



SAARTHI - सारथी

करियर मार्गदर्शन पोर्टल · Career Guidance Portal

"सही मार्गदर्शन, उज्ज्वल भविष्य।"

करियर शीट · CAREER SHEET

बायोइन्फॉर्मेटिक्स इंजीनियरिंग

Bioinformatics engineers combine biology and computing - analysing DNA, gene and protein data to help discover new medicines and treatments. It is a fast-growing modern field.



Scan for everything on this career

Salary, exams, colleges, the routes in and the steps after — all on the portal.

career.gsssjethantri.in/#/career/eng-4670

राजकीय उच्च माध्यमिक विद्यालय, जेठन्तरी

Govt. Sr. Sec. School, Jethantri · ब्लॉक समदड़ी · बालोतरा (Block Samdari · Balotra)

www.gsssjethantri.in · career.gsssjethantri.in



सुशील कुमार शर्मा

प्रधानाचार्य, रा.उ.मा.वि. जेठन्तरी · मास्टर ट्रेनर
Principal, GSSS Jethantri · Master Trainer



श्री चेनाराम चौधरी

प्रधानाचार्य, डाइट बाड़मेर
Principal, DIET Barmer



श्रीमती संघमित्रा

वरिष्ठ व्याख्याता, डाइट बाड़मेर (सहयोग)
Sr. Lecturer, DIET Barmer (Support)



भरत चौधरी

अभिकल्पना व विकास · व्याख्याता (इतिहास)
Designed & developed · Lecturer (History)

विशेष धन्यवाद · SPECIAL THANKS



सुरेन्द्र सिंह राठौड़

व्याख्याता (इतिहास) · रा.उ.मा.वि. कानाना



सुरेश कुमार सैन

व्याख्याता (भूगोल) · रा.उ.मा.वि. रामसीन मूंगड़ा



वनिता कुमारी

व्याख्याता (इतिहास) · रा.उ.मा.वि. रामसीन मूंगड़ा



कमलेश चौधरी

व्याख्याता (राजनीति विज्ञान) · रा.उ.मा.वि. टापरा

करियर मार्गदर्शन कार्यशाला, डाइट बाड़मेर (14-17 जुलाई 2026) में विकसित व लोकार्पित
Developed & unveiled at the Career Guidance Workshop, DIET Barmer (14-17 July 2026)

यह एक स्वतंत्र परियोजना है, जो सरकार की आधिकारिक करियर-मार्गदर्शन सामग्री पर आधारित है। · An independent project based on the Government's official career-guidance content.

1 About this career

Bioinformatics engineers combine biology and computing - analysing DNA, gene and protein data to help discover new medicines and treatments. It is a fast-growing modern field.

2 At a glance

Minimum qualification	12th (PCB/PCM) + B.Tech/B.Sc in Bioinformatics/Biotech
Work mode	Lab and computer based; usually 5-6 days
Demand	Growing - in genomics, drug research and AI
Top earning	Senior/lead scientist: Rs 1-2.5 lakh+/month

3 What you need

INTERESTS

- Interest in science and mathematics
- Working with computers and data
- Enjoy experimenting and research

ABILITIES

- Logical and critical thinking
- Learning new tools quickly
- Attention to detail

KEY SKILLS

- Programming (Python, R)
- Data analysis and statistics
- Database management
- Understanding of biology and genetics
- Bioinformatics tools (BLAST etc.)
- Basic machine learning

4 How to get there

- 1 Pass 10+2 in science (Physics, Chemistry, Biology/Maths).
- 2 Clear JEE Main/REAP or an institute test for B.Tech/B.Sc in Bioinformatics/Biotech.
- 3 Build strong programming and lab skills.
- 4 Take part in research projects and internships.
- 5 Do M.Tech/M.Sc or PhD to specialise.

