



## UNSW Course Outline

# DDES9902 Human Dimensions in Immersive Environments - 2024

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## General Course Information

Course Code : DDES9902

Year : 2024

Term : Term 1

Teaching Period : T1

Is a multi-term course? : No

Faculty : Faculty of Arts, Design and Architecture

Academic Unit : School of Art & Design

Delivery Mode : Multimodal

Delivery Format : Standard

Delivery Location : Paddington

Campus : Paddington

Study Level : Postgraduate

Units of Credit : 6

### Useful Links

[Handbook Class Timetable](#)

## Course Details & Outcomes

### Course Description

As we become increasingly compelled throughout our daily interactions to work or engage with digital and automated systems, we need to remain mindful of their purpose and impact on our lives. This course will help you understand how and why humans engage with immersive

environments and technology systems in order to make better and more effective use of their potential.

Human cognition, performance and behaviour will be analysed across fully synthetic and virtual environments, as well as live and mixed reality contexts. You will examine ergonomic factors and how they impact performance in addition to more complex cognitive human responses, evolving human-machine relationships and next generation AI.

## Course Aims

This course aims to:

- (1) Evaluate physical and psychological impacts of human interaction in immersive environments.
- (2) Assess the ethical implications for human engagement in immersive and interactive contexts.

## Course Learning Outcomes

Course Learning Outcomes
CL01 : Evaluate physical and psychological impacts of human interaction in immersive environments.
CL02 : Select and analyse interactive methodologies for industry specific contexts.
CL03 : Assess the ethical implications for human engagement in immersive and interactive contexts.

Course Learning Outcomes	Assessment Item
CL01 : Evaluate physical and psychological impacts of human interaction in immersive environments.	<ul style="list-style-type: none"><li>• Interaction Reconceptualization</li><li>• Human-centered Design Process</li></ul>
CL02 : Select and analyse interactive methodologies for industry specific contexts.	<ul style="list-style-type: none"><li>• Interaction Reconceptualization</li><li>• Human-centered Design Process</li></ul>
CL03 : Assess the ethical implications for human engagement in immersive and interactive contexts.	<ul style="list-style-type: none"><li>• Interaction Reconceptualization</li><li>• Human-centered Design Process</li></ul>

# Learning and Teaching Technologies

Moodle - Learning Management System | Microsoft Teams

## Additional Course Information

This course is delivered online. It has been designed to accommodate remote students and busy professionals. On campus students will be able to access face to face electives, special events and workshops. MSIT events will be streamed to remote participants.

On campus students will also have full access to all campus facilities throughout the term.

Students will be introduced to a range of software applications across the core courses but in a limited way. Students wanting to deepen technical skills in Maya , Unity , UX, 3D modelling for example, are advised to plan ahead and include practical skill based electives in their suite of elective program choices. Students will also have access to a range of self-directed free short courses via LinkedIn during their term as a UNSW student.

Students are expected to view all online lectures and videos, complete all mandated readings and participate in class discussion. The in class learning, feedback and discussions support assessment and are invaluable to student progress.

## Assessments

### Assessment Structure

Assessment Item	Weight	Relevant Dates
Interaction Reconceptualization Assessment Format: Individual	40%	Due Date: 15/03/2024 07:00 PM
Human-centered Design Process Assessment Format: Individual	60%	Due Date: 25/04/2024 11:59 PM

## Assessment Details

### Interaction Reconceptualization

#### Assessment Overview

In this assessment task you will use the principles of human-centered design to examine and improve the effectiveness of an interactive, immersive experience by reconceptualising it.

Feedback will be provided on a regular basis in studio through discussion with peers and tutors.

Summative assessment and feedback will be provided digitally based on the rubric.

### **Course Learning Outcomes**

- CLO1 : Evaluate physical and psychological impacts of human interaction in immersive environments.
- CLO2 : Select and analyse interactive methodologies for industry specific contexts.
- CLO3 : Assess the ethical implications for human engagement in immersive and interactive contexts.

### **Detailed Assessment Description**

Think of a specific task in your everyday life or in an industry you are familiar with. What problems exist for how this task is done? How can human-centered, immersive design principles mitigate or solve these problems? In short, reconceptualise this task in terms of human-centred, immersive design principles to make demonstrable improvements in how it is done. You are to develop a “paper prototype” of this reconceptualization and demonstrate it in some working order through a video.

