

Teaching & Learning in the School of Physics & Astronomy

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PART 2: GUIDANCE FOR DELIVERING LECTURES



- PART 2 – GUIDANCE FOR DELIVERING LECTURES
 - 2(i) – Guidance and Advice
 - the principles which underline the University’s approach to teaching and learning
 - 2(ii) – Some policies you should be aware of
 - Lecture recording policy
 - Digital accessibility policy
 - Accessible and inclusive learning policy
 - 2(iii) – ADD: Academic & Digital Development Team
 - What help can the University’s professional trainers offer you?
 - 2(iv) – Yes ... but what should I actually do?!
 - Practical tips for your lectures

REMEMBER ...

The

CLASS AND LAB HEADS

are the

MOST IMPORTANT PEOPLE

for you to contact with

ANY QUESTIONS

you have about your course/allocations!

PART 2(i)

Guidance and advice

Principles for learning

Teaching and learning will be predominantly in person this year.

During pandemic we adopted a “Remote and Blended” approach.

Principles of this can be found at ...

<https://www.gla.ac.uk/myglasgow/learningandteaching/blendedteaching/>

Apply equally to in person teaching

Students should:

1. Be active and not passive learners (i.e. they need to do something, not just consume)
2. Have the opportunity to engage/learn with peers
3. Construct understanding by building on and expanding existing knowledge, where possible
4. Be given the chance to contribute to their learning through elements of co-design
5. Be guided towards becoming independent/self-directed learners
6. Benefit from ongoing feedback on their learning as they participate
7. Be supported in creating relationships in class, that they can build on through private study and other self-directed learning and social activities

1. Be active and not passive learners (i.e. they need to do something, not just consume)

University Suggestions:

- Providing different pathways through the course, instead of enforcing a linear time-release presentation of course content
- Enabling students to understand how a session/unit fits within the overall course (and programme) to enable informed decision making (i.e. provide a course-map, or outline and contextualise within the program)

How you could apply them in P&A:

Realistically not an option for us – physics knowledge is cumulative.

Basic: Begin your course with a “table of contents” – spend some time outlining everything you will cover to they’ll see where it’s all going.

Advanced: You could make connections between the material you are teaching, and that in the other modules/courses the students take. Not recommended until you’ve taught your course for a few years.

1. Be active and not passive learners (i.e. they need to do something, not just consume)

University Suggestions:

- Providing opportunities for students to 'apply' what they have learned. This could be by contributing to a discussion or considering a particular problem or issue. (This sits within the wider heading of 'active learning' embedded in other principles).

How you could apply them in P&A:

Basic: Set students some example exercises to attempt between lectures based on material you have covered in a lecture. Take 5 mins at the start of the next lecture to go over that work.

Advanced: Use the Breakout Rooms functionality in Zoom allow students to discuss/work through examples during class time. You could encourage them to focus on **how** they would approach the question, not necessarily actually getting out their calculators and doing the work. However, you may not have the time to do this.

1. Be active and not passive learners (i.e. they need to do something, not just consume)

University Suggestions:

- Meaningful assessments (where appropriate) that allow students to demonstrate their knowledge beyond just memorised facts and figures

How you could apply them in P&A:

Basic: If you are using “homework” questions between lectures, make some of them more advanced than “state X” or “calculate Y”. (Don’t always do that - “simpler” state and calculate questions are valuable and can aid student confidence.

Advanced: Apply same approach to portions of class test and exam questions. They will take longer to mark though.

2. Students should have the opportunity to engage/learn with peers

University Suggestions:	How you could apply them in P&A:
<ul style="list-style-type: none">Splitting students into small groups and asking them to work on a project together. (e.g. MS Teams)	Could do this via Zoom breakout rooms in a lecture – ask them to tackle a short example question.
<ul style="list-style-type: none">Asking students to post and then to critique each other's forum posts (e.g. Moodle)	You would need to keep a very strict eye on this. More appropriate for later years to explore content potentially.

