



DREAMWORKS



Career Development Club

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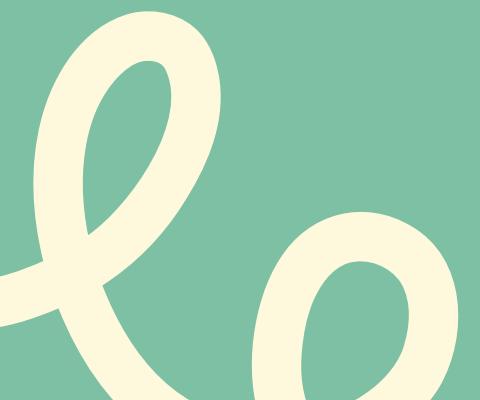
DreamWorks

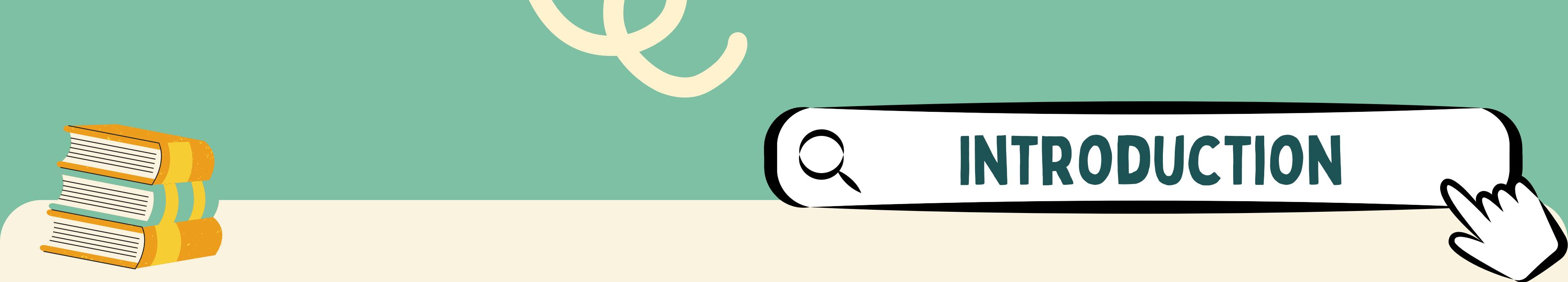
Let your Dreams work for you.





SCIENCE(PCB)





INTRODUCTION

PCB – Physics, Chemistry, and Biology– is a popular choice among students who are interested in life sciences, healthcare, and biological research.

Minimum Marks Required (as per school policy):

Each school sets its cut-off based on availability and demand, but typical criteria include:

- Subject Minimum Percentage (Typical Range)
- Science 75% – 85% or higher
- Math (sometimes) 60% – 70% (if school requires it)
- Overall percentage 70% – 85% aggregate





Career Paths IN SCIENCE (PCB)

DreamWorks

Let your Dreams work for you.



CAREER OPTIONS

MEDICINE

FORENSIC SCIENCE

BIOHACKER

WILDLIFE BIOLOGIST

MARINE BIOLOGIST

SCIENTIFIC
ILLUSTRATOR

NUTRITIONIST

BIOMIMCRY

ASTRO BIOLOGY

MEDICAL PHYSICIST

ECOLOGIST

GENETICIST



CAREER OPTIONS

PHARMACIST

AUDIOLOGIST

PATHOLOGIST

MEDICAL WRITER

NANOTECHNOLOGIST

ZOOLOGIST

BOTANIST

CONSERVATION
SCIENTIST

URBAN PLANNER

COSMETIC CHEMIST

MEDICAL CODER

SUSTAINABILITY
EXPERT



CAREER OPTIONS

AGRICULTURAL
SCIENTIST

COMPUTATIONAL
BIOLOGIST

MEDICAL LAB
TECHNICIAN

NEURO SCIENTIST

RADIOGRAPHER

BIOMEDICAL
ENGINEER

PHYSIOTHERAPIST

BIOTECHNOLOGIST

MICROBIOLOGIST

ENVIRONMENTAL
CONSULTANT

RENEWABLE ENERGY
SPECIALIST

CLIMATE CHANGE
ANALYST



CAREER OPTIONS

WASTE MANAGEMENT SPECIALIST

CLIMATE CHANGE ANALYST

ECO TOURISM PLANNER

WATER RESOURCE MANAGEMENT SPECIALIST

POLYMER CHEMIST

QUALITY CONTROL CHEMIST

FOOD TECHNOLOGIST

MEDICAL CODER

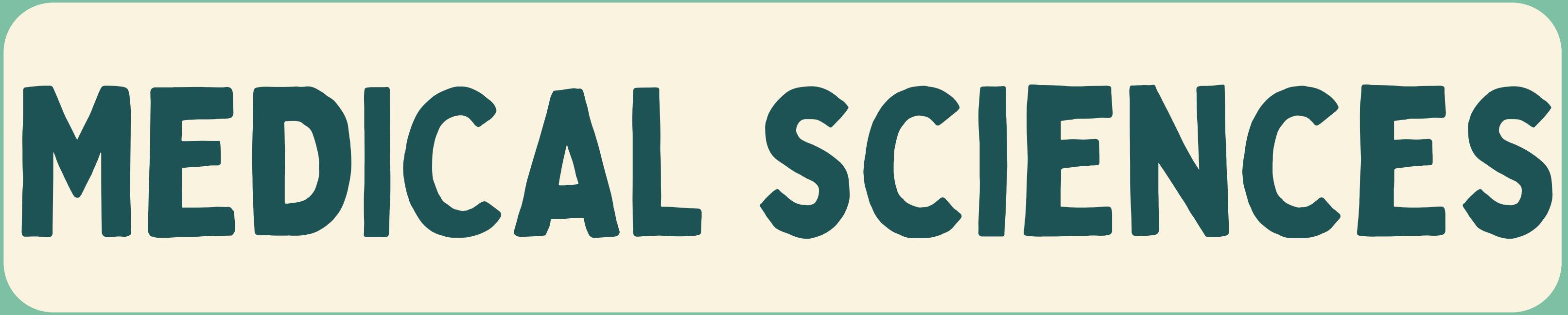
HEALTHCARE DATA ANALYST

BUSINESS INTELLIGENCE ANALYST

SCIENCE JOURNALIST / EDITOR

SCIENTIFIC PATENT ANALYST





MEDICAL SCIENCES



CAREERS IN MEDICAL SCIENCES

System of Medicine	Description	Courses	Entrance Exams
Allopathic (Modern Medicine)	Modern system of medicine using drugs and surgery to treat symptoms and diseases.	MBBS (Bachelor of Medicine and Bachelor of Surgery)	NEET-UG (National Eligibility cum Entrance Test)
Ayurvedic	Traditional Indian system focusing on balance of body, mind, and spirit using herbs.	BAMS (Bachelor of Ayurvedic Medicine and Surgery)	NEET-UG
Homeopathic	Uses highly diluted natural substances to trigger the body's self-healing response.	BHMS (Bachelor of Homeopathic Medicine and Surgery)	NEET-UG
Siddha	Ancient Tamil medical system using herbs, minerals, and lifestyle practices for healing.	BSMS (Bachelor of Siddha Medicine and Surgery)	NEET-UG (mostly for Tamil Nadu colleges)
Unani	Greco-Arabic medicine based on balancing bodily humors for health and treatment.	BUMS (Bachelor of Unani Medicine and Surgery)	NEET-UG
Naturopathy	Drugless healing system promoting natural therapies like diet, fasting, and massage.	BNYS (Bachelor of Naturopathy and Yogic Sciences)	Varies by institute; some accept NEET-UG , others have institutional exams
Yoga	Mind-body practice combining physical postures, breathing, and meditation for wellness.	BNYS or B.Sc. in Yoga, B.A. in Yoga	CUET-UG, university-specific entrance tests

CAREERS IN MEDICAL SCIENCES

Career	Description	Courses	Entrance Exams
Dentist	Specializes in diagnosis and treatment of teeth, gums, and oral health.	BDS (Bachelor of Dental Surgery)	NEET-UG
Physiotherapist	Helps patients regain movement and function through physical methods after injury/illness.	BPT (Bachelor of Physiotherapy)	CUET-UG , state-level CETs, or institute-specific exams
Nurse	Provides direct patient care, supports doctors, and monitors patient health.	B.Sc. Nursing, GNM (General Nursing & Midwifery)	NEET-UG (for top institutes), AIIMS BSc Nursing, state CETs
Pharmacist	Prepares, dispenses, and advises on the safe use of medications.	B.Pharm (Bachelor of Pharmacy), D.Pharm (Diploma)	CUET-UG, state CETs, BITS Pharmacy, GUJCET , etc.
Veterinarian	Diagnoses and treats diseases in animals and promotes animal health.	BVSc & AH (Bachelor of Veterinary Science and Animal Husbandry)	NEET-UG
Chemist (Pharmacy Setting)	Dispenses over-the-counter and prescription medicines and advises on drug usage.	D.Pharm (Diploma), B.Pharm (for registered pharmacist license)	State-level pharmacy entrance exams, CUET-UG, some accept NEET-UG



TOP UG COLLEGES:

Lady Irwin College, Delhi University
Mount Carmel College, Bangalore
SNDT Women's University, Mumbai
J.D. Birla Institute, Kolkata
Ethiraj College for Women, Chennai

TOP PG COLLEGES:

Lady Irwin College, Delhi University
SNDT Women's University, Mumbai
Mount Carmel College, Bangalore
J.D. Birla Institute, Kolkata
Ethiraj College for Women, Chennai

NUTRITIONIST



A nutritionist is a health professional who specializes in food and nutrition, helping individuals make informed dietary choices to improve their health and well-being.

