



Karunya

DEEMED UNIVERSITY

SOLVING HUMAN PROBLEMS

NAAC Accredited A++



Division of BIOTECHNOLOGY

ADMISSIONS 2024

Accreditation

ACCREDITED WITH THE HIGHEST GRADE
A++
NAAC

NBA
NATIONAL BOARD
OF ACCREDITATION

Global Rating

QS STARS RATING SYSTEM 2019 Facilities / Inclusiveness	QS STARS RATING SYSTEM 2019 Teaching
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India Rating

I-GAUGE
INDIAN UNIVERSITY RATING
DIAMOND

Global Ranking

THE World University
Rankings 2024
1201-1500 Band • 1045th Rank in Research



► About Us

The Division of Biotechnology was established in the year 2005, with the vision to raise Bio-technocrats and Entrepreneurs who develop processes and products for the betterment of the community and the environment.

The Program B.Tech. Biotechnology was accredited by NBA in 2019 and the M.Tech program in 2022. Our programs B.Tech, M.Tech. & M.Sc. are also approved by AICTE and UGC.

The Division offers a multidisciplinary curriculum which includes Trending Technologies such as Genetic Engineering, Gene Transfer, Metabolic Engineering, Cancer Management, Downstream Processing, Bioprocess Engineering, Tissue Engineering, Phytotherapeutics, Plant & Animal Tissue Culture and Nanobiotechnology.

The Division aims at raising students with academic excellence, professional competence and ethics to find solutions to human problems in areas relating to Food, Water, Health Care and Energy through scientific, social and technological research.

The graduates are well equipped to meet with the requirements of the Industry and Research organizations to pursue a career in Biotechnology.

► Programs Offered

- **B.Tech.** Biotechnology - 4 Yrs / FT
- **B.Tech.** Biotechnology (Spl. in Artificial Intelligence)- 4 Yrs / FT
- **B.Tech.** Biotechnology (Spl. in Drug Engineering) - 4 Yrs / FT
- **B.Tech.** Biotechnology (Spl. in Genome Engineering and Technology) - 4 Yrs / F
- **M.Tech.** Biotechnology - 2 Yrs / FT
- **M.Sc.** Biotechnology - 2 Yrs / FT
- **Ph.D.** Biotechnology - FT / PT

Eligibility for B.Tech Biotechnology

A pass in HSC (10 + 2) with Physics, Chemistry and Biology / Zoology / Botany / Computer Science / Agricultural Engineering with a minimum aggregate of 50% from a recognized Board or equivalent with Physics and Mathematics and any one of the following subjects:

Chemistry / Biotech / Biology / Technical Vocational Subject / Computer Science / Information Technology / Information Practices / Agriculture / Engineering Graphics / Business Studies with a minimum aggregate of 50% (overall) marks from a recognized Board.

Eligibility for B.Tech Biotechnology - Lateral Entry

Qualifying Diploma with a minimum of 50 % of marks (cumulative) or B.Sc. with a minimum aggregate of 50 % of marks.

Diploma in Chemical Engineering / Instrumentation / Food Technology / Pharmaceutical Technology / B.Sc. Life Sciences / Physics / Chemistry / Microbiology / Biotechnology / Biochemistry or Equivalent Diploma / B.Sc. Degree.

► Components of the Curriculum

As prescribed by the AICTE, curriculum includes Program Cores, Professional Electives, Soft Cores, Project Oriented Learning, Industrial Visits and Industry Internships to attain the required academic credits. The students appear for MOOC certification programs offered by NPTEL and Swayam which forms an Integral part of the curriculum.

Significant Courses aligned to the vision of the Division

- Molecular Biology and Genetic Engineering
- Cell Biology and Immunotechnology
- Plant and Animal Tissue Culture
- Bioprocess Engineering
- Tissue Engineering
- Nano Technology
- Pharmaceutical Technology
- Recombinant DNA Technology
- Entrepreneurship, IPR and Bioethics
- Food and Agricultural Biotechnology

- Algae Biotechnology
- Stem Cell Technology

The entire curriculum / syllabus of the Division can be viewed from the link:

[https:// www.karunya.edu/academics](https://www.karunya.edu/academics)  Click here

▶ Laboratories / Facilities

The Division is equipped with state-of-the-art laboratories and uses the latest technology to pursue cutting edge research in Microbiology, Immunology, Biochemistry, Molecular Biology, Genetic Engineering, Plant and Animal cell culture, Bioprocess Technology & Downstream Processing.

The Division also hosts a CCSEA approved animal house facility (1537/PO/ReBi/S/11/CPCSEA) which conducts preclinical research on experimental animals such as chicken, mice, rat, rabbit & hamster with a Small Animal Breeding Facility.

A new establishment named Centre of Excellence in Stem Cell Research has been introduced to carry out full time research in the field of Stem cells particularly in Adult Stem Cells , Biomaterials & Tissue Engineering.