MAIN EXAMS

- JEE Main
- BITSAT
- REAP (Rajasthan)
- GATE (Biotech/CS)

5 Where to study

GOVERNMENT INSTITUTES

- MNIT Jaipur — Jaipur, Rajasthan (<https://www.mnit.ac.in>)
- University of Rajasthan — Jaipur, Rajasthan
- IGNOU (distance) — Distance learning (<https://www.ignou.ac.in>)
- Andhra University College of Engineering — Visakhapatnam
- Government Holkar Science College — Indore

PRIVATE INSTITUTES

- Manipal University Jaipur — Jaipur, Rajasthan
- Amity University — Jaipur, Rajasthan
- St. Xavier's College — Mumbai

ONLINE

- NPTEL/SWAYAM (Bioinformatics) — Online (<https://nptel.ac.in>)
- Coursera (Bioinformatics) — Online

FEES

About Rs 40,000-1.5 lakh in government institutes and Rs 1.5-3.25 lakh in private ones (full course); varies by institute.

SCHOLARSHIPS

- National Scholarship Portal (<https://scholarships.gov.in>)
- Vidya Lakshmi Education Loan Portal (<https://www.vidyalakshmi.co.in>)
- Buddy4Study (<https://www.buddy4study.com>)
- SJE Rajasthan Scholarships (<https://sje.rajasthan.gov.in>)

6 What the work is like

WHERE YOU WORK

Universities and research labs, pharma and biotech firms, hospital-genomics labs, IT-health startups.

WORK CULTURE

Usually 5-6 days, 8-9 hours; both lab and desk work. Opportunities exist for persons with disabilities.

WHO HIRES

- | | |
|----------------------------------|--|
| • Biotech and pharma companies | • CSIR and research institutes (IGIB etc.) |
| • Genomics/diagnostics companies | • Hospitals and medical colleges |
| • IT-healthcare companies | • Universities and startups |

DEMAND (2026)

Demand for skilled bioinformaticians is rising fast in 2026 as genomics, personalised medicine and AI-driven drug research grow.

7 Career growth

- 1 Bioinformatics Research Trainee
- 2 Bioinformatics Engineer
- 3 Research Lead
- 4 Senior Bioinformatics Engineer
- 5 Head of Bioinformatics

EARNINGS

Starting	₹25,000-45,000
Mid level	₹60,000-1,20,000
Senior level	₹1,50,000-2,50,000+

Monthly pay; varies by skill, degree and company. 2026 levels, indicative.

8 The good parts · The challenges

The good parts

- Modern, fast-growing field
- Meaningful contribution to research and health
- Good abroad and research opportunities

The challenges

- Higher degrees often required
- Constant learning of new tools
- Limited entry-level jobs in India

9 Real-life journeys

Samir K. Brahmachari

Genomics scientist, founder-director of CSIR-IGIB

A biophysicist, Samir Brahmachari built India's genomics and bioinformatics base, founded CSIR-IGIB and became Director General of CSIR. He led the Open Source Drug Discovery movement.

Wikipedia · https://en.wikipedia.org/wiki/Samir_K._Brahmachari

Bani Jolly

Senior Scientist (genomics), bioinformatics researcher

After an engineering degree, Bani Jolly earned a PhD in bioinformatics from CSIR-IGIB and worked on COVID genome surveillance; she now researches cancer and pathogen genomics.

banijolly.github.io · <https://banijolly.github.io/>

10 Sources & further reading

1. Rajasthan Career Guidance: Bioinformatics Engineering — <https://cg.rajasthan.gov.in/careerguidance/hi/career/%e0%a4%ac%e0%a4%be%e0%a4%af%e0%a5%8b%e0%a4%87%e0%a4%a8%e0%a4%ab%e0%a5%89%e0%a4%b0%e0%a4%ae%e0%a5%88%e0%a4%9f%e0%a4%bf%e0%a4%95%e0%a5%8d%e0%a4%b8-%e0%a4%87%e0%a4%82%e0%a4%9c%e0%a5%80%e0%a4%a8%e0%a4%bf/>
2. AICTE — <https://www.aicte-india.org>
3. NPTEL (free online courses) — <https://nptel.ac.in>
4. National Career Service (NCS) — <https://www.ncs.gov.in>



And 770+ more careers — the whole portal

Interest and aptitude tests, government jobs, skill courses and a CV builder — free, no login, and it works offline.

career.gsssjethantri.in