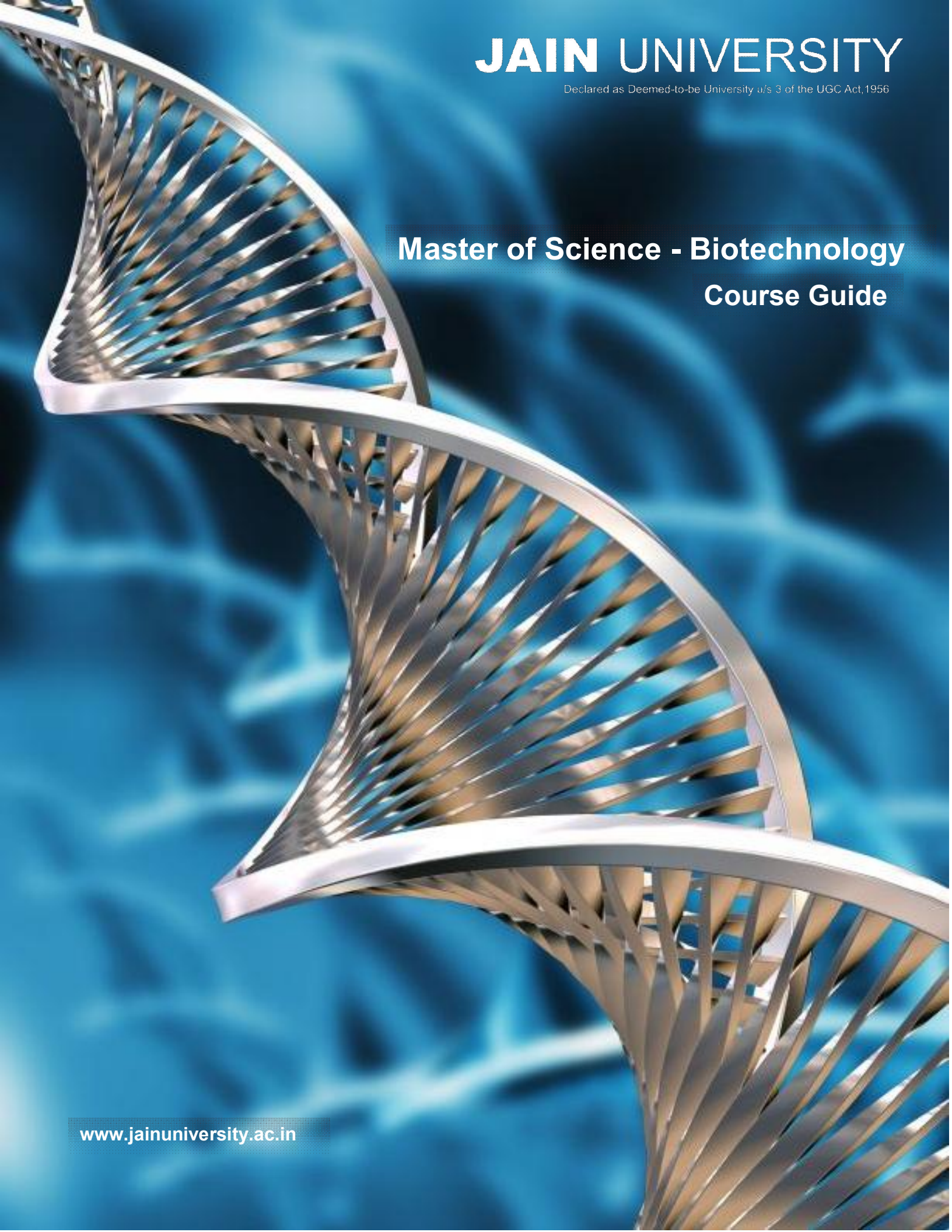

JAIN UNIVERSITY

Declared as Deemed-to-be University u/s 3 of the UGC Act,1956

Master of Science - Biotechnology

Course Guide

www.jainuniversity.ac.in

Course Overview

The M.Sc. Biotechnology course is designed to equip the students with all the tools and techniques, in theory and practical's of modern biology for application in industry and agriculture. The highlight of the course is that, in addition to the formal class room teaching, well-planned lab sessions and interactive tutorials, exposure to all experimental tools used in modern biotechnology industry and research is provided through carefully designed research project.

Programme Name
Master of Science

Programme Code
044

Course Code & Name
4401 – M.Sc in **Biotechnology**

Degree Awarded
Master of Science

Duration of the Programme
2 years, 4 semesters

Total Credits
128

Eligibility
The minimum qualification required to apply is a bachelor's degree in biotechnology / microbiology / botany / biochemistry

Medium of Instruction / Examination
English

Study Campus
Center for Post Graduate Studies
Jayanagar 3rd Block, Bangalore

Programme Timings
8.30 am – 4.30 pm (Mon – Fri) & 8.30 am – 1.00 pm (Sat)

Course Advisor
Dr. Sudha Deshmukh
+91 99729 11288

Examinations & Assessments

1. Internal tests
2. Assignments
3. Seminar presentation
4. Preparatory theory and Practical examination
5. End term theory and Practical examination

Course Curriculum

Semester 1

- Basic Mathematics and Biostatistics
- Cell Biology and Molecular Genetics
- Molecular Biology
- General Microbiology

Learning Labs

- Cell Biology, Genetics and Molecular Biology
- General Microbiology

Semester 2

- Molecular Biophysics
- Biological Chemistry
- Immunology and Immunotechnology
- Genetic Engineering

Learning Labs

- Biological Chemistry
- Immunology, Immunotechnology & Genetic Engineering

Semester 3

- Plant Biotechnology
- Animal Biotechnology
- Computer Applications and Bioinformatics

Elective (any one)

- Environmental Biotechnology
- Enzyme Technology
- Elementary Methods in Computational Biology
- Phytochemistry and Pharmacognosy

Learning Labs

- Plant and Animal Biotechnology, Computer Applications and Bioinformatics

Elective (any one)

- Environmental Biotechnology
- Enzyme Technology
- Elementary Methods In Computational Biology
- Phytochemistry and Pharmacognosy

Semester 4

- Regulatory Requirements In Biotechnology (Bioethics, Biosafety and IPR)
- Research Methodology, Clinical Research and Database Management

Elective (any one)

- Industrial Biotechnology
- Fermented Food Technology
- Genomics & Proteomics
- Medical Biotechnology

Learning Labs - Elective (any one)

- Industrial Biotechnology
- Fermented Food Technology
- Genomics & Proteomics
- Medical Biotechnology

- Project
- Presentation & Defence
- Viva-Voce

Career Opportunities

Medical laboratory scientists, scientific officers or research and development scientists in diverse fields including, biochemistry, microbiology, molecular biology, diagnostic services and pathology services, pharmaceutical industries, forensic science laboratories, veterinary science, racing industry, agribusinesses, wine industry and breweries, biotechnology businesses, food technologists, quality assurance officers, occupational health and safety officers, scientific sales representatives/ executives, staff with science publishers, newspaper writers in this field, also PhD students in any of the above fields.