INTERNSHIPS FOR 11-12TH GRADERS:

IIT Delhi – Change Makers Bootcamp
NSTC Delhi – Biotech/Nanotech Internship
AIIMS Delhi – Research Internship (via Konnifel)
Delhi Greens NGO – Environmental Internships
TERI – Sustainability Internships
Viksit Delhi – CM's Internship Programme

MAJOR ORGANIZATIONS

Lady Irwin College (Delhi University)
AIIMS Delhi – Department of Dietetics
Fortis Healthcare – Nutrition & Dietetics
Max Healthcare, Saket
Apollo Hospitals, Delhi
Public Health Foundation of India (PHFI)

SWOT ANALYSIS



Strengths

- High demand for qualified nutritionists
- Flexible career options (clinical, sports, public health, private practice)
- Opportunity to make a real impact on people's health
- Ability to work independently or with healthcare teams

Weaknesses

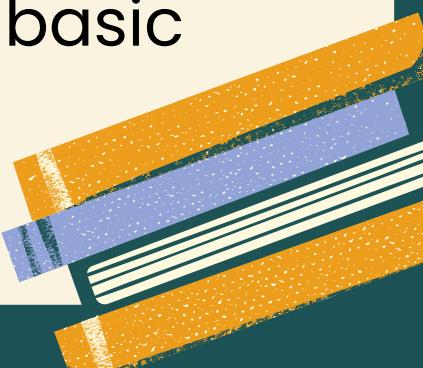
- May require long hours, especially in clinical or fitness settings
- Need for continuous learning to stay updated with new research
- Income can be inconsistent in private practice

Opportunities

- Rise in demand for online and personalized nutrition coaching
- Career options in food tech, wellness apps, and nutrigenomics
- Potential for social media influence and brand partnerships
- Scope for global work or higher education abroad
- Public health and school nutrition programs expanding

Threats

- Competition from unqualified or "self-taught" influencers
- Misinformation and diet trends that undermine evidence-based work
- Regulatory restrictions in some countries (e.g., needing an RD/RDN license)
- Technological tools or AI apps replacing basic advisory roles



CAREER TRAJECTORY



ENTRY LEVEL (0-2 YRS)

Intern, Assistant Nutritionist, Diet Aide
₹ 2 – 4 LPA



MID LEVEL (3-6 YRS)

Clinical Nutritionist, Sports Dietitian,
Wellness Consultant ₹ 4 – 7 LPA

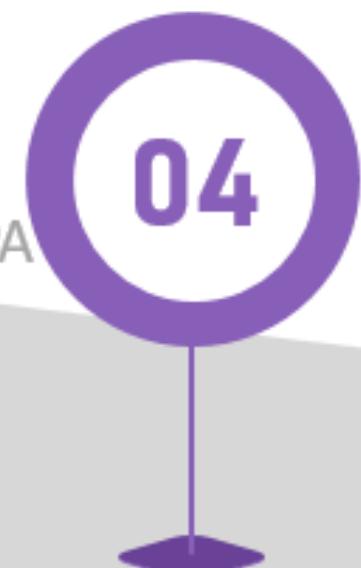


SENIOR LEVEL (7-12 YRS)

Senior Nutritionist, Department Head,
Research Consultant ₹ 7 – 12 LPA

EXPERT LEVEL (12+ YRS)

Chief Nutrition Officer, Public Health
Advisor, Founder / Author ₹ 12 – 20+ LPA





ALLIED MENTAL HEALTH CAREERS



CAREERS IN MENTAL HEALTH

- **Psychologist** – Provides therapy, counseling, and behavioral assessments.
- **Psychiatrist** – Medical doctor who diagnoses and treats mental illnesses with medication.
- **Occupational Therapist** – Helps individuals develop skills for daily living and independence.
- **Audiologist** – Diagnoses and treats hearing and balance disorders.
- **Speech-Language Pathologist (SLP)** – Assists with speech, language, and communication disorders
- **Mental Health Counselor** – Offers emotional support and strategies for mental wellness.
- **Rehabilitation Psychologist** – Helps people cope with disabilities or chronic health conditions.
- **Clinical Social Worker** – Provides mental health services and connects people with community resources.



CAREERS IN MENTAL HEALTH

Aspect	Psychologist	Psychiatrist
Education	BA/BSc + MA/MSc/M.Phil/PhD in Psychology	MBBS + MD in Psychiatry
Medical Doctor?	✗ No	✓ Yes
Prescribes Medicines?	✗ No	✓ Yes
Focus Area	Therapy, counseling, and behavioral interventions	Diagnosis, treatment (including medication) of mental disorders
Common Tools Used	Talk therapy, assessments, behavioral techniques	Medication, psychotherapy, and clinical diagnosis
Work Settings	Clinics, schools, counseling centers	Hospitals, mental health institutions, private practice

COURSES AND ELIGIBILITY

Career	UG Eligibility	PG Eligibility	Common Entrance Exams
Psychologist	BA/BSc in Psychology or related field (after 12th in any stream, preferably with Psychology)	MA/MSc in Psychology, Clinical Psychology, Counseling, or Applied Psychology	CUET-UG (for central univ.), DUET, JNU-EE, BHU-UET, some private exams
Psychiatrist	MBBS (after 12th with PCB – Physics, Chemistry, Biology)	MD in Psychiatry or DNB Psychiatry (after MBBS)	NEET-UG (for MBBS), NEET-PG (for MD)
Occupational Therapist	BOT (Bachelor of Occupational Therapy) – 4.5 years (12th with PCB)	MOT (Master of Occupational Therapy) – 2 years (after BOT)	CUET-UG (some institutes), IPU CET, state-level CETs
Audiologist	BASLP (Bachelor in Audiology & Speech-Language Pathology) – 4 years (12th with PCB/PCMB)	MASLP or M.Sc. Audiology (2 years)	NEET-UG (some institutes), AIISH Entrance, state-level CETs
Speech-Language Pathologist (SLP)	BASLP (same as above)	MASLP / M.Sc. Speech Pathology	Same as Audiology (AIISH, NIEPMD, etc.)
Mental Health Counselor	BA/BSc in Psychology or Social Work (12th in any stream)	MA in Counseling Psychology, M.Sc. Psychology, or PG Diploma in Counseling	CUET-PG, TISS-NET, state university exams
Rehabilitation Psychologist	BA/BSc in Psychology (12th in any stream)	M.Phil in Rehabilitation Psychology (RCI-approved) or M.Sc. + RCI certification	Institute-specific tests (NIEPMD, NIMHANS), CUET-PG
Clinical Social Worker	BSW (Bachelor of Social Work) or any UG degree (12th in any stream)	MSW (Master of Social Work) with specialization in Mental Health	TISS-NET, DUET, BHU-PET, state CETs



LIFE SCIENCES



CAREERS IN LIFE SCIENCES

- **Diagnostic Lab Scientist** – Tests samples to find diseases.
- **Biotechnologist** – Uses biology to make useful products.
- **Microbiologist** – Studies tiny organisms like bacteria.
- **Zoologist** – Studies animals and their behavior.
- **Wildlife Biologist** – Protects and studies wild animals.
- **Geneticist** – Studies genes and heredity.
- **Biochemist** – Studies chemicals in living things.
- **Botanist** – Studies plants.
- **Marine Biologist** – Studies sea life.
- **Ecologist** – Studies how organisms interact with nature.



COURSES AND ELIGIBILITY

CAREER	UG	PG	ENTRANCE EXAM
Diagnostic Lab Scientist	B.Sc Medical Lab Technology (BMLT)	M.Sc Medical Microbiology	NEET (for AIIMS BMLT) / CUET
Biotechnologist	B.Tech/B.Sc Biotechnology	M.Tech/M.Sc Biotechnology	JEE Main (B.Tech), CUET (B.Sc)
Microbiologist	B.Sc Microbiology	M.Sc Microbiology	CUET, State Boards
Zoologist	B.Sc Zoology	M.Sc Wildlife Biology/Zoology	CUET, State Boards
Wildlife Biologist	B.Sc Zoology/Forestry	M.Sc Wildlife Biology	CUET
Geneticist	B.Sc Genetics/Biotech	M.Sc Human Genetics	CUET
Biochemist	B.Sc Biochemistry	M.Sc Biochemistry	CUET
Botanist	B.Sc Botany	M.Sc Plant Biotechnology	CUET
Marine Biologist	B.Sc Marine Biology	M.Sc Marine Science	CUET, CUSAT CAT
Ecologist	B.Sc Environmental Science	M.Sc Ecology	CUET

SKILLS



Core Scientific Skills

- Strong foundation in biology and chemistry
- Laboratory skills (microscopy, pipetting, culturing, etc.)
- Experimental design and analysis
- Knowledge of scientific methods and data interpretation

Technical & Analytical Skills

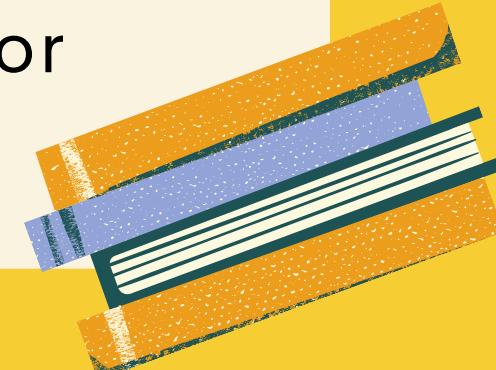
- Data analysis using tools like Excel, R, Python, or SPSS
- Familiarity with bioinformatics tools and databases
- Critical thinking and problem-solving
- Report writing and scientific documentation

Soft & Professional Skills

- Attention to detail
- Teamwork and collaboration in lab settings
- Communication skills (especially for presenting research)
- Ethical awareness and responsible research conduct

Bonus Skills for Advanced Careers

- Scientific publishing and literature review
- Grant writing and research proposal drafting
- Project management and time management
- Innovation and adaptability for interdisciplinary work



TOP UG COLLEGES:

Fergusson College, Pune
Loyola College, Chennai
St. Xavier's College, Mumbai
Presidency College, Chennai
University of Delhi – Environmental Science program
(with wildlife electives)

TOP PG COLLEGES:

Wildlife Institute of India (WII), Dehradun
Ashoka Trust for Research in Ecology & Environment
(ATREE), Bengaluru
Pondicherry University – Department of Wildlife Science
Wildlife Science Programme, University of Mysore
Centre for Wildlife Studies (CWS), Bangalore

WILDLIFE BIOLOGIST

Wildlife biologists study animals, plants, and ecosystems in their natural habitats. Their work helps conserve biodiversity, manage wildlife populations, and guide environmental policies.



