University of West London compliance relating to assessment and awards

Summary

The Office for Students (OfS) requires all registered higher education providers' courses to meet a minimum set of requirements, expressed in our conditions of registration that relate to quality and standards. This includes:

- a requirement in place since 1 May 2022 that academic regulations are designed to ensure that a provider's awards reflect students' knowledge and skills (that they are 'credible') (B4.2.c)
- a requirement that awards granted to students are credible at the point of being granted and when compared with those granted previously (B4.2.e).

This report assesses degree classification algorithms. These form part of a university's academic regulations or the rules and guidelines that govern the quality and integrity of its academic programmes.

Universities often use algorithms to apply rules that determine the final class of degree for a student. Historically, such rules might include:

- aggregating module marks for relevant years of study
- weighting the proportion of marks from each year or level of study that contribute to the final award
- determining the volume of credits that contribute to calculating the class of degree (discounting)
- using more than one algorithm to calculate a students' final mark and then awarding the student the higher result
- additional rules specifically about students whose performance sits close to the classification borderlines (borderline rules).

Our concern is that the rules that providers include in their algorithms have the potential to inflate the proportion of first and upper second class awards without corresponding changes in student achievement.

This regulatory case report explains why the OfS found that the University of West London was previously in breach of, and remains at increased risk of breaching, the condition of registration that concerns assessment and awards (condition B4).[1]

The OfS assessed changes the university had made to its academic regulations, the impact these had on the classifications it awarded and the reasons for the changes. A university's academic regulations are the rules that govern its higher education courses, including the award of degrees and other qualifications. An algorithm is the part of a university's academic regulations that sets out the rules that determine the class of degree to be awarded to a student. We found that the university had made changes to its algorithms in 2015-16.

The changes included:

a. Introducing discounting of the lowest 20 credits at both Levels 5 and 6, resulting in a higher classification calculation than would otherwise be the case.

b. Amending the weighting used in the algorithm that used marks from both Levels 5 and 6 to calculate the final award.

c. Replacing its profiling method with a numerical borderline rule to uplift students whose performance was within two per cent of a grade boundary.

Our view is that these changes were inflationary, by which we mean that they would have increased the proportion of first and upper second class awards made without a corresponding change in student achievement to justify it.

These regulations were substantially in place for the graduating cohort (Level 6 students) in the academic year 2021-22. This means that they were in operation for some students beyond the point at which the OfS introduced the current condition B4, in May 2022. We found the university to be in breach of condition B4 in relation to the use of these regulations beyond the point at which condition B4 was introduced in May 2022. The university identified and took action to address the inflationary impact of its algorithms in changes it made to its academic regulations in 2019-20. These changes were delayed because of the Covid pandemic, and were not therefore fully introduced for all students until 2022-23. For this reason, and given that condition B4 only came into effect in May 2022, we are not taking any further regulatory action in relation to the breach.

While the university made changes to its academic regulations that reduced the proportion of first and upper second class degrees awarded, the regulations for 2025-26 still include discounting the lowest 20 credits at both Levels 5 and 6.

The university's submission explained how it assured itself that degrees were credible. This included carrying out a benchmarking exercise in 2015 to understand practice across the sector, and reviewing how its regulations compared with sector practice. The university made changes following this review because it considered that its students were at a disadvantage compared with students at other providers and it wanted to address this.

When making the changes approved for use in 2019, and fully introduced in the 2022-23 academic year, the university carried out modelling to understand how the proposed changes might affect

[1] See OfS, Condition B4: Assessment and awards.

students' degree outcomes. It decided to retain discounting so that students from ethnic minority backgrounds were not unfairly disadvantaged, as those students typically have higher mark variation than white students and are far more likely to have capped marks (even when controlling for degree class). 'Capped marks' are awarded to students who have retaken a previously failed module; typically, the maximum mark awarded for the second attempt is 'capped' at the pass mark for the module, regardless of the mark the student achieves in practice.

However, providers should not be using an unjustifiable inflationary change as a means to reduce attainment gaps. Making changes to an algorithm to close attainment gaps between student groups can only be justified if the resulting increases in the class of degree awarded reflect the knowledge and skills demonstrated by the students concerned. A change that cannot be justified in this way may be simply assigning a higher class of award to students for demonstrating the same level of knowledge and skills, and so devaluing the awards made to students and undermining confidence in the system. Furthermore, it may conceal an actual problem with the attainment of students with particular characteristics that needs to be addressed.

