

Amazon Technical Academy Program Design

Note: A program design is not provided because this content is proprietary, but hopefully this explains the process we went through.

Amazon began training employees looking for a career change to become software developers in 2017. The courses were small and entirely in person, in Seattle. In 2020, with the pandemic, the nature of an in person classroom was no longer sustainable. At the same time, the population interested in training expanded to include workers in facilities. This population is more diverse and includes many historically disadvantaged populations, including those without a college degree. Leadership made the decision to rebuild the curriculum to better support the growing needs. These requirements included a faster pipeline to support company needs, online learning support, and a program better able to support the population. In addition, requests came in to offer more modularity so that a new employee with software development background but needing to learn Amazon tools might be offered a portion of the program.

I was hired in 2021 as the sole Learning Experience Designer for the curriculum. Since I had limited technical background and no Java expertise, I faced an uphill battle in convincing the team I was capable of improving on their program design. I shared my educational expertise while at the same time diving into the technical content by rewriting a few existing lessons to better support an out-of-classroom experience. This had two benefits: it allowed me to familiarize myself with the current curriculum while proving to stakeholders I provided value. While the existing instructors were reluctant to make changes, they admitted that the new plan offered several benefits, most importantly flexibility for learners.

My next step was reviewing what others taught. I spent some time comparing requirements from the computer engineering accrediting body, 2- and 4-year college programs, and boot camps. I recruited program graduates and asked questions about their experience. I surveyed hiring managers to determine what they needed in new hires. I worked with the instructor team to discover gaps in the curriculum based on the information from my analysis and focus groups. We also discovered a few places we could eliminate or reduce existing content.

At this point, worked with the lead instructor and senior engineer to develop the 9-month curriculum. Topics were rearranged to better fit a modular approach. At the same time, I developed a curriculum map, determining which courses were required before others or around the same time. At the same time, I approached my boss with how massive an undertaking this would be! I petitioned for additional support, and we were granted 3 new LXDs, an LMS administrator, and 8 engineers to build the program.

After that, I worked to devise a curriculum plan. I encouraged the team to adopt a competency-based approach to the curriculum, and got the blessing to create learning objectives for each topic. From there, we developed rules like “learner completes simple encapsulation 5 times in a program” to assess competency. I eliminated multiple-choice tests and focused entirely on an assignment-based curriculum, so that learners could prove competency in a project and have it evaluated automatically with unit tests.

Once the full curriculum team was in place, I was able to fully own program design and vision. I worked on risks and mitigation strategies of the new program, assessment plans, and launch concerns.

The program launched successfully in 2023, generating a 12% increase in learner success over the prior 2 years.