

From the Physics Admissions Coordinator

Report on the Physics Admissions Exercise 2024

In 2024, Oxford Physics received a total of 1790 applicants for places in Physics or Physics and Philosophy, an increase of 118 (7%) on the 2023 figures.

Of these, 1758 applicants were contesting the 188 places available for 2025 admission, or approximately 9.4 applicants per place, with 32 applicants seeking deferred places.

Of the 1790 applicants, 1209 (67.5%) were classified as 'UK' applicants (66.9% in 2023), 98 (5.5%) were classified as EU but not UK (5.7% in 2023), and 483 (27.0%) were classified as non-EU (27.4% in 2023).

Across the collegiate university, Physics usually aims to interview around 2.5 applicants per place; this number was increased to about 2.8 this year, as described below. For short-listing, we use the results of the Physics Admissions Test (PAT) as well as all other contextual information described at <https://www.ox.ac.uk/admissions/undergraduate/applying-to-oxford/decisions/contextual-data>.

The contextualised GCSE¹ (cGCSE) score produced by the University was used as part of the shortlisting information. 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 has been 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. We are 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.

In the PAT, 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: <https://www.physics.ox.ac.uk/study/undergraduates/how-apply/admissions-procedures-physics-courses>.

In 2024, the PAT, in line with other Oxford admissions tests, was delivered online. The questions were presented online, in a multiple-choice only format, with an online calculator. Candidates had use of whiteboards to make notes and perform calculations.

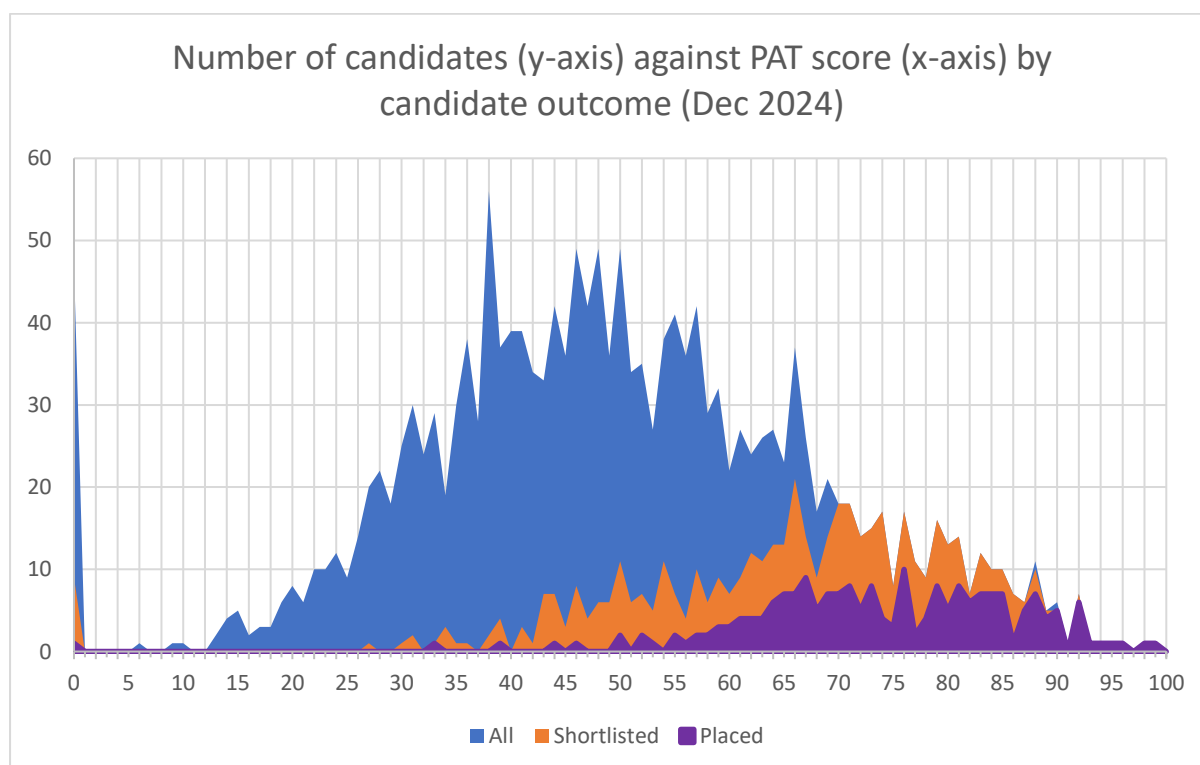
Most candidate' tests were successfully delivered; however a small fraction of candidates had disrupted tests caused largely by issues at their local test centres. Notices of special considerations and disruptions were received and were considered at all stages of the

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.

From the Physics Admissions Coordinator

subsequent process. To accommodate candidates whose performance in the PAT had been affected, the number of interviews was increased from 2.5 to about 2.8 applicants per place.

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 marks achieved by applicants who sat the PAT ranged from 6% to 99% (omitting those with no marks) with a mean mark of 49.6% (previously 55.6% in 2023, 51.2% in 2022) and a standard deviation of 18.5% (18.6% in 2023, 16% in 2022). More details are shown in the graph above. This year continued a pattern of recent years whereby of the top 100 applicants by PAT mark, less than a quarter of these had all their secondary schooling within the UK educational system (either state or independent sectors).

The principal determinant for shortlisting this year was the R-score. Pre-interview this score is given by:

$$\text{R-score pre-interview} = \text{PAT mark} + 10 \times \text{cGCSE},$$

where any negative cGCSE scores are omitted. 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 forwards to how applicants are likely to perform on-course, not just comparing the levels attained at age

From the Physics Admissions Coordinator

17 or 18.

The 322 eligible applicants with R-scores equal or higher than 70% were shortlisted for interview, with a further 56 applicants with slightly lower scores also automatically shortlisted after the inclusion of contextual data, giving a total of 378 automatically shortlisted applicants (400 in 2023 and 307 in 2022). A further 147 applicants (compared to 190 in 2023, and 164 in 2022) 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 disruptions during the PAT, were also shortlisted.

A total of 525 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 91 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), 61 accepted applicants had one interview which scored less than a 7, while 8 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 8.00 (7.95 in 2023).

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:

From the Physics Admissions Coordinator

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

where negative cGCSE scores are omitted. 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, 19 applicants were offered a place at a college that had not interviewed them at all, either as first or second college.

Ultimately, 202 offers were made for entry in 2025. These include 7 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 18 offers made for Physics and Philosophy. A further 7 deferred offers were made for entry into Physics in 2026.

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.