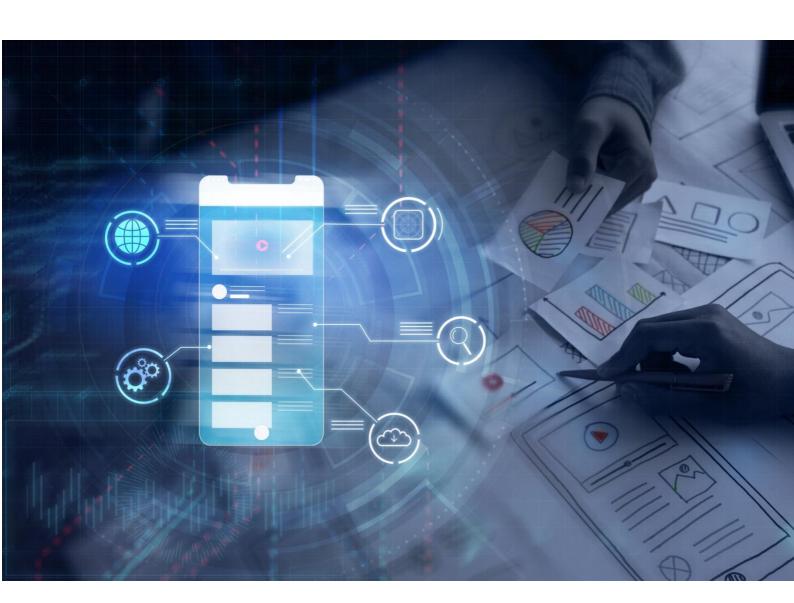


5COSC025W

Human Computer Interaction & User Experience

COURSEWORK 1 & 2 2023 - 2024



5COSC025W	Frantzeska Kolyda
HCI & UX	kolydaf@westminster.ac.uk
Module Leader	
Set Date	Monday 23 rd October 2023
Due Date CW1	Monday 27 th November 2023, 13:00 (1:00 pm)
	ATTENTION: please make sure that you submit your work before 13.00.
Due Date CW2	Monday 8 th January 2024, 13:00 (1:00 pm)
	ATTENTION: please make sure that you submit your work before 13.00.
Weighting	CW1: 50%
	CW2: 50%
Qualifying	30% for CW1
Mark	30% for CW2
Submitted to	Online through Blackboard: Further information will follow.
What to submit	Submitted electronically:
	For CW1 (one submission per group):
	1. Short video clip presenting the overall idea of the proposed system and peer feedback (this will be submitted in LW06 i.e. by 3 rd Nov).
	2. A PDF file containing the report.
	3. Low fidelity prototype and the redesigned low fidelity prototype.
	4. Video (further instructions will follow).
	5. Group contract.
	Please name the submitted PDF file as :
	GroupNumber_Surname1_Surname2_Surname3_Surname4 for example:
	03_Brown_Kolyda_Smith_Taylor.pdf
	For Group 03 submission which includes the following students: John Brown, Frantzeska Kolyda, Mary Smith, Steve Taylor
	For CW2:
	1. A PDF file containing the report.
	2. High fidelity prototype.
	3. Video (further instructions will follow).
	Further information and instructions will follow on BB.

Type of Feedback	ormative Feedback will be given during seminars. Summative) Feedback and marks will be available within 15 working days .e. 3 weeks) after the submission deadlinell marks will remain provisional until formally ratified by an .ssessment Board.									
Assessment Rationale	The Coursework will take students through the complete development lifecycle of an interactive system and the process of Interaction Design. The overall purpose of the Coursework is that students design (or extend) and assess (using a user-centred approach) an interactive system (such as an online system, mobile, smart systems, a voice user interface (VUI), etc.) following a human-centred design approach.									
Learning Outcomes	On successful completion of the CW, students should be able to: LO1 Explain the importance of understanding users and their cognitive aspects and how this knowledge can be applied to interface design, identify user needs and establish user requirements for different application domains; LO2 Apply theory, design principles, practices and tools for the design, prototyping and evaluation of a user interface (UI); LO3 Demonstrate knowledge of various guidelines and techniques applied in the process of interaction design; LO4 Critically evaluate the usability and the user experience of various applications, systems and products; LO5 Plan and conduct user study/user research to inform development of systems and applications and appraise/recognise the ethical and professional issues involved.									

I. Coursework Description and Specifications

Rationale

CW1 and CW2 take you through the complete development lifecycle of an interactive product/system and the process of Interaction Design.

