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UNIVERSITY OF OXFORD

From the Physics Admissions Coordinator

Report on the Physics Admissions Exercise 2023

In 2023, Oxford Physics received a total of 1672 applicants for places in Physics or Physics and Philosophy, an increase of 39 (2%) on the 2022 figures. Of these, 1652 applicants were contesting the 187 places available for 2024 admission, or approximately 8.9 applicants per place, with 20 applicants seeking deferred places. Compared to 2022, there was a slight decrease in the number of available places, reflecting post-pandemic capacity pressures in colleges.

Of the 1672 applicants, 1118 (66.9%) were classified as 'UK' applicants (63.3% in 2022), 96 (5.7%) were classified as EU but not UK (7.3% in 2022), and 458 (27.4%) were classified as non-EU (29.4% in 2022).

Across the collegiate university, Physics usually aims to interview around 2.5 applicants per place; this number was increased to about 2.9 this year for the reasons described below. For short-listing, we use the results of the Physics Aptitude Test (PAT) as well as all other contextual information described at http://www.ox.ac.uk/admissions/undergraduate/applying-to-oxford/decisions/contextual-data.

The contextualised GCSE[1] (cGCSE) score produced by the University was used as part of the shortlisting information. This is a return to previous practice, and follows the reinstatement of externally-assesed GCSEs rather than the teacher-assessed grades used during the pandemic. The cGCSE score is based on the ability to compare GCSE results between applicants from schools that are contextually 'similar'.

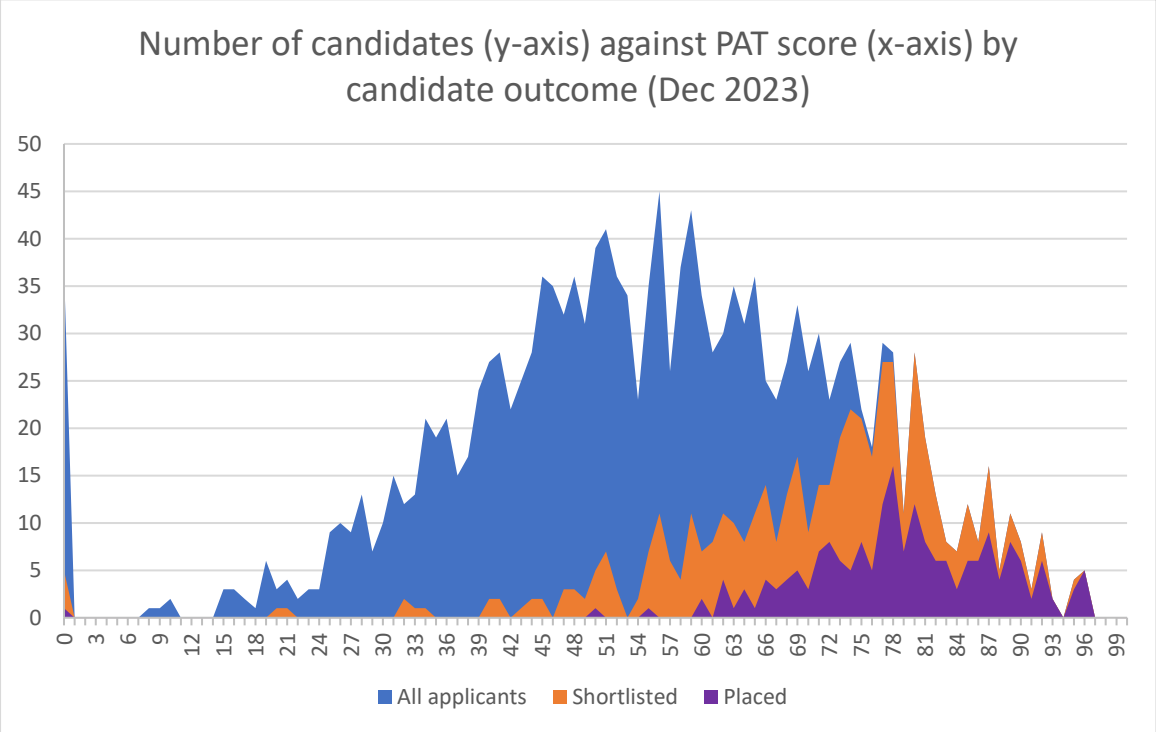
The PAT has been run for many years, and it is a good predictor of future performance at Oxford. The test is set to a defined syllabus and both the content and draft questions are checked by school teachers to ensure that the level is appropriate. Maths and physics elements are mixed together into a single two-hour paper. Each question is separately double-blind-marked, with markers focusing on individual questions to ensure consistency of approach. Further details, including the admissions criteria and sample papers, can be found on the Oxford Physics Admissions website at: https://www.physics.ox.ac.uk/study/undergraduates/how-apply/admissions-procedures-physics-courses .

In 2023 it had been planned, in line with other Oxford admissions tests, to change the format of delivery of the PAT such that questions were delivered online, with an online calculator, and with responses written on paper. Due to significant technical issues that were experienced during the delivery of other Oxford online admissions tests, the PAT was instead

[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 and was typically be in the range −3 to +3, expressed to 2 decimal places. Overseas applicants, or others lacking GCSE information, were assigned a neutral cGCSE score of zero.

delivered in a paper format for most candidates. This change of format significantly reduced the disruption that would have otherwise been caused to candidates. Despite these mitigating actions, the late change of format, environmental factors, and other resulting differences such as the change from an online to a physical calculator, caused disruption to candidates.

