

Free Sample Preview

Semiconductor Career Roadmap

From fresh grad to process expert

This is a free preview page.

Full version includes more chapters & cases.

Semiconductor Process Engineer Career Roadmap

Stage 1: Fresh Grad / Process Assistant (0–2 yrs)

- Master cleanroom rules, ESD & chemical safety
- Learn basics: thin-film / etch / CMP / implant
- Pick up SPC, FDC data viewing and basic DOE

Stage 2: Process Engineer / TD PIE (2–5 yrs)

- Own 1–2 modules; build recipe flow
- Resolve defects & parametric issues; write SOPs
- Join NPI and new-platform ramp; cross-functional work

Stage 3: Senior Engineer / Module Owner (5–8 yrs)

- Drive yield-improvement projects across modules
- Own tech transfer, customer audits & risk assessment
- Mentor juniors; build knowledge base & training

Stage 4: Process Expert / Architect (8+ yrs)

- Set technical roadmap; evaluate new materials / tools
- Interface with design, integration & customers
- Lead major technical decisions & patent strategy

Full roadmap also includes resume tips, interview prep checklist, skill-learning resources, and real-case salary references.