The Brief

The overall purpose of the CW1 and CW2 is for you to design (or extend) and evaluate an interactive system of your choice.

Part 1 – CW1

**** CW1 is Group Work ****

For CW1 you are required to work in a group (i.e. group of <u>four</u> students and assessment will be at both group and individual level). The work submitted will be assessed and individual marks will be allocated based on individual input. At the beginning of your work together you are required to draw up a Group Contract (a sample template will be available on Blackboard) that details each member's responsibilities as well as how your group plans to deal with any problems that might occur. This must be completed and signed electronically and submitted with CW1.

Overall, you and your group will identify user needs and requirements, design or extend an interactive system effectively through a user centred approach, communicate this design and perform evaluation.

You will study an environment or a situation and either identify a problem and suggest the development of a new interactive system to address this problem or identify a problem of a current system and suggest its redesign and/or extension to identify and address a set of user needs and requirements. You could do this in a number of ways. For example, you could observe people in context trying to complete a task or tasks related to the system you will be suggesting.

The theme within which you will identify a problem (that you will then try to solve/address by redesigning or extent a system (e.g., a website, an app, a touchscreen or other user interface, etc.)) should be related to one of the following 17 Sustainable Development Goals (SDGs).

The SDGs, also known as the Global Goals, were adopted by the United Nations in 2015 as a universal call to action to end poverty, protect the planet, and ensure that by 2030 all people enjoy peace and prosperity. https://www.undp.org/sustainable-development-goals







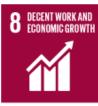
































https://www.un.org/sustainabledevelopment/blog/2015/12/sustainable-development-goals-kick-off-with-start-of-new-year

Sustainability is a global challenge. Technology can be used to help individuals and communities engage in more sustainable living.

For example, <u>SDG4 is Quality Education</u>. You may wish to consider:

Educational/Learning Experiences: Learning does not simply happen in the classroom. Technology is integral to modern education, it can create new opportunities for learning, life-long learning and/or enhance the traditional learning experience. The use of technology to enhance the learning process has the potential to increase engagement, to increase the efficiency and effectiveness of learning and teaching, to offer flexibility for learning, to be tailored to learner's needs and the way they want to learn, etc.

It can make a difference to people from disadvantaged backgrounds.

When we consider designing technology (e.g. a website, an app, or any other user interface) to help individuals and communities engage in more sustainable living it is often important to consider how we could encourage individuals to change their behaviour and adopt new habits.

For example, technology today is often used to track our daily routine (e.g., level of physical activity), healthy eating, saving money/budgeting, citizen engagement, encouraging collaboration and/or community building, encourage pro-environmental habits, etc. Technology is used to encourage daily behaviour change in a number of ways. For example, the hardest part of learning (e.g. a new skill, a language, etc) is staying motivated and the way we design the user experience of a learning application could help with keep learners motivated.

IMPORTANT: Your target users/user group should be 18 year old or older (i.e., adults).

You should:

- 1. Provide a **clear description of the problem area** (description of a new system or a current system to be extended), i.e. clearly articulate the problem you are trying to solve.
- 2. Identify user needs and requirements: (through data gathering) You could do this by observing people using the system, looking at existing similar systems, interviewing potential users about their experiences, etc.
- 3. Based on the user needs that you identified above in (2) (and areas of improvement), choose one user profile and produce one persona and one scenario illustrating how the user is expected to interact with the new system.
- **4.** Having completed (3), **produce a user journey map** (i.e. a visualisation of the process that a user goes through in order to accomplish a goal).
- 5. Considering the scenario generated in (3) and the user journey map in (4), produce a low fidelity prototype¹ (interactive wireframes) for the main task. Show this prototype to three potential users and get some feedback. Appraise/recognise any ethical or professional issues involved.
- 6. After taking into consideration the above feedback, re-design the low fidelity prototype.
- 7. Produce a report that presents (1)-(6) points above and discusses overall conclusions.

For each of the above (1)-(6) (and respective deliverables) examples will be provided and we will go through each process/technique and deliverable in class.

¹ Using a prototyping tool, a web authoring tool, or a programming/scripting language of your choice (e.g. Axure, Adobe XD, Figma, Invision, Sketch, HTML, CSS, JavaScript, etc.)

