Report on the Physics Admissions Exercise 2019

In 2019 Oxford Physics received a total of 1828 applicants for places in Physics and Physics and Philosophy, an increase of 246 (15.5%) compared to 2018. 1804 applicants were applying for entry in 2020 contesting 204 places, more than 8.8 applicants per place.

Of all the applicants, 1069 (58.4%) were classified as “UK” applicants (down from 64.5% in 2018), 337 (18.4%) were classified as EU but not UK (up from 13.1% in 2018), and 423 (23.1%) were classified as non EU (up from 22.4% in 2018).

The Physics Aptitude Test (PAT) has been run for several years, and it is known to be a good predictor of future performance at Oxford. The test is set to a defined syllabus and the content is checked by school teachers to ensure that the level is appropriate. Maths and physics elements are mixed together into a single two-hour paper. Further details, including the admissions criteria and sample papers can be found on the Oxford Physics Admissions website at: [www2.physics.ox.ac.uk/admissions/](http://www2.physics.ox.ac.uk/admissions/).

We are extremely grateful to all schools and test centres for hosting applicants. We took into account medical certificates and letters drawing attention to adversities in candidates’ personal lives that may have affected their performance or ability to participate in the test. We are grateful for the advice we have received from schools on adapting these tests to changes in school syllabi, and expect to continue to make minor changes reflecting such advice in subsequent years.

The total marks achieved on the PAT ranged from 0% to 96%, with a mean mark of 41.45% (52.7% in 2019) and a standard deviation of 16.76% (16.0% in 2018). More details are shown in the above graph, where the y-axis is the fraction of applicants achieving the x-axis score or less.

In short-listing, we used the results of the PAT, the contextualised GCSE\(^1\) (cGCSE) score and all other contextual information described at [http://www.ox.ac.uk/admissions/undergraduate/applying-to-oxford/decisions/contextual-data](http://www.ox.ac.uk/admissions/undergraduate/applying-to-oxford/decisions/contextual-data) in reducing the number of applicants to around 2.5 per place.

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\(^1\) The cGCSE score is expressed as the number of standard deviations the applicant is away from their ‘expected’ number of A*9/8 grades. It will typically be in the range -3 to +3, expressed to 2 decimal places.
The graph shows the cGCSE distribution for applicants to Oxford Physics.

The R-score was the shortlisting mechanism using the cGCSE score combined with the PAT mark as follows:

\[ \text{R-score (pre-shortlist)} = \text{PAT mark} + 10 \times \text{cGCSE} \]

388 candidates were automatically shortlisted using test marks and cGCSE alone (R-Score), with a further 69 candidates added after including contextual information. Finally a further 40 candidates whose application forms showed other evidence of excellence or mitigating circumstances were also short-listed to arrive at a final short-list of 497 candidates who were invited to Oxford for interview. Overseas (non EU) applicants were offered the option of remote interviews via video conference.

A key goal of the Oxford admissions process is that the probability of admission should not depend on the applicant's choice of College. Short-listing was therefore followed by a reallocation process, in which candidates were transferred from Colleges with a large ratio of candidates per place to Colleges with a smaller ratio. This ensured that the number of short-listed candidates per place was approximately constant across the collegiate University. This year 71 candidates were reallocated. Reallocation has been practised by the University for many years, ensuring that all strong candidates have the same chance of obtaining places at Oxford, although possibly not at their first choice Colleges.

In the vast majority of cases, two Colleges interviewed each short-listed candidate. Candidates from outside Europe who could not come to Oxford were interviewed by video conference. Candidates were then assessed based on their R-scores, interview results, and the information on the UCAS form, including contextual information, and compared centrally against all candidates applying to Oxford Physics. In this process, Colleges identified promising candidates for consideration by other Colleges, which may or may not have seen these candidates for interview. In 18 cases, candidates were offered a place from a college that had not interviewed them. Ultimately, 204 offers were made for entry in 2020 of which 13 were open offers and 13 were for Physics and Philosophy. 7 deferred offers were made for entry into Physics in 2021.