Career development

Advice for post-COVID careers

COVID-19 has changed some aspects of the world of work forever, but others have stayed much the same. Andrew Hirst and Veronica Benson look at how physics students can prepare for careers in the post-pandemic world, and what universities and employers can do to help them.

As offices, labs and workplaces begin to reopen, it is clear that the COVID-19 pandemic will have a lasting effect on ways of working across industry and academia. It might even alter the careers landscape, in terms of the numbers and types of opportunities available. But the key factors dictating whether physics students will get the jobs they want after university remain broadly the same: access to work experience and professional-skills development, engagement with careers support and informed career-decision processes.

These points are central to the debate about the role of higher education and the growing need for universities to demonstrate that their graduates are getting good, well-paid jobs. An important way of doing so is through career-oriented activities that help them develop “work-ready” skills and learn how they can “fit” their degree to the workplace. Such activities should be designed with the current and future jobs market in mind.

Labour market data suggest that before COVID-19, graduate vacancies that were “hard to fill” included programming, software development and engineering-related roles. The good news for physicists is that these are all career areas that they typically go into. But the reason why these roles are hard to fill, according to a report by the graduate careers organization Prospects, is that applicants often lack relevant technical and practical skills, including advanced problem-solving related to a specific situation, complex numerical or statistical understanding, and role-specific specialist skills. So it’s important that physics students make the most of the practice that their degree offers them to improve in these areas.

While these job opportunities will remain, the growing trend towards online and virtual working might prompt employers to change their priorities when assessing candidates. According to Prospects, businesses want to adapt by placing greater importance on digital skills like effective online communication and the ability to work autonomously using various online platforms. Employers are also increasingly valuing creativity, critical thinking, interpersonal communication and leadership abilities. So if you’re a physics student, developing these competencies, as well as more technical skills, could help you stand out in future applications.

Employer input

Even companies that haven’t been affected much by the pandemic so far are reconsidering their criteria in hiring decisions. This was a point that came up at a one-day physics careers education webinar held last year by the White Rose Industrial Physics Academy and the South East Physics Network – two organizations that support physics students in their transition to graduate-level work. During the webinar, a panel of representatives from defence firms AWE, BAE Systems and Ultra Energy, along with deep-tech company MeVtiae said that, although COVID-19 has had a minimal impact on their businesses, it will affect their future needs. That’s largely because it has accelerated the trend towards flexible working. Recruiters will therefore place even more emphasis on qualities such as adaptability, resilience and high-level communication skills.

To ensure that graduates become competent in these areas, it is essential that employers tell universities what sort of people they are looking for, and that institutions adapt their degree programmes accordingly in response. For example, Keele University’s chemistry department worked with industrial partners to redesign its degree course after receiving feedback that its graduates had limited reporting skills.

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