CW1 DELIVERABLES:

- 1. Participation in peer review/feedback
- 2. A report 1000 word approx. (absolute minimum 700, absolute maximum 1200 words) discussing all the above 1-6 points. You may also use appendices (what is included in the appendices does not count toward the word limit). The report should be submitted as one PDF file.
- 3. Low fidelity prototype (interactive wireframes) and the redesigned low fidelity prototype (after considering the user feedback).
- 4. Video (demo, up to 10 min)
- 5. Group contract (signed)

Each group member may be awarded the same mark for CW1. However, the Module Leader reserves the right to award different marks for the group work to students. It is the responsibility of all group members to ensure that there is equal effort and contribution. Each group member is expected to contribute equally.

Participation in peer review/feedback

In peer assessment students are involved in giving feedback/comments on each other's work. This activity can prepare students for professional life and can be used to provide students with authentic and relevant learning experiences and additional feedback from different perspectives.

Each group will provide feedback on the other groups' ideas. More specifically, during our seminar (i.e. on **Tuesday 7th November 2023** - Learning Week 7), each group will briefly present their overall idea and will receive peer feedback from the remaining groups. As a result all groups will have the opportunity to provide and receive peer feedback that may wish to consider afterwards for CW1.

How this session will take place:

During Learning Week 6 (**by Friday 3**rd **November 2023**) each group will submit via Blackboard a short video clip (up to 3 min) presenting their overall idea for CW1. Then, **in our seminar (Tuesday 7**th **November 2023)** each group will present their submitted video clip (i.e. introducing their idea). The remaining groups will have the opportunity to answer the following two questions (please see example below):

Group 01 Idea - Peer Review (CW1)

1.	One thing that it would be helpful for the Group to consider: *
	Enter your answer
2.	Anything else that you would like to suggest: *
	Enter your answer

This session will offer you the opportunity to obtain feedback from your peers and as a result, consider aspects regarding your proposed idea that you might have not considered otherwise. Each group will have the freedom to consider (or not) the peer feedback afterwards.

Group Presentation

The Group Presentation will take place (after CW1 submission) towards the end of the semester i.e. during Learning Week 11 seminars. Further information will be provided separately.

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CW1 Marking Criteria	Marks
Presentation of the Idea (up to 3 min video)	5
Peer review/feedback of the other group ideas	5
Clear description/justification (in the report) of the problem area (description of a new system or a current system to be extended).	5
Identify user needs and requirements.	8
Appropriate Scenario that allows exploration and discussion of context, user needs and requirements.	5
Clear identification of the user profile and appropriate construction of a persona.	5
Journey map.	5
Data gathering using a method such as observations, questionnaires, interviews etc. Appraise/recognise any ethical or professional issues involved.	7
Low fidelity prototype (interactive wireframes).	20
Low fidelity prototype redesigned after considering the feedback from 3 potential users.	10
Report Clarity of writing Structure and organisation Degree of critical thinking Use of academic resources Proper referencing	10
Video walkthrough/demo (up to 10 min)	5
Presentation	10
Group contract completed	
(Please note that if a completed contract is not provided this will result in loss of the total of a 10% weighting allocated to this assessment)	
Total	100%

For further details on marking criteria please see CW1 Rubric on the next page.

Area	0 29 (no or almost no evidence)	30 39 (Too basic/not adequate)	40 49 (Adequate)	50 59 (Good)	60 69 (Very Good)	70 79 (Excellent)	80 100 (Outstanding)		
Presentation of the Idea (up to 3 min video) 5%	No video 0%		Video provided 5%						
Peer review/feedback of the other group ideas provided 5%	No participation in peer review/feedback 0%		Participation in peer review/feedback 5%						
Clear description/justification of the problem area (description of a new system or a current system to be extended).	Not included or the information is not correct.		Adequate description/justificati on of the problem area.	Overall good description/justificat ion of the problem area.	Very good description/justificat ion of the problem area.	Excellent description/justific ation of the problem area.	Outstanding description/justificat ion of the problem area.		
Identify user needs and requirements	Not included or the information is not correct.	requirements are presented in a very basic way	User needs and/or requirements are presented adequately. Some points may not be relevant.	1.	User needs and requirements are presented appropriately.	User needs and requirements are presented completely and appropriately.	Outstanding presentation of user needs and requirements. no irrelevant points.		
Clear identification of the user profile. Produce a Persona (Appropriate construction of a persona)	Not included or the information is not correct.	Limited overall construction of a persona and/or identification of the user profile. Required information is missing.	Adequate overall construction of a persona and/or identification of the user profile. Some required information might be missing.	Good overall construction of a persona and identification of the user profile. with most required information provided.	Very good construction of a persona and identification of the user profile, with all required information provided.	Excellent construction of a persona and identification of the user profile, with all required information provided fully.	Outstanding construction of a persona with all required information provided fully.		

