## Redesigning learning and teaching

<table>
<thead>
<tr>
<th>Document title:</th>
<th>Online learning principles</th>
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<tbody>
<tr>
<td><strong>Document Purpose:</strong></td>
<td>This document provides an extension to Requirement 9 of the Learning and teaching planning framework for healthy and inclusive online learning</td>
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<tr>
<td><strong>Status:</strong></td>
<td>Final 2nd July 2020</td>
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SECTION 1 – The basis of these principles

This document sets out NTU's principles for online learning for delivery of flexible, blended courses in the 2020/21 academic year. It should be read in conjunction with NTU’s Learning and teaching planning framework and the external Quality Matters rubric. The module development process provided by the Flex team in CADQ supports the design and development of modules in line with the guidance set out in these three documents. All three must be read before the module development process starts to understand why modules are being directed to be delivered in a particular way and how high-quality online learning can be achieved.

The online learning principles set out in this document have been designed to promote inclusive learning and support the wellbeing of both staff and students. Online learning should be structured, clearly labelled, delivered in a method that supports access from a variety of devices (including mobile), signpost available support, and promote meaningful interaction and community building.

SECTION 2 – Planning

Principle 1: The student journey should be planned as learning engagement time

Courses have traditionally defined direct contact teaching and learning methods as ‘contact hours’ and all other forms of learning as ‘non-contact hours’. In flexible, blended learning, the division is not as clear. This way of learning provides a broader set of tools, removing barriers and shifting the definition to focus on the student journey.

In this context, course teams should think in terms of learning engagement time to describe the range of learning and teaching approaches that students experience on a flexible, blended learning module.

Learning engagement time is made up of two broad learning methods:

- Directed learning, and;
- Guided independent learning

Full details with examples can be found in the Redefining contact time guide. This change does not need to be updated in the Module specification but must be shared with students in the Module Information section of the NOW Learning Room.

Principle 2: Clearly state expectations about the timing and access of online content.

Clear expectations about the timing and access of online content need to be visible on NOW to support students in planning their learning. This is particularly important for students whose engagement can be constrained by commitments outside of studies such as caring responsibilities, part-time work to support their education or limited access to devices or physical workspace.

- Providing a highly structured set of tasks in the opening week(s) of the module, with some discrete outputs will allow you to quickly identify which learners are completing tasks on schedule and those who are struggling to meet deadlines. This intelligence will provide a basis for targeted interventions where needed.
• The attendance and engagement requirements should be clearly stated both in terms of hours per week and suggested activity completion time for blocks of learning within the week.
• Elements of content that need to be completed before a campus-based activity such as the flipped learning approach of SCALE-UP should be clearly identified.
• A weekly agenda should be communicated at the start of each week using the announcements tool in the module Learning Room to guide activity and a summary posted at the end of the week with group level feedback. News items can be created in bulk at the start of the module and automatically released on a set date.
• The Intelligent Agent tool in NOW can be used to set up automated personalised emails to students based on levels of inactivity. This includes if a student has not visited the Learning Room for a pre-set number of days or has not completed a key activity.

The timings mentioned above will be created during the module mapping process so, they can easily be added to NOW with little additional time and effort.

SECTION 3 – Operational considerations

Principle 3: Core Library resource list items should be digital
Access to print Resource List items will be restricted throughout the 2020/2021 academic year and as such cannot be relied upon for core directed reading; this is particularly important for those modules delivered wholly online. To meet student expectations, we must provide Resource List ‘core’ items in digital format whenever suitable content is available. For some lists, this will necessitate an extensive reworking of list content. You are strongly advised to review your Resource List with your School Library contact (details here Learning and Teaching Team). They can assist you in finding electronic alternatives, either from LLR’s existing extensive digital collections or, if necessary, by purchasing appropriately sourced and licenced content.

Principle 4: Facilitation of online learning
It is important that a level of facilitation of online learning is provided to keep students progressing along the planned learning journey. Facilitation of online learning can be done efficiently with some simple actions;

• Aim to respond to students within two working days;
• Provide feedback on asynchronous formative activities;
• Post a short weekly news item with a summary of the week's activity, cohort level feedback and trends. A short video from a member of the module team would be ideal;
• Regularly check the Learning Room activity report to identify students that are not engaging at the module level; and
• Strategically use automated knowledge checks to monitor individual student and the cohort progress.

SECTION 4 – Online live sessions

Principle 5: Online live sessions should be no longer than 90 minutes and include regular screen breaks
Online live sessions should be used for active and collaborative learning or practical work where applicable. Lectures and didactic content should be delivered asynchronously.
through a series of short pre-recorded videos. Online live sessions should be no longer than 90 minutes without giving students an extended break.

Longer sessions can be held if students and staff are provided with an extended break such as a 10-minute break from the screen every 50 minutes.

Shorter live sessions are more likely to be inclusive, for example meeting the needs of students in different time zones or with additional commitments (part-time and apprenticeship students in particular). Also, for any students that may be unwell, sharing equipment or unable to reach a computer at a given time – catching up on one hour is far more achievable than two or more hours. It also minimises the burden on staff, as managing long online sessions can involve complexities not usually present in a physical classroom. Also, if for any reason, a session does not go to plan, replacing or rearranging one hour of teaching will be far easier than three hours.