Notices of special considerations resulting from the change of PAT format were received and were considered at all stages of the subsequent process. Where candidates' tests were disrupted, the form of their disruption was considered in decision-making at the time of shortlisting and of offering places. To accommodate candidates whose performance in the PAT had been affected, the number of interviews was increased from 2.5 to about 2.9 applicants per place. A small number of candidates whose circumstances meant they were unable to take the PAT, or who were the most severely disrupted by the change in delivery format were invited to take an alternative PAT, during the same period as the interviews, the results of which were also considered when making decisions about places.



We are always extremely grateful to all schools and test centres for hosting candidates for the PAT. This is particularly true during this year in which the late change to the format caused significant late changes both to students and to those responsible for delivering the tests. We are also grateful for the yearly advice we receive from schools and teachers on adapting the PAT to changes in school syllabi, and on the effect of the test delivery format. We expect to continue to make further changes reflecting such advice in subsequent years.

There were a significant number of declared special circumstances, medical certificates or letters drawing attention to adversities in applicants' personal lives that may have affected performance or ability to participate in the test. All of these were taken into account both in making shortlisting and offer decisions.

The 2023 PAT was designed to be a little less time-constrained than the 2022 one, to smooth the transition to the intended online format. The marks achieved by applicants who sat the main PAT ranged from 8% to 96%, with a mean mark of 55.6% (previously 51.2% in 2022, 43.1% in 2021) and a standard deviation of 18.6% (16% in 2022, 17.7% in 2021). More details are shown in the graph above (this only includes marks on the main PAT). The spike at '0' includes applicants who withdrew, applicants who did not register for the PAT and/or applicants who were unable to sit the main PAT. This year continued a pattern of recent years whereby of the top 100 applicants by PAT mark, only around a quarter of these had all their secondary schooling within the UK educational system (either state or independent sectors).

In a return to pre-pandemic practice, the principal determinant for shortlisting this year was the R-score. Pre-interview this score is given by:

R-score pre-interview = PAT mark + 10 x cGCSE.

Our aim in the admissions process is to take the applicants whom we judge to have the most ability and potential to benefit from our course and teaching. Likewise, in the admissions process we are aiming to project applicants forward to their performance on-course, not just comparing the levels attained at age 17 or 18.

The 346 applicants with R-scores equal or higher than 75% were automatically shortlisted for interview, with a further 54 applicants with slightly lower scores also automatically shortlisted after the inclusion of contextual data, giving a total of 400 automatically shortlisted applicants (307 in 2022 and 298 in 2021). A further 190 applicants (compared to 164 in 2022, and 202 in 2021) who were below the automatic thresholds but whose application forms showed other evidence of excellence and/or mitigating circumstances, including considerations of various levels of technical disruptions during the PAT, were also shortlisted.

A total of 536 applicants were therefore invited for (remote) interview this year. 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 is therefore followed by a reallocation process, in which applicants are transferred from first-choice colleges with a large ratio of applicants per place, to colleges with a smaller ratio of applicants per place. This aims to ensure that, for each college, the ratio of interviewed first-choice applicants to places is as close as possible regardless of college. This year 105 applicants were reallocated to a different first choice college at the time of shortlisting. Reallocation has been practised by the University for many years, ensuring that all strong applicants have the same chance of obtaining places at Oxford, although possibly not at their first-choice college. Reallocation is not an indicator of the strength or weakness of an applicant; applicants with very high PAT scores can be reallocated.

Every short-listed candidate has two interviews given by a first-choice college and one given

by a randomly allocated second-choice college. Each interview is marked out of 10 based on the academic judgement of the interviewing tutors. The scale is such that a mark of 6 broadly corresponds to 'acceptable'; 7 corresponds to 'good'; and an average interview mark of 8 or higher will almost certainly result in an offer. Approximately 1% of interviews are scored as '10'.

Applicants are assessed based on the totality of information about the applicant with no one interview, by itself, decisive. While most of the accepted applicants have three good interviews (at least as viewed by the interviewers), 68 accepted applicants had one interview which scored less than a 7, while 14 accepted applicants had one interview which scored below 6. It is very hard for applicants to assess their own interview performance and we know from conversations with accepted students that it is extremely common for applicants to think that interviews which have gone well – even very well – have gone badly. For applicants offered a place, the average interview mark this year was 7.95 (7.98 in 2022).

We would like to express our gratitude for the hard work of both applicants' parents (for applicants interviewing from home) and teachers and IT staff of applicants' schools (for those interviewing from school) for their work in facilitating the interviews and making appropriate spaces available.

After the interviews, the three interview marks are combined into a single score (out of 100). To guide admitting tutors, an overall ranking was produced based on the post-interview R-score:

Post-Interview R-score = (PAT mark out of 100) + 10 x cGCSE + 2 x (Interviews out of 100)

This ranking is for guidance only; all applicants are assessed individually based on their R-scores, PAT scores, interview results, and all information on the UCAS form, including contextual information, and then compared centrally against all applicants applying to Oxford Physics.

To ensure that the strongest applicants obtain places, all colleges have access to information on all applicants through a central database, and colleges are actively encouraged to flag up strong applicants they will be unable to offer a place to themselves. As a result, 15 applicants were offered a place at a college that had not interviewed them at all, either as first or second college.

Ultimately, 199 offers were made for entry in 2024. These include 9 open offers, in which a college is not specified at the time of the offer. These are designed to cover the anticipated withdrawal rate of applicants who are made an offer and subsequently either decline the offer or fail to make the offer conditions. The offers include 16 offers made for Physics and Philosophy. A further 2 deferred offers were made for entry into Physics in 2025.

Every year, there are applicants who are excellent physicists who we do not get a chance to see at interview. There are also applicants who we interview and we would have liked to have offered places to, but are unable to do so because of the finite capacity of the course. We know that every year we turn down applicants who, in the end, turn out to be stronger

physicists than some of the applicants we do offer places to. We wish all applicants enjoyment and understanding in their future pursuits of physics.