Some prototypes for hybrid teaching

The following simplified models suggest some ways in which key teaching activities might be adapted for the three cohort groups (on-campus and co-present, online in the same time zone, online in different time zones). They are deliberately 'bare bones' starting points and are largely discipline agnostic. This means there would be many context-specific adaptations and additions driven by academic colleagues' preferences and teaching approaches.

The approaches outlined focus on using Learn and the other core supported services as hubs for activity. All assume students have access to a device for study and communication: lower bandwidth text and voice-only options will be important.

It is important to reiterate that the starting point for this is a **mapping and adaptation of current on-campus teaching activities**, not radical course re-design – we do not have enough time and capacity for the latter.

Preparation and induction

All activity is online.

Students on-campus	Students online, same time zone	Students online, different time zone
Key readings in Learn via digital library resource lists		
Induction and introduction videos in Learn		
Peer group connections to help students cohort-build enabled online: informal discussion boards in Learn; 'buddy' connections and small peer group connections organised if appropriate; social media connections if appropriate		
Curriculum-appropriate online introductory exercises (automated or moderated)		
Online versions of generic skills courses, e.g. English language support, Getting connected, Making the most of IT, Introduction to the Libraries, Study Skills, Academic writing, Studying from recorded lectures, Managing your data, Staying safe in a digital world (ISG, IAD, Library, COL)		

Lectures

Students on-campus	Students online, same time zone	Students online, different time zone
Physical attendance in lecture if social distancing allows Students engage on lecture chat live, or use Learn discussion forums as appropriate	Virtual attendance – students watch and engage with lecture livestream Students engage on lecture chat live, or use Learn	Students watch or listen to recording depending on bandwidth; some may choose to attend streamed lecture Students engage in discussion using Learn forums

Lecture is recorded	discussion forums as appropriate	

There are creative ways of turning the time zone challenge into a positive, for example by asking students in a time zone ahead to curate questions in advance of a synchronous session, then asking the students in a later time zone to edit and summarise the discussion and responses.

Seminars and tutorials

Students on-campus	Students online, same time zone	Students online, different time zone
Physical attendance in class if social distancing allows Tutor-prepared task or discussion Seminar is 'captured' in whatever way is feasible and preferred, for example students in physical attendance create a shared digital note of the seminar, the seminar is recorded, or students create a video summary Students contribute to asynchronous, small group Learn discussion forum: forum is open for period both before and after the seminar	Students engage with the seminar recording and tutor-prepared task in asynchronous, small group Learn discussion forum Student leadership of these may be appropriate in some contexts (for example groups meet for further discussion in Collaborate and return to Learn with a summary and further questions)	
As an alternative, some – or even all – seminars and tutorials could take place on a 'digital first' basis. Rather than try to record seminars run with students on-campus in some way which enables off-campus students to access them (e.g. via a video recording, or a written record), they could be run online for all students regardless of whether they are on-campus or remote. These could be either 'real time' in Collaborate, Teams or other preferred medium, or asynchronously in a Learn forum, open for a period of days. Where resource allows live seminars could be run twice (at different times) to allow for time zone issues.		

Computing labs

Students on-campus	Students online, same time zone	Students online, different time zone
Physical attendance in lab if social distancing allows	Structured self-study using same activities	Structured self-study using same activities

Lab activities and resources set by tutor In-person, live tutor/demonstrator support Teaching supported by computational notebooks	Responsive live tutor/demonstrator support Teaching supported by computational notebooks	Responsive post-event tutor/demonstrator support Teaching supported by computational notebooks
Where there is a desire to bring on-campus and off-campus students together, a live chat channel could be set up to support students during the lab session (this would only work for remote students in the same time zone, but would create a record for others). Additional teaching staff in the lab would be needed to manage online interactions.		

Labs, workshops and studios

Students on-campus	**Students online, same time zone**	**Students online, different time zone**
Physical attendance in laboratory if social distancing, capacity and prioritisation allows; supporting virtual attendees by operating equipment, moving cameras, and discussing observations. Taking turns at being physically and virtually present. Where there is insufficient capacity and no online alternative (yet), on-campus students access recordings and data from teaching and technical staff, or other students. Remainder of laboratory teaching provided by remote, virtual, and simulated labs where possible. In-person and live online tutor/demonstrator support	Virtual attendance in physical lab using live video, chat and remote interfaces to equipment where available. Remainder of laboratory teaching provided by remote, virtual, and simulated labs where possible. Individual experiments or virtual lab groups with students in the same time zone, mixing online and on-campus groups. Live online tutor/demonstrator support. Lab activities provided by learning technology developers, technical staff and course staff. Live chat channels shared by on-campus and online students in the same time zone.	Students watch or listen to recording prepared by teaching and technical staff, and access recordings and data from their affiliated hybrid lab group. Remainder of laboratory teaching provided by remote, virtual, and simulated labs. Individual experiments or virtual lab groups with students in their different time zone. Responsive post-event tutor/demonstrator support. Live chat channels shared by online students where their different time zones align.