▶ Thrust Areas of Research

The thrust areas of research include Bioprocess Modeling, Biomass and Bio-energy, Nutraceuticals, Phyto-therapeutics, Anticancer Research, Drug Discovery and Modeling, Bioremediation, Bio-film technology and Environmental Engineering.

▶ Funded Research Projects

The Division received research funds to the tune of Rs.3.4 crores from funding agencies like DBT (Department of Biotechnology), DST (Department of Science and Technology), DRDO (Defense Research and Development Organization), SERB (Science and Engineering Research Board), UGC (University Grants Commission), NTRF (National Tea Research Foundation) and ICSSR (Indian Council of Social Science Research) resulting in Publications, Products and Patents.



▶ Career Prospects & Higher Studies

Recruiters of our Graduates are from Pharmaceutical, Bio-processing, Food and allied industries and Core Giants which includes Bharath Serums & Vaccines Ltd., Bio-engineering & Electro Chemical Laboratory, RGCB, ICAR, Biocon, Zifo R&D solutions, Nestle, Dr. Reddy's Laboratories, Fruzyme, Bioscience Research Foundation, Steril-Gene, VWR labs, Quintiles, IQVIA, Microbiological Laboratory Pvt. Ltd, Novozymes, Bhat Biotech, Biozeen, Biozyme, Molecular Connections, Pasteur Institute of India, Plant Lipids, MedSource Ozone Pvt. Ltd. and Kothari Sugars.

The students also opt for higher studies in reputed institutions in India and abroad such as Indian Institute of Technology, National Institute of Technology, Ben Gurion University, Israel; Swinburne University, Australia; University of Sheffield, UK; Katz School of Science, New York, USA and Zuckenberg Institute of Water Research, Israel.

Our graduates availed opportunities to pursue their Post-graduation in the fields of Environmental Biotechnology, Systems Biology, Food Biotechnology, Pharmaceutical Biotechnology, Industrial Biotechnology, Medical Technology as specializations in M.Tech / MS Programs.

Institutions of Repute for Higher Studies



▶ MoU's / Collaborations / Internships

Leading industries are tied up with Division to equip faculty and students with Industrial skill sets through training and internships.

- National Dong Hwa University, Taiwan for Students / Faculty exchange.
- Maharakham University, Thailand for Students / Faculty exchange.
- Biocon, Bengaluru for internships and projects.
- Rajiv Gandhi Centre for Biotechnology, Trivandrum for Research / Training.
- M/s. Microbiological Laboratories Pvt. Ltd. for Research / Training and Placements.



Biotechnology

► Testimonial



Ms. Almi Babu

B.Tech. (2016-2020)
M.Tech. (2020-2022)



My education at Karunya Institute of Technology & Sciences was a memorable moment in my academic and professional life. I was able to pursue my B.Tech. Biotechnology and M.Tech. Biotechnology. I am especially grateful to the University for facilitating me through IAESTE to do my internship in SENAI under National Industrial Apprenticeship Service, Sao Paulo, Brazil which facilitated opportunities and connects for me to explore new horizons and broaden my perspective in the field. This experience enriched my personal and professional life, and led me to a core placement at **IFF (International Flavours and Fragrances, Hyderabad)**. I would highly recommend the University to aspirants who wish to pursue an education in the field of biotechnology.



Mr. Sai Krishna

B.Tech. (2019-2023)



My education at Karunya Institute of Technology and Sciences was indeed memorable in my academic and professional life. I pursued my B.Tech. Biotechnology from 2019-2023.

I am grateful to the University for facilitating, motivating and supporting me with well equipped laboratories and various Industrial programs. This experience enriched my personal and professional life, leading to a core placement at **BSV (Bharat serum and vaccines limited, Hyderabad)**. I would highly recommend the University to aspirants who wish to pursue an education in the field of Biotechnology.



Ms. Shanamitha

B.Tech. (2016 - 2020)
M.Tech. (2020 - 2022)



Karunya University has been instrumental in shaping my educational and professional journey. The guidance of my faculty enriched my academic excellence and they supported me in all my endeavors. I have now been placed

at **Pasteur Institute of India, Coonoor**, which is a Central Government establishment.

For candidates to pursue their academics in Biotechnology, Karunya University is surely a place to learn and get empowered!



► Noteworthy Recognition

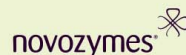
The Division holds the highest number of patents, a notable achievement indeed! A total of 26 patents have been filed and 5 patents granted.

The IAESTE-Student Exchange Program has enabled a total of 20 students to pursue research / internships / training programs in premier institutions at Germany, Brazil, Poland, Athens, Thailand and British Columbia.

The Division has recently launched a CCSEA approved Small Animal Breeding Facility for breeding and research. A prestigious facility!

Our students to take part in Research Innovation challenges conducted Nationally and won cash prizes in Ideathons & Hacathons.

► Major Recruiters



APPLY NOW

Scan QR Code to Start the Admission Process

The Head of Division
Biotechnology

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