2. Students should have the opportunity to engage/learn with peers

University Suggestions:	How you could apply them in P&A:
<ul style="list-style-type: none">• Use elements of gamification: put students into teams and set a challenge (task) and either time it or the class votes which team has produced best content/artefact	I would avoid this – “gamification” can be divisive.
<ul style="list-style-type: none">• Contributing to a shared document or wiki (e.g. Moodle)	Could be a good way to get students to tackle a group report

- If you are going to use elements of teamwork, make sure you explain how you are defining that term and why it is beneficial to work with peers. You should also set out expectations in terms of behaviour.

3. Construct understanding by building on and expanding existing knowledge, where possible.

University Suggestions:

How you could apply them in P&A:

Explicitly asking students to collate what they think they know about a topic in a discussion forum

You could do this in Moodle or Teams

Alternatively, you could start your course with a discussion, then follow up with the course content outline

Show your students how your course links to courses they have previously completed

When you show them the course content, include explicit links to the courses they took in previous years. (You'll need to track down the Course Guides for those courses.)

3. Construct understanding by building on and expanding existing knowledge, where possible.

University Suggestions:

Understanding how prior knowledge links to what is about to come allows students to put their developing knowledge into context.

- Put students into teams, and task them to collate knowledge around a specific topic. This way stronger students, or students who are familiar with a topic, can help students who have no prior knowledge (e.g. channels in MS Teams)

How you could apply them in P&A:

Unlikely you'd have time to do this within lectures, but you could consider doing this on Teams. Perhaps chat with your Classhead to see if they are already using students groups elsewhere.

If you are teaching level 1 or 2, probably best handled with colleagues.

4. Be given the chance to contribute to their learning through elements of co-design

University Suggestions:	How you could apply them in P&A:
<ul style="list-style-type: none">• Allow students to make suggestions for readings (this can be done in the first week of class)	Not really practical in P&A
<ul style="list-style-type: none">• Have students create an activity for one of the units. Have them work in groups to create a quiz or activity. The group with the best one gets full points while the rest of the class completes the assignment e.g. students in a writing class created the practice midterm exam and the students who did the best had some of their questions featured on the actual midterm	Not really practical at lecture-course level, though may be going on within the wider course. Caveat: if you are going to get students to create additional assessments, make sure you and they are aware of the pre-existing assessments (including in other subject areas) – we must not overload them.

5. Be guided towards becoming independent/self-directed learners

For students to become self-directed learners they should be supported to understand how they learn effectively. Self-reflection is key to becoming an independent learner.

University Suggestions:

- Have clear ILOs and criteria for assessment, and make sure students know what is expected of them

How you could apply them in P&A:

This should already exist within the Course Guides, but keep it in mind if you plan to make changes to assessment.

5. Be guided towards becoming independent/self-directed learners

For students to become self-directed learners they should be supported to understand how they learn effectively. Self-reflection is key to becoming an independent learner.

University Suggestions:	How you could apply them in P&A:
<ul style="list-style-type: none">• Help students in setting achievable learning goals, and to closely monitor these goals	Difficult to implement in P&A; but could be done in connection to homework examples – avoid setting questions that are monolithic – chunk the questions so that they can achieve “mini-milestones” as they go, rather than hang everything on one major achievement at the end.
<ul style="list-style-type: none">• Support students in identifying challenges to achievement, e.g. this could be done through a learning contract or logbook	Easiest to do by giving them opportunities to tackle questions so they learn where their hurdles are. Ignore “learning contract”

6. Benefit from ongoing feedback on their learning as they participate

Receiving – and acting on - feedback is one of the most important enablers of learning. You should give students the opportunity to develop ‘feedback literacy’.

University Suggestions:

- Helping students to capitalise on the opportunity for feedback, e.g. you could use feedback proformas that accompany assessment tasks (particularly formative ones), where learners ask for specific feedback and feedforward

How you could apply them in P&A:

Classheads and labheads will have something like this for tests and exams and labs. You could adapt those, but this only really works if you plan on “marking” the assessments – unlikely you’ll have time for this.