Students should be reminded to look away from the screen regularly. The 20-20-20 rule suggests that every 20 minutes spent looking at a screen, a person should look at something 20 feet away for 20 seconds.

**Principle 6: Group sizes for live online sessions in different modes**

Work is currently being carried out on the pedagogy and technology for simultaneous teaching of live and on-campus students. It is currently suggested that for active and collaborative learning, the normal group sizes be used as a guide to the maximum number of students in such a session to allow for quick adaptation to loosening of the social distancing rules. For example, if you normally teach in group sizes of 20, then the maximum number of students for simultaneous sessions would be 20. The campus-based attendance should be limited to the socially distanced capacity for the timetabled room, with students rotated each week.

For fully online live interactive sessions, the suggested group size is 25 students based on established practice in the sector.

For a one off live online event such as guest speakers, Teams meetings have a limit of 250 attendees. For group sizes larger than 250, please contact elearning@ntu.ac.uk.

1:1 and small group tutorials can be carried out in Teams. These meetings should be scheduled in the calendar or through Microsoft Bookings to make sure the live auto-captioning is available to students that need it.

*Principle 6 will be updated as testing is carried out so please check back regularly for details.*

### SECTION 5 – Pre-recorded video

**Principle 7: Pre-recorded video content should be presented as discrete self-contained topics no longer than 10 minutes in length**

To maximise student engagement, lectures and didactic content should be planned at the module mapping stage to be broken down into small, bite-sized pieces. Research from MIT suggests that student engagement decreases as videos lengthen and found that the optimal video length is 6 minutes or less with students watching most of the way through these short videos. The research also found that student engagement dropped significantly with videos over 10 minutes in length. Engagement can be increased for longer videos with very high-quality narrative, presentation style, quality

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and pace of visual aids, and the inclusion of talk head video. Films are regularly over two hours but are fully scripted, edited together with multiple takes, and have an average shot change every 2.5 seconds. **Shorter, single take videos are a more efficient and effective way to produce engaging content. A supporting guide for creating pre-recorded video will be available on the Flexible learning site.**

Other recommendations to increase engagement are to:

- Introduce groups of videos with a conceptual scaffold and follow the content with a collaborative or reflective activity.
- Include sections of talking head recordings at convenient times or in addition to slides;
- Film in an informal setting such as an office to emulate a one to one office hours experience;
- Try Khan academy style tablet [drawing tutorials](#) with a voiceover;
- Show enthusiasm and good pace in presentation, students prefer it to a more formal style and can pause the recording if they want a break; and
- Be human, and don't worry about trying to create a completely polished presentation style. If the length of each video is short, students do not require broadcast quality.

Sustainability at a course and school level can be achieved by creating videos that can be reused over time and across multiple modules. This may include subject specific technology tutorials and introduction topic information. Avoiding reference to module specific or timebound information will increase usability and save time in future.

**Principle 8: All pre-recorded videos should be hosted in Panopto and be linked to in the Learning Room content area**

All NTU created videos, except for recorded live Teams sessions, no matter how they are created, must be uploaded to Panopto and then be linked to in the content area. Videos should be embedded into a webpage for the best student experience. Linking or embedding video facilitates a clear route for the user through the learning journey and provides opportunities to weave readings and activities around content.

Recorded Teams sessions should be linked-to in the Learning Room content area from their original location (Stream) and do not require uploading into Panopto.

**Principle 9: Lecture capture recordings from previous academic years should not be used as the primary content**

There are two core reasons why lecture recordings from past years should not be used as primary content. The first is that it does not comply with principle 7, namely pre-recorded video content should be presented as discrete self-contained topics no longer than 10 minutes in length. Second, the audio quality of past lecture capture recordings tends to be poor unless a headset has been used.

Good quality audio is essential. Students will be much more forgiving of technically poor video quality than technically poor sound quality. Closed captions are needed on videos for accessibility reasons, and the auto-captioning tool requires good quality audio to be accurate. When creating video, high quality audio can be created simply by using a headset or microphone such as those that come with mobile phones. Headsets are available on request from Digital technologies.

Include technical terms and acronyms as text on slides and contact the disability team where professional stenography is required for a specific student need.
SECTION 6 – Staff workload

Principle 10: Staff workload model

A cross-university working group is currently developing a staff workload model that considers the challenges staff face in designing and developing blended learning under the current conditions. A sub-group of NTU academics that have been developing blended learning at NTU over the last two years is collating the development time for a variety of content. This principle will be updated regularly with updates from this group.

<table>
<thead>
<tr>
<th>Module design stage</th>
<th>Time*</th>
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<tbody>
<tr>
<td>Complete the Module development form</td>
<td>45 minutes</td>
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<tr>
<td>Create Student personas</td>
<td>45 minutes</td>
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<tr>
<td>Complete the Module Map draft</td>
<td>180 minutes</td>
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<tr>
<td>Attend the 1-hour workshop with a Learning Designer</td>
<td>60 minutes</td>
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<tr>
<td>Finalise the module map</td>
<td>30 minutes</td>
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<tr>
<td>Total</td>
<td>6 hours</td>
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Based on average times from a pilot of real NTU modules*
## Appendix one: Online learning principles

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<th>Principle</th>
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