The university argued that using 100 best credits in the classification calculation appropriately compensated for the high mark variance and was more reflective of students' achievement. We are concerned that discounting the marks for the lowest 20 credits at both Levels 5 and 6 appears to be at odds with sector research published in 2019, which suggests that discounting may cause grade inflation.[2]

Our conclusion was that there are further actions we would expect the university to take to ensure an appropriate connection between the actual attainment of students as evidenced by assessed student work in aggregate, and the class of degrees awarded. Our finding is therefore that there is an increased risk of a future breach of condition B4.

Every institution with degree awarding powers needs to ensure changes to its academic regulations do not result in a higher classification of degree being awarded based on the same student achievement, unless those changes are required to properly reflect this. Unless awards made appropriately reflect student attainment, such changes may result in a breach of condition B4.

Following engagement with the university, it has agreed to further actions, explained below, to resolve this increased risk.

Although it did not affect our final judgement or our decision on any penalty in this case, we recognise that the way the university currently secures its academic standards is likely to reflect wider practice in the sector. We are also publishing a report on bachelors' degree classification algorithms that sets out our views on how higher education providers can ensure that the classes of bachelors' degrees they award appropriately reflect students' achievement.[3]

Institutions need to pay particular attention if they are using rules that are likely to be inherently inflationary – such as discounting credits with the lowest marks or selecting the best result from multiple algorithms as the class of degree to be awarded.

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[2] Universities UK, 'Understanding degree algorithms'.

[3] OfS, 'Bachelors' degree classification algorithms'.

Background

We opened an investigation on 1 September 2022 on the basis of data relating to the University of West London's awards of first and upper second class bachelors' degrees.[4] When we opened the investigation the data showed a seven percentage point increase in first and upper second class degrees awarded by the university between 2014-15 and 2015-16, which did not substantially reduce in the period up to 2018-19.[5] We considered that this sustained increase indicated that the university could have changed its academic regulations. Other providers may have had higher levels of unexplained increases overall in the period 2014-15 to 2018-19. However, those providers did not have such a significant increase in their observed attainment in one year that was then sustained, or had much smaller student populations, or were already subject to other regulatory investigation by the OfS. We therefore decided to explore this through an investigation.

As part of our investigation we requested that the university submit documents relating to changes to, or discussions of, any aspects of relevant academic regulations that were in effect in any academic year from, and including, 2014-15. We wanted this information to understand whether:

a. The university had made any changes to its academic regulations during this period.

b. If so, whether these changes may have increased the proportion of first and upper second class degrees awarded by the university.

c. The university could demonstrate that any increase in awards was a result of improvements in students' achievement.

We considered a range of evidence but did not place weight on data relating to 2019-20 to 2020-21 because of the potential impact of the pandemic on degree classifications.

Summary of the university's submission

The university's submission showed that it had changed its academic regulations in 2015-16 and 2019-20, though the changes in 2019-20 were superseded by emergency pandemic regulations and were consequently not fully introduced until September 2022, despite OfS guidance on the pandemic being rescinded in May 2022.

Changes made in 2015-16

In 2014-15 the university used two classification algorithms and a profiling method to calculate degree classification. In 2015-16 this was replaced by two different classification algorithms – one that assessed performance at both Levels 5 and 6 with a 50-50 weighting, and one that assessed performance at Level 6 alone with 100 per cent weighting. The university used whichever algorithm produced the higher classification to generate the degree classification for each student.

Alongside these changes, the university introduced discounting of marks for 20 credits at both Levels 5 and 6, allowing students to disregard 20 credits with the lowest mark. Previously the

[4] OfS, 'Analysis of degree classifications over time: Changes in graduate attainment from 2010-11 to 2020-21'. Data was extracted from column 'T' to 'U' (observed percentage awarded first and upper second class degrees combined) of Annex A: Data – Table 1.

university had not used discounting at any level. This amendment meant that the average mark for each level was generated from a student's 'best 100 credits at Level 5 and best 100 credits at Level 6' or 'best 100 credits at Level 6 only'.

The university also replaced its discretionary profiling method, which used a rule for all performance 'close' to the borderline, with a numerical borderline rule that operated a two per cent threshold. This meant that students whose final mark fell within two per cent of a classification boundary would be considered for an uplift, if they met the specified criteria.

