

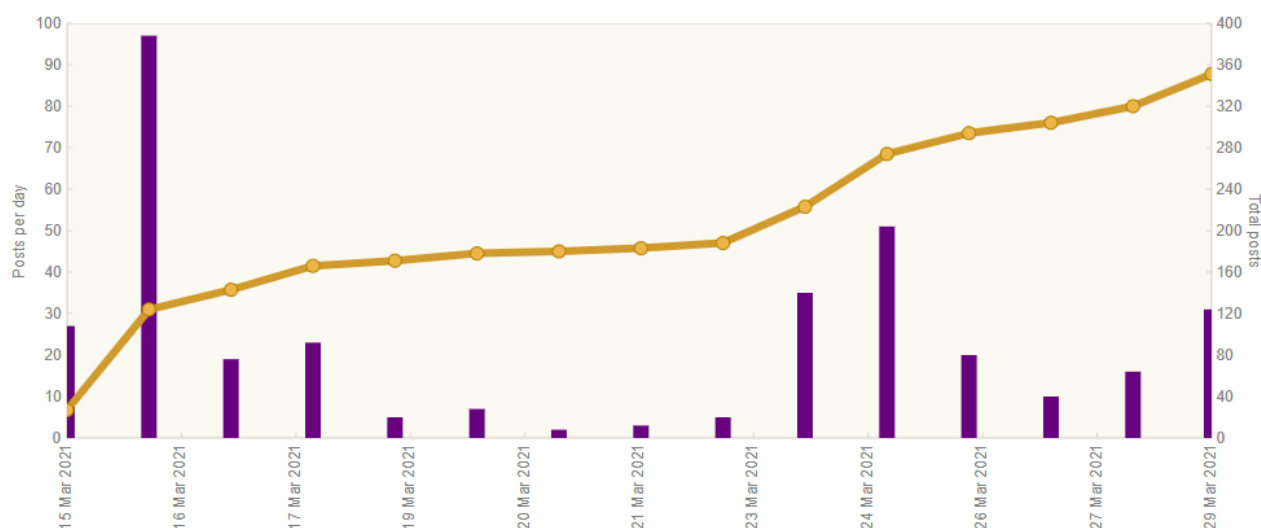
RESPONSE TO STUDENT CONSULTATION ON MATHEMATICS AND STATISTICS BOARD OF STUDIES STUDENT CONSULTATION FORUM

SUMMARY

This is a response to the consultation which took place between 15 March 2021 and 29 March 2021 on the Mathematics and Statistics Board of Studies Student Consultation Forum. The summary of student feedback is at <https://learn1.open.ac.uk/mod/forumng/view.php?id=24329>.

Usage

A total of 228 students registered to take part in the consultation. All 14,721 students currently registered on a module in Mathematics and Statistics were invited to participate. A total of 308 [202] posts spread over, in the end, 10 [12] threads, with postings from 83 [41] students. [Corresponding numbers for the 2020 consultation which took place in the same two weeks.]



The forum was moderated by Dr Tim Lowe (Director of Teaching), Dr Sue Pawley (Level 1 lead, Deputy Director of Teaching), Dr Ben Mestel (Director of the Mathematics MSc), Dr Chris Hughes (SST lead), Dr Andrew Potter (EDI lead).

Topics

The following questions were posed each in a separate thread:

- **Covid-19 response**
Over the last year the University has made a number of adjustments and temporary changes to regulations in response the COVID-19 pandemic.
Do you feel that these have helped you?
Have you had any particular issue that has not been helped by those University changes?
Is there anything else the University could be doing to help make your studies successful in the coming months?

– **Future use of remote exams**

As a result of the COVID-19 pandemic the University moved to holding remote examinations. In summer 2020, undergraduate exams in mathematics and statistics were held over 24 hours, and in 2021 they will be time-limited to 4.5 hours (in most cases) within a 24-hour window.

Should the University consider making remote exams the "new normal". What are the advantages and disadvantages of remote exams from your point-of-view?

– **Future curriculum**

Although it is unlikely we are going to be able to increase the number of modules available in the foreseeable future, it would help our longer-term planning to know in which areas would you like to see our curriculum change.

Are there any specific topics that you would like to be included that are not currently taught?

Are there any aspects of particular modules that you would like to see updated?