INTERNSHIPS FOR 11–12TH GRADERS:

WWF-India Young Champions / Volunteer Program
BNHS (Bombay Natural History Society) Conservation Education Centre Camps
Wildlife Institute of India (WII) Eco-club Workshops
Tarumitra Student Environmental NGO Camps

MAJOR ORGANIZATIONS

Wildlife Institute of India (WII)
BNHS (Bombay Natural History Society)
Wildlife Trust of India
Ministry of Environment, Forest & Climate Change (MoEFCC)
Zoological Survey of India (ZSI)
Centre for Wildlife Studies (CWS)

Ministry of Environment, Forest & Climate Change (MoEFCC)

SWOT ANALYSIS



Strengths:

- Direct work with animals, biodiversity, conservation
- High social impact (protecting endangered species)
- Exciting field + research opportunities

Opportunities:

- Eco-tourism, wildlife filmmaking, research grants
- International NGOs (WWF, WCS, IUCN)
- Rising demand for conservation policies

Weaknesses:

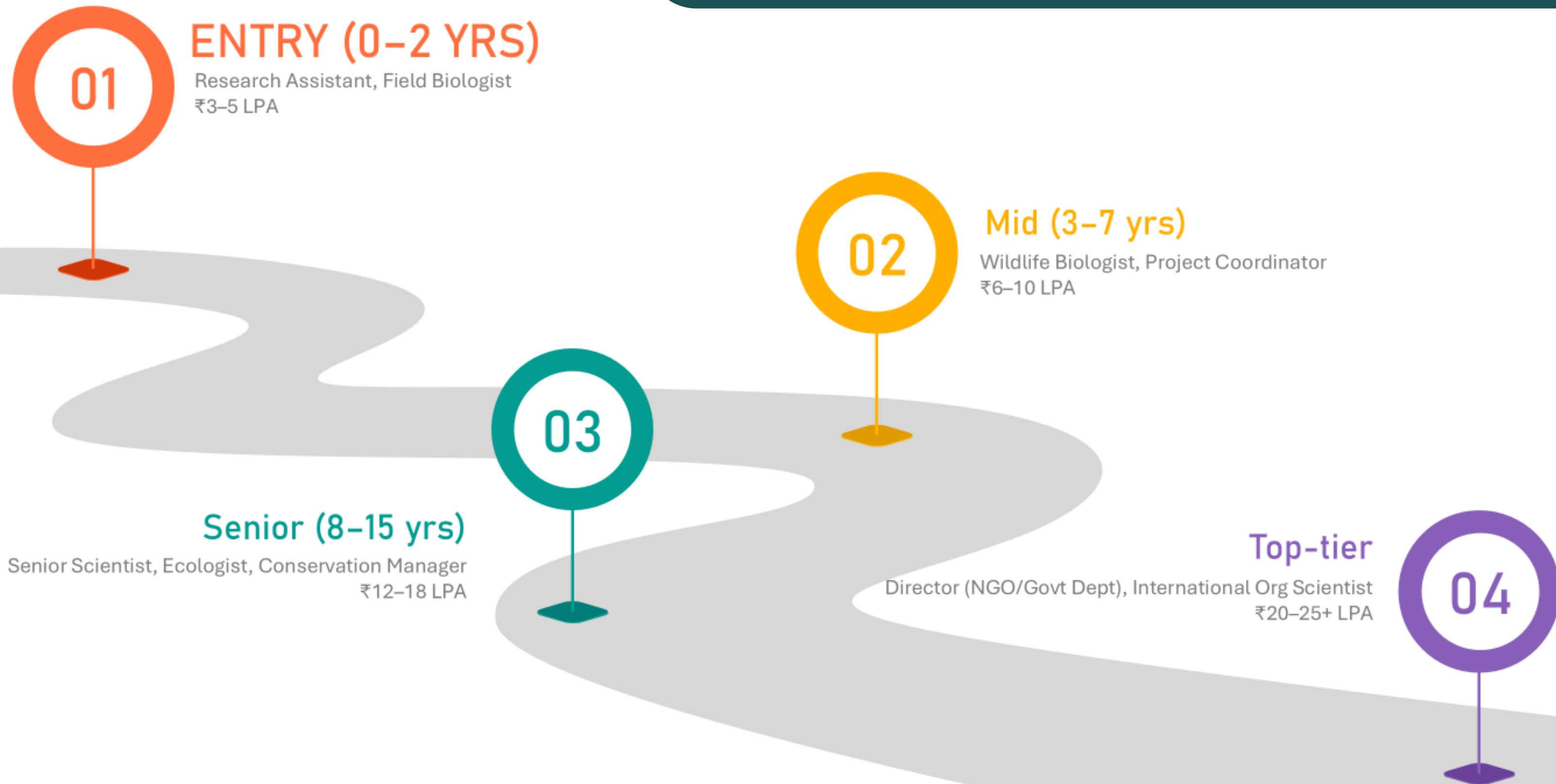
- Physically demanding (fieldwork in harsh conditions)
- Often low funding & job stability in NGOs
- Slow career progression without Ph.D

Threats:

- Political/environmental restrictions
- Climate change altering wildlife research scope
- Competition for limited research positions



CAREER TRAJECTORY



TOP UG COLLEGES:

College of Fisheries, Mangalore (KVAFSU)
Kerala University of Fisheries and Ocean St. (KUFOS)
Andhra University
Annamalai University
CUSAT (Cochin University of Science and Tech.)

TOP PG COLLEGES:

CIFE – Central Institute of Fisheries Education
Pondicherry University
Annamalai University
Goa University
CUSAT

MARINE BIOLOGIST



Marine biologists study life forms in oceans and coastal ecosystems. Their work helps conserve marine biodiversity, assess climate impacts, and develop sustainable ocean practices.

INTERNSHIPS FOR 11-12TH GRADERS:

NASA STEM Engagement
ISRO – YUVIKA (Young Scientist Programme)
Dakshin Foundation (Marine Conservation Program)
Wildlife Trust of India (WTI) – Marine Programs
ReefWatch Marine Conservation

MAJOR ORGANIZATIONS

CSIR – National Institute of Oceanography (NIO)
Central Marine Fisheries Research Institute (CMFRI)
Wildlife Institute of India (WII)
Bombay Natural History Society (BNHS)
Tata Institute of Fundamental Research (TIFR)
Earthwatch Institute

SWOT ANALYSIS



Strengths:

- High demand in ocean conservation sector.
 - Offers diverse career paths
 - Interdisciplinary skills
 - Various fieldwork opportunities.

Weaknesses:

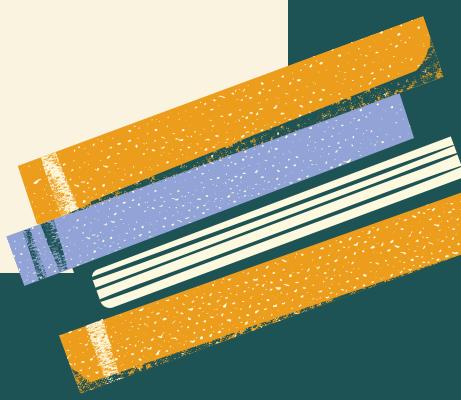
- Limited job openings.
- Low pay in entry-level roles.
 - Physically demanding
- There are geographical constraints

Opportunities:

- Blue economy growth-increases renewable energy
 - Tech integration
 - Global Cooperation

Threats:

- Funding instability
- Environmental degradation leading to fewer test subjects
 - Automation risk
- Regulatory challenges



CAREER TRAJECTORY



TOP UG COLLEGES:

Gargi College, Delhi University
St. Xavier's College, Mumbai
Mount Carmel College, Bengaluru
Fergusson College, Pune
Madras Christian College, Chennai

TOP PG COLLEGES:

All India Institute of Medical Sciences (AIIMS) Delhi
Indian Institute of Science (IISc) Bangalore
Jawaharlal Nehru University, Delhi
Banaras Hindu University, Varanasi
University of Hyderabad

MICROBIOLOGY



Microbiology is the scientific study of microorganisms and their applications in healthcare, agriculture, industry, and research



INTERNSHIPS FOR 11-12TH GRADERS:

CSIR Jigyasa Program
NIAS Gifted Education Program
IISc Open Day (Bangalore)
IISER Science Camps and Workshops
India International Science Festival (IISF)
Amrita Virtual Biology Labs

MAJOR ORGANIZATIONS

ICMR – Indian Council of Medical Research
DRDO – Defence Research & Development Organization
AIIMS & Hospitals
Biocon, Cipla, Dr. Reddy's
FSSAI, Amul, NDDB

SWOT ANALYSIS



Strengths:

- High demand in healthcare, pharma, and biotech
- Broad application: medicine, agriculture, food, research, e.t.c.
- Strong research base: ICMR, CSIR, DRDO,e.t.c.

Government support through fellowships, projects, and missions

Weaknesses:

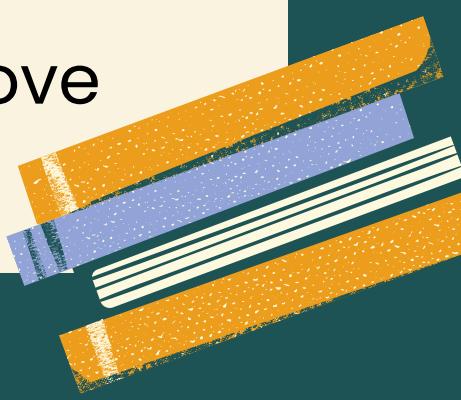
- Low initial salaries compared to engineering/IT fields
- Limited awareness and guidance at school level
- Research positions are competitive and limited in number
- Practical lab exposure in undergrad can be insufficient

Opportunities:

- Rapid growth in biotech, clinical research, vaccine development
- Growing scope in public health, diagnostics, and food safety
- Rising focus on biopharma and genomics
- Potential for entrepreneurship

Threats:

- Automation
- Overcrowding in academic qualifications
- Dependence on government/public research funding
- Brain drain: top talent may move abroad for better pay



CAREER TRAJECTORY



TOP UG COLLEGES:

Jawaharlal Nehru University (JNU), Delhi
University of Delhi (DU)
University of Hyderabad (UoH)
Parul University, Vadodara
Amity University Noida

TOP PG COLLEGES:

Gujarat Forensic Sci. Uni. (GFSU), Gandhinagar
Mumbai University
Anna University
Manipal University
Punjabi University, Patiala

ECOLOGIST



They study human impact on the environment, addressing issues like deforestation and species extinction, and the relationship between plants, animals, and the environment, assessing potential construction impacts.

INTERNSHIPS FOR 11-12TH GRADERS:

WWF-India's Nature Clubs
Van Vihar National Park (Bhopal)
NCBS – Outreach Programs
iNaturalist India – Citizen Science Projects
CPREEC (C.P.R. Environmental Education Centre)

MAJOR ORGANIZATIONS

Wildlife Institute of India (WII), Dehradun
Salim Ali Centre for Ornithology
Indian Council of Forestry Research & Education
WWF-India & Wildlife Trust of India (WTI)
TERI SAS, Delhi

SWOT ANALYSIS



Strengths:

- High demand in conservation, climate change, and urban planning sectors.
- Field + Tech Skills (GIS, remote sensing, data analysis) enhance employability.
- Diverse roles in NGOs, government, research, and corporate sustainability.

