PO/PSO/CO OF RAJIV GANDHI INSTITUTE OF IT AND BIOTECHNOLOGY

PROGRAMME OUTCOME (UG and PG course)

Programme outcome M.Sc Biotechnology, Medical Biotechnology and Bioinformatics is to produce competent skilled man power who can implement their knowledge in the various fields science such as agriculture, industry, healthcare and environment to provide sustainable solution that will benefit human being. Students will be eligible for doing jobs in various sectors of life sciences.

Programme outcome of B.Sc. biotechnology is to produce graduate with sound knowledge with hands on experience in the field of life science. So that they are well prepared for the PG courses and technical jobs.

Programme Specific Outcomes:

PG

Students will be able design, conduct experiments, analyze and interpret data for life sciences industry.

Students can opt for higher studies for Ph.D. in India and Abroad.

Students can appear for CSIR-NET, GATE, ICMR, DBT examination for getting fellowships for doing research.

Students can become entrepreneur and can start consultancy in the field of life science.

Students can approach for academic sectors after clearing NET/ SET examinations or Ph.D. at various institutions

Several career opportunities are available for biotechnology students in Abroad.

UG:

Students can opt for higher studies for the PG program

Students can also opt for the jobs such as technical assistant in industries

Course Outcome:

PG

Cell Biology and Developmental Biology : To gain the knowledge of living cells such as prokaryotic and eukaryotic cells, formation of cells, cell adhesion and cellular signaling, role of cell division and its regulation on diseases like cancer

Biochemistry: Students will be imparted knowledge about structure and function of different biomolecules (proteins, lipids, nucleic acids, and carbohydrates), synthesis and metabolism of biomolecules.

Microbiology: This course will help students to acquire skills and competency in microbiological laboratory practices applicable to microbiological research or clinical methods, including accurately reporting observations and analysis, applications of Microorganisms in various fields.

Microbial Technology: The course will provide technical knowledge applications of Microrganisms in bioprocess industry, fermentation, downstream processing

Immunology: The course will provide technical knowledge knowledge of immune system deals with various pathogens, different processes and cell types involved in autoimmune disease.

Biostatistics This course will help students' tools of biostatics in interpretation of biological data. Students will be able to characterize data and understand different sampling methods.

Bioinformatics tools and techniques of bioinformatics can be utilized in studies pertaining to macromolecules (DNA, RNA, protein). Structure and organization of genomics and proteomics. Students will be able to analyze, interpret and study biological data (sequence, structure, etc) stored in various databases available on internet.

Recombinant DNA Technology: Learning outcomes of this course are technical know-how on versatile techniques in recombinant DNA technology, application of genetic engineering techniques in basic and applied experimental biology and proficiency in designing and conducting experiments involving genetic manipulation.

Plant Biotechnology Animal Biotechnology: Gain knowledge of Crop development, Callus culture, Biotechnological applications of plants, Animal tissue culture, Animal products, production

Research Methodology: Course on research methodology will provide knowledge base as to how to design a research project and about different aspects involved in carrying out research. Students will learn the methods of sampling, reviewing a research objective, conducting experiments and interpretation of results.

Environmental Biotech: Learning outcome of Environment Biotechnology is to gain the knowledge of biodiversity, bioremediation, pollution.

Dissertation: This course will include allotment of an individual research work to each student to be carried out in fourth semester. This will not only enhance knowledge base of students but also provide them exposure as to how to conduct and carry out a research based task. Students will also learn how to compile and interpret results.

Course Outcome: UG

Biochemistry: Students understand the Basic Structure and metabolism of Biomolecule

Cell biology: To make the student to understood the concept of cell and their activities.

Microbiology: The student should have understood the microorganisms, their role in diseases and their applications in various fields

Immunology: Concepts of Antigen Antibodies, Techniques involved in study of antigen antibody complex. Autoimmune diseases.

Molecular biology: Students will gain the knowledge of DNA, RNA, Central Dogma, Transcription and Translation.

Genetics: understand the concept of genes and their behavior

rDNA Technology: Student knowledge of Manipulation of genes, Transfer techniques, Expression systems and methods of selection

Food biotechnology: Student will understand the role of biotechnology in food industry, Preservation and processing of food.

Plant biotechnology Animal biotechnology: Gain knowledge of Crop development, Callus culture, Biotechnological applications of plants, Animal tissue culture, Animal products, production.

Environmental biotechnology, Understand Ecosystem, energy flow and Uses and values of Biodiversity

Biostatistics and Bioinformatics: Statistical Analysis of biological data and their interpretation by using soft wares.