6. Benefit from ongoing feedback on their learning as they participate

Receiving – and acting on - feedback is one of the most important enablers of learning. You should give students the opportunity to develop ‘feedback literacy’.

University Suggestions:

- Build in opportunities for students to provide to - and receive feedback from - their peers. Introduce this in low stakes activities to begin with, building up as knowledge and skills develop. (e.g. Aropa, or Moodle Workshop activity)

How you could apply them in P&A:

Could do in a lecture by dividing class into groups, but needs to be carefully managed

7. Be supported in creating relationships in class, that they can build on through private study and other self-directed learning and social activities

University Suggestions:

- Groupwork (collaborative learning) that promotes teamworking. Tasks should be designed to be complex enough to require a collaborative effort
- Consider using third party tools to create safe 'social' spaces as distinct from official learning communities on UofG approved platforms which are GDPR compliant.
- Time should be allocated to community building/'social' spaces within a class or course. For example, induction activities at the start of the course could include opportunities for social activities
- Facilitate virtual study rooms open during specific hours students can just drop in (e.g. MS Teams, or Zoom)

Best left to class heads

PART 2(ii)

Some Policies you should be aware of

Content

- Teaching recording policy
- Digital Accessibility policy
- Accessible and inclusive learning policy

Policies: Recording of teaching

<https://www.gla.ac.uk/myglasgow/senateoffice/policies/studentsupport/teachingrecordingpolicy/>

Purpose of policy:

“Provision of recordings of teaching is recognised throughout the HE sector as a helpful study aid and can contribute towards the University meeting its obligations under the Equality Act 2010 as well as the University’s commitment to inclusive learning and teaching practice as part of the Learning & Teaching Strategy 2021-2025.”

<https://www.gla.ac.uk/myglasgow/senateoffice/policies/studentssupport/teachingrecordingpolicy/>

Principles:

- Students should, as far as possible, be able to access audio (and where available or appropriate video) recordings of lectures to support their learning.
- This policy adopts an *opt-out* approach for the recording of lectures.
- Opt-out approach does NOT apply to recordings of other types of live teaching, for example, tutorials, workshops, seminars, or other activities that may involve student participation and discussion.

<https://www.gla.ac.uk/myglasgow/senateoffice/policies/studentsupport/teachingrecordingpolicy/>

Principles:

- Staff may choose to also video record their live lectures to support student learning and in rooms where such functionality is available. Such recording would predominantly capture the presenter area rather than the students and students will be advised in advance of the recording such that they can relocate away from the recording devices if they wish.
- The recording of on campus teaching is *not normally intended to be an equivalent* experience to in-person attendance.

<https://www.gla.ac.uk/myglasgow/senateoffice/policies/studentsupport/teachingrecordingpolicy/>

The University recognises there are situations where all or part of a lecture should not or cannot be recorded and that staff may wish to opt-out of recording all or some of their lectures.

Among these are that:

- I. there are approaches to lecturing that may not be suitable for recording, such as those with a high degree of interactivity;
- II. a lecturer should not change their teaching approach to facilitate the recording of a lecture where this change would be detrimental to the student experience;
- III. i there may be legal, ethical or privacy reasons for not recording part or all of a lecture;
- IV. a lecturer may have personal reasons that make it inappropriate for their lecture to be recorded;

<https://www.gla.ac.uk/myglasgow/senateoffice/policies/studentsupport/teachingrecordingpolicy/>

Intellectual property and performer rights

- Performer rights reside with the lecturer and other lecture participants, who agree to the recording of the lecture and agree that the University may use their performance for the essential purpose in this policy. Lecturers wishing to assert their right to be identified as author or performer should do so as part of the recording, for example in the introduction.
- Recordings will only be retained for as long as they continue to be essential for the Course. E.g. until all course assessment has been completed in that session. Recordings will usually be replaced, if and when, the course is taught again in a new session. Recordings of lectures made by staff who are no longer employed by the University will not be retained following the end of the Course in the academic session in which the recording was made.

