

<b>B.Tech. Biotechnology: Semester-VII</b> <b>BBT 702: BIOENTERPRENEURSHIP</b>	
<b>Teaching Scheme</b>	<b>Examination Scheme</b>
Lectures: 3 hrs/Week	Class Test -12 Marks
Tutorials: 1 hr/Week	Teachers Assessment – 6 Marks
Credits: 4	Attendance – 12 Marks
	End Semester Exam – 70 marks

### Course Objective

Understanding basic concepts in the area of entrepreneurship, Understanding the role and importance of entrepreneurship for economic development. Developing personal creativity and entrepreneurial initiative. Adopting of the key steps in the elaboration of business idea, Understanding the stages of the entrepreneurial process. The resources needed for the successful development of entrepreneurial ventures.

### Course Learning Outcomes

After completing the course, the student shall be able to:

CO1: Explore entrepreneurial leadership and management style.

CO2: To explore different biotech business models and to acquire the fundamentals of biotech business management..

CO3: To understand the requirements of a biotech business plan in particular from the perspective of prospective funders.

CO4: To be able to manage issues in intellectual property and licensing as they pertain to biotech

CO5: To develop fundamental notions with regard to marketing in the biotech space and to understand the complexity of the interface between stakeholders.

#### Unit 1: Accounting and Finance

Taking decision on starting a venture; Assessment of feasibility of a given venture/new venture; Approach a bank for a loan; Sources of financial assistance; Making a business proposal/Plan for seeking loans from financial institution and Banks; Funds from bank for capital expenditure and for working; Statutory and legal requirements for starting a company/venture; Budget planning and cash flow management; Basics in accounting practices: concepts of balance sheet, P&L account, and double entry bookkeeping; Estimation of income, expenditure, profit, income tax etc.

**Marketing** Assessment of market demand for potential product(s) of interest; Market conditions, segments; Prediction of market changes; Identifying needs of customers including gaps in the market, packaging the product; Market linkages, branding issues; Developing distribution channels; Pricing/Policies/Competition; Promotion/ Advertising; Services Marketing

#### Unit 2: Negotiations/Strategy

With financiers, bankers etc.; With government/law enforcement authorities; With companies/Institutions for technology transfer; Dispute resolution skills; External environment/changes; Crisis/ Avoiding/Managing; Broader vision-Global thinking.

**Information Technology** How to use IT for business administration; Use of IT in improving business performance; Available software for better financial management; E-business setup, management.

Head

Department of Biotechnology

Dean

Faculty of Science

Invertis University, Bareilly (U.P.)

Registrar  
Invertis University  
Bareilly



**Human Resource Development (HRD)** Leadership skills; Managerial skills; Organization structure, pros & cons of different structures; Team building, teamwork; Appraisal; Rewards in small scale set up.

**Fundamentals of Entrepreneurship** Support mechanism for entrepreneurship in India

**Role of knowledge centre and R&D** Knowledge centres like universities and research institutions; Role of technology and upgradation; Assessment of scale of development of Technology; Managing Technology Transfer; Regulations for transfer of foreign technologies; Technology transfer agencies

**Unit 3: Case Study**

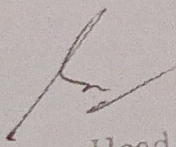
1. Candidates should be made to start a 'mock paper company', systematically following all the procedures.

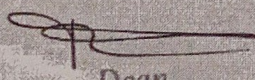
- The market analysis developed by them will be used to choose the product or services.
- A product or service is created in paper and positioned in the market. As a product or services available only in paper to be sold in the market through the existing links. At this juncture, the pricing of the product or the service needs to be finalized, linking the distribution system until the product or services reaches the end consumer.
- Candidates who have developed such product or service could present the same as a project work to the Panel of Experts, including representatives from industry sector. If the presented product or service is found to have real potential, the candidates would be exposed to the next level of actual implementation of the project.

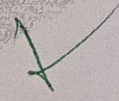
2. Go to any venture capital website (like sequoiacap.com) and prepare a proposal for funding from venture capital.

**Suggested Readings**

- Holger Patzelt and Thomas Brenner, eds., Handbook of Bioentrepreneurship, New York: Springer, 2008, 294pages.

  
Head  
Department of Biotechnology  
Invertis University, Bareilly (U.P.)

  
Dean  
Faculty of Science  
Invertis University, Bareilly (U.P.)

  
Registrar  
Invertis University,  
Bareilly