



Teaching Excellence Framework (TEF) 2023

Summary TEF 2023 panel statement

Imperial College of Science, Technology and Medicine

Summary of outcomes

Overall: Gold

Typically, the experience students have at Imperial College of Science, Technology and Medicine and the outcomes it leads to are outstanding.

Student experience: Silver

The student academic experience is typically very high quality.

Very high quality features include:

- effective teaching, feedback and assessment practices
- course content and delivery that effectively encourages students to engage in their learning
- very high quality support for staff professional development
- a supportive learning environment, with students accessing a readily available range of very high quality academic support
- very high quality support for student engagement in improvement.

There are also some outstanding quality features including:

- research in relevant disciplines, innovation, scholarship, professional practice and employer engagement, contributing to an outstanding academic experience
- physical and virtual learning resources that are tailored and used effectively to support outstanding teaching and learning.

Student outcomes: Gold

Student outcomes are typically outstanding.

Outstanding quality features include:

- outstanding rates of continuation and completion
- outstanding rates of successful progression for the provider's students and courses. Students have some of the highest average starting salaries in the sector, and there is support for students from underrepresented backgrounds in the jobs market
- tailored approaches that are highly effective in ensuring its students succeed in and progress beyond their studies.

There are also some very high quality features including:

- the provider articulates the educational gains it intends students to achieve
- students are supported effectively to achieve these gains
- the provider evaluates the gains made by its students.

About the assessment

The Teaching Excellence Framework (TEF) is a national scheme run by the Office for Students (OfS) that aims to encourage universities and colleges (providers) to improve and deliver excellent teaching, learning and student outcomes.

The TEF does this by assessing and rating providers for excellence above the high quality baseline that we expect from all providers. It covers undergraduate courses.

Throughout this document, we use the terms ‘outstanding’ and ‘very high quality’, which are defined in terms of the TEF 2023 assessment as follows:

- ‘outstanding’: the quality of the student experience or outcomes are among the very best in the sector, for the mix of students and courses taught by a provider
- ‘very high quality’: the quality of the student experience or outcomes are materially above the relevant high quality minimum requirements, for the mix of students and courses taught by a provider.

The assessment was carried out in 2022-23 by the TEF Panel, a panel of academics and students who are experts in learning and teaching. This document sets out a summary of the panel’s findings and judgements.

The panel reviewed the following evidence:

- numerical indicators produced by the OfS, using national datasets
- a submission made by the provider, setting out its own evidence
- a submission made by the provider’s students, setting out students’ views.

The panel applied its expert judgement to:

- identify particular features of the student experience and student outcomes that are excellent (above the high quality baseline requirements)
- decide a rating for the ‘student experience’ and for ‘student outcomes’
- decide an overall rating for the provider.

Throughout the assessment the panel took account of the context of the provider and judged how well it delivers teaching, learning and student outcomes for its mix of students and courses.

In making its decisions the panel took account of the OfS general duties and the public sector equalities duty.

Summary of panel assessment

Information about this provider

London-based Imperial College of Science, Technology and Medicine has a mission to 'achieve enduring excellence in research and education in science, engineering, medicine and business for the benefit of society'. The provider's strategy is defined by a strong partnership with students. It has recently been recognised by a series of major UK higher education awards.

The college has four faculties – engineering, natural sciences, medicine and a business school. It has a roughly equal distribution of undergraduates and postgraduates.

Engineering has the highest percentage of undergraduates at almost half, followed by natural sciences with 31 per cent and medicine with 23 per cent. The business school currently provides no undergraduate programmes.

Almost 96 per cent of students are under 21. A high percentage of students did not declare their ethnicity. Of those declared, there was a broad span of students from different backgrounds, particularly Asian and white.

Over the TEF period the data indicates that there were 71,920 students at all levels of higher education training.

The assessment considered information about the provider's undergraduate courses and students on those courses.

Full details about the provider's student demographics used in the TEF 2023 assessment are available at www.officeforstudents.org.uk/data-and-analysis/data-used-in-tef-2023/.

More information about this provider can be found on the OfS Register at www.officeforstudents.org.uk/advice-and-guidance/the-register/the-ofs-register/

Student experience: Silver

Throughout this section, we refer to indicators. These indicators are based on students' responses to the National Student Survey. The indicators are 'benchmarked' to show how well the provider performs for its particular mix of students and courses.

