

NOTE: This document represents an earlier preliminary draft version of a final statement released on 4 May 2020. The final version is accessible here:

<https://aip.org.au/covid-19-teaching-position-statement>

The preliminary draft version below formed the basis of a member consultation process commenced on 9 April 2020, and it is provided here only for archival purposes.

9 April 2020

Preliminary position statement by the National Executive of the AIP for member consultation

Online and face-to-face delivery of lectures, labs and exams in the natural sciences during and beyond the COVID-19 crisis

The Australian Institute of Physics (AIP) joins many other public and private institutions in recognising that the COVID-19 situation requires crisis management measures. During these times, some of our well-founded practices and standards are being compromised, in order to respond with flexibility to maintain and sustain as much activity as possible.

In the context of university undergraduate and high-school teaching in the natural sciences, these changes include: face-to-face learning activities such as tutorials, the practical and laboratory component of our curricula, and the invigilated exam assessment components. The AIP endorses the universities' and schools' attempts to maintain student learning and progression by temporary replacement of face-to-face components by online activities.

Yet, the AIP expresses its position that any such changes to an online delivery mode should be viewed as a short-term emergency response during the crisis. A return to best practice should be actioned at the earliest opportunity, when it is safe to do so.

The AIP holds that high quality physics and science degrees require large components of the curriculum to be hands-on and face-to-face: laboratory classes, student-focused tutorial classes, individual research and thesis projects and, more broadly, the social structure of the degree programs with extended student-student and teacher-student contact. The AIP endorses the integration of novel technologies that enhance learning and teaching, or access to education. But the AIP is clear in its appraisal of the necessary physics and science curricula and learning activities as described above. The AIP is also of the opinion that any long-term changes should come about through thorough and continuous review of learning methods, rather than changes brought about by an emergency situation.

Through the accreditation process for physics degrees, the AIP fulfils an important function in independent quality assurance of these degrees in the Australian higher education sector. This is strengthened by the AIP's links to other national professional associations and to international physics institutes, which provide benchmarking inputs for physics and science qualifications, as well as insights into opportunities for student mobility. In this role and through this statement, the AIP wishes to add its voice to a public discourse about risks (and opportunities) of long-term effects of the COVID-19 crisis on the structure and quality of science education in Australia. This is a particularly pressing topic due to the likely negative consequences of the Covid-19 crisis on university budgets in the years to come.

In all likelihood, Australia and the world will face many more challenges, most prominently climate change. Top quality science, including physics, will be essential in first understanding and then mitigating or overcoming these

challenges. This requires that the next generation will have the best possible educational opportunities available to them. The AIP is ready to contribute to ensuring the current crisis does not erode Australia's capacity in the future through losses in education quality.

This document is a preliminary position statement developed by the National Executive of the Australian Institute of Physics. It is released for public information and for member feedback. Feedback is sought by email to feedback@aip.org.au by Thursday 16 April 2020, after which date the AIP plans to release a finalised position statement incorporating feedback from members.

Contact person: Dr Gerd Schröder-Turk, Special Project Officer, Australian Institute of Physics, (feedback@aip.org.au)

