



# INDIAN BIOSCIENCES AND RESEARCH INSTITUTE

भारतीय जैव विज्ञान एवं अनुसन्धान संस्थान

## Certificate program in Biotechnology [6 Months]

### Aims and Objectives

- Provide the participants with an introduction to the theory and practice of bioanalytical techniques.
- Exposure to Introductory Biology, Molecular Biotechnology, Plant Biotechnology, Recombinant DNA Technology and their application in the Biotechnology and Biopharmaceutical Industries.
- Introduce students to the principles of Process and Biochemical Engineering. Role of Process Validation and Quality Assurance in various industries.
- To be aware of the latest trends in Good Manufacturing, Laboratory and Validation Practices.

### What Will You Learn?

- Understanding of biochemical and biotechnological methods and production strategies in Healthcare, Environment, Food Processing Industry, Agricultural Industry and Chemical Industry.
- How biotechnology provides platform for social involvement in research on the origin and treatment of all kind of illness.
- Identify common problems and solutions through open discussions with Biotechnology experts.

## Course Content

S.No	Modules	Contents
1	Module I	Introduction to Biotechnology
2	Module II	Biochemistry
3	Module III	Molecular Biotechnology
4	Module IV	Genetic Engineering

## Fees Structure

S.No	Programs	Fees
1	Registration Fees	Rs.500/-
2	Certificate program in Biotechnology	Rs.6500/-
3	Comprehensive program in Biotechnology	Rs.10,000/-
4	Exam Fees	Rs.200 Per paper

## Career Opportunities

Biotechnology domain offers career opportunities both in research and industry. It provides excellent prospects particularly in the area of life science, medicine and agriculture. Employment opportunities exist in research, production and marketing in the areas of medicine and healthcare, agriculture, animal husbandry, environment and various science industries. The work of biotechnology professional is essentially scientific and research-oriented. Main areas of work are production of various bioprocessed materials, marketing of biotechnology products and processes in various areas.

The training in biochemistry and biotechnology also has a social aim: to apply research and knowledge in favor of humanity and society. The focus within the training reflects this social involvement in research on the origin and treatment of all kinds of illnesses (such as cancer, chronic inflammation and metabolic diseases), on the improvement of plants (sustainable food

production, production of food with improved nutritional quality, production of bio-fuels) and on the use of micro-organisms in certain chemical processes (detoxification of contaminants).

The use of biochemical and biotechnological methods and production strategies increases in health care, environment sector, food industry, agricultural industry and chemical industry. This implies that there is, and will be, a demand for not only academically qualified, but also practically trained biochemists and biotechnologists. Given the broad scientific basic education, the combination of chemistry and biology, the practical and research-oriented aspects of the study program, the biochemist and the biotechnologist are well trained for the industry and institutions.

The employment sectors are scientific research at universities, research centers, industrial R&D, pharmaceutical industry, cosmetic, laboratories for medical analysis, food industry, fermentation industry, agricultural industry, petrochemical industry, chemical industry, environment technology and in vitro diagnostics.

### **Career in Biotechnology**

The following are the job profiles in Biotechnology and Biopharmaceutical industry:

- Project Assistant
- Research Associates
- Research Scientist
- Head of Department
- Teaching and Training
- Biotechnology Consultant
- Agricultural Science Experts  
and MANY MORE.....

### **Course Methodology**

After the Enrollment the student will be provided study material in form of Introduction Kit, this kit will contain study material and all necessary information about the program with important dates.

**Evaluation will be Examination/Assignment based.**

Successful students will be awarded Certificates in the respective areas by Distance participation along with the grade obtained.

**Note:**

1-Exam fees are excluded from Curriculum Fees.

2-Payment is to be made through Cash / Demand Draft / At Par Cheque in favor of "**Indian Biosciences and Research Institute**" payable at "**Noida/Delhi**".