- <https://www.gla.ac.uk/myglasgow/digitalaccessibility/>






DIGITAL ACCESSIBILITY GUIDANCE

New digital accessibility regulations came into force on September 2018.

This is known as The Public Sector Bodies (Websites and Mobile Applications) (No. 2) Accessibility Regulations 2018. This regulation implements the EU directive on the accessibility of the websites and mobile applications of public sector bodies into UK law.

[Digital accessibility guidance for students](#)

The basic six things to consider when creating accessible information

Structure (heading styles) 1 2 3	Colour & contrast 	Use of images 	Links (hyperlinks) 	Plain English 	Table structure 
S C U L P T					
Use heading styles in your document such as H1, H2, H3	Consider the colours you use and the contrast between text and background	Use alternative (alt) text on your images	Describe your link, never use click here	Use clear uncomplicated language with no jargon	Use simple tables without merged or split cells

www.worcestershire.gov.uk/WCCSculpt

Getting started

- General content guidelines
- Video and audio accessibility

Accessible documents

- Word
- Powerpoint
- Excel
- PDFs

Why digital accessibility?

- Watch students tell us why this is important (Video)

Guidelines for content authors

- Moodle
- Documents
- Video and audio
- Email
- STEM subjects: formulas, equations, diagrams

Legal requirements for platform owners

- Web accessibility standards for digital platforms
- Provide alternative formats

- Course materials need to be digitally accessible: lecture slides, course & lab guides, tutorial question sheets etc.
- This will help everyone: but especially those with dyslexia, sight and/or hearing impairments etc
- It is a requirement under UK law: the University is monitoring resources posted on Moodle.

*From presentation to School by Morag Casey, Sept 2021 – if you have any DA questions, she is happy to answer them at morag.casey@Glasgow.ac.uk