Weaknesses:

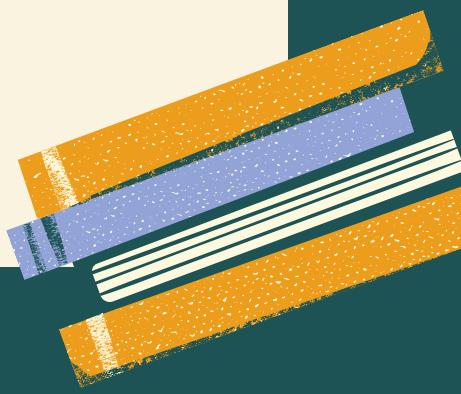
- Limited funding for pure ecological research in academia.
- Fieldwork Challenges: remote locations, low pay in entry-level roles.
- Skill Gaps in advanced tech among traditional graduates.

Opportunities:

- Green Jobs Boom: ESG roles in corporates.
- Policy Push: Govt. initiatives.
- Global Networks: UNEP, IUCN collaborations

Threats:

- Climate Uncertainty: Disrupting long-term research.
- Automation: AI tools replacing basic data collection.



CAREER TRAJECTORY



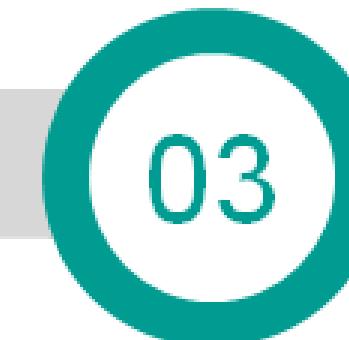
ENTRY LEVEL (0-2 YRS)

Field Assistant, Research Intern, Environmental Consultant Trainee
₹ 3- 6 L.P.A.



MID-LEVEL (3-6YRS.)

Ecologist, Wildlife Biologist, GIS Specialist
₹7–15 LPA



SENIOR (7-12 YRS)

Senior Ecologist, Team Lead, Conservation Manager, Sustainability Manager
₹ 13 – 25 L.P.A.



EXPERT LEVEL (12+ YRS)

Principal Ecologist, Director (Conservation), Chief Sustainability Officer.
₹ 25-50 L.P.A.



INTERDISCIPLINARY FIELDS



CAREERS IN INTERDISCIPLINARY FIELDS

- **Astrobiologist** – Studies life beyond Earth.
- **Biomimicry Expert** – Designs inspired by nature.
- **Bio-Hacker** – Experiments with biology for self-improvement
- **Forensic Scientist** – Solves crimes using science.
- **Polymer Chemist** – Makes synthetic materials like plastics.
- **Cosmetic Chemist** – Creates skincare and beauty products.
- **Toxicologist** – Studies effects of harmful substances.

COURSES AND ELIGIBILITY



CAREER	UG	PG	ENTRANCE EXAM
Astrobiologist	B.Sc in Astronomy/Physics/Biology	M.Sc/PhD in Astrobiology	CUET, IIT JEE (for IISc)
Biomimicry Expert	B.Tech in Biotechnology/Mechanical	M.Tech in Biomimetics/Bioengineering	JEE Main, BITSAT
Bio-Hacker	B.Sc in Synthetic Biology/Bioinformatics	M.Sc in Bioengineering	CUET, State-level exams
Forensic Scientist	B.Sc in Forensic Science	M.Sc in Forensic Science	CUET, DUET
Polymer Chemist	B.Sc in Chemistry/Polymer	M.Sc/PhD in Polymer Chemistry	CUET, IIT JEE (for IITs)
Cosmetic Chemist	B.Sc in Cosmetic Science/Chemistry	M.Sc in Cosmetic Technology	CUET, State-level exams
Toxicologist	B.Sc in Toxicology/Chemistry/Bio	M.Sc/PhD in Toxicology	CUET, NEET (for AIIMS B.Sc)

SKILLS



Conceptual & Analytical Thinking

- Ability to integrate knowledge from multiple domains
- Systems thinking and holistic problem-solving
- Cross-disciplinary reasoning
- Critical evaluation of complex, real-world issues



Creativity & Innovation

- Designing new approaches based on nature, tech, or behavior
- Thinking beyond traditional methods
- Adapting known solutions to new problems
- Using biomimicry or design thinking techniques



Collaborative & Communication Skills

- Working effectively with professionals from other fields
- Simplifying complex ideas for non-experts
- Presenting interdisciplinary solutions
- Active listening and open-mindedness



Research & Learning Agility

- Curiosity-driven exploration of emerging areas
- Independent and self-directed learning
- Comfort with ambiguity and new information
- Applying research methods across domains



TOP UG COLLEGES:

- IIT Delhi
- IIT Kharagpur
- IIT Bombay
- IISc Bangalore
- BITS Pilani
- VIT Vellore
- NIT Waranga

TOP PG COLLEGES:

- AIIMS Delhi
- IISc Bangalore
- IIT Delhi
- IIT Bombay
- IIT Kharagpur
- IIT Madras

BIO-HACKER



A professional biohacker uses science and technology to improve how the body and mind work. Unlike people who follow health trends without much testing, they carefully collect data and run experiments on themselves or others using tools like wearable devices, supplements, and health tests. Their goal is to help improve health, focus, energy, or lifespan based on real evidence.



INTERNSHIPS FOR 11-12TH GRADERS:

- IIT Delhi – Change Makers Summer Bootcamp
- NSTC Delhi – Biotech/Nanoscience Internships
- AIIMS Delhi – Research Internship (via Konnifel)
- Delhi Greens – Environment Internships
- Viksit Delhi CM's Internship Programme
- Desh Ke Mentor Programme – Delhi Govt
- Konnifel – Research Mate Projects
- TOI AI Summer Camp – Delhi

MAJOR ORGANIZATIONS

- Delhi Greens NGO
- Konnifel Research Network
- TOI (Times of India) – AI Summer Camp
- TERI (The Energy and Resources Institute)
- Vigyan Prasar (under DST, Govt. of India)
- NCERT – NIEPA / CIET Divisions

SWOT ANALYSIS



Strengths

- Highly innovative field
- Cross-disciplinary knowledge

Weaknesses

- Lacks structured career paths
- Legal/ethical boundaries are unclear

Opportunities

- Personalised medicine trend
- Biotech + AI integration

Threats

- DIY risks, potential legal issues
- Low formal job market in India

CAREER TRAJECTORY



ENTRY LEVEL (0-2 YRS)

Lab Technician, Research Intern,
QC Analyst
₹ 3 – 6 LPA



MID LEVEL (3-6 YRS)

Biotech Associate, Genetic
Analyst, R&D Officer ,₹ 6 – 12 LPA



SENIOR LEVEL (7-12 YRS)

Scientist, Project Lead, Product
Manager
₹ 12 – 20 LPA

EXPERT LEVEL (12+ YRS)

Principal Scientist, Director (R&D),
Bioinnovation Head
₹ 20 – 40+ LPA



TOP UG COLLEGES:

National Forensic Sci. Uni/ (NFSU)
LNJN-NICFS (NFSU), New Delhi
Banaras Hindu University (BHU), Varanasi
Punjab University, Chandigarh
Institute of Forensic Science, Mumbai
Amity Institute of Forensic Sciences, Noida

TOP PG COLLEGES:

Banaras Hindu University (BHU), Varanasi
Punjab University, Chandigarh
Osmania University, Hyderabad
Institute of Forensic Science, Mumbai
Gujarat University, Ahmedabad
Christ University, Bengaluru

FORENSIC SCIENTIST

In criminal investigations, forensic scientists play a crucial role by gathering, examining, and interpreting tangible evidence like blood, DNA, and fingerprints. They also provide in-depth reports and expert testimony.



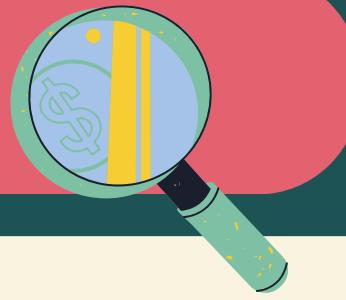
INTERNSHIPS FOR 11-12TH GRADERS:

IFS India (International Forensic Sciences)
Fondelco Forensic Science Institute
NFSU Outreach Programs
Nthrys Forensic Internship
Camp K12 / Tinkerly (Private STEM platforms)
School-organized tie-ups with Forensic science lab

MAJOR ORGANIZATIONS

National Forensic Sciences University (NFSU)
Central Forensic Science Laboratories (CFSLs)
International Forensic Sciences (IFS)
Fondelco Forensic Science Institute (FFSI)
JSPM University, Pune
Delhi University (Forensic Science Dept.)
Christ University – Forensic Psychology & Science

SWOT ANALYSIS



Strengths:

- High demand in criminal investigations and legal proceedings.
- Diverse specializations in fields like DNA, toxicology, and digital forensics.
- Provides objective, scientific analysis.
- Utilizes cutting-edge tools like PCR and mass spectrometry.

Weaknesses:

- High pressure due to potential court case impact.
- Emotionally taxing due to exposure to violent crime scenes.
 - Resource-intensive due to expensive equipment and training.
 - Testimony challenges in communicating complex findings.