You must also include a report detailing your reasoning and justifications for your re-conceptualisation design. Please use the ACM citation style and referencing format: <https://www.acm.org/publications/authors/reference-formatting>

Examples of tasks you may cover include following a cooking recipe, doing basic car maintenance, learning basic artistic strokes, teaching children basic arithmetic, paying for a parking ticket, and so on. You may also employ any of the interaction modalities discussed in class, be it AR, VR, constructed simulation, or others.

For more detail and further instructions on completing this task refer to the Assessment 1 Brief in the DDES 9902 COURSE MOODLE.

### **Assessment Length**

1000 words

### **Submission notes**

Submit via Moodle

### **Assignment submission Turnitin type**

This assignment is submitted through Turnitin and students can see Turnitin similarity reports.

# Human-centered Design Process

## Assessment Overview

In this assessment task you will refine the prototype completed in Assessment 1 using a user-centric, iterative design process. This will involve gathering user feedback on the prototype and then iteratively modifying the prototype based on the feedback. Once you have gone through a few iterations or are satisfied with the quality of your prototype, you will demonstrate your design by recording a video of it working.

Feedback will be provided on a regular basis in studio through discussion with peers and tutors. Summative assessment and feedback will be provided digitally based on the rubric.

## Course Learning Outcomes

- CL01 : Evaluate physical and psychological impacts of human interaction in immersive environments.
- CL02 : Select and analyse interactive methodologies for industry specific contexts.
- CL03 : Assess the ethical implications for human engagement in immersive and interactive contexts.

## Detailed Assessment Description

For this assessment you are asked to take the paper prototype completed in Assessment 1 and refine it using a user-centric, iterative design process. This will involve gathering user feedback on the prototype and then iteratively modifying the prototype based on the feedback. Once you have gone through a few iterations or are satisfied with the quality of your prototype, demonstrate your design by recording a video of it working.

You must also include a report documenting your iterative design process. Justify your feedback gathering methodology and iteration modifications using human-centric design principles. Please use the ACM citation style and referencing format: <https://www.acm.org/publications/authors/reference-formatting>

You are reminded that a prototype is something that you can give to a user to be able to independently

evaluate and operate. This is distinct to a sketch or a wireframe or a concept document. A “paper prototype” using manual intervention is acceptable, but you must ensure that your intervention is true to the prototype design intention and not biasing any results that you might obtain during a feedback gathering exercise.

For more detail and further instructions on completing this task refer to the Assessment 2 Brief in the DDES 9902 COURSE MOODLE.

### Assessment Length

1000 words

### Submission notes

Submit in Moodle by 11.59pm, Thursday week 11. Submit one PDF and one video in MP3 or AVI format

### Assignment submission Turnitin type

This assignment is submitted through Turnitin and students can see Turnitin similarity reports.

## General Assessment Information

### Grading Basis

Standard

## Course Schedule

Teaching Week/Module	Activity Type	Content
Week 1 : 12 February - 18 February	Tut-Lab	Modalities of Interacion A
Week 2 : 19 February - 25 February	Tut-Lab	Human Performance: Health and Safety A
Week 3 : 26 February - 3 March	Tut-Lab	User Testing and Prototyping
Week 4 : 4 March - 10 March	Tut-Lab	Modalities of Interaction B
Week 5 : 11 March - 17 March	Tut-Lab	Human Performance Health and Safety B
Week 6 : 18 March - 24 March	Other	Study Week (no class)
Week 7 : 25 March - 31 March	Tut-Lab	Immersive Design Teams
Week 8 : 1 April - 7 April	Tut-Lab	Societal Impacts
Week 9 : 8 April - 14 April	Tut-Lab	Evaluation and Compliance
Week 10 : 15 April - 21 April	Tut-Lab	Collaboration and Productivity
Week 11 : 22 April - 28 April	Project	Assessment 2 due Thursday 11.59pm.

# Attendance Requirements

## Attendance Requirements

Students are expected to attend all classes for each course in which they are enrolled. Failure to attend and participate in at least 80% of learning activities such as discussions, peer feedback, studio sessions, online activities, group work, etc., may result in you being flagged as at risk of failing the course. By punctually attending and actively participating in your classes you not only increase your own opportunities for developing your skills and knowledge, but will also help build a rigorous and engaged creative community with other students. If you are unable to attend classes, please inform your relevant Course Convenor. If the absence is for medical reasons, you will be required to present a medical certificate. If absences impact your ability to undertake assessment, then you should apply for [Special Consideration](#).