The university told us that these changes were made as the result of a review of its academic regulations in 2015. The changes were introduced with immediate effect for all students. The review benchmarked the university's regulations against the regulations of seven other universities. Using a comparison with the regulations of other universities and modelling, the university's submission argued that the changes to its regulations would 'bring student achievement within sector norms and thereby remove the disadvantages imposed by the 2014-15 Academic Regulations'.

Changes designed for 2019-20, fully introduced in 2022-23

In 2019-20, the university carried out a further review of its academic regulations 'in light of the regulatory requirement that degrees retain their value over time, the changing nature of our student body, the [black and minority ethnic] attainment gap and the [Universities UK] Statement of Intent'.[6] Following this review, the university made further changes to its classification algorithms for 2019-20, removing the algorithm based on Level 6 credits alone, and amending the weighting applied to the remaining algorithm from 50 per cent at Level 5 and 50 per cent at Level 6 to 35 per cent at Level 5 and 65 per cent at Level 6.

However, the university superseded these regulations with emergency pandemic regulations, which were very similar in design to the 2015-16 regulations. The university initially decided to revert to using the changes made in 2019-20 in its 2021-22 regulations. However, in January 2022, it decided to reintroduce, for Level 6 students in 2021-22 only, the second algorithm, which enabled a students' final classification to be calculated using Level 6 credits only. This was because it felt that Level 6 students in the 2021-22 cohort had experienced substantial disruption to their Level 5 studies due to the pandemic. The changes designed and intended for 2019-20 were fully introduced for all students in the 2022-23 academic year.

OfS analysis

OfS modelling

The OfS conducted a modelling exercise to understand the impact of the changes the university had made to its degree classification algorithms. We modelled the impact of the academic regulations used by the university in 2014-15, 2015-16, 2021-22 and 2022-23 by applying each set of regulations to the marks achieved by a subset of the university's 2021-22 student cohort (856 students). Our modelling had the effect of removing the impact of other variables that might have improved the classifications of awards, such as changes to teaching practices and increased student support.

[6] Universities UK, 'Degree classification: transparency, reliability and fairness: A statement of intent'.

Our modelling of the 2014-15 algorithms resulted in 81.7 per cent of students in the modelled student population receiving a first or upper second class degree (see Figure 1). The use of the 2015-16 algorithms resulted in 85.3 per cent of students receiving a first or upper second class degree, 3.6 percentage points higher. Similarly, the modelling showed the number of first-class degrees that would have been awarded using the 2015-16 algorithms was 4.6 percentage points greater (36.1 per cent compared with 40.7 per cent) for the modelled student population than when the 2014-15 algorithms were applied to the same population. The modelling therefore shows that the changes the university made to its algorithms between 2014-15 and 2015-16 would have produced an increase in higher classifications when the same sets of student marks were put through each set of algorithms.

According to the same model, the changes made in the 2021-22 academic regulations resulted in a decrease in the proportion of first and upper second class degrees awarded in the modelled student population compared with the 2015-16 academic regulations. They fell from 85.3 per cent to 84.3 per cent (a decrease of one percentage point). The proportion of first-class degrees awarded to the modelled student population decreased from 40.7 per cent to 39.3 per cent (a decrease of 1.4 percentage points). Further, our modelling showed that the changes made in the 2022-23 academic regulations resulted in a decrease in the proportion of first and upper second class degrees awarded in the modelled student population compared with the 2021-22 academic regulations. They fell from 84.3 per cent to 82.9 per cent (a decrease of 1.4 percentage points). The proportion of first-class degrees awarded to the modelled student population decreased from 39.3 per cent to 36.2 per cent (a decrease of 3.1 percentage points).

Figure 1: Proportion of classified awards in each classification under each set of regulations