Opportunities:

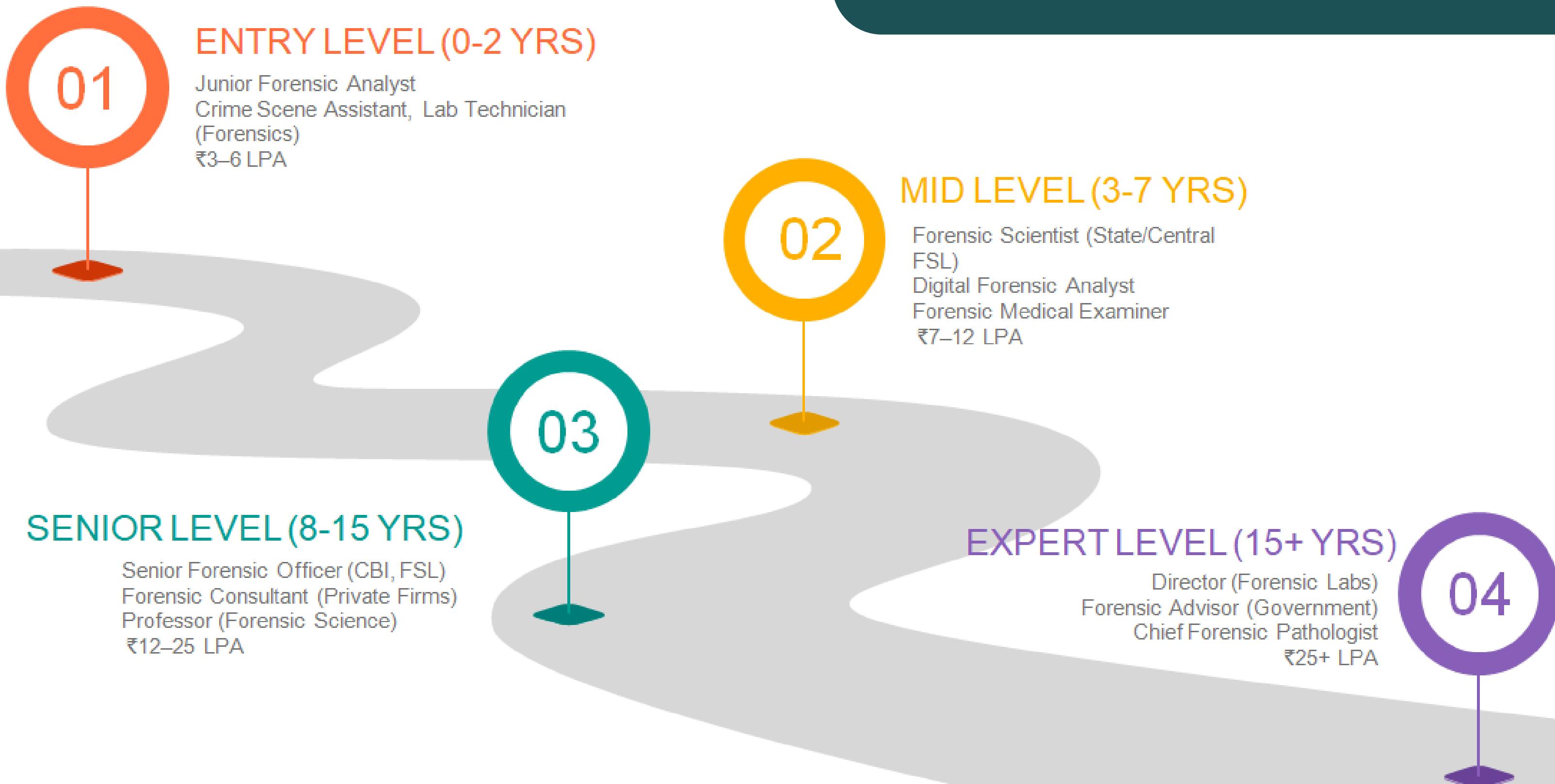
- Growing field with increased reliance on forensic evidence.
- New technologies like AI, machine learning, improved DNA analysis.
- Cross-disciplinary roles in cybersecurity and environmental forensics.
- Global collaboration in international crime-solving.

Threats:

- Budget Constraints: Underfunded labs lead to backlogs.
- Contamination Risks: Mishandled evidence can invalidate results.
- Legal Scrutiny: Challenges to forensic methods.
- Ethical Concerns: Privacy issues in digital forensics.



CAREER TRAJECTORY



Top UG Colleges :

- IISc Bangalore
- IISER Pune (and other IISERs)
- IIT Bombay
- IIST, Thiruvananthapuram
- St. Xavier's College, Mumbai



Top PG Colleges

- Indian Institute of Astrophysics (IIA), Bangalore
- IUCAA, Pune
- Tata Institute of Fundamental Research (TIFR), Mumbai
- IISc Bangalore
- IISERs

ASTROBIOLOGY

Astrobiologists explore life in the universe, studying the origin, evolution, and possibility of life on other planets. It's an interdisciplinary field combining biology, astronomy, chemistry, and planetary science.



Famous Hiring Organizations

- ISRO (Indian Space Research Organisation)
- IIA (Indian Institute of Astrophysics)
- TIFR (Tata Institute of Fundamental Research)
- IUCAA (Inter-University Centre for Astronomy and Astrophysics)
- IISERs (Indian Institutes of Science Education and Research)

INTERNSHIPS FOR 11-12TH GRADERS:

- ISRO's YUVIKA (Young Scientist Programme)
- Mission Discovery India
- ISA Astronomy & Astrophysics Summer School

SWOT ANALYSIS



Strengths:

- Cutting-edge, futuristic field
- Interdisciplinary (bio + physics + space science)
- Prestige & association with NASA/ISRO-type organisations.

Opportunities:

- Expanding space sector in India (ISRO, private players)
- Collaboration with NASA, ESA, BMSIS
- Growing global interest in origins of life & exoplanets

Weaknesses:

- Very research-heavy, requires long study (Ph.D+ mandatory)
- Very few institutes in India (niche career)
- High competition for limited positions

Threats:

- Funding uncertainty in research
- Highly dependent on international collaborations
- Long uncertain career path until breakthrough research



CAREER TRAJECTORY



ENTRY (0-2 YRS)

Junior Research Fellow, Lab Tech
₹4–6 LPA



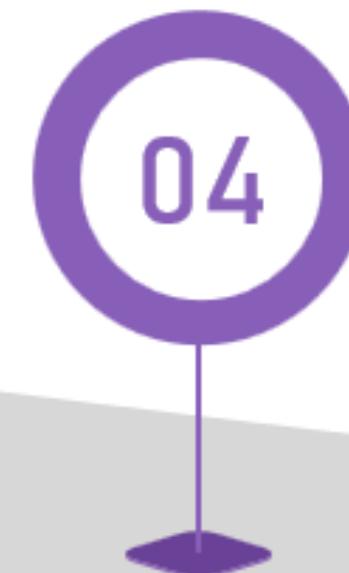
MID (3-7 YRS)

Astrobiologist, Planetary Scientist
₹8–12 LPA



SENIOR (8-15 YRS)

Principal Investigator, Lead Researcher
₹15–20+ LPA



TOP-TIER

Chief Scientist (NASA, ISRO, etc.)
₹25+ LPA

Top UG Colleges :

- CEPT University, Ahmedabad
- National Institute of Design (NID), Ahmedabad & Bengaluru
- IIT Bombay (IDC School of Design)
- Srishti Manipal Institute of Art, Design & Technology

Top PG Colleges

- CEPT University, Ahmedabad
- NID PG Campuses
- IIT Guwahati
- IIT Hyderabad
- IISc Bangalore



BIOMIMICRY EXPERT

Biomimicry is a cutting-edge interdisciplinary field where nature-inspired designs are applied to solve human challenges in engineering, architecture, medicine, and product design. It blends biology, design thinking, and sustainability to create smarter and eco-efficient innovations.



Famous Hiring Organizations

- Design Innovation Centres (at IITs/NIDs)
- Biomimicry India Lab & Studio (Goa)
- Centre for Sustainable Development (IISc, Bengaluru)
- National Institute of Design (NID)
- Studio Lotus, Delhi (Architectural firm using nature-based design)

INTERNSHIPS FOR 11-12TH GRADERS:

- IIT Madras (SURA/DIC)
- IIT Gandhinagar
- TERI (The Energy and Resources Institute)
- Srishti Manipal
- Vigyan Prasar (Eco internships)

SWOT ANALYSIS



Strengths:

- Interdisciplinary and innovative
- Eco-friendly and sustainable
- Nature-inspired solutions
- Rising awareness in India

Opportunities:

- Growth in green jobs
- Smart cities and eco-design demand
- International collaborations
- Scope in architecture, biotech, product design.

Weaknesses:

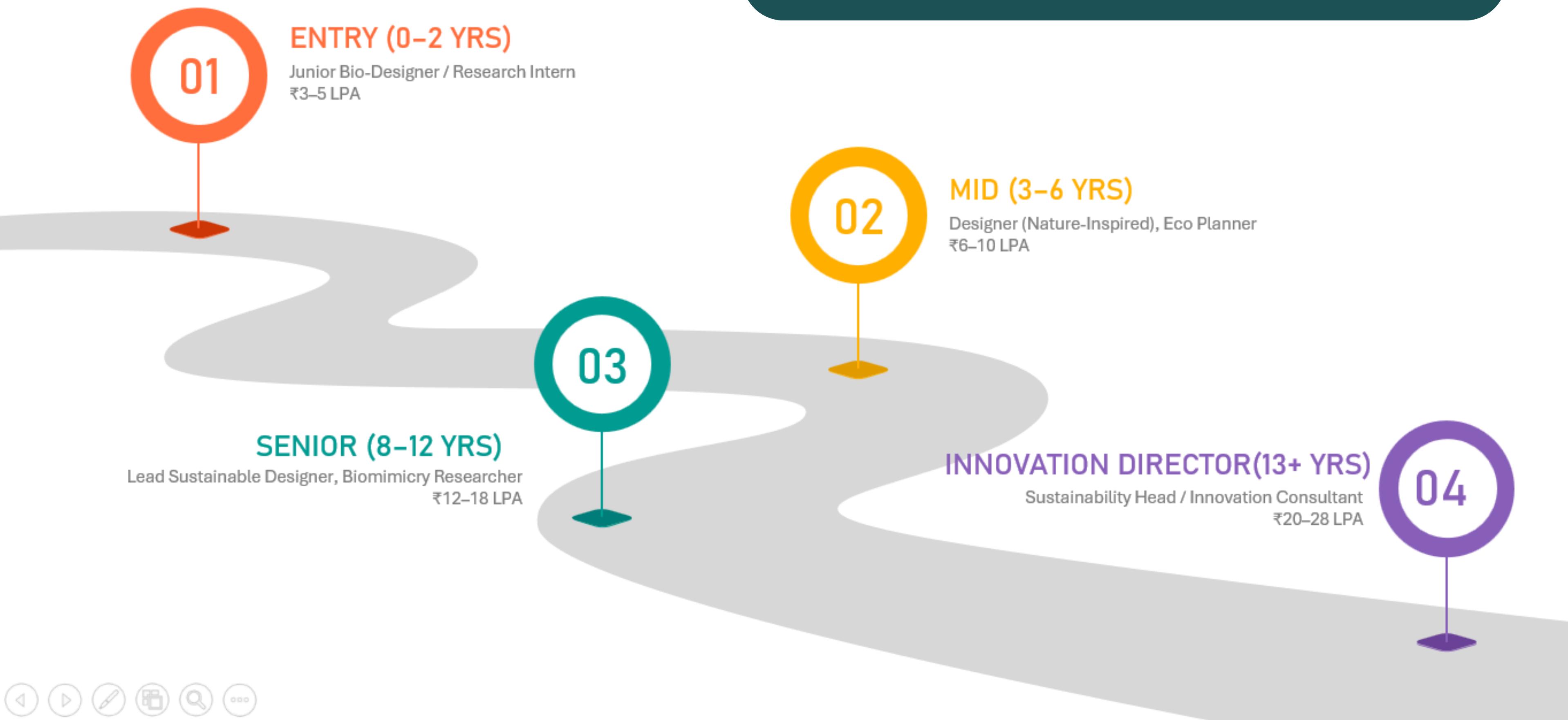
- Limited courses and mentors
- Low awareness in schools
- Fewer full-time roles
- Dependence on international resources

