

Transitioning from PCB Background to IT Industry

1. Is It Possible?

Yes. The IT industry is **skill-driven, not degree-locked**. A background in Physics, Chemistry, or Biology does not prevent entry into IT.

- Companies value **skills, projects, and problem-solving ability** over academic stream.
- Many professionals from **biology, arts, commerce, and teaching** backgrounds have successfully shifted into IT.

2. Entry Paths for PCB Graduates

1. Data & Analytics

- Tools: Excel, SQL, Python, Power BI, Tableau
- Roles: Data Analyst, Business Analyst
- Advantage: Analytical and logical reasoning skills from science background.

2. Software Development

- Skills: Python/Java, HTML, CSS, JavaScript, React, Node.js
- Roles: Frontend Developer, Backend Developer, Full Stack Developer

3. AI & Bioinformatics

- Skills: Python, Data Science, Machine Learning
- Roles: Bioinformatics Analyst, Healthcare Data Scientist
- Advantage: Strong overlap between biology knowledge and AI applications in medicine/pharma.

4. EdTech / Training Technology

- Skills: LMS tools, content development, basic programming
- Roles: EdTech Specialist, Tech Educator

3. Real-World References (Valid Links)

1. Biology → Systems Engineer at Infosys

A biology student learned Python & Java, completed certifications, and secured

a systems engineer role at Infosys.

👉 [GeeksforGeeks – My Journey From Biology Student to Systems Engineer](#)

2. **Biology → Android Developer**

Lara Martín shifted from biology studies to tech, starting in QA, then Android development.

👉 [Medium – How I Took My First Step in Tech](#)

3. **Psychology & Biology → Software Engineer**

Laura transitioned into software engineering despite a psychology and biology degree, using bootcamps and meetups.

👉 [Nocsdegree.com – From a Psychology and Biology Degree to Software Engineer](#)

4. **Biology → AI Career**

Aiswarya K shared her shift from a biology background to AI roles in tech.

👉 [LinkedIn – How I Transitioned from Biology Background to AI](#)

5. **Science Teacher → Systems Engineer at AWS**

A teacher moved into AWS systems engineering through an apprenticeship.

👉 [Careershifters – From Teaching to Tech](#)

4. Suggested Transition Roadmap

Year 1 (Foundation & Projects):

- Learn basics: Excel, SQL, Python, GitHub.
- Build starter projects: sales dashboards, student performance analysis, personal portfolio website.

Year 2 (Specialization & Transition):

- Choose a track (Analytics, Web Development, AI).
- Add specialization: Power BI/Tableau OR React/Node.js OR ML libraries.
- Complete 3–5 strong portfolio projects.
- Apply for internships, freelance roles, or apprenticeships.
- Network via LinkedIn and tech communities.

5. Why PCB Background Is an Advantage

- **Analytical mindset** from science subjects helps in logic and coding.

- **Domain expertise** in biology opens doors in healthcare, pharma, and bioinformatics.
- **Communication and discipline** from teaching or scientific studies transfer well to collaborative IT environments.

Final Takeaway

A PCB background is **not a barrier** to entering IT. With structured learning, practical projects, and consistent effort over 12–24 months, anyone from a science (biology) stream can successfully transition into IT roles. Real-world success stories across Infosys, AWS, Android development, and AI careers prove that this shift is practical and achievable.