

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 Honors Statistics and Data Science

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



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Vision

: Creating Human Excellence for a better society through holistic and Multidisciplinary education.



Mission

: 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

GVPIHLR

SCHOOL OF SCIENCES

B.Sc. (Hons) Statistics and Data Science

"Where there is data, there is a story where there is Statistics, there is Truth"



B.SC.(Hons) STATISTICS AND DATA SCIENCE

About GVPIHLR

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

"to promote, establish, maintain and assist or aid in maintaining educational and other institutions with a view to imparting 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 the National Educational Policy 2020, the GVP established the 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 a blend of ancient wisdom and traditional values with modern science and technology for the health and well-being of the society and 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 fields of knowledge in multidisciplinary contexts.

Through this integrated academic ecosystem, GVPIHLR enables learners to 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 society well-being

SCHOOLS UNDER GVPIHLR:

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

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-)**

B.SC.(HONORS) STATISTICS AND DATA SCIENCE



PROGRAM VISION

To be a recognized centre of excellence that trains students to think statistically, reason computationally and translate data into responsible, evidence-based decisions – producing graduates who are equally at home with theory, coding and real-world data.



PROGRAM MISSION

To impart rigorous training in probability, inference, mathematical statistics and data science methodology.

To provide extensive practical exposure using cutting-edge statistical software and computational platforms.

To foster an ecosystem of research, industry collaboration, hackathons and multi-disciplinary innovations



ABOUT PROGRAM

- ▶ The Gayatri Vidya Parishad Visakhapatnam established the Statistics Department in 1989. It has been progressing tremendously and is today one of the main departments in Gayatri, contributing significantly to the other departments.
- ▶ Highly qualified and experienced faculty.
- ▶ Modern laboratories and learning facilities.
- ▶ Active research projects and workshops.
- ▶ Strong industry collaborations and innovation.
- ▶ Promotes creativity, entrepreneurship, and lifelong learning.



PROGRAMME OUTCOMES

WHY BSC STATISTICS AND DATA SCIENCE

- ▶ To build a strong foundation in probability, statistical inference and mathematical reasoning.
- ▶ To develop proficiency in programming (Python, R) and database management for large-scale data handling.
- ▶ To train students in machine learning, artificial intelligence and modern data visualization tools.
- ▶ To cultivate a research temperament through projects, internships, apprenticeships and a final-year dissertation.
- ▶ To connect classroom learning with industry, government and research organisations through structured internships.



PROGRAMME ELEMENTS

- ▶ DISCIPLINE SPECIFIC CORE
- ▶ DISCIPLINE SPECIFIC ELECTIVES
- ▶ SKILL ENHANCEMENT COURSES
- ▶ VALUE ADDED COURSES
- ▶ MULTIDISCIPLINARY COURSES
- ▶ ABILITY ENHANCEMENT COURSES
- ▶ SOCIAL IMMERSION PROJECTS
- ▶ INTERNSHIPS
- ▶ ACADEMIC PROJECTS

LEARNING BEYOND THE CLASSROOM



Laboratory
Training



Projects



Internships



Workshops



Guest
Lectures,



NCC
(Army Wing or
Air Wing)



NSS

B.SC.(Honors) STATISTICS AND DATA SCIENCE

How This Programme Benefits You

Build a strong Statistical and Data Science foundation.

Career opportunities for innovation.

Opens doors in the government and private sectors.

CORE SUBJECTS

STATISTICS

PROBABILITY THEORY & RANDOM VARIABLES
DESCRIPTIVE STATISTICS
STATISTICAL METHODS
THEORETICAL PROBABILITY DISTRIBUTIONS
INFERENTIAL STATISTICS
APPLIED STATISTICS
SAMPLING TECHNIQUES AND DESIGN OF EXPERIMENTS
OPERATION RESEARCH
RESEARCH METHODOLOGY

DATA SCIENCE

Introduction to Computers and Office Applications
Introduction to Artificial Intelligence
FUNDAMENTAL OF MATHEMATICS IN COMPUTING 1
Python Programming
Database Management System
Data Analytics using Python
R Programming for Data Science
Data Visualization using MS Excel
FUNDAMENTAL OF MATHEMATICS IN COMPUTING 2

ELECTIVE BASKETS

STATISTICS

INDUSTRIAL STATISTICS
LINEAR ALGEBRA
APPLIED REGRESSION ANALYSIS
NUMERICAL ANALYSIS
OPTIMIZATION TECHNIQUES
STOCHASTIC PROCESSES
ECONOMETRIC METHODS
DEMOGRAPHY

DATA SCIENCE

Machine Learning
Generative AI and Prompt Engineering
Big Data Analytics
Data Wrangling
Power BI for Data Analytics
Tableau for Data Analytics
Computer Vision
Information Retrieval System

CAREER PATHWAYS

CAREER OPPORTUNITIES

DATA ANALYTICS & BUSINESS INTELLIGENCE
DATA SCIENCE & MACHINE LEARNING
RESEARCH & GOVERNMENT
HEALTHCARE & PHARMACEUTICALS
FINANCE & BANKING

HIGHER EDUCATION

M.Sc. STATISTICS
M.STAT AT ISI KOLKATA
M.TECH DATA SCIENCE
M.Sc. DATA SCIENCE

GVP PAST RECRUITERS.

TCS
INFOSYS
ACCENTURE
WIPRO
COGNIZANT
DELOITTE
LTI MINDTREE

ROLES OF OUR DISTINGUISHED ALUMNI

STATISTICAL ANALYST
AI AND DATA ENGINEER
DATA ENGINEER
DATA ANALYST
ANALYST INFRASTRUCTURE SERVICES
APPLICATION SPECIALIST
GRADUATE ENGINEER TRAINEE ROLE

ELIGIBILITY

Intermediate or (10+2)

Mathematics as one of the subjects