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. (Hons) Chemistry and Pharmaceutical Applications

A Four-Year Undergraduate Honors Program / Five-Year Integrated Program with multiple entry and 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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SCAN TO APPLY

B.Sc. (Hons)
Chemistry and Pharmaceutical Applications

A Four-Year Undergraduate Honors Program / Five- Year Integrated Progran with Multiple Entry and Exit Option

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

PROGRAMS UNDER SCHOOL OF SCIENCES

UNDERGRADUATE HONORS PROGRAMS

AICTE – FOUR YEAR UNDERGRADUATE HONORS PROGRAM

- BCA (Hons)-Bachelor of Computer Applications

UG FOUR YEAR HONORS / FIVE YEAR INTEGRATED PROGRAMS

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

POSTGRADUATE PROGRAMS

AICTE – TWO YEAR POSTGRADUATE PROGRAMS

- MCA -Master of Computer Applications-

TWO YEAR POSTGRADUATE PROGRAMS

- M.Sc. (CS & AI) Master of Science in Computer Science and Artificial Intelligence
- M.Sc. (OC-DD) Master of Science in Organic Chemistry - Drug Design & Synthesis

B.Sc. (Hons.)
CHEMISTRY AND PHARMACEUTICAL APPLICATIONS

(A Four Year Undergraduate Honors Program / Five Year Integrated Program with multiple entry and exit options

PROGRAM AT A GLANCE

- B. Sc. (Hons) in Chemistry and Pharmaceutical Applications is a new undergraduate programme designed to meet the Pharmaceutical industrial skills and core chemistry theoretical excellence.
- It is combination of modern chemistry and pharmaceutical applications which offer students comprehensive understanding of both the theoretical foundations and practical applications in pharmaceutical industry.
- The curriculum uniquely balances core scientific subjects, such as General Chemistry, Inorganic Chemistry, Organic Chemistry and Physical Chemistry, also a foundational core with elective subjects on Pharmaceutical Manufacturing, Quality Assurance, Quality Control.
- This programme also focuses on computational disciplines like Python Programming, Foundations to Bioinformatics, and Data Analytics.

Graduates of this program have immense opportunities to enter the Pharmaceutical companies and gain higher positions.

VISION

To nurture high-Caliber Chemistry professionals equipped with ethical values and scientific excellence for a better society.

MISSION

To be a premier center for industry-ready Chemistry graduates equipped with deep theoretical knowledge, advanced analytical and computational skills, and an in-depth understanding of pharmaceutical applications.

ELIGIBILITY

Intermediate (10+2) with Physics, Chemistry and Biology (MPC/BiPC)

KEY SKILLS DEVELOPED

- Practical knowledge on Quality Assurance and Quality Control
- HPLC
- Complaints handling in Pharma
- Chromatography techniques
- CAPA Management
- Pharmaceutical packing
- Production planning, control and Quality

WHY CHOOSE THIS PROGRAM?

- Pharma-Expert Approved Curriculum
- Highly Qualified Faculty
- Industrial exposure
- Enhances theoretical and practical knowledge for employability in pharma sector

STRATEGIC LOCATION ADVANTAGE: VISAKHAPATNAM

Located in a thriving hub of pharmaceutical MNCs, offering students immediate proximity to industry leaders like Dr. Reddy's, Pfizer, Aurobindo Pharma, and Laurus Labs.

STATE-OF-THE-ART LABORATORIES

Well-equipped laboratories to provide hands-on experience in:

- ORGANIC CHEMISTRY LAB
- INORGANIC CHEMISTRY LAB
- PHYSICAL CHEMISTRY LAB
- ANALYTICAL CHEMISTRY LAB
- INSTRUMENTATION LAB

PROGRAMME OBJECTIVES

1. Build strong knowledge of core chemistry and pharmaceutical applications.
2. Apply laboratory and analytical techniques to solve chemistry and pharma problems.
3. Use Python, bioinformatics, and data analytics for scientific data interpretation.
4. Understand pharma quality, regulatory, documentation, and production practices.
5. Develop skills for higher studies, entrepreneurship, and pharma-sector careers.

KEY FOCUS AREAS

1. **ORGANIC CHEMISTRY** — Synthesis, reaction mechanisms and natural product chemistry.
2. **INORGANIC CHEMISTRY** — Coordination compounds, solid state, bioinorganic chemistry.
3. **PHYSICAL CHEMISTRY** — Thermodynamics, electrochemistry, kinetics, quantum chemistry.
4. **ANALYTICAL CHEMISTRY** — Advanced instrumentation techniques, spectroscopy.
5. **PHARMACEUTICAL INDUSTRY** — Drug discovery, formulation, quality control and regulatory affairs.

B.SC. (HONS) CHEMISTRY AND PHARMACEUTICAL APPLICATIONS

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

What you learn after joining B.Sc. (Hons) Chemistry and Pharmaceutical Applications Prgoram in GVPIHLR

- General Chemistry
- Chemistry of the Elements and Metallurgy
- Introduction to Computers and Office Applications
- Chemistry of Hydrocarbons and stereochemistry
- States of Matter
- Coordination Chemistry
- Chemistry of Organic Functional Groups
- Python Programming
- Ionic Equilibrium and Thermodynamics
- Water for Pharmaceutical use
- Foundations to Bioinformatics
- Pharmaceutical Packaging
- Organic Spectroscopy
- Pharmaceutical Regulatory Affairs
- Data Analytics using Python
- Reporting Review and CAPA Management

PROGRAMME FEATURES

- Skill enhancement Courses
- Value added
- Multidisciplinary
- Ability Enhancement
- Social Immersion Project
- Internships
- Academic Projects
- Multiple exit options available

DISCIPLINE SPECIFIC ELECTIVES: BLEND OF CHEMISTRY AND PHARMACEUTICAL COURSES

CHEMISTRY ELECTIVES	PHARMACEUTICAL ELECTIVES
Quantitative analysis and separation techniques	General concept of Pharmacology
Chromatography and spectrophotometry	Pharmaceutics
Synthetic Organic Chemistry	Pharmaceutical Quality Assurance
Advanced Organic Reactions	Standards of Quality and Auditing
Coordination Chemistry–Reaction Mechanism	Complaints Handling and Production Recall
Organo-metallic compounds	Documentation for Production Control and Quality
Modern Organic synthesis and Disconnection approach	Production Planning
Chemistry of Natural Products.	Environmental Health and Safety

CAREER PATHWAYS

- Quality Assurance
- Quality Control
- Production, in pharmaceutical industry
- Computational Chemist
- Teaching
- Government sector.

HIGHER STUDIES

M.Sc. • MS (abroad) • Ph.D.

GVP PAST RECRUITERS

- Dr. Reddy's
- Pfizer
- Aurobindo Pharma
- Ajinomoto
- aigen
- NACL
- Granules
- Laurus Labs
- Divis labs
- PharmaZel

ROLES OF DISTINGUISHED GVP ALUMNI

- Quality control analyst
- Quality Assurance manager
- Production manager
- Packing manager
- Lecturer and Assistant Professor

LEARNING BEYOND THE CLASSROOM

Laboratory Training | Projects | Internships | Workshops | Guest Lectures

(Army Wing or Air Wing) | NSS

CONTACT
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