# Course Resources

## Prescribed Resources

Refer to Course Moodle for references and prescribed readings.

Technology access and support is available via UNSW IT, Art & Design Hackspace and PVCES LITeroom. Refer to course Moodle for more details.

## Course Evaluation and Development

Assessment feedback will be given in class and on Moodle.

# Staff Details

Position	Name	Email	Location	Phone	Availability	Equitable Learning Services Contact	Primary Contact
Lecturer	Hao Zhou					No	No
Convenor	Andrew Yip					No	Yes

# Other Useful Information

## Academic Information

Due to evolving advice by NSW Health, students must check for updated information regarding online learning for all Arts, Design and Architecture courses this term (via Moodle or course information provided).

Please see: <https://www.unsw.edu.au/arts-design-architecture/student-life/resources-support/protocols-guidelines> for essential student information relating to:

- UNSW and Faculty policies and procedures;
- Student Support Services;
- Dean's List;
- review of results;
- credit transfer;
- cross-institutional study and exchange;
- examination information;
- enrolment information;
- Special Consideration in the event of illness or misadventure;
- student equity and disability;

And other essential academic information.

## Academic Honesty and Plagiarism

Plagiarism is using the words or ideas of others and presenting them as your own. It can take many forms, from deliberate cheating to accidentally copying from a source without acknowledgement.

UNSW groups plagiarism into the following categories:

- Copying: Using the same or very similar words to the original text or idea without acknowledging the source or using quotation marks. This includes copying materials, ideas or concepts from a book, article, report or other written document, presentation, composition, artwork, design, drawing, circuitry, computer program or software, website, internet, other electronic resource, or another person's assignment without appropriate acknowledgement.
- Inappropriate paraphrasing: Changing a few words and phrases while mostly retaining the original information, structure and/or progression of ideas of the original without acknowledgement. This also applies in presentations where someone paraphrases another's ideas or words without credit and to piecing together quotes and paraphrases into a new whole, without appropriate referencing.
- Collusion: Working with others but passing off the work as a person's individual work. Collusion also includes providing your work to another student for the purpose of them plagiarising, paying another person to perform an academic task, stealing or acquiring another person's academic work and copying it, offering to complete another person's work or seeking payment for completing academic work.
- Inappropriate citation: Citing sources which have not been read, without acknowledging the "secondary" source from which knowledge of them has been obtained.
- Duplication ("self-plagiarism"): Submitting your own work, in whole or in part, where it has previously been prepared or submitted for another assessment or course at UNSW or another university.



The UNSW Academic Skills support offers resources and individual consultations. Students are also reminded that careful time management is an important part of study. One of the identified causes of plagiarism is poor time management. Students should allow sufficient time for research, drafting and proper referencing of sources in preparing all assessment items. UNSW Library has the ELISE tool available to assist you with your study at UNSW. ELISE is designed to introduce new students to studying at UNSW, but it can also be a great refresher during your study.

Completing the ELISE tutorial and quiz will enable you to:

- analyse topics, plan responses and organise research for academic writing and other assessment tasks
- effectively and efficiently find appropriate information sources and evaluate relevance to your needs
- use and manage information effectively to accomplish a specific purpose
- better manage your time
- understand your rights and responsibilities as a student at UNSW
- be aware of plagiarism, copyright, UNSW Student Code of Conduct and Acceptable Use of UNSW ICT Resources Policy
- be aware of the standards of behaviour expected of everyone in the UNSW community
- locate services and information about UNSW and UNSW Library

### **Use of AI for assessments**

As AI applications continue to develop, and technology rapidly progresses around us, we remain committed to our values around academic integrity at UNSW. Where the use of AI tools, such as ChatGPT, has been permitted by your course convener, they must be properly credited and your submissions must be substantially your own work.

In cases where the use of AI has been prohibited, please respect this and be aware that where unauthorised use is detected, penalties will apply.

[Use of AI for assessments | UNSW Current Students](#)

## **Submission of Assessment Tasks**

### **Turnitin Submission**

If you encounter a problem when attempting to submit your assignment through Turnitin, please telephone External Support on 9385 3331 or email them on [externaleltsupport@unsw.edu.au](mailto:externaleltsupport@unsw.edu.au)

Support hours are 8:00am – 10:00pm on weekdays and 9:00am – 5:00pm on weekends (365 days a year). If you are unable to submit your assignment due to a fault with Turnitin, you may apply for an extension, but you must retain your ticket number from External Support (along with any other relevant documents) to include as evidence to support your extension application. If you email External Support, you will automatically receive a ticket number, but if you telephone, you will need to specifically ask for one. Turnitin also provides updates on their system status on Twitter.