Are there any topics that we should no longer be teaching?

– **Your Student Support Team**

There are a variety of different teams that are responsible for supporting you through your module in Mathematics & Statistics.

How have you found the communication with your Student Support Team?

For example, have you had a phone call directing you to particular resources and/or support sessions, and if so, did you find it helpful?

If you needed to be referred on for a particular query, was the referral timely and relevant?

Halfway through an additional thread was added.

– **Equality, Diversity and Inclusion**

We are committed to the principles of Equality, Diversity and Inclusion (EDI), and are actively looking for ways we can improve support for students from under-represented groups in Mathematics & Statistics. We consider issues related to: gender, race and ethnicity, neurodiversity, LGBT+ representation, intersectionality, and a lot more.

What information or resources would you like to see on the study site to support Equality, Diversity and Inclusion in Mathematics & Statistics?

Are there any issues of under-representation that you feel are particularly important in Mathematics & Statistics? Is there anything else we can be doing to support students from under-represented groups to succeed in their studies and beyond?

The most popular discussions, in order, were as follows.

| Most read | Most posts |
|----------------------------|-----------------------------------|
| Future use of remote exams | Future use of remote exams |
| Future curriculum | Future curriculum |
| Your Student Support Team | Covid-19 response |
| Covid-19 response | Your Student Support Team |
| Errata* | Equality, Diversity and Inclusion |

* Several further topics were suggested by students and, in order of the number of posts for each, these were:

- Downloadable tutorial recordings
- Study material
- Errata
- On assessment, more generally
- Like and Favourite functions

FULL RESPONSE

Future use of remote exams

This was a very well-considered and extensive discussion thread, with many well-argued positions taken. Any summary will not do justice to the richness of discussion.

Many students were in favour of continuing remote exams. There were a range of reasons for this position including convenience, reduced anxiety, the ability to choose a convenient start time and that remote exams are better suited for students with disabilities, particularly those overseas for whom home exams are not possible. The ability to ask questions requiring the use of computer software was also mentioned. Timing-limiting exams was thought to be appropriate, which reduced the possibility of academic misconduct. The use of post-exam vivas to confirm authorship was suggested. There were concerns that some students do not have a suitable home environment to take a remote exam, and suggestions that individual rooms in, for example, libraries could be made available to help this. Suggestions were made on the use of randomised questions for different students. It was acknowledged that using remote exams long term may change what is taught in modules.

Equally, a second group of students were in favour of returning to face-to-face exams. The main reason was to ensure the integrity of the examination process, the need to prevent academic misconduct, and to ensure Open University degrees are seen as being comparable to other institutions. Some considered there to be less distractions in an exam hall, others found seeing other students working stressful. There were concerns about the possible impact of technology problems during a remote exam, and the stress that this causes, which is removed for a face-to-face exam.

On proctoring, many students were against this on grounds of privacy, and also for fear of false accusation. Some suggested they would refuse to engage with a proctored exam. Others would reluctantly accept it as a means of ensuring the integrity of the exam process, and a few thought proctoring would be essential for remote exams.

Suggestions were made of a mixed economy, with remote exams for level 1 and face-to-face at higher levels (or vice versa!), remote exams only for students with disabilities, or that students be given a choice of face-to-face exam or a proctored remote exam.

It was noted that any decision on the form of future examinations needs to bear in mind the different pandemic situations in different countries at any time.

There were suggestions that there is an opportunity to radically rethink assessment, possibly removing exams and moving to coursework, possibly extended modelling exercises requiring the use of computer tools. There is a tension between leading the sector in this area, and being consistent with it to ensure the comparability of our degrees.

A small number of students expressed their concerns regarding the standardisation process used in June 2020.

Response to students

Thank you for taking the time to contribute in such detail to this discussion. There is a range of different views, all of which are well argued and justified. I will be drawing on this as discussions on this difficult issue progress within the University.

You said, we did

- **You said:** that you had various well-argued views on the relative merits of remote and face-to-face exams.
We did: feed these views into University discussions on this issue.

Future curriculum

There were a large range of suggestions made in this thread, both of future modules and means to improve the existing curriculum.