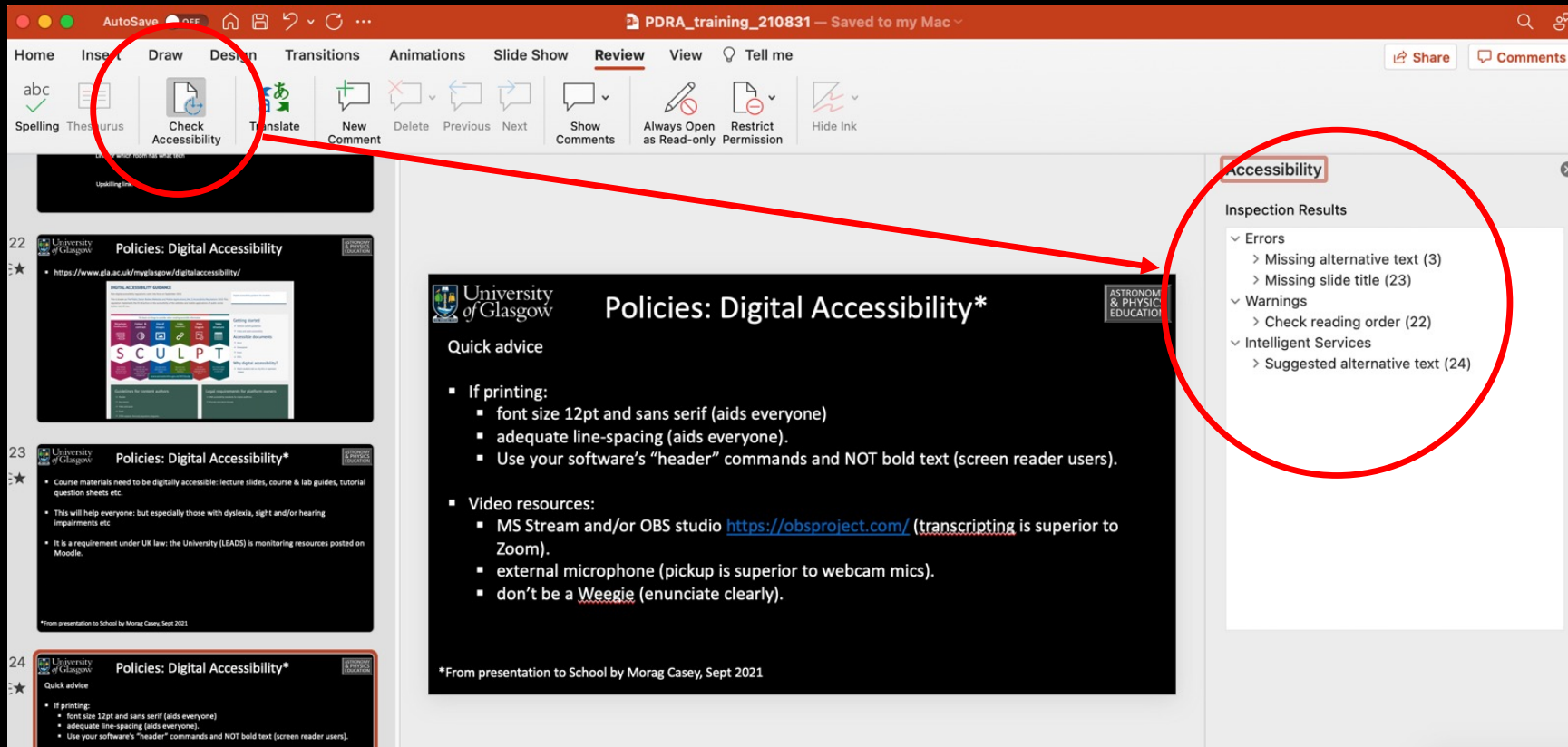
Quick advice

- If printing:
 - font size 12pt and sans serif (aids everyone)
 - adequate line-spacing (aids everyone).
 - Use your software's "header" commands and NOT bold text (screen reader users).

- Video resources:
 - MS Stream and/or OBS studio <https://obsproject.com/> (transcripting is superior to Zoom).
 - external microphone (pickup is superior to webcam mics).
 - don't be a Weegie (enunciate clearly).

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- Powerpoint/Word: Check the Accessibility

