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## PROF. G. RAM REDDY CENTRE FOR DISTANCE EDUCATION

(Recognized by the Distance Education Bureau, New Delhi.)

**OSMANIA UNIVERSITY, HYDERABAD – 500 007 Telangana State INDIA**

(A University with Potential for Excellence and re-accredited by NAAC with 'A+' grade)

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### **Advanced Diploma in Bioinformatics**

Prof. G. Ram Reddy Centre for Distance Education, Osmania University, Hyderabad, invites applications for its **one-year (two-semester) Advanced Diploma in Bioinformatics**, a program designed to meet the rapidly growing demand for skilled professionals in one of today's most dynamic and interdisciplinary fields.

**About the Course:** Bioinformatics has become the **backbone of modern drug discovery, genetic research, and precision medicine**, offering a unique integration of **biology, medicine, statistics, and computer science**. With the explosion of biological big data from high-throughput technologies (like next-generation sequencing), industries across the globe — from **pharmaceuticals and chemical sciences to AI-driven health technologies** — are seeking bioinformatics experts. This program provides **blend of theoretical knowledge and practical skills**, tailored to prepare students for opportunities both **in India and abroad**, in sectors such as **Pharmaceutical and Drug Development Industries, Genomics and Medical Research, Artificial Intelligence and Machine Learning in Healthcare, Biotechnology and Vaccine R&D, Clinical Informatics and Computational Biology, and Academic and Government Research Institutions**.

**Curriculum Highlights:** To match the latest industry and research needs, the curriculum has been **comprehensively updated** and includes: **(1) Drug Discovery and Development Modules:** Explore molecular modeling, pharmacogenomics, and systems biology-based drug design. **(2) Hands-on Python and R Programming:** Practical training in bioinformatics scripting, data analysis, and visualization. **(3) AI and Machine Learning in Bioinformatics:** Learn real-world applications of ML algorithms in gene expression analysis, disease prediction, and omics integration. **(4) Biological Databases, Algorithms, and Software Tools:** Build expertise in using key bioinformatics resources. **(5) Project-Based Learning:** Apply your skills to solve real-life biological and medical data problems.

**Career:** Graduates of this program are well-positioned for roles in: **Pharmaceutical and biotech companies, Hospitals and clinical research organizations, Academic and government R&D labs, Health informatics, MNC Software companies with bioinformatics and AI-based startups.**

**Eligibility:** Students who have passed their **B.Sc. / B. Pharmacy / B.Sc.(Ag.) / M.B.B.S / B.V.Sc./ BDS/ BHMS / BAMS / BUMS / BE / B.Tech / M.Sc./ M.Tech. / M.C.A. / Degree in Hospital Management / Degree in Physiotherapy / Ph.D.** etc., with 50% marks are eligible to apply.

**Duration:** One year (Two Semesters)

**Course Fee** : Rs. 32,000/- (Two semesters. 16000/- per semester)

**For further details visit** : [www.oucde.net](http://www.oucde.net)

Admissions start from : 07 – 07 – 2025

Last date of admissions : 15 – 09 – 2025

**Director**