Topics suggested for future curriculum included

- Postgraduate statistics modules
- Theoretical physics (at MSc level): Astrodynamics, orbital mechanics, spacecraft kinematics

- Pure mathematics: geometry, topology, logic, set theory
- History of mathematics (at level 1, for the intensive start students)
- Statistics: more Bayesian statistics, update M249 for Data Science, spatial statistics
- Applied: Financial mathematics, numerical mathematics, artificial intelligence
- The suggestion of a project within undergraduate degrees
- The wish for mathematics options in the level 1 free choice slot

Suggested improvements to the current curriculum included:

- Better balancing of MSc modules across alternate years
- MT365 needs updating
- More linear algebra needed in M208
- Splitting M303 into two modules, and generally that 60 credit modules are too large
- Revising the pathway, to avoid $MST125 > M140 > M208$ as $MST125$ skills are lost before starting M208
- More dual presentations of modules, and flexibility as to when a student must finish a module.
- Exercise books for all modules
- Better support within MST210 forums
- Providing pre-recorded lectures on key topics
- Providing screencasts of computing sessions.
- More linking to external resources

There was discussion around the low starting level of some level 1 modules, that some found M140 too easy/verbose/subjective, while other found it interesting and challenging.

There was discussion around Maxima and Python, with some students preferring the latter, but other appreciating they were different tools and each had a role.

There was praise for Diagnostic Quizzes and the printed books with online versions, together with a suggestion that the Mathematics Typesetting material (specifically latex) be presented on OpenLearn.

The need for every module to have an exam was questioned, and a request made to drop the cite-them-right referencing.

Response to students

Thank you all for your input to this discussion, some very interesting suggestions have been made, Some of the suggestions are already underway, such as replacing MT365 (with MST368 *Graphs, games and designs* for October 2023) and including a module in numerical mathematics (MST374 *Computational applied mathematics*, also planned for October 2023, to replace M373.)

Other suggestions are being incorporated into our future planning, including the development of additional microcredential curriculum for FutureLearn.

You said, we did

- **You said:** that MT365 needs updating
We did: note that the rewrite of this module (to be called *Graphs, games and designs (MST368)* is now starting, with a planned first presentation of October 2023.
- **You said:** that you wanted a module in numerical mathematics
We did: note that this will be included in the new module *Computational applied mathematics (MST374)* planned for first presentation in October 2023

- **You said:** that there are a range of additional topics you would like to see within the curriculum
We did: note these, both for the development of our formal modules and with microcredentials in mind.
- **You said:** we should revise the level 1 pathways so that MST125 is studied as a last level module.
We did: review the current pathway possibilities, with a view to updating the regulations, and updated advice to students on the Mathematics and Statistics Study Site.

Covid-19 Response

Many students felt that their studies had been unaffected by COVID-19, that they had had a positive experience, and that the University had acted appropriately and, in general, communicated well.

A desire to return to face-to-face tutorials was expressed, as those allow more interaction and are easier to concentrate in. Having longer face-to-face events was suggested as a means of making the travel more worthwhile. Others preferred the convenience of online events, but poor connections in Adobe Connect and the difficulty of using it on Linux machines was mentioned.

One student thought the process of obtaining a TMA extension was too complicated. The standardisation of module marks in Summer 2020 was mentioned, as was the lack of prior information on this. However, the exceptional appeals process was welcomed.

Response to students

Thank you for your contributions to this discussion. I am pleased that, in the main, you felt that your studies had not been too disrupted by the pandemic, and that the University has acted appropriately. I note the desire to continue with both face-to-face and online tutorials in the future, together with the difficulties some have experienced using Adobe Connect.

You said, we did

- **You said:** that online tutorials had been affected by lost connections and other disruptions in Adobe Connect
We did: raise the problems with the relevant areas of the University.
- **You said:** that you would like a return to face-to-face tutorials after the pandemic.
We did: note this for future planning, and represent this view to the relevant areas of the University

Your Student Support Team

We had 22 unique students post on this thread, with a few follow-ups and student-to-student interactions.

The majority of posts could reasonably be described as detailing positive interactions with the Student Support Team (SST). I deliberately used the term 'Student Support Team' in my question to the students as an all-encompassing term to include colleagues from across the diversity of colleagues that make up the SST; the context of the responses illustrated, for the most part, which specific team the students had likely engaged with: Student Recruitment and Fees, Student Support Team, Disabled Student Support Team, etc.

