



Syllabus

Fourth Semester Courses in

MSc

Biotechnology

(2024-2025)

Contents:

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 - PSBTY6503EL1 Emerging Trends in Biotechnology
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MSc II in BIOTECHNOLOGY		
Course Title: Emerging Trends in Biotechnology		
Course Code: PSBTY6503EL1		
Credits: 4 4 (2T +2P) 30 hrs Theory +60 hours Practical		
Course Objectives		
<ul style="list-style-type: none"> The elective course aims to provide opportunities to acquire new skills, techniques, or knowledge relevant to the course topic through structured learning activities via MOOCs . The Capstone project will provide an opportunity to apply concepts, knowledge and skills and understand real-world challenges faced by Biotech businesses, startups, or entrepreneurs in areas such as product development, market entry, and growth strategies.. 		
CO	Course Outcomes <i>On completing the course, the learner will be able to</i>	Bloom's Taxonomy Level (BT level)
1	Refine and enhance their existing skills, competencies, or expertise in the subject area through targeted course work, feedback, and reflection.	Applying, Analysing and Evaluating
2	Demonstrate the ability to apply theoretical knowledge and practical skills acquired throughout the academic program to address a real-world problem or challenge..	Applying, Analysing and Evaluating
3	Demonstrate creativity, innovation, and originality in the conceptualization, design, and implementation of the capstone project, generating novel solutions or approaches to address the identified problem or challenge.	Creating
4	Cultivate critical thinking abilities to identify opportunities, assess risks, and develop innovative solutions to complex business challenges in the context of product innovation, market research, and business planning.	Analysing and evaluating
5	Understand the ethical implications associated with conducting market research, analyzing patents, and developing business plans, and adhere to ethical standards throughout the project.	Analysing and evaluating

Content		
Module 1	The student will complete one MOOC from NPTEL/SWAYAM on domains inclusive and not restricting to Emerging Trends in Core domains of Biotechnology, IPR, Entrepreneurship among others. The course will be curated by the department.	8-12 weeks course
Module 2	Capstone Project (Business Plan/ Patent Analysis for product innovation/ Market Research/Quantitative surveys for real world challenge)	4 hrs/week

Evaluation (Practical- PSBTY6503EL1):

Total Marks: 200

- I. Formative Assessment 'for' Learning
 - a) Weekly assignments of MOOCs- 40 marks
 - b) Capstone project Proposal, Wrok flow, Data analysis – 40 marks

- II. Summative Assessment 'of' learning.
 - a) Completion of Assignments and certification from the MOOCs Portal -60 marks
 - b) Capstone Project Report and *Viva Voce* – 60 marks

Distribution of Bloom's Taxonomy Levels for the Course Assessment

Units	Remembering	Understanding	Analyzing	Application	Evaluation	Creation
*Percentage	NA	20	20	20	20	20

APPROVED SYLLABUS