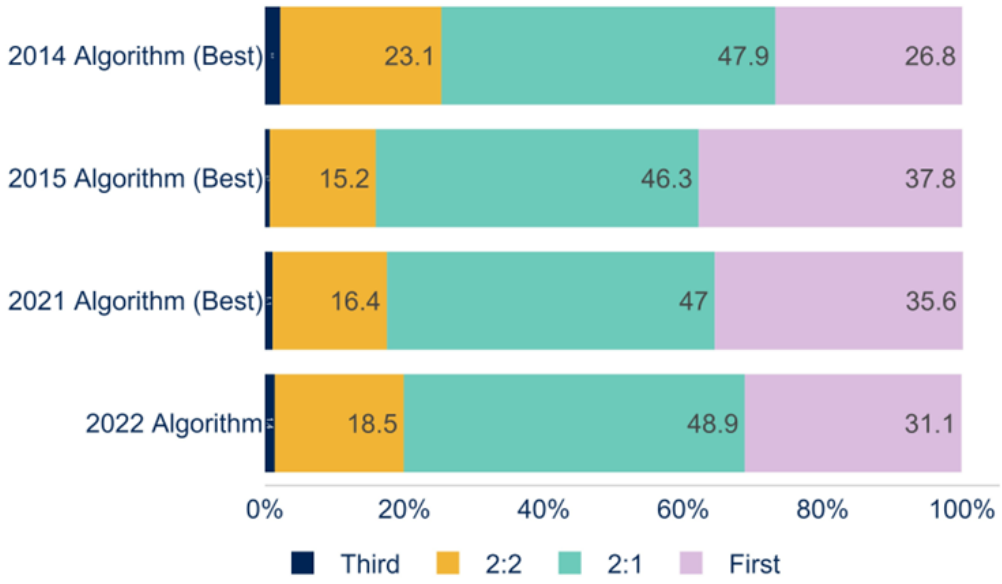
Borderline rules

We also modelled the impact of the university's algorithms for 2014-15 and 2015-16 without using its borderline rules (see Figure 2). Furthermore, we removed the algorithm that used a profiling

method in the 2014-15 academic regulations, as this algorithm could also be seen as a method for applying borderline rules. We did this to assess the impact of the main changes the university made to its algorithms between 2014-15 and 2015-16, having factored out the discretionary elements used in 2014-15 and the more formal rules for borderlines adopted from 2015-16. The analysis showed that the 2015-16 algorithms would have produced 9.4 percentage points more first and upper second class degrees in the modelled student population than the 2014-15 algorithms.

The modelling also showed that the number of first-class degrees that would have been awarded using the 2015-16 algorithms was greater than the 2014-15 algorithms in the modelled student population by 11 percentage points. The difference in the proportion of first and upper second class degrees and first-class degrees, with the borderline rules removed, demonstrates an inflationary impact for the changes made to the regulations in 2015-16, confirming the findings of our modelling with the borderline rules included. The regulations that were introduced in 2015-16 were substantially in place for Level 6 students in 2021-22.

Figure 2: Percentage of awards according to each set of regulations (before borderline rules have been applied, with algorithm three for 2014 removed).