The panel found the quality of the student academic experience is typically very high for the provider's mix of students and courses, and that:

- most features were of very high quality, and two were outstanding
- the very high quality and outstanding features apply to most of the provider's courses and groups of students, including students from underrepresented groups
- there are no features clearly below the level of very high quality, or that are of concern.

The panel weighed up all the evidence in the indicators and the submissions relating to the student experience, and determined the rating to be 'Silver'.

The panel considered the best fit rating to be 'Silver', because most features are very high quality for most groups of students and courses. The panel did not think that 'Gold' would be the best fit because the evidence demonstrates that 'some' rather than 'most' of the student experience features are of outstanding quality, and the outstanding quality features apply to 'most' rather than 'all' students.

The panel's assessment of the student experience features is set out below.

Teaching, assessment, and feedback

The panel considered this to be a very high quality feature, though the indicators for 'teaching on my course' and 'assessment and feedback' provide a mixed initial picture.

The 'teaching on my course' indicator for full-time students provides evidence of outstanding quality, but the 'assessment and feedback' indicator provides evidence of performance below the level of very high quality. The panel noted that student submission refers to inconsistent practice across departments.

The provider and student submissions provide evidence of a very high quality features, including:

- a strong approach to education strategy and management, including a curriculum review of all 106 undergraduate programmes prior to the TEF period
- a strong programme of management of assessment during the coronavirus pandemic.

The panel considered that there are effective teaching, assessment, and feedback practices, while noting evidence of variability across courses and faculties. On balance, the panel concluded that the provider has embedded very high quality teaching, feedback and assessment practices that are effective in supporting its students' learning, progression, and attainment.

Course content and delivery; student engagement in learning and stretch

The panel considered this to be a very high quality feature.

The panel found evidence in the submissions of some elements of outstanding quality, but more elements of very high quality. For example, the panel noted:

- students experience a high level of contact
- the balance of delivery shifts from lectures and classes towards research-related work in later years of programmes, and many disciplines include innovative delivery, with students working together on problem solving
- specialist teaching facilities supplement teaching practice in authentic ways, often making use of relationships with industry.

The provider submission sets out that some students find workloads high, overly demanding, and stressful. The student submission notes that pressure to achieve can create disparate experiences across a diverse student population. This aspect is under consideration in the second phase of the curriculum review.

Considering all the evidence, the panel concluded that course content and delivery effectively encourage the provider's students to engage in their learning, and stretch students to develop their knowledge and skills.

Research, innovation, scholarship, professional practice and employer engagement

The panel considered this to be an outstanding feature.

Evidence of outstanding quality in the provider and student submissions includes:

- a strategic, embedded and policy-driven approach to the use of research, translating outstanding results in the Research Excellence Framework (REF) exercises to provision and delivery of teaching
- exposure to professional settings is a critical element of the academic experience. Employers are involved in design and development of programmes, and professors of practice are also practising scientists and engineers. Many students undertake final year projects in industrial settings
- undergraduate research bursaries are available for black heritage students
- over the TEF period, undergraduates have been authors on over 170 peer-reviewed published research papers.

The provider claims to have the best research environment in the UK, as evidenced by the latest 2021 REF results. Over 80 per cent of teaching staff are also researchers, leading to regular research engagement for undergraduates.

The panel considered that the provider and student submissions include sufficient evidence regarding research, innovation, scholarship, professional practice and/or employer engagement to demonstrate that this is an outstanding feature.

Staff professional development and academic practice

The panel considered this a very high quality feature, noting evidence in the provider submission that:

- professional development of teachers is supported by an educational development unit, which offers flexible taught practice-based postgraduate programmes up to masters' level
- training in learning and teaching is compulsory for probationary lecturers. The provider has an accredited continued professional development programme, with 867 participants in workshops in the past five years
- significant progress has been made by the provider in raising the status of teaching and education, including through president's awards, students' union awards and celebratory conferences.

The panel considered that the provider submission includes sufficient evidence regarding staff professional development and academic support to demonstrate that this is very high quality feature. It concluded that here is very high quality support for staff professional development, and excellent academic practice is promoted by the provider.

Learning environment and academic support

The panel considered this a very high quality feature.

