

GVP Estd. 1988.

GVPIHLR Estd. 2026.



GAYATRI VIDYA PARISHAD INSTITUTE OF HIGHER LEARNING AND RESEARCH

(Deemed to be University under Distinct Category
under section 3 of the UGC Act, 1956)

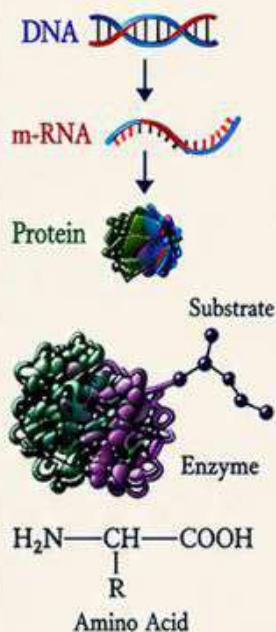
Kommadi, Madhurawada, Visakhapatnam - 530 048, Andhra Pradesh

School of Sciences

(GVPIHLR-SOUTHEAST CAMPUS, Rushikonda)

B.Sc, Bioinformatics with Artificial Intelligence

(A Four-Year Honors Undergraduate Program/Five-Year Integrated Program
with multiple entry and multiple exit option)



VISION



GVPIHLR envisions
'Creating Human Excellence
for a better society through
holistic and multidisciplinary
education.'

MISSION



At GVPIHLR, our mission is
propelled by an unwavering
dedication to achieving human
excellence and contributing to a
better society through a holistic
and multidisciplinary approach
to education.



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www.gvpilhr.in

About GVPIHLR

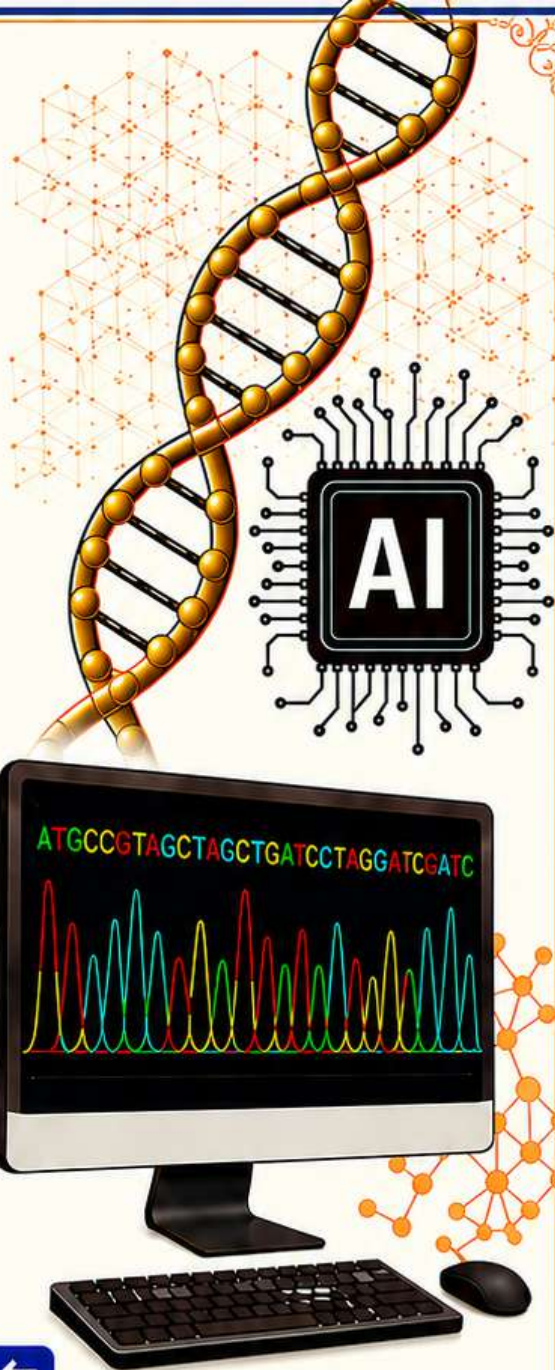
Gayatri Vidya Parishad (GVP) is established in 1988 with a service motive, committed to develop education in India. The basic aim is

- *"to promote, establish, maintain and assist or aid in maintaining educational and other institutions with a view to impart education in all branches in general and in Advanced Technology, Management, Education and Science (including Healthcare) in particular and thus to facilitate securing gainful employment for the youth of the country."*

In line with this and in tune with National Educational Policy 2020, the GVP established Gayatri Vidya Parishad Institute of Higher Learning (GVPIHLR), a deemed to be university under distinct category that promotes integration of Multidisciplinary, Interdisciplinary and Transdisciplinary fields. It enables the blend of ancient wisdom and traditional values with modern science and technology for the health and well-being of the society among the youth.

