA-TH represents average of two class tests of 30 marks each conducted during the semester.
2. If candidate is not securing minimum passing marks in FA-PR of any course then the candidate shall be declared as "Detaimed" in that semester.
3. If candidate is not securing minimum passing marks in SLA of any course then the candidate shall be declared as fail and will have to repeat and resubmit SLA work.
4. Notional Learning hours for the semester are (CL+LL+TL+SL)hrs.* 10 Weeks
5. 1 credit is equivalent to 30 Notional hrs.
6. * Self learning hours shall not be reflected in the Time Table.
7. * Self learning includes micro project / assignment / other activities.

V. THEORY LEARNING OUTCOMES AND ALIGNED COURSE CONTENT

| Sr.No | Theory Learning Outcomes (TLO's)aligned to CO's. | Learning content mapped with Theory Learning Outcomes (TLO's) and CO's. | Suggested Learning Pedagogies. |
|-------|---|---|--|
| 1 | TLO 1.1 Compare advantages and disadvantages of Entrepreneurship TLO 1.2 Identify entrepreneurial traits through self-analysis TLO 1.3 Compare risk associated with different type of enterprise | Unit - I Introduction to Entrepreneurship Development 1.1 Entrepreneurship as a career – charms, advantages, disadvantages , scope- local and global 1.2 Traits of successful entrepreneur: consistency, creativity, initiative, independent decision making, assertiveness, persuasion, persistence, information seeking, handling business communication, commitment to work contract, calculated risk taking, learning from failure 1.3 Types of enterprises and their features : manufacturing, service and trading | Presentations Lecture Using Chalk-Board |
| 2 | TLO 2.1 Explain Important factors essential for selection of product/service and selection of process TLO 2.2 Suggest suitable place for setting up the specified enterprise on the basis of given data/circumstances with justification. TLO 2.3 Suggest steps for the selection process of an enterprise for the specified product or service with justification. TLO 2.4 Plan a market study /survey for the specified enterprise | Unit - II Startup Selection Process 2.1 Product/Service selection: Process, core competence, product/service life cycle, new product/ service development process, mortality curve, creativity and innovation in product/ service modification / development 2.2 Process selection: Technology life cycle, forms and cost of transformation, factors affecting process selection, location for an industry, material handling. 2.3 Market study procedures: questionnaire design, sampling, market survey, data analysis 2.4 Getting information from concerned stakeholders such as Maharashtra Centre for Entrepreneurship Development[MCED], National Institute for Micro, Small and Medium Enterprises [NI-MSME], Prime Minister Employment Generation Program [PMEGP], Directorate of Industries[DI], Khadi Village Industries Commission[KVIC] | Presentations Lecture Using Chalk-Board |

ENTREPRENEURSHIP DEVELOPMENT AND STARTUPS

Course Code : 315002

| Sr.No | Theory Learning Outcomes (TLO's)aligned to CO's. | Learning content mapped with Theory Learning Outcomes (TLO's) and CO's. | Suggested Learning Pedagogies. |
|-------|--|--|--|
| 3 | <p>TLO 3.1 Explain categorization of MSME on the basis of turnover and investment</p> <p>TLO 3.2 Describe support system provided by central and state government agencies</p> <p>TLO 3.3 State various schemes of government agencies for promotion of entrepreneurship</p> <p>TLO 3.4 Describe help provided by the non governmental agencies for the specified product/service</p> <p>TLO 3.5 Compute breakeven point, ROI and ROS for the specified business enterprise, stating the assumptions made</p> | <p>Unit - III Support System for Startup</p> <p>3.1 Categorization of MSME, ancillary industries</p> <p>3.2 Support systems- government agencies: MCED, NI MSME, PMEGP,DI, KVIC</p> <p>3.3 Support agencies for entrepreneurship guidance, training, registration, technical consultation, technology transfer and quality control, marketing and finance.</p> <p>3.4 Breakeven point, return on investment (ROI) and return on sales (ROS).</p> | Presentations Lecture Using Chalk-Board |
| 4 | <p>TLO 4.1 Explain key elements for the given business plan with respect to their purpose/size</p> <p>TLO 4.2 Justify USP of the given product/ service from marketing point of view.</p> <p>TLO 4.3 Formulate business policy for the given product/service.</p> <p>TLO 4.4 Choose relevant negotiation techniques for the given product/ service with justification</p> <p>TLO 4.5 Identify risks that you may encounter for the given type of business/enterprise with justification.</p> <p>TLO 4.6 Describe role of the incubation centre and accelerators for the given product/service.</p> | <p>Unit - IV Managing Enterprise</p> <p>4.1 Techno commercial Feasibility study, feasibility report preparation and evaluation criteria</p> <p>4.2 Ownership, Capital, Budgeting, Matching entrepreneur with the project</p> <p>4.3 Unique Selling Proposition [U.S.P.]: Identification, developing a marketing plan.</p> <p>4.4 Preparing strategies of handling business: policy making, negotiation and bargaining techniques</p> <p>4.5 Risk Management: Planning for calculated risk taking, initiation with low cost projects, integrated futuristic planning, definition of startup cycle, ecosystem , angel investors, venture capitalist</p> <p>4.6 Incubation centers and accelerators : Role and procedure</p> | Presentations Lecture Using Chalk-Board |