Area	0 29	30 39	40 49	50 59	60 69	70 79	80 100
	(no or almost no evidence)	(Too basic/not adequate)	(Adequate)	(Good)	(Very Good)	(Excellent)	(Outstanding)
	Not included or the information is	presented that	presented that might	·	A Journey Map is presented but	A Journey Map is presented fully	A Journey Map is presented in an
5%	not correct.	may not be correct.	not be correct or in the appropriate format.	might not be fully correct or in the appropriate format.	with a few details missing or in the appropriate format.	and in the appropriate format.	exceptional way.
Appropriate Scenario that allows exploration and discussion of context, user needs and requirements.	Not included or the information is not correct.	provided but very limited.	A scenario is provided adequately. Important information might be missing.	A good construction of a scenario is provided, some details might be missing.	A very good construction of a scenario is provided that allows exploration and discussion of context, user needs and requirements. some details might be missing.	An excellent construction of a scenario is provided that allows exploration and discussion of context, user needs and requirements.	An outstanding construction of a scenario is provided that allows exploration and discussion of context, user needs and requirements.
method such as observations,	Not included or the information is not correct.	Provided but not adequately.	Provided adequately Important information might be missing.	Good data gathering. Some information might be missing.	Very good data gathering.	Excellent presentation of data gathering.	Outstanding presentation of data gathering.
(interactive wireframes)	Not included or the information is not correct.	The prototype includes some key features for although it is very limited.		The prototype includes a number of key features.	The prototype includes the key features.	The prototype includes fully the key features.	The prototype is presented with excellent clarity and includes fully the key features.

Area	0 29 (no or almost no evidence)	30 39 (Too basic/not adequate)	40 49 (Adequate)	50 59 (Good)	60 69 (Very Good)	70 79 (Excellent)	80 100 (Outstanding)
Low fidelity prototype redesigned after considering the feedback from the 3 potential users	Not included or the information is not correct.	features for	The prototype includes some key features after considering the user feedback.		The prototype includes substantial evidence of having considered the user feedback.		The prototype is presented with excellent clarity and includes fully the key features and evidence of having considered the user feedback.
The above deliverables will be presented in the form of a Report. Clarity of writing Structure, organisation, and presentation Degree of critical thinking Use of academic resources Proper referencing	Report not included.	The report has significant problems regarding the structure, organisation, presentation. No use of references.	The report has mostly adequate structure and organisation, presentation.	The report is overall good. The structure and organisation, presentation, academic language is good. There is some use of references, and basic critical thinking.	The report has overall very good structure and organisation, presentation, academic language, good use of references, and critical thinking.	The report has excellent structure and organisation, presentation, academic language, correct use of references, and critical thinking.	Outstanding report i.e. outstanding structure and organisation, presentation, academic language, correct use of references, and critical thinking
Presentation/Demo Content and information Structure and Coherence Level of engagement (delivery, visuals, etc) Time management	No presentation.	Not adequate Content and information	Adequate Presentation Adequate Content and information presented. Adequate Structure and Coherence. Level of engagement (delivery, visuals, etc). Adequate Time management	information presented. Good Structure and Coherence. Level of	Very Good Presentation Very good Content and information presented. Very good Structure and Coherence. Level of engagement (delivery, visuals,	Excellent Presentation Excellent Content and information presented. Excellent Structure and Coherence. Level of engagement (delivery, visuals,	Outstanding Presentation Outstanding Content and information presented. Outstanding. Structure and Coherence Level of engagement

	(delivery, visuals, etc). Poor Time management.	although under the limit.	may have been a little over or under	Time management	etc). Excellent Time management.	(delivery, visuals, etc) Outstanding Time management.
Video walkthrough/demo Content and information Structure, Engagement and Coherence 5%	•	Adequately organised and with adequate Content and information presented.	presented.	appropriate content and information presented. Engaging and within or close to	and with fully appropriate content and information	Outstanding video and with fully content and information presented. Very engaging and within the time limitations.

