

# Sri Bhagawan Mahaveer Jain First Grade College

Geetha Road, Robertsonpet, Kolar Gold Fields.

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## MICROBIOLOGY & MOLECULAR BIOLOGY

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**After studying this paper, biochemistry postgraduate students will be able to:**

- Understand the morphological differences of different microorganisms, identifying industrially and economically useful microorganisms and applying them in different fields.
- Understand different steps in the central dogma of molecular biology, enzymes involved in synthesis of DNA, RNA and protein.
- Present hypothesis and select, adapt and conduct molecular and cell-based experiments to either confirm or reject the hypothesis.
- Exhibit a knowledge base in genetics, cell and molecular biology.
- Learn gene cloning for the expression of desired gene, amplifying the DNA, which is applied in various genomic level researches.
- Learn fundamental genetic, biotechnology principles and practices and apply that to analyze and manipulate traits in living organisms.
- Describe the contents and properties of the most important bioinformatics databases, perform text-and searches, and analyze and
- discuss the results in light of molecular biological knowledge.
- Understand the intersection of life and information sciences, using different software's like genomics, proteomics, BLAST, FASTA etc to
- extract information from large database and applying them at genome level.