VI. LABORATORY LEARNING OUTCOME AND ALIGNED PRACTICAL / TUTORIAL EXPERIENCES.

| Practical / Tutorial / Laboratory Learning Outcome (LLO) | Sr No | Laboratory Experiment / Practical Titles / Tutorial Titles | Number of hrs. | Relevant COs |
|---|-------|--|----------------|--------------|
| LLO 1.1 Collect information of successful entrepreneurial traits | 1 | *Preparation of report on entrepreneurship as | 2 | CO1 |
| LLO 2.1 Identify different traits as an entrepreneur from various field LLO 2.2 Suggest different traits from identified problem | 2 | Case study on 'Traits of Entrepreneur' | 2 | CO1 |

ENTREPRENEURSHIP DEVELOPMENT AND STARTUPS**Course Code : 315002**

| Practical / Tutorial / Laboratory Learning Outcome (LLO) | Sr No | Laboratory Experiment / Practical Titles / Tutorial Titles | Number of hrs. | Relevant COs |
|--|-------|--|----------------|--------------------------|
| LLO 3.1 Explore probable risks for identified enterprise. | 3 | *Case study on 'Risks associated with enterprise' | 2 | CO1 |
| LLO 4.1 Identify new product for development LLO 4.2 Prepare a newly developed product | 4 | *Preparation of report on 'Development of new Product' | 2 | CO1 CO2 |
| LLO 5.1 Identify Process for development of product for new startup | 5 | Preparation of Report on ' Process selection 'for new startup | 2 | CO1 CO2 CO3 |
| LLO 6.1 Develop questioner for market survey | 6 | *Market survey for setting up new Start up | 2 | CO2 CO3 |
| LLO 7.1 Interpret the use of Technology Life Cycle | 7 | A Case study on ' Technology life cycle' of any successful entrepreneur. | 2 | CO3 |
| LLO 8.1 Use information related to support of startups from Government and non-government agencies' LLO 8.2 Prepare report for setting up startup | 8 | *Preparation of report on 'Information for setting up new startup' from MCED/MSME/KVIC etc | 2 | CO3 CO4 |
| LLO 9.1 Compute ROI of successful enterprise. | 9 | Case study on 'Return on Investment (ROI)'of any successful startup | 2 | CO3 |
| LLO 10.1 Calculate of ROS of any successful enterprise | 10 | Case study on 'Return on sales (ROS)'of any successful startup | 2 | CO3 |
| LLO 11.1 Calculate Brake even point of any enterprise | 11 | Preparation of report on 'Brake even point calculation' of any enterprise. | 2 | CO3 CO4 |
| LLO 12.1 Prepare feasibility report of given business | 12 | *Preparation of report on 'feasibility of any Techno-commercial business" | 2 | CO4 |
| LLO 13.1 Plan a USP of any enterprise. | 13 | *A case study based on 'Unique selling Proposition (USP) of any successful enterprise | 2 | CO4 |
| LLO 14.1 Prepare a project report using facilities of Atal Incubation center. | 14 | *Prepare project report for starting new startup using 'Atal incubation center (AIC) | 2 | CO1 CO2 CO3 CO4 |

Note : Out of above suggestive LLOs -

- '*' Marked Practicals (LLOs) Are mandatory.
- Minimum 80% of above list of lab experiment are to be performed.
- Judicial mix of LLOs are to be performed to achieve desired outcomes.

VII. SUGGESTED MICRO PROJECT / ASSIGNMENT/ ACTIVITIES FOR SPECIFIC LEARNING / SKILLS DEVELOPMENT (SELF LEARNING)**Micro project**

- Prepare a 'Pitch- desk' for your start up
- Prepare a business plan for a. Market research b. Advertisement agency c. Placement Agency d. Repair and Maintenance agency e. Tour and Travel agency
- Prepare a 'Social entrepreneurship business plan, plan for CSR funding.
- Prepare a ' Women entrepreneurship business plan ' Choose relevant government scheme for the product/service

ENTREPRENEURSHIP DEVELOPMENT AND STARTUPS**Course Code : 315002**

- Prepare a business plan for identified projects by using entrepreneurial eco system for the same (Schemes, incentives, incubators etc.)

Note :

- Above is just a suggestive list of microprojects and assignments; faculty must prepare their own bank of microprojects, assignments, and activities in a similar way.
- The faculty must allocate judicial mix of tasks, considering the weaknesses and / strengths of the student in acquiring the desired skills.
- If a microproject is assigned, it is expected to be completed as a group activity.
- SLA marks shall be awarded as per the continuous assessment record.
- For courses with no SLA component the list of suggestive microprojects / assignments/ activities are optional, faculty may encourage students to perform these tasks for enhanced learning experiences.
- If the course does not have associated SLA component, above suggestive listings is applicable to Tutorials and maybe considered for FA-PR evaluations.