Threats:

- Competition from mainstream careers
- Freelance or unstable income early on
- Low government funding
- Industry adoption still slow in India



CAREER TRAJECTORY



TOP UG COLLEGES:

- University of Delhi (DU)
- St. Xavier's College, Mumbai
- Madras Christian College (MCC), Chennai
- Loyola College, Chennai
- Mumbai University (Institute of Science)
- Guru Nanak Dev University (GNDU), Amritsar

TOP PG COLLEGES:

- AIIMS, New Delhi
- Jamia Hamdard, New Delhi
- Manipal Academy of Higher Education (MAHE)
- Andhra University, Visakhapatnam
- Bharathiar University, Coimbatore

TOXICOLOGIST

Toxicologists study chemical agents' properties, analyze reactions, identify harmful compounds, find treatments, and determine safe exposure levels to substances like exhaust fumes, vitamins, and pesticides



INTERNSHIPS FOR 11-12TH GRADERS:

- ToxiM India E-Internship
- Syngenta/Bayer "AgroScience Camp"
- ICMR-Vector Control Research Centre Summer programme
- Manipal University Summer Scholar Program
- NCERT National Science Symposium

MAJOR ORGANIZATIONS

- State Forensic Labs (Crime Branch)
- Syngenta, Bayer, Dr. Reddy's (Preclinical Tox)
- Jubilant, Biocon (Drug Safety)
- Quintiles, (clinical research)
- Aragen Life Sciences (Clinical research)
- TERI, ENVIS, ToxiM India (Environment tox)
- Tata Memorial Centre (Cancer Tox)

SWOT ANALYSIS



Strengths:

- High demand in pharma, agrochem, & forensics.
- Government/private funding for research.
- Global relevance with OECD/GLP compliance roles.

Weaknesses:

- Limited UG seats.
- Low student awareness and mainstream medical careers.
- Equipment-heavy labs restrict rural opportunities.

Opportunities:

- CRO boom.
- New niches: Nanotoxicology, AI-driven risk assessment.
- FSSAI/EPA regulations driving food/environmental tox jobs.

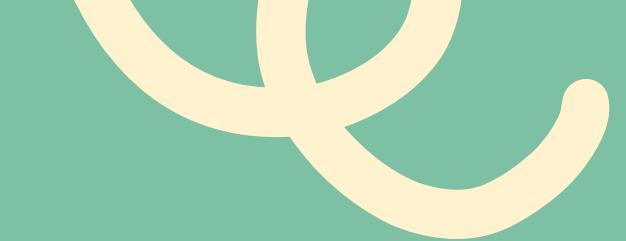
Threats:

- Automation in routine testing.
- Regulatory delays in agrochemical approvals.



CAREER TRAJECTORY





DATA, ANALYSIS AND COMMUNICATION



CAREERS IN DATA, ANALYSIS AND COMM.

- **Food Technologist** – Improves and tests food products.
- **Medical Coder** – Converts medical info into billing codes.
- **Healthcare Data Analyst** – Uses data to improve healthcare.
- **BI Analyst** – Uses data to support business decisions.
- **Data Scientist** – Finds insights in big data.
- **Medical Writer** – Writes about health and science.
- **Science Journalist/Editor** – Reports on scientific topics.
- **Scientific Illustrator** – Draws diagrams to explain science.
- **EdTech Content Developer** – Creates learning materials in science.

COURSES AND ELIGIBILITY

Career	UG Course	PG Course	Entrance Exam
Nutritionist/Dietitian	B.Sc Nutrition / Dietetics / Home Science	M.Sc Nutrition / PG Diploma in Dietetics	CUET, ICAR AIEEA, State CETs
Food Technologist	B.Sc / B.Tech Food Technology	M.Sc / M.Tech Food Science & Technology	CUET, ICAR AIEEA, State Boards
Medical Coder	B.Sc Life Sciences / Pharmacy	Certification Course in Medical Coding	Direct Admission (no major exam)
Healthcare Data Analyst	B.Sc Life Sciences / Biostatistics	M.Sc Health Informatics / PG in Data Analytics	CUET, DUET, Private Univ. Entrance
BI Analyst	B.Sc Life Sciences / Statistics / Comp. App.	PG Diploma in BI / Analytics / MBA (optional)	CUET, CAT, Private Exams
Data Scientist	B.Sc Life Sciences + Coding Skills	M.Sc / PG in Data Science / Bioinformatics	CUET, Private Univ. Entrance
Medical Writer	B.Sc Biology / Pharmacy	PG Diploma / M.Sc in Medical Writing	CUET, Direct Admission
Science Journalist/Editor	B.Sc in Science / Communication	PG in Journalism / Science Communication	CUET, IIMC Entrance, Other Media Exams
Scientific Illustrator	B.Sc Science + Art Course / Design Diploma	M.Des / PG in Science Communication / Illustration	NID, CEED, CUET (Science UG)
EdTech Content Developer	B.Sc Science / Education	PG in Instructional Design / EdTech Tools	CUET, Direct Admission

SKILLS



► Quantitative & Statistical Skills

- Strong foundation in math and statistics
- Hypothesis testing and statistical modeling
- Probability and data interpretation
- Understanding of algorithms and data logic

💻 Technical & Computational Tools

- Proficiency in Python, R, SQL, Excel
- Familiarity with data visualization tools (Tableau, Power BI)
- Knowledge of databases and data structures
- Handling big data and automation tools

🔍 Analytical Thinking

- Breaking down problems using data
- Identifying trends, patterns, and anomalies
- Drawing meaningful conclusions from datasets
- Scenario analysis and predictive modeling

🗣️ Communication & Insight Sharing

- Presenting findings through charts, dashboards, and reports
- Telling stories with data for business or research impact
- Collaborating with teams to drive data-driven decisions
- Translating technical analysis into actionable insights



Top UG Colleges :

- Apollo MedSkills (Apollo Hospitals Group)
- AIIMS Delhi
- Manipal Academy of Higher Education (MAHE)
- KLE University, Belagavi
- SRM Institute of Science and Technology, Chennai
- Christian Medical College (CMC), Vellore

Top PG Colleges

- Symbiosis Institute of Health Sciences (SIHS), Pune
- Tata Institute of Social Sciences (TISS), Mumbai
- AIIMS Delhi
- Amity University, Noida
- Medesun Healthcare Solutions, Hyderabad



MEDICAL CODER

A medical coder converts patient medical records into standard codes for insurance claims, medical billing, and healthcare analytics. They act as the bridge between healthcare providers, insurers, and data systems, ensuring accuracy in documentation and compliance with regulations.



Famous Hiring Organizations

- Apollo Hospitals
- Fortis Healthcare
- Max Healthcare
- Omega Healthcare
- R1 RCM
- Access Healthcare
- Star Health Insurance

INTERNSHIPS FOR 11-12TH GRADERS:

- Apollo Hospitals
- Fortis Healthcare
- Manipal Hospitals
- Narayana Health
- Omega Healthcare
- GeBBS Healthcare Solutions
- R1 RCM

SWOT ANALYSIS



Strengths:

- High demand in healthcare & outsourcing sectors
- Remote work and flexible job options
- Low barrier to entry (can start with certifications)
- Steady career progression with specialization

Opportunities:

- Growth of telehealth and global healthcare outsourcing
- Rising demand for certified coders (CPC, CCS)
- Potential to transition into auditing, training, or healthcare analytics
- Freelancing and international remote jobs

Weaknesses:

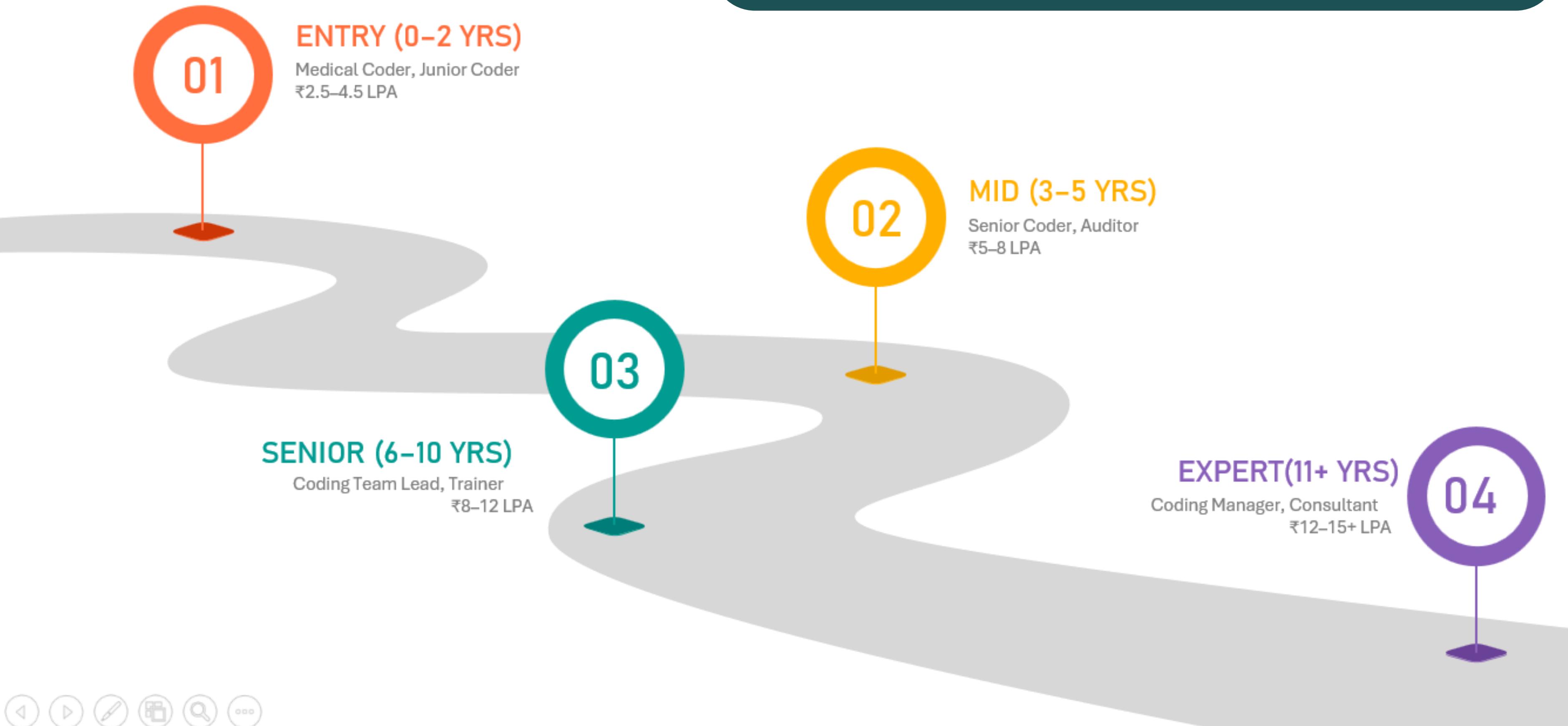
- Repetitive and desk-based work
- Limited career growth without advanced certifications
- Requires continuous upskilling due to code updates
- Niche field—less recognition outside healthcare