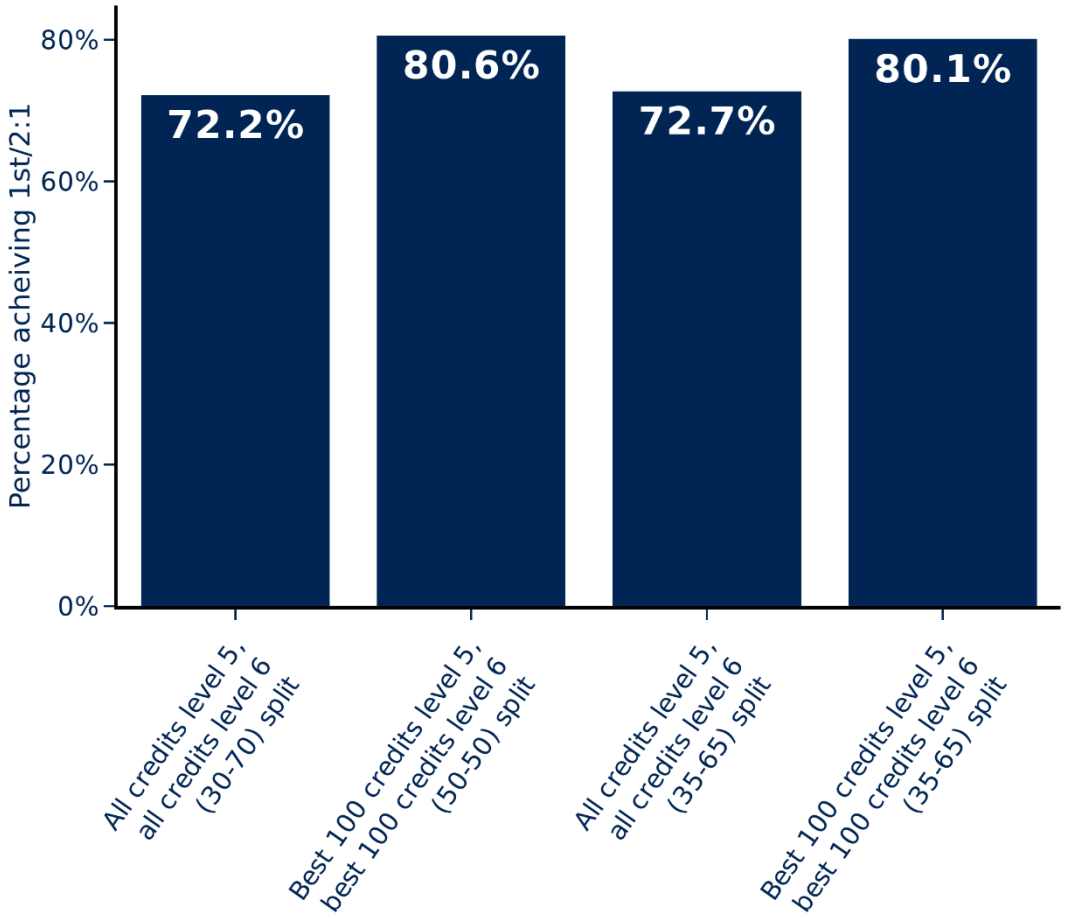
Discounting

Discounting within a degree classification algorithm refers to the use of a calculation method that uses only a specified number of credits, with a number being discounted (the marks associated with these credits being removed from the calculation) according to a rule. Typically, each level of undergraduate study will involve a student completing 120 credits; a discounting method would see, for example, the marks from the best 100 credits being used in the degree classification calculation and the 20 credits with the weakest marks being discounted.

We modelled the discounting approach for the algorithm that took into account both Levels 5 and 6. We excluded the borderline rules to understand the impact of the discounting alone. In 2014-15

the weighting across Levels 5 and 6 was 30-70 respectively and included no discounting. In 2015-16 this algorithm had a 50-50 weighting and discounted 20 credits at both Levels 5 and 6. While there are two variables at play (because the university adjusted the weighting between levels and introduced discounting), our modelling shows that the impact of the weighting adjustment is not likely to have caused inflation. When looking at all credits, before discounting is introduced, a weighting of 30-70, as in the 2014-15 regulations, results in 72.2 per cent of students receiving a first or upper second class degree. The same results with a 50 -50 weighting, as in the 2015-16 regulations, results in 71.8 per cent achieving a first or upper second class degree. This shows that the change of weighting is not likely to have caused the increase we can see in the data (see Figure 3).

Figure 3: Percentage of first and upper second class degrees by levels of discounting



Note: Before borderline adjustment.

The modelling demonstrated that the number of first and upper second class degrees that would have been produced by the algorithm in 2015-16 was 8.4 percentage points higher than the algorithm in use in 2014-15 (80.6 per cent compared with 72.2 per cent).

To understand the impact of the discounting used in the current regulations, our modelling compared the number of first and upper second class degrees that would have been awarded using the 2022-23 algorithms, with and without discounting. When 20 credits at both Levels 5 and 6 are discounted, using a 35 -65 weighting split as in the 2022-23 algorithm, 80.1 per cent of students would have been awarded a first or upper second class degree. 72.7 per cent of students

would have been awarded a first or upper second class degree if the same algorithm is applied, with discounting removed.

Summary

Our modelling shows that the changes the university made in 2015-16, amending the weightings and introducing discounting to the two classification algorithms, would have substantially increased the number of first and upper second class degrees awarded. Our modelling also shows that the 2021-22 and 2022-23 changes (with the delayed 2019-20 regulations being phased in) would have resulted in a decrease in the proportion of first and upper second class degrees awarded. The university explained its reason for these changes and how it assured itself that the design of its regulations would ensure that its awards would reflect its own students' knowledge and skills.

Although it did not affect our assessment of the university's case or its merits, we recognise that the practice described by the university may be more widespread across the sector, as we have set out in our overview report. This university has agreed to take further action to ensure that its classifications reflect student attainment. The OfS asks providers to ensure that, when making changes to academic regulations, they carefully consider how the resulting classifications will reflect students' knowledge and skills. Our overview report sets out our views on how providers can ensure this.

In terms of algorithm design, our modelling also shows the inflationary impact of using discounting rules to determine a student's attainment. While the university had phased out the use of multiple algorithms by 2022-23, it continues to include discounting in its academic regulations for 2025-26. The university has agreed to conduct a calibration exercise and use this to consider whether it needs to make any further amendments to its academic regulations.