GVPIHLR provides students with an integrated learning experience that transcends conventional disciplinary boundaries and offers abundant opportunities for academic exploration, innovation, and holistic development. It will foster multidisciplinary and transdisciplinary education and research through flexible curricular structures that enable students to creatively combine diverse disciplinary areas of study and pursue emerging areas of knowledge in multidisciplinary contexts.

Through this integrated academic ecosystem, GVPIHLR enable learners attain critical thinking, creativity, innovation, collaboration, and problem-solving, while drawing upon the strengths of diverse disciplines to address complex societal challenges and contribute meaningfully to the advancement of knowledge and the well-being of society.



→ SCHOOLS UNDER GVPIHLR ←

- School of Arts and Humanities
- School of Commerce and Management
- School of Chemical, Mechanical and Civil Engg.
- School of Computer Science and Engg.
- School of Electrical and Electronics Engg.
- School of Sciences

UNDERGRADUATE AND POST GRADUATE PROGRAMME

UNDERGRADUATE HONORS PROGRAMS UNDER SCHOOL OF SCIENCES:

AICTE–

Four-Year Undergraduate Honors Program

- BCA (Hons)–Bachelor of Computer Applications

UG

Four-Year Honors / Five-Year Integrated Program

- B.Sc.(Hons.) Computer Science and Artificial Intelligence
- B.Sc (Hons) Embedded Electronics and Artificial Intelligence
- B.Sc. (Hons) Quantum Computing and Artificial Intelligence
- B.Sc. (Hons) Bioinformatics with Artificial Intelligence
- B.Sc. (Hons) Statistics and Data Science
- B.Sc. (Hons.) Mathematics and Computer Science
- B.Sc. (Hons) Statistics and Quantitative Methods
- B.Sc. (Hons) Chemistry and Pharmaceutical Applications

POSTGRADUATE PROGRAMS UNDER SCHOOL OF SCIENCES

AICTE – Two-Year Postgraduate Program

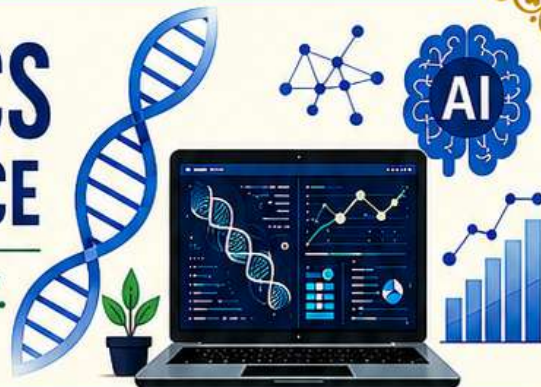
- MCA – Master of Computer Applications
Two-Year Postgraduate Program
- M.Sc. (CS & AI) – Master of Science in
Computer Science and Artificial Intelligence
- M.Sc. – (OC-DD) Master of Science in
Organic Chemistry with Drug Design and Synthesis



Advanced programs fostering innovation, research excellence, and industry-ready professionals.

B.Sc. BIOINFORMATICS WITH ARTIFICIAL INTELLIGENCE

WHERE BIOLOGY MEETS DATA. AI DRIVES DISCOVERY.



ABOUT THE PROGRAMME

Bioinformatics with Artificial Intelligence (AI) is one of the fastest-growing career domains today, seamlessly integrating Biology, Computer Science, Data Science, and AI.

This program equips students with a strong foundation in life sciences while providing hands-on training in programming, bioinformatics tools, machine learning, genomics, proteomics, biological databases, and data analysis.

Students gain practical experience through laboratory sessions, research projects, internships, and industry interactions, enabling them to solve real-world biological problems using modern computational technologies.

The curriculum promotes critical thinking, innovation, and research to meet the challenges of the rapidly evolving biotechnology and healthcare sectors.