Threats:

- Automation and AI in medical coding
- Outsourcing competition from other countries
- Frequent regulation changes affecting coding standards
- Risk of burnout in high-volume environments



CAREER TRAJECTORY



TOP UG COLLEGES:

- Banaras Hindu University
- Maharaja Sayajirao University, Vadodara
- Sir J.J. School of Art, Mumbai
- L.S. Raheja School of Art, Mumbai
- University of Delhi – College of Art

TOP PG COLLEGES:

- Visva-Bharati University
- Maharaja Sayajirao University (Faculty of Fine Arts)
- chamarajendra Academy of Visual Arts
- National Institute of Design
- IIS University, Jaipur

SCIENTIFIC ILLUSTRATOR

Scientific illustrators use technical art, aesthetic skills, and scientifically informed observations to educate and communicate scientific concepts.

It is the career where art and science become one.



INTERNSHIPS FOR 11-12TH GRADERS:

- NCBS – SciArt Workshops
- Zoological Survey of India summer camp
- Adobe Illustrator for Beginners (Udemy)
- State Natural History Museums
- BNHS (Bombay Natural History Society)

MAJOR ORGANIZATIONS

- Byju's, Unacademy, Vedantu
- NCERT, CBSE
- IPGIMER, Apollo Hospitals
- Pharma Companies
- IISc (Indian Institute of Science)
- ZSI (Zoological Survey of India), Kolkata

SWOT ANALYSIS



Strengths:

- High demand in growing sectors like EdTech, healthcare, and research.
- Diverse career paths in medical illustration, wildlife art e.t.c.
- Freelance flexibility for global clients.

Weaknesses:

- Limited full-time jobs due to project-based or freelance roles.
- Moderate pay in early career.
 - Success depends on portfolio strength and client preferences

Opportunities:

- Demand for animators and illustrators for STEM content.
- Medical & Healthcare Expansion
 - Global Freelancing
- Government & Research Funding

Threats:

- Budget Constraints
 - Competition
 - Lack of Formal Recognition

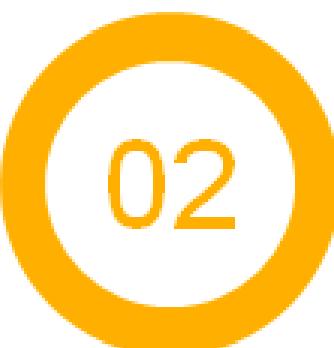


CAREER TRAJECTORY



ENTRY LEVEL (0-2 YRS)

Junior Scientific Illustrator
Freelance Illustrator (Science Projects)
Medical/STEM Content Artist
₹2.5–5 LPA



MID LEVEL (3-6 YRS)

Scientific Illustrator (Publishing/Research Labs)
Medical Animator (Healthcare Companies)
Visualization Specialist (Museums/Science Centers)
₹6–12 LPA



SENIOR LEVEL (7-12 YRS)

Lead Scientific Illustrator
(Universities/CSIR/ICMR)
Art Director (Science Communication Agencies)
UX Designer ([Sci-Tech Apps](#), AR/VR)
₹12–25 LPA



EXPERT (12+ YRS)

Chief Visualization Officer ([Sci-Tech Firms](#))
Founder (Scientific Illustration Studio)
Consultant (WHO for Science Communication)
₹25+ LPA



MEDICAL TECH AND ENGINEERING



CAREERS IN MED. TECH AND ENGINEERING



- **Biomedical Engineer** – Designs medical devices and machines.
- **Tissue/Bio-fabrication Engineer** – Builds tissues/organs in labs.
- **Medical Physicist** – Uses physics in scans and radiation therapy.
- **Computational Biologist** – Models biology using computers.
- **Bioinformatics Expert** – Analyses biological data with tech.
- **Nanotechnologist** – Creates microscopic tech for health use.



COURSES AND ELIGIBILITY

Career	UG Course	PG Course	Entrance Exam
Biomedical Engineer	B.Tech / B.E Biomedical Engineering	M.Tech Biomedical / Medical Instrumentation	JEE Main, State CETs, CUET (B.Sc route)
Tissue/Bio-fabrication Engineer	B.Tech Biotechnology / Biomedical Engg.	M.Tech Tissue Engineering / Regenerative Medicine	GATE, CUET, Private Univ. Exams
Medical Physicist	B.Sc Physics / Radiology	M.Sc Medical Physics (with RSO certification)	CUET, JEST, BARC Exam
Computational Biologist	B.Sc / B.Tech Comp. Biology / Bioinformatics	M.Sc / M.Tech Computational Biology	CUET, CMI, GATE, BINC
Bioinformatics Expert	B.Sc Bioinformatics / Life Sciences + Coding	M.Sc Bioinformatics / Genomics	CUET, BINC, GAT-B
Nanotechnologist	B.Tech Nanotech / B.Sc Physics / Chemistry	M.Tech / M.Sc Nanotechnology	CUET, GATE, JEST

SKILLS



-  **Technical & Analytical Skills**
 - Strong foundation in Physics, Biology, and Mathematics
 - Data interpretation and logical problem-solving
 - Understanding of engineering and medical principles
 - Computational modeling and scientific analysis
-  **Technology & Tool Proficiency**
 - Proficiency in programming languages (Python, R, MATLAB)
 - Use of CAD software for device design
 - Operation of biomedical instruments and diagnostic tools
 - Familiarity with bioinformatics platforms and simulations
-  **Research & Innovation**
 - Innovation in developing new health-tech solutions
 - Knowledge of tissue engineering, nanotech, and fabrication
 - Research methodology and lab experimentation
 - Scientific writing and documentation
-  **Soft Skills**
 - Attention to detail and precision
 - Clear communication across interdisciplinary teams
 - Adaptability to emerging technologies
 - Ethical responsibility and safety awareness



Top UG Colleges :

- IISc Bangalore
- IISER Pune
- St. Stephen's College, Delhi University
- IIT Bombay
- Loyola College, Chennai

Top PG Colleges

- Symbiosis Institute of Health Sciences (SIHS), Pune
- Tata Institute of Social Sciences (TISS), Mumbai
- AIIMS Delhi
- Amity University, Noida
- Medesun Healthcare Solutions, Hyderabad



MEDICAL PHYSICIST

Medical physicists apply principles of physics to healthcare, especially in diagnosis and treatment of diseases using radiation. They work closely with radiologists, oncologists, and technicians to ensure the safe and effective use of medical technologies such as MRI, CT, and radiotherapy.



Famous Hiring Organizations

- BARC (Bhabha Atomic Research Centre)
- Tata Memorial Hospital
- AIIMS (Delhi, Bhopal, Rishikesh, etc.)
- Fortis, Apollo, Max Healthcare
- AERB (Atomic Energy Regulatory Board)
- SGPGI Lucknow, PGIMER Chandigarh

INTERNSHIPS FOR 11-12TH GRADERS:

- Apollo Hospitals
- Fortis Healthcare
- Manipal Hospitals
- Narayana Health
- Omega Healthcare
- GeBBS Healthcare Solutions
- R1 RCM

SWOT ANALYSIS



Strengths:

- High demand in cancer treatment, diagnostic imaging, and nuclear medicine.
- Job stability in hospitals, research, and regulatory bodies.
- Recognized profession in the US, EU, and Middle East.

Weaknesses:

- Limited awareness; often confused with radiologists/engineers.
- High qualification barrier; requires MSc/PhD + certifications.
- Stressful work environment with high responsibility.

Opportunities:

- Cancer care expansion; AI integration; government push
- Start up opportunities in medical imaging tech.

Threats:

- Regulatory hurdles; technician vs. physicist confusion.
- Automation risks
- inconsistent funding dependence on research roles.



CAREER TRAJECTORY



ENTRY LEVEL (0-3 YRS)

Junior Medical Physicist,
Trainee
₹4-6 LPA



MID LEVEL (4-8 YRS)

Clinical Medical Physicist
₹ 8-12 LPA



SENIOR LEVEL (9-12 YRS)

Radiation Safety Officer, Consultant
₹15-20 LPA

EXPERT (12+ YRS)

Chief Physicist, Department Head, R&D Director
₹25-35+ LPA



TOP UG COLLEGES:

Indian Institute of Science (IISc), Bangalore
IIT- Delhi, Bombay, Madras
Jawaharlal Nehru University (JNU), Delhi
University of Delhi (DU)
Amity University, Noida

TOP PG COLLEGES:

Centre for Cellular and Molecular Biology (CCMB) Hyderabad
National Institute of Biomedical Genomics (NIBMG), Kalyani
University of Pune
Manipal Academy of Higher Education

COMPUTATIONAL BIOLOGIST

A Computational Biologist uses mathematics, computer science, and biology to analyze biological data. They work on genomics, drug discovery, evolutionary models, and disease prediction using computational methods.