Part 2 – CW2

**** CW2 is Individual Work ****

For CW2 you are required to work INDIVIDUALLY. Using a prototyping tool, a web authoring tool, or a programming/scripting language of your choice (e.g. Axure, Adobe XD, Figma, Invision, Sketch, HTML, CSS, JavaScript, etc) but do not use any ready-made templates, develop a high fidelity prototype that incorporates all the feedback that you have received from all the previous stages (i.e. CW1). You do not need to implement the backend.

Please note that apart from the source files you need to submit an optimised/stand-alone version of your prototype that will be accessible WITHOUT the need to have any software installed, or you may upload your prototype online and include the URL within your report. You need to ensure that the URL will remain active until after the exam boards in June.

Consider the whole user interface in detail: Screen layout, use of colours, information architecture, navigation, any multimedia elements (e.g. audio, video, animation) etc.

Evaluate this prototype

- 1. After taking into consideration the needs/requirements for this system and CW1, choose a main task (that users would perform using the system).
- **2.** Design a questionnaire or a set of interview questions to evaluate your system. Appraise/recognise any ethical or professional issues involved.
- 3. Select three typical users and perform some user testing (ask them to use the prototype to perform the given task). Ask them to fill in your questionnaire or to participate to an interview with you to answer the (interview) questions you prepared.
- 4. Make a list of the problems that each user encounters and analyse the user feedback.
- **5.** Based on your evaluation, discuss (in the report) how you would redesign the prototype to overcome the above problems.

Submit a report, 1000 word approx. explaining your choices, usability and user experience considerations and design decisions. Appraise/recognise any ethical or professional issues involved. Also, consider aspects and principles discussed in this module (e.g. individual differences and cognitive (or other) limitations, accessibility, design principles and/or other aspects considered, etc). Furthermore, discuss your overall conclusions and whether you would have done anything differently regarding the high-fidelity prototype if you had to implement it again.

CW2 DELIVERABLES:

- 1. High fidelity prototype
- 2. A 1000 word report (absolute minimum 700, absolute maximum 1100 words) discussing the high fidelity prototype, the evaluation of the proposed solution, appraising/recognising any ethical or professional issues involved, analysing the user feedback, discussing any problems that were identified and presenting the overall conclusions.
- 3. Video (demo, up to 10 min).

CW2 Marking Criteria	Marks
High Fidelity Prototype	45
Appropriateness and clarity of the prototype developed	
Consider aspects and principles discussed in this module (e.g. individual differences and cognitive (or other) limitations, usability, accessibility, design principles and/or other aspects considered, etc).	
Produce a sitemap or a wireflow that shows the structure of the system.	5
Evaluation of the proposed solution/system.	15
Appropriateness of the questionnaire or the interview questions	
and presentation of the results. Appraise/recognise any ethical	
or professional issues involved.	
Analysis of the user feedback	15
Critically evaluate the user feedback and discuss how you would refine the user interface/prototype in the future.	
Report	10
Clarity of writing	
Structure	
Degree of critical thinking	
Use of academic resources	
Proper referencing	
Video walkthrough/demo (up to 10 min)	10
Total	100%

CW1 and CW2 Report Guidelines will be provided.

Assets

You might also produce your own assets such as images, graphics, etc. If you need to use any images or graphics, you need to ensure that each image/graphic comes under the Creative Commons (CC) license² and that you reference the source. This might be useful: https://pixabay.com. Any graphics, images etc could be prepared and/or edited in a software of your choice, e.g. Photoshop, Illustrator, etc.

For further details on marking criteria please see CW2 Rubric on the next page.

² A Creative Commons (CC) license is one of several public copyright licenses that enable the free distribution of an otherwise copyrighted work. A CC license is used when an author wants to give people the right to share, use, and build upon a work that they have created. See further information here: https://creativecommons.org

CW2 Rubric

Area	0 29 (no or almost no evidence)	30 39 (Too basic/not adequate)	40 49 (Adequate)	50 59 (Good)	60 69 (Very Good)	70 79 (Excellent)	80 100 (Outstanding)
High fidelity prototype. Consider aspects and principles discussed in this module (e.g. individual differences and cognitive (or other) limitations, usability, accessibility, design principles and/or other aspect, etc. considered).	Not included.	very limited.	includes some adequate information. There is limited evidence that aspects and principles discussed	includes a number of key features and there is good evidence that several aspects and principles discussed	features and there is significant evidence that many aspects and principles discussed	includes fully the key features and there is substantial evidence that most aspects and	The prototype is presented with excellent clarity and includes fully the key features and complete evidence that all aspects and principles discussed in this module were considered.
Produce a sitemap or a wireflow that shows the structure of the system.			or wireflow.	wireflow with good detail.	A very good sitemap or wireflow with very good detail.		An outstanding sitemap or wireflow.
Evaluation of the proposed solution/system. Appropriateness of the questionnaire or the interview questions and presentation of the results. Appraise/recognise any ethical or professional issues involved.	included or the	of evaluation provided but very limited.	evaluation provided but important information may be missing.	provided, and any ethical or professional issues involved were	ethical or professional issues	evidence of evaluation provided, and any ethical or professional issues involved were fully	ethical or professional issues