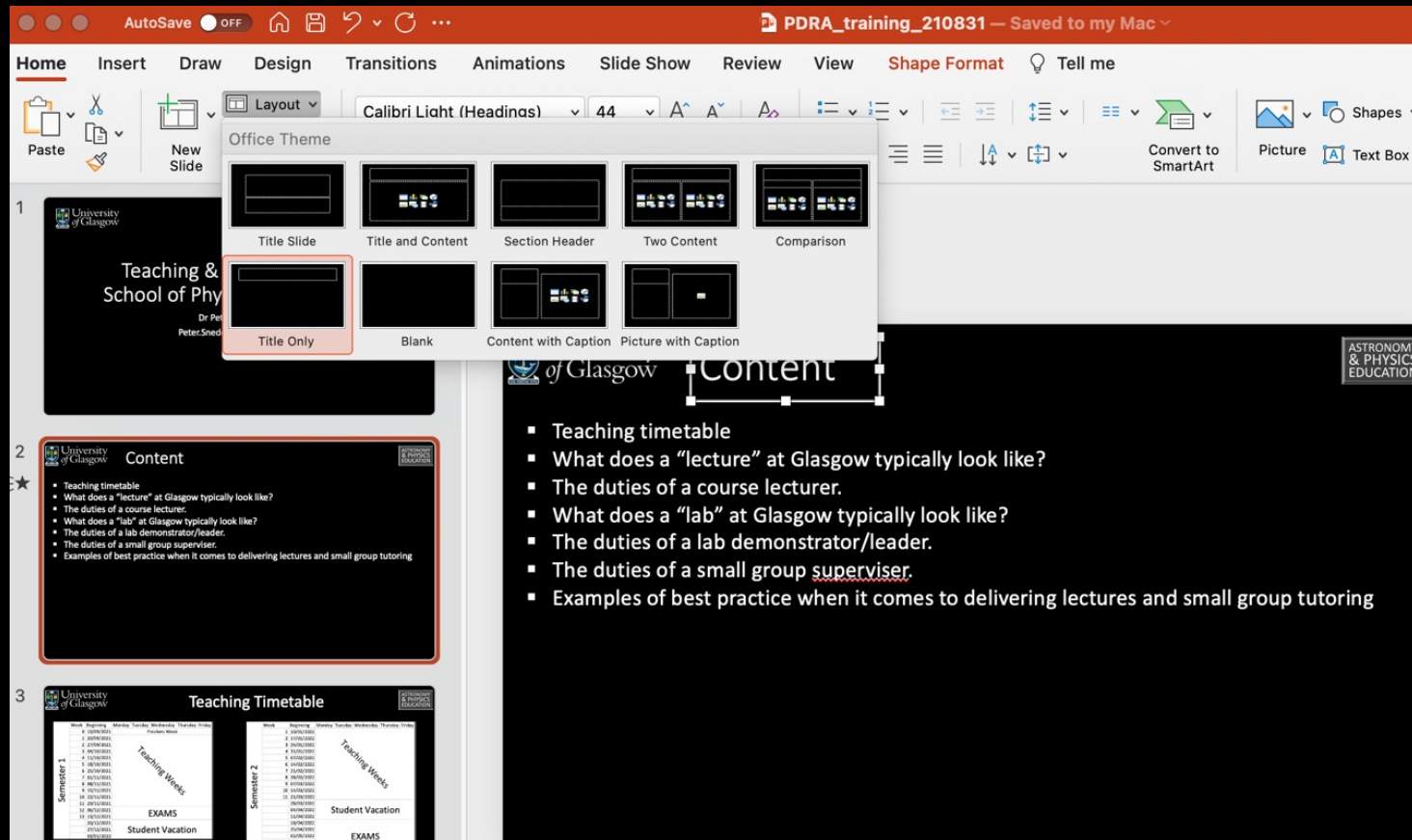


The screenshot shows the Microsoft PowerPoint interface. The 'Review' tab is active, and the 'Check Accessibility' button is circled in red. A red arrow points from this button to the 'Accessibility' pane on the right, which is also circled in red. The 'Accessibility' pane displays 'Inspection Results' with the following categories:

- Errors
 - Missing alternative text (3)
 - Missing slide title (23)
- Warnings
 - Check reading order (22)
- Intelligent Services
 - Suggested alternative text (24)

The main slide content is visible in the background, showing a slide titled 'Policies: Digital Accessibility*' with a bulleted list of quick advice for printing and video resources.

- Powerpoint/Word: Check the Accessibility



The screenshot shows a Microsoft PowerPoint presentation titled "PDRA_training_210831 - Saved to my Mac". The interface includes the ribbon (Home, Insert, Draw, Design, Transitions, Animations, Slide Show, Review, View, Shape Format) and a slide sorter on the left. An "Office Theme" dialog box is open, displaying various slide layouts such as Title Slide, Title and Content, Section Header, Two Content, Comparison, Title Only, Blank, Content with Caption, and Picture with Caption. The "Title Only" layout is highlighted with a red box. The main slide area shows three slides:

- Slide 1: "Teaching & School of Phy" (partially visible)
- Slide 2: "Content"
 - Teaching timetable
 - What does a "lecture" at Glasgow typically look like?
 - The duties of a course lecturer.
 - What does a "lab" at Glasgow typically look like?
 - The duties of a lab demonstrator/leader.
 - The duties of a small group supervisor.
 - Examples of best practice when it comes to delivering lectures and small group tutoring
- Slide 3: "Teaching Timetable"

Semester	Teaching Weeks	EXAMS	Student Vacation
Semester 1	1-10	11-12	13-14
Semester 2	1-10	11-12	13-14

On the right side of the slide sorter, there is a list of bullet points:

- Teaching timetable
- What does a "lecture" at Glasgow typically look like?
- The duties of a course lecturer.
- What does a "lab" at Glasgow typically look like?
- The duties of a lab demonstrator/leader.
- The duties of a small group supervisor.
- Examples of best practice when it comes to delivering lectures and small group tutoring

Policies: Digital Accessibility

- Powerpoint/Word: Check the Accessibility

1 <https://www.gla.ac.uk/myglasgow/digital-accessibility/>

Alt Text

How would you describe this object and its context to someone who is blind?