INTERNSHIPS FOR 11-12TH GRADERS:

- CSIR-IGIB, NCBS, IISER, SIB Swiss
- Coursera & edX projects with Harvard/Bioinformatics Institute
- Summer fellowships in India (INSA, IASc, IISc)

MAJOR ORGANIZATIONS

Biotech firms (Novartis, Illumina, Thermo Fisher)
IT+ Bio companies (TCS Life Sciences, Cognizant)
Research institutions (NCBS, IISER, ISB)
Pharma companies (Sun Pharma, Biocon)

SWOT ANALYSIS



Strengths:

- Growing demand in research & pharma
- Interdisciplinary opportunities

Weaknesses:

- Steep learning curve (bio + coding)
- Needs strong computational skills

Opportunities:

- Genomics, AI integration
- Personalized medicine boom

Threats:

- Limited awareness in schools
- High competition in top roles



CAREER TRAJECTORY



ENTRY LEVEL (0-3 YRS)

Junior Computational Biologist
Bioinformatics Analyst
Research Assistant (Genomics/Pharma)
₹5–10 LPA



MID LEVEL (4-8 YRS)

Computational Biologist (Pharma/Research Labs)
Data Scientist (Biotech/Healthcare)
NGS (Next-Gen Sequencing) Analyst
₹12–20 LPA



SENIOR LEVEL (9-12 YRS)

Senior Scientist (ICMR, Institute of Genomics)
Team Lead (AI-Driven Drug Discovery)
₹22–40 LPA



EXPERT (15+ YRS)

Director (/Computational Biology)
Chief Scientific Officer (Biotech Startups)
Professor & Head (Top University-JNU)
₹45+ LPA

TOP UG COLLEGES:

JNU, New Delhi (B.Sc. Bioinformatics)
IBAB, Bengaluru (4-year B.Sc./B.Tech specialization)
University of Hyderabad
Pondicherry University
Amity Noida
VIT Vellore (strong electives/specializations)

TOP PG COLLEGES:

IISc Bangalore
IIT Delhi
IIT Madras
IIT Kharagpur
JNU, Delhi
IBAB, Bengaluru
University of Hyderabad

BIOINFORMATICS



Bioinformatics is the field that combines biology, computer science, and statistics to analyze and interpret biological data like DNA sequences and protein structures. It plays a key role in areas like genomics, drug discovery, and personalized medicine.

INTERNSHIPS FOR 11-12TH GRADERS:

- IISc Bangalore – Computational Biology Labs
- NCBS Bangalore – Research Internships
- IGIB Delhi – Genomics & Bioinformatics Projects
- IIT Madras (SPARK) – Summer Research Internship
- Elucidata (Delhi/Remote) – Biomedical Data Internship

MAJOR ORGANIZATIONS

- MedGenome
- Strand Life Sciences
- TCS Life Sciences
- Elucidata
- Mapmygenome

SWOT ANALYSIS



Strengths:

- Growing field in genomics, drug discovery, personalized medicine.
- Interdisciplinary skills in demand (biology + computing/statistics).

Weaknesses:

- Undergrad-only backgrounds often face a ceiling without PG/PhD.
- Quality of undergraduate bioinformatics varies; many students transition via biotech/CS.

Opportunities:

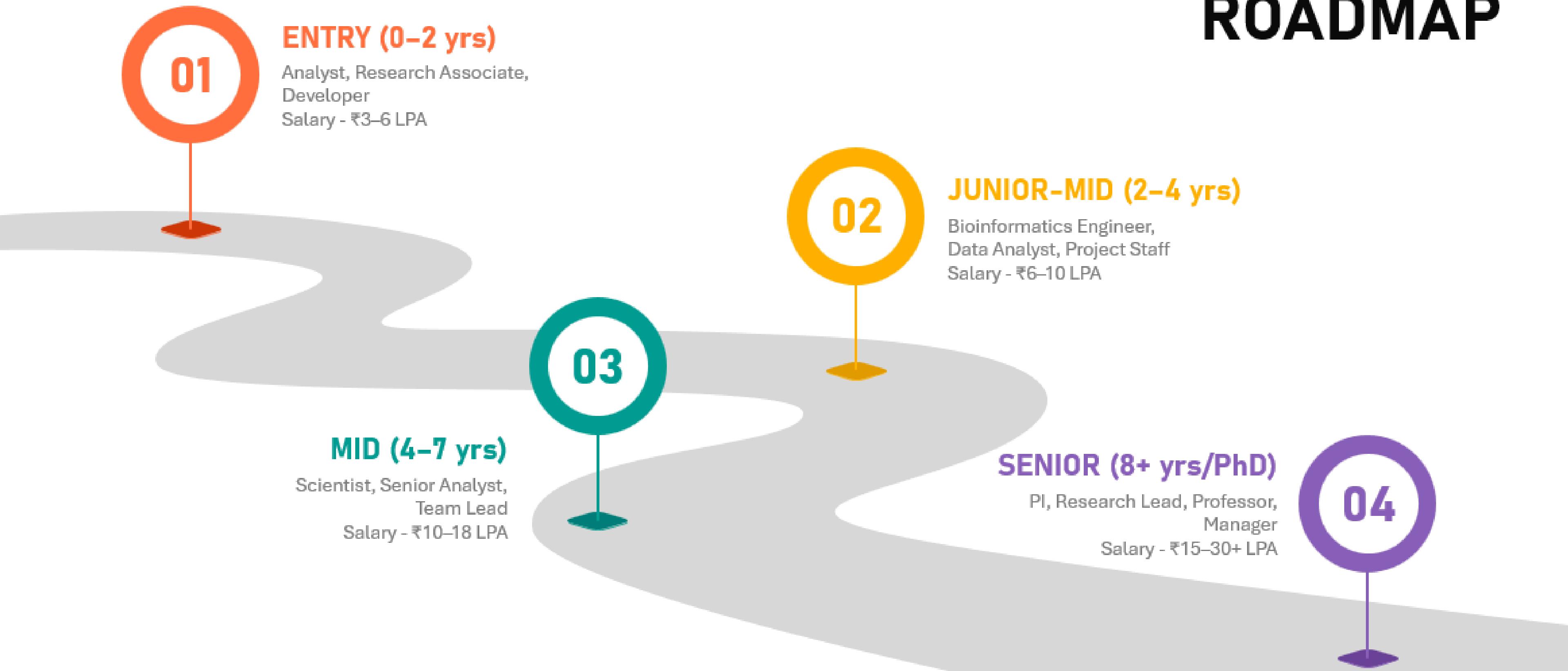
- Research roles in premier institutes (CSIR labs, IGI, NCBS, CDFD).
- Industry demand from pharmaceutical, biotech, healthcare, health-tech firms.

Threats:

- Skill mismatch or too-generic profiles limit earning potential.
- Research roles abroad are highly competitive.



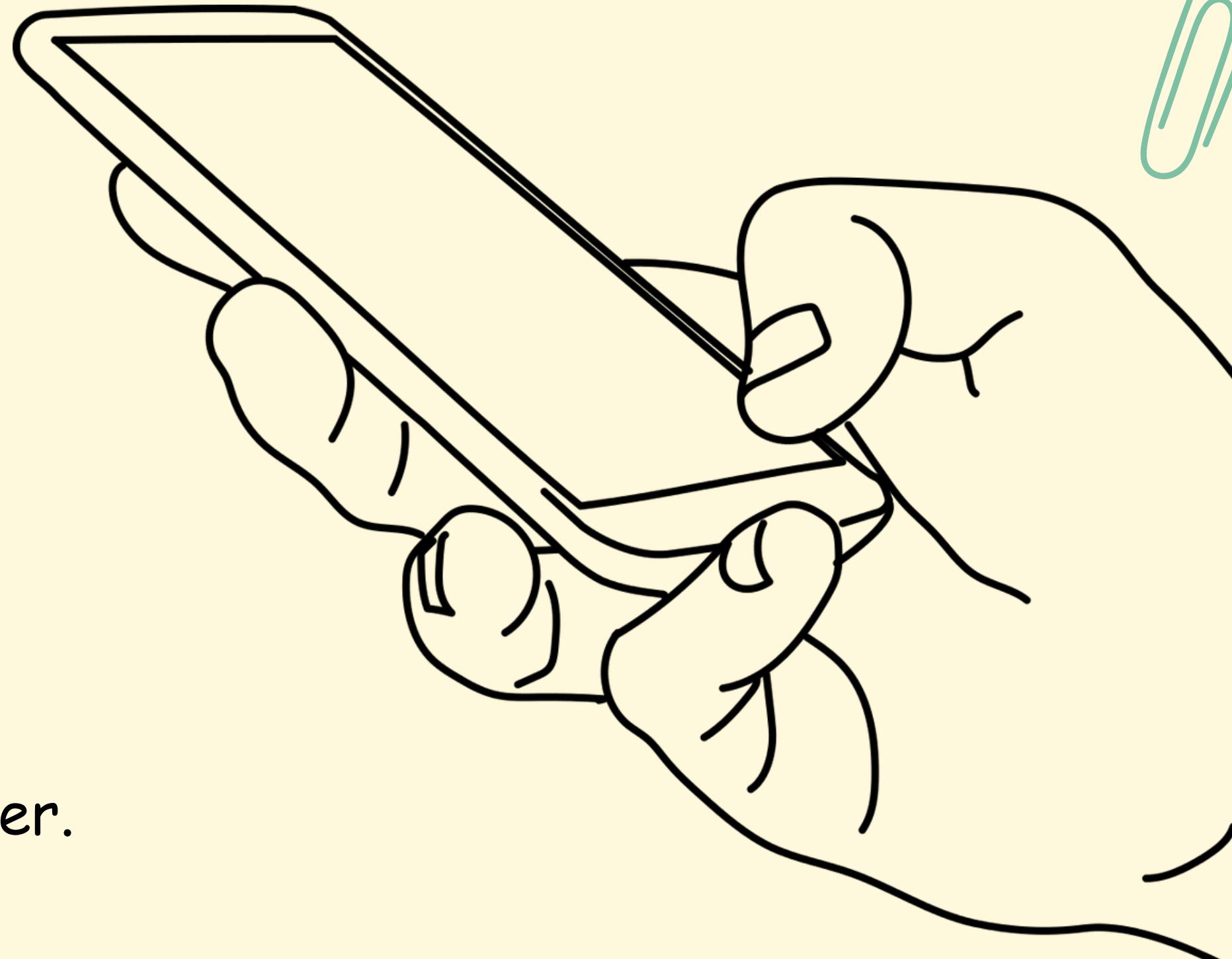
DIGITAL TRANSFORMATION ROADMAP





THANK YOU

Let's Shape Your Future Together.



DreamWorks



dreamworks.dpsr@gmail.com



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