JAI HIND COLLEGE

Basantsing Institute of Science & J. T. Lalvani College of Commerce.
and Sheila Gopal Raheja College of Management.
Autonomous

Program Name: Bachelor of Science (B.Sc in Life Sciences)

PROGRAM OBJECTIVES:

PO1: To equip the students with the knowledge of key processes during development of an organism both at cellular and molecular levels.

PO2: To Develop an interdisciplinary program focused on applying advanced life science principles, including genomics, bioinformatics, and biotechnology to address real-world challenges in health, agriculture, and environmental sustainability.

PO3: To cultivate and enhance research aptitude in Life Sciences by providing a structured program that integrates theoretical knowledge with hands-on practical experience.

PO4: To engage participants in complex social issues in biological research to develop a framework that develops problem-solving skills and enables critical thinking diversity, rigorous research and innovative thinking to tackle different problems across different fields.

PO5: To develop academic writing skills specially designed for biology, so that participants can present scientific concepts, research findings, and experimental methods.

PO6: To prepare the student to meet professional challenges.

PO7: To nurture students into responsible citizens who are socially and environmentally sensitive and aware of most basic domain-independent knowledge.

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PO9: To develop critical thinking, logical reasoning, research ethics among the students and inculcate

research-oriented thinking.

PO10: To help students gain self-awareness and spirituality by spending more time with nature.

COURSE OUTCOMES:

CO1: Differentiate between prokaryotic and eukaryotic cells and apply techniques to study their biomolecules.

CO2: Analyze the different physiological systems and of the human body.

CO3: Develop practical hands-on skills in Life Sciences at Molecular and cellular levels

CO4: Develop in depth knowledge of cell signalling and behavioural adaptations found in animals and plants and apply it in varying fields.

CO5: Summerize the basics of biochemical pathways and mechanisms of metabolism.

CO6. Identify major evolutionary changes over time, apply different biostatistics tools in research and basics of Bioinformatics.

CO7: Develop practical hands-on skills in Evolution, Biostatistics and Bioinformatics.

CO8: Implement the knowledge of the organization of genome and conceptualize the basics mechanisms of immunology.

CO9: Describe model organisms and landmark discoveries in research related to developmental biology and to Perceive concepts concerning the parts of the nervous system.

CO10: Understand the various concepts of fermentation and Apply strategies of cloning, screening, and selection methods.

CO11: Articulate the interdisciplinary context of environmental issues, and toxicology management and to Understand the perspectives and concerns related to safety and health hazards.

CO12: Integrate practical hands-on skills in Genetics, Immunology and Developmental Biology and Neurobiology.

CO13: Develop practical hands-on skills in Genetic Engineering, Fermentation and Environmental Biology.