The indicator for 'academic support' for full-time students provides initial evidence of a very high quality feature. The panel noted that academic support is delivered through departments, with every science and engineering department providing pastoral support, guidance on integrative learning, study skills, exam preparation skills and careers advice. Medical biosciences students get a comprehensive system of university and clinical support, including support given to clinical tutors, and experienced welfare staff. There is compelling statistical evidence that 'academic support' for medicine is outstanding.

The panel also noted the provider's strategic focus on inclusive learning and teaching through the Teaching Toolkit, a detailed content-based website and an online course for university teachers on supporting students with specific learning differences. Inclusive pedagogy champions have been created to support adoption of good practice across the provider, although the roles and numbers involved are unclear.

The student submission notes that while support is designed to be inclusive, it is variable in practice, and can lead to welfare concerns with pressure to achieve. The provider intends to address concerns around workload and stress through the second phase of the Curriculum Review.

The indicators, provider and student submissions suggest there is sufficient evidence for this to be a very high quality feature, with very high quality support available to most groups of students but

with a variability across departments. Considering all the evidence in the round, the panel concluded that the provider fosters a supportive learning environment, and its students have access to a readily available range of very high quality academic support.

Learning resources

The panel considered learning resources an outstanding feature.

The 'learning resources' indicator provides initial evidence of outstanding quality for full-time students.

In considering evidence from the provider and student submissions, the panel noted:

- a clear strategy for learning resources including a Digital Learning Strategy and planned physical resources. £34 million has been invested in physical teaching and learning spaces
- the Digital Learning Strategy, combined with a robust technology infrastructure, has given staff confidence in online teaching
- in 2021-22, over 1.1 million visits were made to the provider's libraries, which are generally open 24 hours and considered to be excellent quality. Students are given access to the same full range of services and resources as researchers.

The panel considered that the indicators, and provider and student submissions include evidence regarding learning resources that show this is an outstanding feature, applying to all students including those from underrepresented groups. Therefore, the panel concluded that physical and virtual learning resources are tailored and used effectively to support outstanding teaching and learning.

Student engagement in improvement

The panel considered this to be a very high quality feature.

Initial evidence from the indicator for 'student voice' suggests that this is very high quality, although there is some variation across students and courses.

In considering evidence from the submissions, the panel noted:

- a collaborative partnership approach to working with students in different ways, and with the students' union
- the students' union convenes a network of over 200 academic and wellbeing representatives a year. The president and deputy president of the students' union are members of a variety of committees across the faculties.

However, the panel found that it is not clear whether partnership and student voice are operating systematically across departments. The student submission corroborates a strong system of academic representation.

While the panel found there is evidence of very high quality support for student engagement in improvement through collaboration and representation – which is corroborated in the student

submission – it noted that there is less evidence that student voice is systematically heard, with a variability across departments. Overall, the panel considered that there is sufficient evidence to demonstrate that this is a very high quality feature, and that the provider effectively engages with its students, leading to improvements in their experiences and outcomes.

Student outcomes: Gold

Throughout this section, we refer to indicators. The indicators for continuation, completion and progression rates are based on national data about higher education students. The indicators are 'benchmarked' to show how well the provider performs for its particular mix of students and courses.

The panel considered a majority of features relating to student outcomes to be outstanding, with some very high quality features. The panel judged that there was evidence of typically outstanding student outcomes across the whole aspect.

There was compelling evidence in the provider and student submissions, and the indicators, that the very high quality and outstanding features apply to all the provider's groups of students, including students from underrepresented groups.

Across the student outcomes aspect, the panel found:

- three outstanding features, and three very high quality features
- no features clearly below the level of 'very high quality' or of concern.

The panel considered that the rating with the best fit is 'Gold', because most features are outstanding for all groups of students and courses.

The panel's assessment of the student outcomes features is set out below.

Approaches to supporting student success

The panel considered this to be an outstanding quality feature, noting that there is evidence of a strategic and operational approach to promoting successful outcomes across the student base.

The panel also noted:

- the provider's learning and teaching strategy, which promotes an innovative work-focused curriculum towards jobs of the future. The curriculum is inclusive and supportive, with links with industry and employers and opportunities to leverage a research-rich environment
- the provider's education and development unit, which has produced an inclusive teaching toolkit. A student success guide also provides a one-stop-shop resource to guide the student journey
- a Differential Outcomes Dashboard is used at college, faculty and department level to monitor outcomes across different demographic groups and to support transition.

The strategic approach is evident in both the provider and student submission around support given to students from underrepresented groups.