VIII. LABORATORY EQUIPMENT / INSTRUMENTS / TOOLS / SOFTWARE REQUIRED

| Sr.No | Equipment Name with Broad Specifications | Relevant LLO Number |
|-------|--|---------------------|
| 1 | Computers with internet and printer facility | All |

IX. SUGGESTED WEIGHTAGE TO LEARNING EFFORTS & ASSESSMENT PURPOSE (Specification Table)

| Sr.No | Unit | Unit Title | Aligned COs | Learning Hours | R-Level | U-Level | A-Level | Total Marks |
|--------------------|------|--|-------------|----------------|----------|----------|----------|-------------|
| 1 | I | Introduction to Entrepreneurship Development | CO1 | 4 | 0 | 0 | 0 | 0 |
| 2 | II | Startup Selection Process | CO2 | 2 | 0 | 0 | 0 | 0 |
| 3 | III | Support System for Startup | CO3 | 2 | 0 | 0 | 0 | 0 |
| 4 | IV | Managing Enterprise | CO4 | 2 | 0 | 0 | 0 | 0 |
| Grand Total | | | | 10 | 0 | 0 | 0 | 0 |

X. ASSESSMENT METHODOLOGIES/TOOLS**Formative assessment (Assessment for Learning)**

- Assessment during practicals

Summative Assessment (Assessment of Learning)

- End of term examination

XI. SUGGESTED COS - POS MATRIX FORM

| Course Outcomes (COs) | Programme Outcomes (POs) | | | | | | | Programme Specific Outcomes* (PSOs) | | |
|-----------------------|--|-----------------------|--------------------------------------|------------------------|--|-------------------------|-------------------------|-------------------------------------|-------|-------|
| | PO-1 Basic and Discipline Specific Knowledge | PO-2 Problem Analysis | PO-3 Design/Development of Solutions | PO-4 Engineering Tools | PO-5 Engineering Practices for Society, Sustainability and Environment | PO-6 Project Management | PO-7 Life Long Learning | PSO-1 | PSO-2 | PSO-3 |
| CO1 | 2 | 2 | 2 | - | - | 3 | 2 | | | |
| CO2 | 2 | 2 | 2 | 2 | - | 3 | 2 | | | |
| CO3 | 2 | 2 | 2 | 2 | - | 3 | 2 | | | |
| CO4 | 2 | 2 | 2 | 2 | - | 3 | 2 | | | |

Legends :- High:03, Medium:02, Low:01, No Mapping: -

*PSOs are to be formulated at institute level

XII. SUGGESTED LEARNING MATERIALS / BOOKS

| Sr.No | Author | Title | Publisher with ISBN Number |
|-------|--|---|--|
| 1 | Dr. Nishith Dubey, Aditya Vyas , Annu Soman , Anupam Singh | Un- boxing Entrepreneurship your self help guide to setup a successful business | Indira Publishing House ISBN 2023,978-93-93577-70-2 |
| 2 | Gujral, Raman | Reading Material of Entrepreneurship Awareness Camp | Entrepreneurship Development Institute of India (EDI), GOI, 2016 Ahmedabad |
| 3 | Chitale, A K | Product Design and Manufacturing | PHI Learning, New Delhi, 2014; ISBN: 9788120348738 |
| 4 | Charantimath, Poornima | Entrepreneurship Development Small Business Entrepreneurship | Pearson Education India, New Delhi; ISBN: 9788131762264 |
| 5 | Khanka, S.S. | Entrepreneurship and Small Business Management | S.Chand and Sons, New Delhi, ISBN: 978-93-5161-094-6 |

XIII . LEARNING WEBSITES & PORTALS

| Sr.No | Link / Portal | Description |
|-------|---|---|
| 1 | http://www.mced.nic.in/allproduct.aspx | MCED Product and Plan Details |
| 2 | http://niesbud.nic.in/Publication.html | The National Institute for Entrepreneurship and Small Business Development Publications |
| 3 | http://niesbud.nic.in/docs/1standardized.pdf | Courses : The National Institute for Entrepreneurship and Small Business Development |
| 4 | https://www.nabard.org/Tenders.aspx?cid=501andid=24 | NABARD - Information Centre |
| 5 | http://www.startupindia.gov.in/pdffile.php?title=Startup%20India%20Action%20Plan&type=Action&dq=Action%20Plan.pdf&content_type=Action&submenupoint=action | Start Up India |
| 6 | http://www.ediindia.org/institute.html | About - Entrepreneurship Development Institute of India (EDII) |
| 7 | http://www.nstedb.com/training/training.htm | NSTEDB - Training |

ENTREPRENEURSHIP DEVELOPMENT AND STARTUPS**Course Code : 315002**

| Sr.No | Link / Portal | Description |
|--|---------------|-------------|
| Note : | | |
| • Teachers are requested to check the creative common license status/financial implications of the suggested online educational resources before use by the students | | |

MSBTE Approval Dt. 24/02/2025**Semester - 5, K Scheme**