Social distancing reduces lab throughput. Many in-person lab facilities are over-stretched already. PPE provision to be considered to maximise capacity of facilities that offer core proximal laboratories. Claw-back capacity for those labs which *must* be done in person by developing remote, virtual and simulated experiments to support online teaching wherever possible (steady growth in capacity over time). Home experiment kits strongly discouraged on the grounds of student equality, safety, cost (delivery, return, repair, and warehousing) and sustainability.

Student group work

Groups would be engineered for cohort spirit by including a mix of on-campus and online students. Most activity would be 'digital first'.

Students on-campus	Students online, same time zone	Students online, different time zone
Main focus of activity in small group spaces created on Learn: groups designed to mix on-campus and online students Small group meetings take place on Collaborate, Teams or students' preferred medium, and asynchronously in Learn discussion forums A record of group meetings and group work is created in a shared online space (for example using the university Academic Blogging Service on WordPress) Peer assessment through WebPA or PeerMark		

Skills and professional practice

Students on-campus	Students online, same time zone	Students online, different time zone
Placement experiences and professional supervision meetings where possible. Skills and methods teaching on-campus (hybrid where possible). Curated access to open, on-demand skills and methods provision (e.g. MOOCs and online courseware, online demonstrations and video tutorials).	Access to skills and methods teaching in hybrid mode where possible. Supported review and discussion of video-recorded practice of professionals, including in situ practice (e.g. in a clinical environment) where possible. Student peer-led practice on Teams or Collaborate, including observation of, and engagement with, on-campus learners where possible. Opportunity to submit recordings of their own skills practice for asynchronous feedback using Media Hopper. Support to source appropriate VR, AR, phone apps and homemade craft solutions to practice demands and materials (e.g. for simulation or deliberate practice), looking to both high-tech contexts and low resource settings.	

	Supported analysis and discussion of complex practice environments using video recordings, case studies, designed scenarios, and dialogue with field experts. Curated access to open, on-demand skills and methods provision (e.g. MOOCs and online courseware, online demonstrations and video tutorials).

Field trips

Students on-campus	Students online, same time zone	Students online, different time zone
In-person attendance where social distancing and travel restrictions allow. Local trips not involving overnight stays might be possible. Students create video blogs in the field and upload on return. Potential for peer learning with individuals or small groups following blog instructions. If live broadcast is possible - remote tutoring with students in the field linked to tutors on campus. Distant trips could be delivered as 'remote field experiences', mediated by partners and/or tutors.	Students engage with social broadcasts from on-campus students and/or tutors in the field. Tutor supported peer learning and student led alternatives in their local context or online are supported and broadcast where feasible. Distant (from Edinburgh) trips delivered as live broadcasts 'remote field experiences', mediated by partners and/or tutors.	Students engage asynchronously with social broadcasts from on-campus students and/or tutors in the field. Tutors in Edinburgh who have been in the field during recording could support at set times in the morning or evening. Peer to peer learning via asynchronous student led alternatives in their local context or online, supported and broadcast where feasible.

Project work and supervision

Students on-campus	Students online, same time zone	Students online, different time zone
Supervision meetings on-campus where possible; otherwise taking place in Collaborate, Teams, phone or other as preferred.	Scheduled supervision meetings in Teams, Collaborate or on the phone Student peer-led meet-ups on Teams or Collaborate Email and shared documents for drafting	

Email and shared documents for drafting. Research skills and methods teaching on-campus (hybrid where possible) Open, on-demand skills and methods provision (e.g. MOOCs and online courseware) Curated resources (e.g. Sage Research Methods, LinkedIn Learning)	Access to research skills and methods teaching in hybrid mode where possible Curated access to open, on-demand skills and methods resources, for example relevant MOOCs and online courseware, Sage Research Methods, LinkedIn Learning

Siân Bayne sian.bayne@ed.ac.uk, 28 April 2020

with expert input from Stuart Nicol (ISG), Karen Howie (ISG), Lee-Ann Simpson (ISG), Michael Gallagher (Education), Simon Kelley (Geosciences), Tim Drysdale (Engineering), Tim Fawns (Clinical Education) and EFI Fellows – Michael Herrmann (Informatics), Stuart King and Colin Rundell (Mathematics), Jane McKie and Anna Vaninskaya (Literatures, Languages and Cultures), Larissa Pschetz, Elizabeth Petcu, John Brennan and Sarah Kettley (Edinburgh College of Art), Laura Cram, Juli Huang and Jean-Benoît Falisse (Social and Political Sciences), Jen Ross (Moray House School of Education), Kirsteen Shields (Global Academy for Agriculture and Food Security), Candace Jones, Stephen Osborne and Maurizio Tomasella (Business School), Paul Kosmetatos (History, Classics and Archaeology).