

The QAA subject benchmark for mathematics, statistics and operational research (MSOR) is intended to provide a common understanding of what students can expect from a UK degree in these areas and what employers, and wider society, can expect these students to learn.

The QAA is consulting on a [new edition of this benchmark](#). It has been extended to include sections on: equality, diversity, accessibility and inclusion (EDI); education for sustainable development; and employability, entrepreneurship and enterprise education. We are concerned that this benchmark risks unnecessarily politicizing mathematics.

A particular concern is that the new edition states: “the curriculum should present a multicultural and decolonised view of MSOR, informed by the student voice.”

We abhor racism, but one can abhor racism without subscribing to the theory of decoloniality.

The theory of decoloniality is a postmodernist critique of the “[European paradigm of rational knowledge](#)”. We believe that history suggests that mathematics is not a particularly European paradigm. On the contrary there are many examples where the same mathematical ideas have been developed independently across cultures. As just one example, the Japanese mathematician Seki and the Swiss mathematician Bernoulli both studied what are now called Bernoulli numbers. We agree that where practical the mathematical community should use terminology that gives non-Western mathematicians proper credit, but this is not the meaning of decoloniality.

The QAA suggests promoting a decolonialist perspective as follows:

Students should be made aware of problematic issues in the development of the MSOR content they are being taught, for example some pioneers of statistics supported eugenics, or some mathematicians had connections to the slave trade, racism or Nazism.

As the QAA document does not require any other teaching of the history of MSOR, this mandate will lead to a narrowly skewed perspective on the history of mathematics, seen entirely through the lens of the theory of decoloniality. The history of mathematics is not an essential part of an MSOR curriculum, but if it is taught, students should learn how to evaluate and critique historical theories such as decoloniality, rather than simply endorse a particular theory as fact. Of course, some mathematicians may wish to make an interesting aside on Teichmüller’s Nazi credentials, and others may wish to mention Noether’s persecution by the Nazis. The QAA should not mandate which of many historical asides a lecturer might choose to make to enliven their course.

But perhaps this discussion is already giving the concept of decolonizing mathematics more attention than it deserves. We struggle to imagine what it would mean to decolonize, for example, a course on the geometry of surfaces. For the most part, the concept of decolonization is irrelevant to university mathematics, and our students know this. If we engage in obviously tokenistic anti-racism efforts we will simply be sending a signal that we do not take racism seriously.

While the requirement that MSOR courses take a decolonial perspective is the most concerning aspect of the proposed benchmark document, there are other concerns.

The benchmark has grown in length by approximately 50%: from 23 pages in [2019](#) to 34 pages in 2022. But this is not because of any radical shift in the nature of the mathematics curriculum over this time period. It is simply a consequence of a decision by the QAA to update all benchmark documents across different subject areas to contain sections on EDI, sustainable education and entrepreneurship.

This is part of a general trend to increase bureaucracy, to homogenize the curriculum across subjects and institutions, and runs counter to genuine diversity of thought.

One of the key benefits of higher education is the opportunity for students to be educated by active researchers and to benefit from their unique perspectives on the discipline. As a result, academic freedom in curriculum design is a cornerstone of higher education. Unfortunately, the revised benchmark does not mention academic freedom at all. Nor does it mention the idea that curriculum content might be shaped by the particular research interests and expertise of academics.

Instead, the revised benchmark promotes the inclusion of topics which are likely to be beyond the expertise of subject specialists. The likely effect of this will be the development of one-size-fits-all courses offered across the university covering topics such as EDI, entrepreneurship and sustainable education. Given the diverse backgrounds of students, such one-size-fits-all courses are unlikely to be delivered at the level of rigour and sophistication one should expect from a higher education course. In our crowded curriculum, if students are required to take such courses the consequence will be a reduction in academic content: in other words, dumbing-down.

Moreover, such courses will make attractive targets for ideological capture by activist academics. The inclusion of decolonization in the benchmark document shows how easily this can occur if a top-down approach is taken to curriculum design. Similar ideological capture has already taken place in a number of university EDI courses, requiring students for example to affirm that [sex is a spectrum](#). The proposed benchmark specifically promotes membership of the Athena Swan programme which from 2016-2021 [discouraged collection of data on sex](#) and which now requires institutions to view gender as a spectrum. This type of activism has already had an impact on bodies such as the [Office of National Statistics](#) and so is not something MOSR academics can choose to ignore.

We recommend that the benchmark document should:

- As far as possible restrict itself to defining what is expected of a MSOR degree.
- Use the Equality Act 2010 and other legislative requirements as the principal source of guidance on EDI matters and avoid mandating any additional requirements unless they are genuinely required elements of an MSOR degree,
- Avoid promoting any particular political perspectives, no matter how laudable.
- Specifically emphasize the importance of academic freedom and academically led curriculum development.
- Provide more detail on what ethical, data security, EDI and sustainability requirements apply within MSOR. These should include academic integrity and academic freedom and should define minimal standards. In developing this guidance it should be remembered that employers are well-capable of providing training on the law, and will be able to provide training on the relevant law for different jurisdictions and that is in place at a particular time.
- Avoid redefining familiar concepts such as enterprise and entrepreneurship.
- Be as short and clear as possible to achieve the aim of communicating a shared understanding of MSOR degrees.

Original Signatories:

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Later Signatories

A number of mathematicians asked if they could sign the letter after the QAA's consultation has closed and their names are given here.

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