CW2 Rubric

Area	0 29	30 39	40 49	50 59	60 69	70 79	80 100
	(no or almost no evidence)	(Too basic/not adequate)	(Adequate)	(Good)	(Very Good)	(Excellent)	(Outstanding)
feedback. Critically evaluate the user feedback and discuss how you would refine the user interface/prototype in the future.	Not included or the information is not correct.	not adequately.	Provided adequately although Important information might be missing.	Good analysis of the user feedback. Some information might be missing.	Very good analysis of the user feedback.	Excellent analysis of the user feedback.	Outstanding analysis of the user feedback.
	Report not included.	significant problems regarding the structure,	The report has mostly adequate structure and organisation, presentation.	overall good. The	The report has overall very good structure and organisation, presentation, academic language, good use of references, and critical thinking	The report has excellent structure and organisation, presentation, academic language, correct use of references, and critical thinking	Outstanding report i.e. outstanding structure and organisation, presentation, academic language, correct use of references, and critical thinking
10%				basic critical thinking			
walkthrough/demo	No video	Difficult to follow. Not adequate	adequate Content	Well organised and with appropriate content and	Very well organised and with appropriate	and with fully appropriate	Outstanding video and with fully content and
Content and information Structure, Engagement and Coherence.		• • • • • • • • • • • • • • • • • • •	and information presented.		content and information presented. Engaging and	content and information presented. Engaging and	information presented. Very engaging and within the time
10%		Structure and Coherence.			within or close to	within the time limitations.	limitations.

II. Important Information

Important note 1

- Back up your work often and back up your final completed work before submission.
- Allow enough time to deal with any hardware/software malfunction.
- Loss of files and computers will not be accepted as a reason for delaying submission.
- Make and keep a copy of your work. Google Drive or OneDrive could be used for back-ups.

Important note 2: Referencing your work

If you are using quotations, ideas or information from other people's work in academic writing, you need to acknowledge the source. This is known as referencing or citing. Most departments use Westminster Harvard style. Our <u>referencing guide</u> (on the Library Guides website) shows you how to cite and reference using examples. See also: https://www.westminster.ac.uk/current-students/studies/study-skills-and-training/research-skills/referencing-your-work

Important note 3: Assessment regulations

Refer to https://www.westminster.ac.uk/current-students/guides-and-policies/assessment-guidelines for a clarification of how you are assessed, penalties and late submissions, what constitutes plagiarism etc.

Deadlines and late submissions

Coursework submitted late but within 24 hours of the original deadline, will have 10 marks deducted from the original mark, to a minimum of the pass mark (40% at undergraduate level). For example, a piece of assessment awarded a mark of 70% would be reduced to 60% as a penalty for late submission.

Coursework submitted more than 24 hours late after the original deadline will be given a mark of zero.

If you are unable to submit your coursework or attend an assessment due to unforeseen, unpreventable, serious circumstances, you may be eligible to claim for mitigating circumstances. Claims should be submitted as close to the deadline for the item of work as possible. More information can be found on the <u>Mitigating circumstances page</u>.

Plagiarism/Academic Integrity

Every student is expected to understand the rules regarding correct referencing. Whenever you submit a piece of coursework, you agree to the following: "I confirm that I understand what plagiarism is and have read and understood Section 10 of the Handbook of Academic Regulations. The work that I have submitted is entirely my own (unless authorised group work). Any work from other authors is duly referenced and acknowledged."

See Part 3 Section 10 of our <u>academic regulations</u> for more details on plagiarism. Also: https://www.westminster.ac.uk/current-students/guides-and-policies/academic-matters/academic-misconduct/plagiarism

Policy and guidance on the use of generative AI at Westminster:_Please read very carefully the University's guidance for students and further information available here:
https://blog.westminster.ac.uk/ai/guidance-for-colleagues-and-students