

"Education for Knowledge, Science and Culture"

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Shri Swami Vivekanand Shikshan Sanstha's

VIVEKANAND COLLEGE, KOLHAPUR

(EMPOWERED AUTONOMOUS)

Department of Biotechnology Optional

Academic year 2025-26

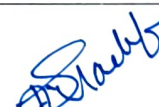
B.Sc. III Biotechnology Optional

Semester V and VI Course Outcomes (COs)

Semester	Course outcome
Semester V	
DSC-IX	DSC03BIT 51 Biochemical technique
	1.CO: To acquire knowledge about various advancements in applied biotechnology 2.CO: To acquire and learn about various centrifugation techniques, and protein precipitation. 3.CO: To study the use of chromatographic techniques and tracer technique 4. CO: After completing the course students are eligible to apply knowledge of electrophoresis in protein research
DSC-X	DSC 03BIT52 - Environmental Biotechnology
	1.CO: Implementation of green revolution i.e. to attain reduce, reuse & recycle 2.CO :To acquire knowledge and techniques related to wastewater treatment 3.CO: To acquire knowledge to grow healthy crops without chemical pesticides. 4.CO : To study Modern fuels and their applications
DSC- XI	DSC03BIT53 Plant tissue culture
	1.CO. To gain knowledge regarding basic concepts of plant tissue culture laboratory. 2.CO. To acquire knowledge about how to cultivate plant tissues <i>in vitro</i> 3.CO. To study various types of tissue culture 4.CO. Construct to design the commercial plant tissue culture laboratory
DSE-I	DSE 03BIT51 Elective- Fermentation technology –I
	1.CO. To learn about different designs of fermenters. 2.CO. To study the isolation of industrially important microbial strain production 3. CO. To learn the determination of the end product of fermentation. 4.CO: To gain knowledge regarding Upstream and Downstream processing at fermentation industries
DSE-I	DSC03BIT 52 Elective –research and methodology
	1. CO. To understand regarding research . 2 CO. To aware the students how to write research article. 3 CO. To learn about the use of Tools and Techniques of Research Methods. 4 CO . To gain knowledge about the Research methodology in Biotechnology.
MIN-IX	MIN03BIT51 Plant Biotechnology
	1.CO. To gain knowledge regarding basic concepts of plant tissue culture laboratory.

	2.CO. To acquire knowledge about how to cultivate plant tissues <i>in vitro</i> 3.CO. To study various types of tissue culture 4.CO. Construct to design the commercial plant tissue culture laboratory
Semester VI	
DSC XIII	DSC03BIT61 Gene technology and Bioinformatics
	1.CO: To understand important techniques in gene technology 2.CO: To learn about different therapies in gene technology 3.CO: To learn about applying Biotechnology in silico i.e. via Bioinformatics 4.CO: After completing the course students are eligible to work in molecular diagnostic and Bioinformatics laboratory.
DSC -XIV	DSC03BIT62 -Fundamentals of animal tissue Culture
	1. CO. To understand need of animal tissue culture 2.CO. To learn about the cultivation of animal tissues <i>in vitro</i> 3.CO. To gain knowledge about how to prepare and maintain animal tissues using various media and hormones 4.CO. Construct to design the commercial Animal tissue culture Laboratory
DSC-XV	DSC 03BIT 63 Cell metabolism and virology
	1.CO: To acquire knowledge regarding biomolecules and their metabolism 2.CO: To learn about various metabolic pathways 3.CO. To understand the basics of viruses their structure, reproduction, and cultivation 4.CO: To study different virus cultivation techniques
DSE-II	DSE03BIT61 – Fermentation technology-2
	1 .CO. To understand various types of fermentation 2.CO. To learn about different fermentation product 3.CO. To learn about Intellectual Property Rights and patenting 4 CO: After completing for the course students are eligible to work in the production department in the fermentation industry
DSE-II	DSE03BIT 62 – Stem Cell technology
	CO:1. students get knowledge about Stem cell types ,mechanism of self renewal and differentiation. CO:2. After completing the course students can understand the use of stem cell research and its potential implications . CO:3. Students can develop analytical and critical thinking skills to design , conduct and analyze experiments in stem cell research . CO: 4. students will be able to prepare for careers in stem cell research , biotechnology or related fields such as research scientists ,corporate professionals ,or healthcare professionals
MIN- X	MIN03BIT 61 – Animal Biotechnology
	1. CO. To understand need of animal tissue culture 2.CO. To learn about the cultivation of animal tissues <i>in vitro</i> 3.CO. To gain knowledge about how to prepare and maintain animal tissues using various media and hormones. 4.CO. Construct to design the commercial Animal tissue culture Laboratory




HEAD
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