Generally, assessment tasks must be submitted electronically via either Turnitin or a Moodle assignment. In instances where this is not possible, alternative submission details will be stated on your course's Moodle site. For information on how to submit assignments online via Moodle: <https://student.unsw.edu.au/how-submit-assignment-moodle>

## **Late Submission Penalty**

UNSW has a standard late submission penalty of:

- 5% per calendar day,
- for all assessments where a penalty applies,
- capped at five calendar days (120 hours) from the assessment deadline, after which a student cannot submit an assessment, and
- no permitted variation.

Students are expected to manage their time to meet deadlines and to request [Special Consideration](#) as early as possible before the deadline. Support with [Time Management is available here](#).

## **School-specific Information**

### **Risk of Failure Warnings**

If you are at risk of failing the course, because of lack of attendance, low marks in assignments, failing to submit assignments, or lack of participation or engagement, you may be notified by email. Please ensure you read your university email, and respond to any official risk of failure warning promptly. NOTE – if the warning email is sent to your UNSW e-Mail address, it is considered as being read by you whether you check your UNSW email or not.

### **Late Submission Penalties**

If you believe that circumstances will prevent you from submitting an assessment on time,

please notify your course convenor as soon as possible. There will be penalties applied for being late and a clear 'no later than' date beyond which submission won't be accepted. Where a Special Consideration is not applied for, and a student assessment is late, the following guidelines apply:

1. Up to 5 days after due date, a penalty of 5% (of maximum mark for assignment) will be applied for each day late (e.g. an assignment that is 3 days late would have its mark reduced by 15%). Please note - for the purpose of deduction calculation, a 'day' is each 24-hour period (or part thereof) past the stipulated deadline for submission within the calendar year (including weekends and public holidays). Task with a percentage mark - If the task is marked out of 100%, late submission will attract a deduction of 5% from the mark awarded to the student for every 24-hour period (or part thereof) past the stipulated deadline.

Example: A student submits an essay 48 hours and 10 minutes after the stipulated deadline. The essay is marked out of 100%. A 3 day late penalty will be applied ( $3 \times 5\% = 15\%$ ). The essay receives a mark of 68%. The student's mark will therefore be reduced to 53% ( $68\% - 15\%$ ).

2. Beyond 5 days late, no submission will be accepted.

### **Special Consideration**

Please note that the University's Special Consideration process allows students to apply for an extension within 3 days of the assessment due date. This provides for more extensive extensions, subject to documentation, and Course Convenor approval. You can apply for special consideration online through my.UNSW.edu.au. More information about special consideration can be found here: <https://www.student.unsw.edu.au/special-consideration>

NOTE: If you are experiencing issues related to your access to class material or difficulty with technology, make sure you notify your lecturer as soon as possible, well before any assessment due date. Last minute requests for extensions due to computer failure, file corruption, printing problems etc. do not qualify students for special consideration or extensions. Students are expected to maintain regular backups of their work at all times.

### **Educational adjustments**

Educational adjustments can be applied to assessments if you are living with a disability, a long term medical condition, a mental health condition, and/or are a carer of individuals with a disability. The Equitable Learning Service (ELS) determines adjustments based on medical documentation and communicates these via an Equitable Learning Plan (ELP). To receive

educational adjustments for equitable learning support, you must first register with Equitable Learning Services (ELS). More information about Equitable Learning Services can be found here <https://student.unsw.edu.au/els>

## **Supplementary Assessment**

Supplementary assessments are available to students in this course who have failed an assessment but have subsequently had an application for Special Consideration approved by the university. The supplementary assessment may take a different form than the original assessment and will be defined by the course convenor - but it will address the same learning outcomes as the original assessment. If Special Consideration has not been awarded, the maximum mark that may be awarded for a supplementary assessment is 50% of the full assessment mark.

## **Academic Honesty and Plagiarism**

Plagiarism is taking the ideas, words, images, designs or objects of others and passing them off as your own. Plagiarism is a type of intellectual theft. Plagiarism can take many forms, from deliberate cheating to accidentally copying from a source without acknowledgement. Plagiarism can have serious consequences, so it is important that students be aware of what it is, and how to avoid it. All written submissions are automatically checked for plagiarism using the Turnitin site. For further information, please see the Academic Integrity & Plagiarism website <https://www.student.unsw.edu.au/plagiarism>.

