

Oregon Legislature's Joint Committee on Semiconductors,

I am writing to share my experiences with the Semiconductor Trak of the University of Oregon's Knight Campus Graduate Intern Program (KCGIP). From the start, I felt inspired and supported by the most caring staff and faculty I have ever worked with. Unlike many physics programs, the professors in KCGIP have an obvious passion for teaching. All questions are welcomed, and I could always find help inside and outside the classroom. Each class treats semiconductor physics as an interdisciplinary discussion rather than a one-sided lecture. This model of teaching utilizes two crucial techniques often overlooked in standard science courses: First, it encourages us to think critically and discover the physics ourselves, creating a much deeper and longer-lasting understanding. Second, this method allowed us to work together and practice asking and answering questions as a team.

In addition to the superb academic support, KCGIP also offers extensive hands-on practice. Throughout the program, students work in teams to apply semiconductor physics concepts from the classroom to projects in the lab. From the beginning, we are handling silicon wafers and learning skills directly requested by our industry partners. These lab classes allow us to have a unique understanding of all processes required to go from a bare silicon wafer to a fully functional transistor. Our projects are designed to ensure we are prepared for industry. After being taught how to use the tools, we are not given explicit instructions on how to build our semiconductor devices. Instead, we were encouraged to visualize the device geometry and develop our own project plan. These labs teach us to problem-solve, strategize, work as a team, and provide opportunities to practice technical skills.

The most unique part of the KCGIP is their focus on helping students succeed in industry. In addition to giving their students a strong technical background, we also participate in professional development workshops and seminars. In the six-month on-campus portion of this program, I learned more about networking and how to succeed in an industry environment than in the four years I was earning my bachelor's degree. I was able to network with engineers and managers from different tech giants every week. Each student receives one-on-one feedback on their resumes and interview skills. Once again, I felt like the KCGIP staff was genuinely invested in my future. Thanks to this program, I was invited to interview for fourteen different positions. After interviews, I received ten job offers, eight of which were from Oregon-based companies. In only six months, the Knight Campus Graduate Internship Program has helped me go from a college-graduate with no technical experience, to an intern engineer in Intel's Oregon Assembly Technology Development Foundry, and this September I will graduate with my masters in Semiconductor Physics and join Intel as a full-time employee.

I am incredibly grateful for everything this program has done for me. Thanks to the Knight Campus Graduate Internship Program, I have achieved my educational dreams and feel prepared to conquer my professional goals.

Thank you for your time,  
Rachael Runion