

B.Sc-II Biotechnology (Entire) CBCS Syllabus

Vivekanand College, Kolhapur (Autonomous)
 Department of Biotechnology
 Course outcome of B.Sc-II (Entire) Biotechnology CBCS
 Subject wise both Semester-III and IV
 Implemented from 2022-23

Subject Offered Sem-III:- C	Course Outcome
DSC 1345C Genetics	At the end of this course students will be able to: CO 1. Outline of Mendelian inheritance. CO2. Demonstrate the chromosome structure, chromatin organization and variation using model. CO 3. Perceive knowledge about the genetic disease. CO 4. Predict and illustrate model of Pedigree analysis.
DSC 1346C Biophysics and Enzymology	At the end of this course students will be able to: CO 1. Illustrate the importance of spectroscopy. CO 2. Choose the appropriate spectroscopy for specific biomolecule to interpret its structure. CO 3. demonstrate the experimental optimization of Enzyme activity and factors influencing them. CO 4. Able to construct the models explaining the mechanism of enzyme action.
DSC 1347C Metabolic Pathways	At the end of this course students will be able to: CO 1. compare different biochemical reactions in cell CO 2. Explain different methods to study metabolism. CO 3. Conclude the stoichiometry of metabolic pathways. CO 4. To analyze the relation between ATP generation and Electron transport Chain.
DSC 1348C Ecology	At the end of this course students will be able to: CO 1. Appreciate the ethical, cross-cultural and historical context of environment with respect to classical Ecology. CO 2. Construct the relationship between different biogeochemical cycles. CO 3. Outline the importance of population ecology. CO 4. Reflect the importance of Evolution theories in Ecology.
DSC 1349C Molecular Biology-I	At the end of this course students will be able to: CO 1. Explain structure and function of the macromolecules CO2. List the underlined mechanism of Nucleotide Biosynthesis CO3. Compare the mechanism of replication in prokaryotes and eukaryotes. CO 4. Discuss DNA damage and repair mechanism,
DSC 1350C Plant Tissue Culture	At the end of this course students will be able to: CO 1. Construct the design required to set up plant tissue culture laboratory. CO 2. Differentiate between different PTC techniques. CO 3. Illustrate the importance of Asepsis. CO 4. to become entrepreneur in PTC.

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Subject Offered Sem IV:- D	Course Outcome
DSC 1345D Immunology	At the end of this course students will be able to: CO 1. Differentiate between different types of immunity. CO 2. Classify cells of immune system. CO 3. Construct models demonstrating antigen-antibody interaction. CO 4. Perform various serological tests for diagnosis of various types' diseases.
DSC 1346D Advances in Cell Biology	At the end of this course students will be able to: CO 1. Elaborate the mechanism of cell communication. CO 2. Roles of different organelle in protein trafficking. CO 3. Predict causes of Cancer CO 4. Understand the mechanism of cell division
DSC 1347D Plant Biochemistry	At the end of this course students will be able to: CO 1. Explain mechanism of water absorption. CO 2. illustrate concept of photosynthesis. CO 3. Differentiate between symbiotic and non symbiotic Nitrogen fixation. CO4. Predict the relationship between vernalisation and photoperiodism.
DSC 1348D Environmental Biotechnology	At the end of this course students will be able to: CO 1. Classify different kinds of pollution CO 2. Describe the concept of toxicity. CO 3. Describe sources of bioethanol production CO4. Discover the different ways of Bioremediation
DSC 1349D Molecular Biology-II	At the end of this course students will be able to: CO 1. Compare the mechanism of Transcription & post-transcriptional modification in prokaryotes and eukaryotes CO 2. outline the character of genetic code CO 3. Compare the mechanism of Translation & post-translational modification in prokaryotes and eukaryotes CO4. Draw a contrast between operon model and normal gene expression.
DSC 1350D Animal Tissue Culture	At the end of this course students will be able to: CO 1. Construct the design required to set up animal tissue culture laboratory. CO 2. Classify different characters and biology of cultured cells. CO 3. Define scale up of animal cell culture. CO4. Appreciate the importance of stem cell technology.



S. M. ...
Head

Department of Biotechnology (Entire)
Vivekanand College, Kolhapur (Autonomous)