By taking into account data on continuation, completion and progression, the panel considered that there was sufficient evidence in the provider submission to indicate that this is an outstanding quality feature. The panel concluded that the provider deploys and tailors approaches that are highly effective in ensuring its students succeed in and progress beyond their studies.

Continuation and completion rates

The panel considered this to be an outstanding feature, based on submission and indicator evidence.

The indicators for full-time students provide evidence of outstanding continuation rates. In contrast, for part-time students the indicator for 'continuation' provides evidence that this is below the level of very high quality, though the panel noted the small denominator for these students and took this into consideration.

Completion indicators for full and part-time students provide compelling evidence of outstanding quality.

In making its assessment, the panel took into account mechanisms in place to support students from underrepresented backgrounds to continue and to complete their courses. The panel also noted evidence of support for part-time students. The panel therefore concluded that there are outstanding rates of continuation and completion for the provider's students and courses.

Progression rates

The panel considered this to be an outstanding quality feature.

The 'progression' indicator provides evidence of a very high quality feature for full-time students.

The provider submission included evidence that:

- students have some of the highest average starting salaries in the sector
- the provider supports students from underrepresented backgrounds in the jobs market. The careers service has a work shadow scheme targeted at first years from underrepresented backgrounds and programmes such as the alumni mentoring scheme to prioritise those demographics
- targeted initiatives have been created for black students, and the careers service works with the disability advisory service to ensure accessible provision to employment opportunities, including for neurodiverse students.

The panel took into account the specific measures in place to support students from underrepresented backgrounds to progress and concluded that there are outstanding rates of successful progression for the provider's students and courses.

Intended educational gains

The panel considered this to be a very high quality feature.

The provider submission provides evidence that the core curricular offering is designed to promote cognitive gain, such as the ability to innovatively apply skills for tackling real-world complex problems, soft skills development, employability, and career readiness. This is supplemented by a wide range of co-curricular and extra-curricular activities, which are in turn bolstered by the students' union clubs and societies and recognised by the Imperial award.

The panel noted that the provider aims to produce graduates who are leaders in their chosen fields.

The panel considered the evidence to indicate that this was very high quality but not yet developed into a consistent systematic framework. Overall, the panel concluded that the provider articulates the educational gains it intends its students to achieve, and why these are relevant to its students.

Approaches to supporting educational gains

The panel considered this to be a very high quality feature.

Evidence of very high quality in the provider submission includes:

- all students take a for-credit module from outside their subject area, in either their second or third year, though numbers of students currently able to take advantage of this offer are unclear
- individual programmes are built on education gain, such as a module in business for professional engineers
- the provider articulates effectively how skills and competencies are enabled through curriculum content, related to teaching delivery and learning experiences, with professional employer-facing education as a strong thread.

The panel considered that there was sufficient evidence to judge that this was very high quality overall but not yet developed into a systematic framework in which students will benefit. Overall, the panel concluded that the provider effectively supports its students to achieve educational gains.

Evaluation and demonstration of educational gains

The panel considered this to be a very high quality feature.

The provider submission provides evidence that it is in the early stages of investing in institutional data infrastructure and analytical capability, with the intention to integrate educational expertise, disciplinary research and methodological skills using an artificial intelligence approach.

Currently, the provider uses a dashboard and a range of surveys to evaluate educational gains, including interventions designed to understand success factors for underrepresented groups.

The panel considered that there was sufficient evidence to indicate that this was very high quality, but that the aim to produce institutional capability had not yet been developed fully. In conclusion, the panel found that the provider evaluates the gains made by its students.

Overall: Gold

The panel considered the overall 'best fit' rating for this provider to be Gold.

The panel weighted the student experience and student outcome aspect ratings equally, and considered the evidence across all features, and across all student groups, subjects and courses.

In reaching this decision, the panel considered there to be compelling evidence that the outstanding and very high quality features apply to all groups of students, including students from underrepresented groups, who comprise a high proportion of the provider's students (considering also the high numbers of undeclared status).

The panel found most student outcomes features to be of outstanding quality for all groups of students and courses, and some student experience features to be of very high quality for all the provider's groups of students, including students from underrepresented groups.

When determining whether the overall rating should be 'Gold' or 'Silver', the panel considered all the evidence and judged that on the whole, the provider offers a typically outstanding quality provision. Even when features were considered to be very high quality, the panel identified some outstanding elements.