(1-2 detailed sentences recommended)

SCULPT webiste image


Mark as decorative

Generate a description for me

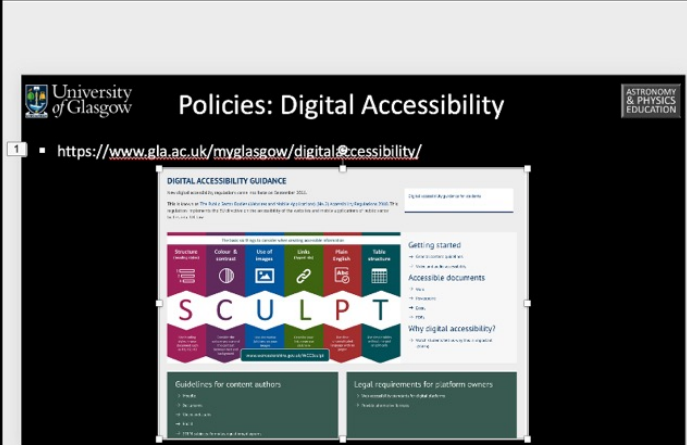
- Doh!



Policies: Digital Accessibility



- Doh!



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Accessibility ✕

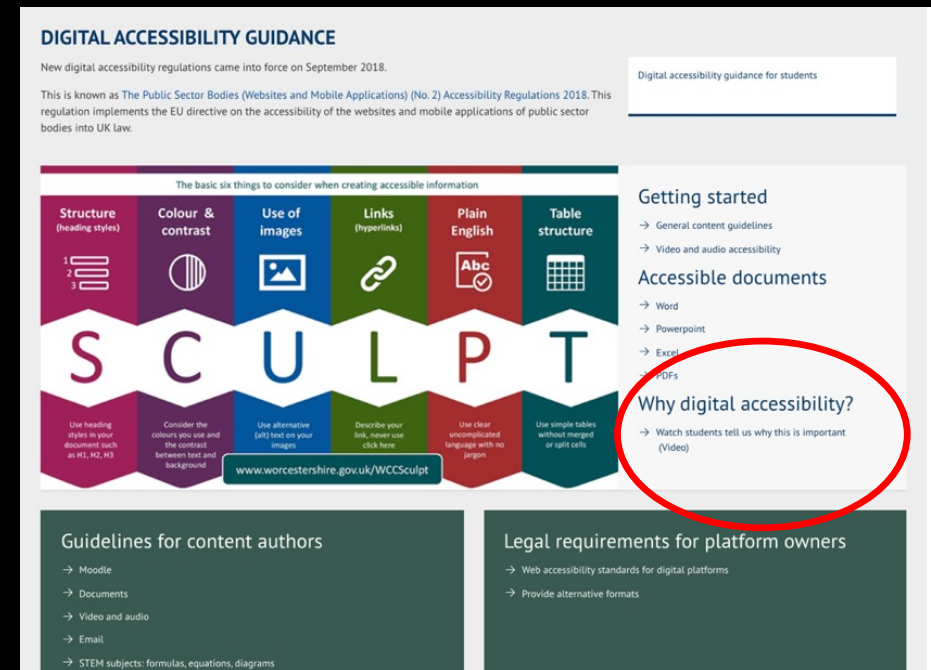
Inspection Results

- ▾ Errors
 - ▾ Missing alternative text
 - Picture 2 (Slide 25)
 - Group 12 (Slide 25)
 - Picture 1 (Slide 26)
 - Picture 2 (Slide 27)
 - Picture 2 (Slide 28)
 - > Missing slide title (25)
- ▾ Warnings
 - > Check reading order (26)
 - > Intelligent Services

Why Fix?