Some of the *positive* interactions with the SST surrounded the following topics:

- Module choice and module registration.
- Counting down a level 2 module towards level 1 study.
- Commendation of additional support provided while going through difficult times.
- A reasonable adjustment made by the advising staff in using shorter sentences during discussion with the student.

The (much fewer) *negative* interactions with the SST proposed the use of some kind of 'ticketing system'.

Focusing on mental health, one student raised the issue that, except for in Scotland, OU students do not have direct access to a counselling service. We have taken this student's point forward (anonymously) to the Head of Student Support in the hope that we can help to influence some change on this matter.

Finally, we had one safeguarding concern which was referred to the Safeguarding referrals team, and followed-up with contact from one of our Maths & Stats Educational Advisors.

We will reflect on this feedback and circulate to the wider SST community.

Response to students

Thank you for your contributions to this topic. I'm pleased to see that mostly students had had positive experiences of contacting the Student Support Team. I note the difficulty that some have had, and the suggestion of introducing a ticketing system. I will raise the lack of counselling support for non-Scottish students with the Head of Student Support.

You said, we did

- **You said:** that non-Scottish students are unable to access counselling services via the OU
We did: highlight this issue with the appropriate sections of the University.

Equality, Diversity and Inclusion (EDI)

This topic was a late addition, in an attempt to help the School understand what students would like to be provided with respect to EDI, and was only commented on in two posts. The low response rate suggests that students needed more time to think about the issues and respond, and I will make sure to include a question on EDI from the very start of next year's consultation. The School EDI committee is also currently discussing improving the ways in which students can feed back on EDI issues outside of the formal consultation process, in order to enhance the student voice.

One topic that came through strongly in the responses submitted was the desire for greater use of the history of mathematics to highlight the contributions from non-Western sources, and from historically under-represented groups, such as women and LGBT+ people. The School is currently actively exploring the development of an OpenLearn resource which would showcase historical contributions of mathematicians and statisticians from under-represented groups. This would be linked to from the M&S study site in order to give greater visibility.

Response to students

Thank you for your contributions to this topic, which was included after the consultation started. You highlighted the role that the History of Mathematics (including those contributions from non-Western sources) and Women in Mathematics (including Florence Nightingale, Ada Lovelace) could play in showing the diverse range of individuals and cultures who have influenced mathematics and statistics we know today.

The School is currently actively exploring the development of an OpenLearn resource which would showcase historical contributions of mathematicians and statisticians from under-represented groups. This would be linked to from the M&S study site in order to give greater visibility.

You said we did

- **You said:** you would like more highlighting of the role that non-Western cultures and under-represented groups have had on mathematics and statistics.
We did: The School is currently actively exploring the development of an OpenLearn resource which would showcase historical contributions of mathematicians and statisticians from under-represented groups. This would be linked to from the M&S study site in order to give greater visibility. The new Mathematics Education module, ME322 (Learning and doing algebra) carefully considered inclusivity within its design and includes material from different UK contexts and from countries outside of Europe.

Miscellaneous topics

A number of other issues were raised by students, including the following.

- A wish for tutorial recordings to be available in a downloadable form, since those with bad internet connections have difficulty attending online tutorials, and also find streaming the recordings difficult. The issue of access to a prior year's tutorial recording was also considered, which might be better addressed by providing recorded lectures on key topics.

- That module grades in the MSc are currently based only on examination score, and not everyone finds exams easy to take.
- The printed module materials were praised, although it was commented that some printed books, including older ones, contain errata, and that the online materials contain the same errors and are not updated. A suggestion was made to include hyperlinks and contents pages within online versions of the material. Some students who use the electronic versions of materials suggested that being able to opt out of printed mailings would be environmentally friendly.

Response to students

A brief acknowledgement of these points has been made in the appropriate threads.

You said we did

- **You said:** You wanted tutorial recordings to be in a downloadable format
We did: Passed this request onto those responsible for maintaining the online tutorial system.
- **You said:** You wanted online versions of module materials to have known errata addressed, and to include hyperlinks and contents pages.
We did: We are looking into this as part of improving the online versions of module materials.
- **You said:** that you wanted coursework to contribute to postgraduate module scores
We did: include this in a forthcoming review of the assessment of our postgraduate modules.

Date: 22/06/2021