PROGRAMME OBJECTIVES

- To build a strong interdisciplinary foundation by integrating biology, computer science, data science, and artificial intelligence.
- To develop practical, job-ready skills in bioinformatics tools, programming, and machine learning for careers in pharma, genomics, and healthcare.
- To nurture a research mindset that encourages curiosity, critical thinking, and problem-solving in real biological contexts.
- To empower students with the confidence and skills needed for innovation and entrepreneurship in biotech and AI-driven ventures.
- To prepare graduates for higher studies such as M.Sc., MTech, MBA, or Ph.D., in India and abroad.



VISION

To become a center of excellence in interdisciplinary education by producing globally competent professionals in bioinformatics and artificial intelligence.



MISSION

To deliver high-quality education in life sciences and computational biology by integrating AI technologies, driving research, innovation, and entrepreneurship, and building strong collaborations with industry and research organizations.



WHY STUDY BIOINFORMATICS WITH ARTIFICIAL INTELLIGENCE? @GVPIHLR



The program offers an industry-oriented curriculum with AI-integrated bioinformatics education, designed to keep pace with real-world demands.



Students train in modern computer and biotechnology laboratories under experienced faculty with interdisciplinary expertise.



Hands-on training in bioinformatics software is paired with machine learning and data science applications throughout the coursework.



Learning extends beyond the classroom through research projects, internships, industry interaction, and expert lectures.



Students receive dedicated career guidance and placement support, along with opportunities for innovation and entrepreneurship.

PROGRAMME FEATURES



Discipline Specific Core



Discipline Specific Electives



Skill Enhancement Courses



Value Added Courses



Multidisciplinary Courses



Ability Enhancement Courses



Social Immersion Project



Internships/Academic Projects



Multiple Entry/ Exit flexibility as per the NEP 2020



BE A PART OF THE FUTURE OF BIOLOGY AND TECHNOLOGY.
Learn. Innovate. Discover. Impact Lives.



CURRICULUM OVERVIEW



CORE COURSES

- | | |
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| <ul style="list-style-type: none"> • Fundamentals of Mathematics • Chemistry of Biomolecules • Microbiology and Microbial diversity • Cellbiology and Genetics • Bioanalytical Techniques • Immunology • General Chemistry • Molecular Biology • Genetic Engineering • Omics Technologies in biology | <ul style="list-style-type: none"> • Introduction to Computers and Office Applications • Introduction to bioinformatics • Introduction to Statistics • Introduction to Artificial Intelligence • Probability and Inferential Statistics • Fundamentals of Linux for bioinformatics • Python Programming • R Programming for bioinformatics |
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THE ELECTIVE BASKETS

• BIOLOGY ELECTIVE BASKET

- Enzymology and Metabolism
- Microbial Physiology and Metabolism
- Structural Bioinformatics and Molecular Modelling
- Microbiome and Metagenomics
- Cell Signaling and Cancer Biology
- Medical Microbiology
- Research Methodology and Academic Writing
- Bio Safety, Bio Ethics and IPR

• COMPUTERS & ARTIFICIAL INTELLIGENCE ELECTIVE BASKET

- Algorithms in Bioinformatics
- Exploratory Data Analysis & Data Visualization
- Data Science for Bioinformatics
- Data Mining for Bioinformatics
- Machine Learning for Bioinformatics
- Medical and Health Informatics
- AI in Drug Discovery
- Artificial Intelligence in Next Generation Sequencing Analysis

How this program benefits you?



**PRACTICAL
TECHNICAL SKILLS**



**ASSISTS IN
HEALTHCARE
INNOVATION**



**INTERDISCIPLINARY
INTEGRATION**



**CAREER
READINESS**

CAREER AVENUES



Pharma &
Biotech
Industry



Healthcare
& Clinical
Research



IT & Data
Science
Sector



Research &
Government
Sector



Higher
Education
& Academia

HIGHER STUDIES & RESEARCH



Postgraduate Programs
M.Sc., M.Tech., MBA, M.Sc. Bioinformatics,
Data Science, AI in Health, etc.



Ph.D. & Research
Opportunities for Ph.D. in Bioinformatics,
Computational Biology, Genomics, AI in
Healthcare and related fields.

PAST RECRUITERS

Reddy Laboratories

Matrix Labs Pvt.Ltd.

Wipro

Divis Laboratories

Indian Immunological Limited

LEARNING BEYOND CLASSROOMS



Laboratory Training
& Workshops



Research Projects
& Internships



Guest Lectures by
Industry Experts



NCC / Army Wing /
Air Wing



National Service
Scheme (NSS)

ELIGIBILITY CRITERIA: Intermediate (10+2),
Physics, Chemistry, Biology/Mathematics (M.Bi. P.C)