## **Referencing Requirements for Assessments**

Your course convenor will inform you what referencing system this course follows. Useful guidelines on how to reference according to various systems can be found at: <https://student.unsw.edu.au/referencing>.

You may follow these guidelines in your assessment tasks, or seek additional advice from your lecturer. Styles for Endnote are downloadable from the Endnote website. Accurate and correct referencing is an important academic prerequisite at University level, and if your work does not meet these requirements, it may be marked down, or in more serious cases, it may be treated as an instance of plagiarism and academic dishonesty.

## **Use of Generative AI**

As AI applications continue to develop, and technology rapidly progresses around us, we remain committed to our values around academic integrity at UNSW. Your work must be your *own* and where the use of AI tools, such as ChatGPT, have been permitted by your course convener, they must be properly credited and your submissions must be substantially your own work. In cases where the use of AI has been prohibited, please respect this and be aware that where unauthorised use is detected, penalties will apply. If in doubt, please seek advice from the Course Convenor prior to using generative AI tools.

<https://www.student.unsw.edu.au/assessment/ai>

## Health and Safety

Ensuring student and staff health and safety is very important at UNSW Art & Design. Health and safety is everyone's responsibility. As a student, you have a responsibility not to do anything that risks your own health and safety, or the health or safety of your fellow students, staff members or visitors. This means, for example, exiting the building during a fire drill; wearing personal protective equipment and clothing (PPEC) when staff or signage instructs you to do so; undertaking induction to using equipment or carrying out processes that require specific knowledge; and reporting hazards or incidents to your lecturer or supervisor as soon as you become aware of them. For more information, please see <https://safety.unsw.edu.au/>.

## Additional Support and Resources

At UNSW you can also find support and resources if you need help with your personal life, getting your academic success on track or just want to know how to stay safe. See <https://www.student.unsw.edu.au/wellbeing>.

Additional support for students is available by contacting the following centres:

- Student Support and Development <https://www.student.unsw.edu.au/support>
- Student Support Advisors: <https://www.student.unsw.edu.au/advisors>
- Mental Health Support: <https://www.student.unsw.edu.au/mental-health-support>
- Academic Skills and Support <https://www.student.unsw.edu.au/skills>
- UNSW IT Service Centre <https://www.myit.unsw.edu.au/>
- Student Gateway: <https://www.student.unsw.edu.au/>
- Equitable Learning Services: <https://www.student.unsw.edu.au/equitable-learning>
- Faculty Resources and Support: <https://www.unsw.edu.au/arts-design-architecture/student-life/resources-support>
- Arc: <https://www.arc.unsw.edu.au/>

## **After Hours Access to the Paddington Campus**

The core operating hours for the Paddington Campus are below. All students have access to the campus during these hours:

- Monday to Friday 0800 – 2100
- Saturday 0900 – 1700

Some students are permitted to have “After Hours Access” (AHA) to the campus upon completion of a series of inductions. The inductions are dependent on location, as well as the types of activities undertaken in those locations. The first of these is this Primary Induction, and this must be completed online <https://my.artdesign.unsw.edu.au>. All students requiring AHA are required to complete this induction. The Primary Induction gives access to the following Low Risk areas:

### **Post Graduate Students**

- PG Research students – Level 4 F Block, Computer Labs and Learning Commons
- Master of Design students – Level 3 D Block, Computer Labs and Learning Commons
- Master of Curating and Cultural Leadership students – D207, Computer Labs and Learning Commons

### **Honours Students**

- Fine Arts – Level 3 F Block, Computer Labs and Learning Commons
- Design – Level 1 E Block, Computer Labs and Learning Commons
- Media Arts – Level 3 F Block, Computer Labs and Learning Commons

Subsequent inductions are workshop and lab specific, and are conducted face-to-face by the UNSW Art & Design Technical staff. Students and staff must first successfully complete the Primary Induction before requesting a Workshop/Lab specific Induction.

## **School Contact Information**

**UNSW School of Art & Design**

**Faculty of Arts, Design & Architecture**

**Paddington Campus**

**Cnr Greens Rd & Oxford Street**

Paddington NSW 2021

[ad.generaladmin@unsw.edu.au](mailto:ad.generaladmin@unsw.edu.au)