

## CAREER OPPORTUNITY

Students can opt for a Junior Research Fellowship after M.Sc. by appearing for the ICMR, UGC-CSIR JRF/NET and other qualifying exams for Fellowship leading to a bright career in research and development in reputed Indian Universities and Research Institutions. Students may pursue higher studies in reputed International Universities. They also have an opportunity to get placed in the fields related to Forensic Sciences, Environment, Agricultural science, Clinical diagnostics, Molecular Medicine, Nutrition, Pharmaceutical industry and Bioinformatics.

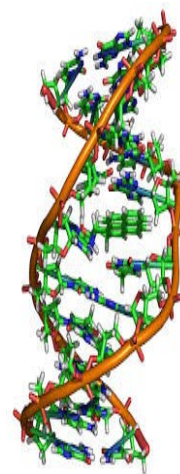
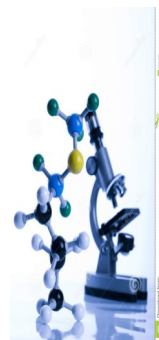
## PLACEMENTS :

Few Companies and Research Institutes



## CONTACT

1. Dr. R.S. KondeDeshmukh,  
Associate Professor,  
Coordinator- M.Sc., Research,  
Department of Chemistry,  
[kd\\_chem@rediffmail.com](mailto:kd_chem@rediffmail.com)  
+91 20 3086 6194 / 6148
2. Dr. Kiran Fulzele  
Assistant Professor,  
Incharge- M.Sc. Biochemistry,  
Department of Chemistry,  
+917350014320  
[kiran\\_fulzele@rediffmail.com](mailto:kiran_fulzele@rediffmail.com)
3. Dr. Poonam S. Deshpande  
Assistant Professor (Biochemistry),  
Department of Chemistry,  
+918552932258  
[poonamkd@gmail.com](mailto:poonamkd@gmail.com)
4. Dr. Kirti Chintamani  
Assistant Professor (Biochemistry)  
Department of Chemistry,  
+919421066824  
[kirtichintamani21@gmail.com](mailto:kirtichintamani21@gmail.com)



Deccan Education Society's  
**FERGUSSON COLLEGE, PUNE – 411004.**  
Department of Chemistry



The Deccan Education Society which is the parent body of several educational institutions spread over the landscape of Maharashtra founded the Fergusson College, a premier institution of liberal learning in India, in the year 1885. The Chemistry Department of the Fergusson College is one of the largest and oldest departments of the college and Deccan Education Society, Pune.

In the year 2007 non-grant post graduate course in Biochemistry was started in the department

## ABOUT M.Sc. BIOCHEMISTRY

Biochemistry is a branch of science which helps one to understand the basic and internal chemistry of living things. Since it is so vast and new phenomenon are discovered every year, it is taught as a separate branch of biology. Biochemists combine the fields of microbiology, cell biology, genetics, neurochemistry, immunology, clinical chemistry, biophysical techniques, toxicology, molecular biology and physiology to understand all the chemical reactions happening at cellular or molecular level in a living cell or living being. Biochemistry in general deals with bio molecules like enzymes, hormones, carbohydrates, amino acids, fats, proteins, DNA, RNA, pigments etc. It describes their origin, formation, function, metabolism, deficiency symptoms etc. Biochemists are contributing to advances in a wide variety of areas, including health, agriculture and the environment.

## ADMISSION PROCEDURE

- **Intake capacity : 24**
- **Eligibility :** B.Sc Chemistry as a principal subject in T.Y. B.Sc. OR B.Sc Biochemistry with minimum 55% marks for open category and at least 50% for reserved category students.
- Selection will be on the basis of an entrance exam.
- Norms set up by university/government will be followed for the admission process for the course.

## CURRICULUM

The M.Sc. Biochemistry Programme under the Choice Based Credit System (CS) is a full time course of two years consisting of 4 semesters which includes theory, lectures and practical. An important aspect of the Biochemistry course is its fourth-semester project work which can be done by each student under the supervision of a teacher in the parent department/ any appropriate research institute, which allows students to explore both laboratory-based research and specific recent advances in biochemistry in detail. The project also gives them the opportunity to reflect on their aptitude and enthusiasm for a research career.

## PRESCRIBED COURSE

### Semester I

**Theory:** Biomolecules, Enzymology, Cell Biology & membrane Biochemistry, Biophysical techniques

**Practicals:** Analytical Biochemistry, Enzymology & Biophysical Techniques

### Semester II

**Theory:** Bioenergetics and Metabolism, Microbiology & Fermentation technology, Biostatistics Bioinformatics, Research Methodology & Scientific writing, Genetics

**Practicals:** Microbiology and Immunology, Bioinformatics, Computer skills & Statistical analysis

### Semester III

**Theory:** Molecular Biology, Medical Biochemistry and Immunology, Neurochemistry and Biochemistry of Specialized Tissues, Toxicology and Advanced Biophysical techniques

**Practicals:** Molecular Biology & Special experiments and Clinical Biochemistry & Basics of Tissue culture

### Semester IV

**Theory:** Physiological Biochemistry & Endocrinology, Plant Biochemistry & Tissue culture, Genetic Engineering, Optional Course : (a) Clinical Nutrition & Food technology (b) Nanobiotechnology

**Practicals: Project Work**

### Additional Compulsory Courses

- Summer training & Industry/Lab visit & Introduction to IPR in Life science
- Introduction to Cyber Security/Information Security, Human Rights and Skill Development