Guide 01

EUROPEAN CHIPS DIVERSITY ALLIANCE

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Student Career Checklist: Exploring Careers in the Semiconductor Industry

For University Students | From ECDA

Curious about careers in the semiconductor industry but not sure where to begin?

You're not alone - and that's exactly why we put this checklist together. Whether you're just exploring your options or already have an eye on a specific path, this guide will walk you through simple steps you can take on your own (and with a little help) to figure things out and start moving in the right direction.

Steps You Can Take on Your Own

1. Explore the Industry and Your Interests

- Take a quick career quiz (like the one on SEMI Careers).
- Try the ECSA e-learning platform to learn about the industry.
- Check out the Chip In documentary film featuring three young people as they explore the huge, future-focused, and exciting world of microelectronics.
- Watch real stories from people working in the field - SEMI Stories and others on YouTube.
- Tune into podcasts to explore microelectronics and discover how they drive everything from your smart devices to clean energy - The Future of Semiconductors, The Circuit, Beyond the Valley, The Chip Observer, The Moore You Know, and more, available on Spotify.
- Spruce up your Insta feed and stay in the know! Check out companies like @Intel, @NVIDIArobotics, @imec_int, @SiemensCareers, @Comet.Technologies, @xfabulous_foundry, @Infineon_Technologies, @SynopsysLife, as well as accounts that tailor to students and young professionals like @SEMINextGen, @DiversityInChips, and @EuropeanChipsSkillsAcademy.

- Ready to dig deeper? Learn more about the brain behind modern devices - its history and future - in binge-worthy books like *Chip War*, *The Innovators*, *Material World*, and *Silicon: From the Invention of the Microprocessors to the New Science of Consciousness*.
- Google companies that interest you and learn about what they do – start with the major employers in Europe. You can check out the Top 15 European Semiconductor Companies here.
- There's a place for you in the industry regardless of your background!

2. Polish Your Application Tools

- Keep your CV and LinkedIn updated with recent experiences - add internships, projects, coursework, volunteer activities, and soft skills.
- Use keywords from job descriptions to tailor your CV for each application (e.g. "data analysis," or "project management").
- Highlight achievements with impact and quantify where possible (e.g. "Led a team of four on a robotics project that won 2nd place in a national competition.")
- Ask a professor or friend to review your CV.
- Save your CV as a PDF and keep both digital and printed copies.

3. Get Ready for Interviews

- Practice answering common interview questions, such as:

  1. "What are your strengths and weaknesses?" *"One of my strengths is being organized - I use tools like Trello to manage deadlines. A weakness I'm working on is public speaking, so I've joined a student club to practice."*

  2. "Why do you want to work in this industry?" *"I'm excited about semiconductors because they're essential to so many innovations - from smartphones to clean energy. I want to be part of that future."*

  3. "Tell me about a time you solved a problem." *"In a group project, our code wasn't working. I suggested we split up the debugging and document what we tried -this helped us fix the issue and meet the deadline."*

- **Tip:** Take a brief pause before answering to collect your thoughts, especially if you're asked something unexpected. Ask clarifying questions if needed. Interviewers aren't grading you on speed - they're looking for clarity, relevance, and depth. A clarifying question helps you get there.
- **Tip:** Use the STAR method (Situation, Task, Action, Result) to structure your answers. When answering in the STAR format, consider ending with what you would do differently next time and the key lessons you learned from the experience.
- **Come prepared with a few questions of your own, such as:** "*What does a typical day look like in this role?*", "*What are the team's main priorities right now?*", *"What skills or qualities do you think are most important for this role?"* or "*What are the most important contributions someone in this role can make in their first three months?*"
- Send a thank you message within 24 hours of your interview. Mention something you enjoyed learning about or a topic you'd love to contribute to.

4. Make a Great First Impression

- Research the company in advance - look up what they do, their recent projects or products, their mission and vision, and think about how your interests or skills might align.
- Dress smartly and professionally (a full suit isn't necessary).
- Show curiosity: Ask smart questions, especially if you don't know something.
- Highlight adaptability - *"I might not have direct experience, but here's how I learn fast."*
- Demonstrate teamwork and initiative - describe a time you worked in a cross-functional group or contributed to a successful team outcome.

5. Learn from Others

- Follow industry leaders and professionals on LinkedIn.
- Join student groups like Institute of Electrical and Electronics Engineers societies at your university.
- Check out industry videos on YouTube to get inspired!

How to Get Connected and Get Ahead

6. Start Building Your Network

- Go to events like SEMICON Europa, the SEMI Talent Forum, and the ECSA Student Forum.
- Brush up on networking tips: be polite and don't interrupt, ask thoughtful questions. Approach conversations with curiosity and respect - everyone communicates differently, and that's okay.
- Join events at your university or online - look for career fairs, guest lectures, or webinars hosted by your department and student societies.
- Join LinkedIn groups focused on microelectronics careers.
- When meeting someone, be bold and ask if you can connect on LinkedIn - most people appreciate the initiative.

7. Use Your Network to Find Opportunities

- Message professionals for tips or advice - for example, you could ask what they enjoy about their job, what skills have helped them to be successful, or how they got started in the field.
- Curious about events? It's okay to ask (politely!) if student discounts or free tickets are available - just be respectful and understanding if the answer is no.
- If there's a social event, it's fine to have a drink - just be mindful and keep things professional.
- Keep in touch with people you meet. Connect on LinkedIn with a short message, or follow up by email if you had a good chat. You can also politely ask if they'd be open to a quick call or informal mentoring.

8. Try Out Industry Programs

- Apply to relevant industry initiatives such as:
  - Summer School
  - ChipQuest
- Become a Student Ambassador and grow your experience.

9. Use Campus Resources

- Professors aren't just teachers - they often have strong ties to companies. They can offer career guidance. If you show interest and

initiative, they might think of you the next time an opportunity comes their way.
- Visit the career centre for help with CVs or interviews.

10. Keep Exploring

- Keep your profiles updated.
- Be curious and take action.
- Even a small step - like sending a message - can lead to a big opportunity.

Find more opportunities and tools, get in touch with the ECDA team!

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