Relevant OfS conditions of registration

Our assessment sought to understand the design of the university's academic regulations and whether they produced awards that were credible at the time of being granted compared with those granted previously. These issues fall within the scope of ongoing condition of registration B4 (assessment and awards).

Condition B4.2 states that:

'Without prejudice to the principles and requirements provided for by any other condition of registration and the scope of B4.1, the provider must ensure that:

[…]

c. academic regulations are designed to ensure that relevant awards are credible.

[…]

e. relevant awards granted to students are credible at the point of being granted and when compared to those granted previously.'

The definition of 'credible' as it relates to condition B4 is:

'"credible" means that, in the reasonable opinion of the OfS, relevant awards reflect students' knowledge and skills […]'

In determining whether awards are credible, the OfS has set out in condition B4.4.e.iii that it may consider any actions the provider has taken that would result in an increased number of relevant awards or changes in the classifications attached to them. This includes whether or not the achievement of students has increased – for example, changes to assessment practices or academic regulations.

Conclusions on compliance

The OfS's modelling shows that the changes the university made in its 2015-16 regulations had a significant inflationary impact. The substantial elements of the 2015-16 regulations, which the OfS found to be inflationary, were in place for Level 6 students in 2021-22. The OfS has therefore found that **the university was in breach of condition B4** for the use of these regulations **after May 2022**, when the current version of condition B4 came into effect. We recognise and welcome the actions that the university took to address the inflationary impact of its algorithms in the changes it made to its academic regulations in 2019-20, which was before the current condition B4 came into effect and before the OfS engaged with the university about this matter. The introduction of these regulations was delayed only because of the pandemic and they were not therefore fully introduced for all students until 2022-23. The OfS is therefore **not taking any further action** in relation to this matter.

The university has provided evidence to show that it had considered the impact at the time it made the changes to these regulations and that it had assurance processes in place to ensure comparability with other providers. We accept that this is standard practice in the sector. However, we think further work is needed to ensure an appropriate connection between the actual attainment of students as evidenced by assessed student work in aggregate, and the class of degrees awarded. This is important to establish that awards reflect students' knowledge and skills. Although the university's changes to remove the second algorithm and amend the weighting between years on the remaining algorithm, approved for 2019-20 but delivered in full in 2022-23, decreased the number of first and upper second class awards, the university has continued to discount the lowest credits at Levels 5 and 6. Given that this aspect of algorithm design is likely to be inflationary, we are concerned that this practice needs to be tested to ensure that awards appropriately reflect students' knowledge and skills.

In conclusion, therefore, the OfS found that **the university is at increased risk of breaching condition B4**. We engaged with the university on these issues and it has agreed to take the actions set out below to resolve the increased risk. These address elements of concern in its regulations and provide assurance that awards made under those regulations reflect the knowledge and skills of students. For this reason, **the OfS is not taking any further action** in relation to this matter.

In considering our regulatory response, we have had regard to matters including the relevant intervention factors in our regulatory framework and the OfS's general duties.[7]

In light of these concerns the university has agreed to:

a. Conduct a calibration exercise (see below) for its bachelors' degree classification algorithm or any algorithm it intends to introduce from September 2026. As part of this review, consider whether it will continue to discount credits with the lowest marks in its algorithm, in the light of our concerns about the inherently inflationary nature of such rules.

b. Report back to the OfS on these matters.

The OfS will review its assessment of the university's compliance with conditions of registration when the university has completed these actions.[8]

'Calibration exercise' means a rigorous exercise using objective academic judgement to assess whether the class of degree awarded appropriately reflects the level of knowledge and skills attained by students in their assessed work, across the full range of profiles of attainment that translate to that class of award. This should be done with reference to our sector-recognised standards and relevant course documentation.

This will be done by:

a. Considering the aggregate achievement of individual students, where those students are representative of the full range of profiles of attainment.

b. Confirming whether that student achievement justifies the classes of degrees awarded to those students.

c. Referencing the OfS's sector-recognised standards and the university's own statements of the knowledge and skills a student should have demonstrated at the end of the course, such as course outcomes.[9]

Further details of our views on bachelors' degree classification algorithms and compliance with our conditions, including on the use of calibration exercises, can be found in our overview report.[10]

[7] See OfS, Overview of monitoring of risk for registered providers; Part I of the regulatory framework: The OfS's risk-based approach.

[8] OfS, Overview of monitoring of risk for registered providers.

[9] OfS, Sector-recognised standards

[10] See OfS, 'Bachelors' degree classification algorithms'.