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B.Sc-II Biotechnology (Entire) NEP Syllabus

Vivekanand College, Kolhapur (Empowered Autonomous)
Department of Biotechnology
Course outcome of B. Sc-II (Entire) Biotechnology
Subject wise both Semester-III and IV
Implemented as per NEP 2020

Subject Offered Semester-III	Course Outcome
DSC-V: DSC07BTE31- 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-VI: DSC07BTE32 – Metabolic Pathways- I	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.
MIN-V: MIN07BTE31- Microbial 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.
MIN-VI: MIN07BTE32 Environmental Microbiology	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

Subject Offered Semester-IV	Course Outcome
DSC-VII : DSC07BTE41- 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-VIII : DSC07BTE42- Metabolic Pathways-II	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 vernalization and photoperiodism.
MIN-VII : MIN07BTE41- 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.
MIN-VIII : MIN07BTE42- 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