There is alternative text in your document that was

- Strongly recommended to view the video at <https://www.gla.ac.uk/myglasgow/digitalaccessibility/> which you can find on the right hand side, under the header “Why digital accessibility?”
- From Morag: *“It's just under 5-minutes long and if people do nothing else in their prep, they should watch that and maybe just come to understand the relevance of this requirement in terms of other human beings' needs rather than the Uni's bureaucracy.”*



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Legal requirements for platform owners

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Policies: Accessible and Inclusive learning

- <https://www.gla.ac.uk/myglasgow/senateoffice/policies/studentsupport/ailp/>
- “A key motivation of our community is that we believe all learners should be facilitated in reaching their academic potential. To this end The University of Glasgow is committed to ensuring that all students can equally participate in every aspect of the learning and teaching process by mainstreaming adjustments in teaching practice. We aim for our learning environment to be as inclusive as possible, so that individual interventions are the exception and not the rule.”
- Required by law (Equality Act (2010))

Policies: Accessible and Inclusive learning

Key points from a lecturer's perspective

1. The University community will endeavour, wherever possible, to ensure that all teaching materials are made available to students in advance.
 - i. Reading lists ideally 4 weeks in advance using the University Library's Reading Lists @ Glasgow facility.
 - ii. Teaching materials that support learning throughout the course: 1 working day in advance of the teaching event they relate to.
 - iii. Follow up/additional teaching material: within 3 working days after the last delivery of the teaching event.
 - iv. ***Teaching materials should be provided in an electronic format, where appropriate and possible***

Policies: Accessible and Inclusive learning

Key points

2. Where it is not possible to comply with above, there must be a justifiable pedagogic reason that is justified to the School's Learning & Teaching Committee and is made clear to all students, in advance, through the course or programme handbook.
 - Basically, make sure you discuss with your Class Head if you can't produce material in advance. If necessary, they will consult with the School's LTC.
3. The use of lapel or other portable microphones by staff is mandatory where the technology is available.

PART 2(iii)

Academic and Digital Development Team

<https://www.gla.ac.uk/myglasgow/leads/staff>

Content

- What is ADD?
- How can they help you?

<https://www.gla.ac.uk/myglasgow/leads/staff/designanddelivery/>

Home / MyGlasgow / Learning Enhancement & Academic Development Service / ... / Support for curriculum design and delivery

FOR STAFF

Enhance your teaching

If you'd like advice from a person, get in touch:

→ College contacts

We can advise you on...

- Making lectures interactive
- Improving assessment literacy
- Engraining your students with feedback
- Designing out plagiarism
- Facilitating group work

Design or review your course or programme

We can help you through the process, from designing and reviewing individual modules, to reworking entire degrees.

→ Guidelines for Programme and Course Design and Review (updated October 2017)

→ Accessible and Inclusive Learning Policy (Senate Office)

Create blended & online classes

These courses work best if you don't simply transfer all your course content online.

→ Adapting your teaching methods & creating digital content

Science and Engineering

Contact for staff: Dr Nathalie Tasler

→ Roles & responsibilities in ADD

→ Contact details & publications

Contact for students: Dr Jessica Bownes

→ Roles & responsibilities in SLD

→ Contact details & publications

You might be interested in ... <https://www.gla.ac.uk/myglasgow/leads/staff/gtas/dat/>

DEVELOPING AS A TEACHER IN HIGHER EDUCATION (DAT HE)

Designed for early career teachers - including Graduate Teaching Assistants, Laboratory Demonstrators, Post Docs who *Teach* and other early career colleagues.

Course participants should have undertaken a minimum of 30 teaching-related hours, including 10 hours of contact time in the previous academic year.

DAT HE aims to:

- Explore key issues in teaching practice and in supporting learning;
- Promote discussion amongst early career teachers, tutors and demonstrators to create a sense of community;
- Facilitate early career teachers to engage in reflective practice;
- Support career development for participants in the practice of learning and teaching within the context of their subject/discipline to gain formal recognition of their teaching activities, knowledge and professional values in line with RET AF.