UNSW Course Outline

DDES9154 Wearable and Bio-Sensing Interactions - 2024

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General Course Information

Course Code : DDES9154
Year : 2024
Term : Term 3
Teaching Period : T3
Is a multi-term course? : No
Faculty : Faculty of Arts, Design and Architecture
Academic Unit : School of Art & Design
Delivery Mode : In Person
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

Note: The code for this course was previously SDES9316.

This course focuses on the design, development and evaluation of wearable and biometric

(body-sensing) interactions for artistic, wellness, rehabilitation, or educational applications. Students extend their knowledge of interaction design and apply this to the development of a prototype design that analyses and responds intelligently to data collected via analogue and digital biosensors.

Course Aims

The course aims to introduce you to:

- the theory and practice of wearable and health related digital technology. Recent years have seen tremendous growth in the area of wearable and biometric technologies, and this growth is set to continue.
- design and engineering issues and approaches for addressing the functional and aesthetic requirements these new forms of interactions present.

Course Learning Outcomes

Course Learning Outcomes
CLO1 : Describe and apply key theories, issues and frameworks from the field of human-computer interaction and media arts, to the evaluation of body-focused interactive designs
CLO2 : Develop and refine an interactive prototype, service or environment through an iterative process of research, development, testing and evaluation.
CLO3 : Combine wearables and bio-sensing to build a resolved, functioning, body-sensing interactive artefact, service or environment.

Course Learning Outcomes	Assessment Item
CLO1 : Describe and apply key theories, issues and frameworks from the field of human-computer interaction and media arts, to the evaluation of body-focused interactive designs	• IDEAS - Research, Conceptualisation and Investigative Development
CLO2 : Develop and refine an interactive prototype, service or environment through an iterative process of research, development, testing and evaluation.	• Product – Investigative Development, Realisation and Prototyping
CLO3 : Combine wearables and bio-sensing to build a resolved, functioning, body-sensing interactive artefact, service or environment.	• Product – Investigative Development, Realisation and Prototyping

Learning and Teaching Technologies

Moodle - Learning Management System | Blackboard Collaborate

Learning and Teaching in this course

This courses uses a variety of teaching approaches.

Additional Course Information

Students are expected to participate actively in online discussions, presenting emerging design ideas and documenting their work in weekly Moodle blog entries.

Assessments

Assessment Structure

Assessment Item	Weight	Relevant Dates
IDEAS - Research, Conceptualisation and Investigative Development Assessment Format: Individual Short Extension: Yes (1 day)	50%	Due Date: Week 5: 07 October - 13 October
Product – Investigative Development, Realisation and Prototyping Assessment Format: Individual Short Extension: Yes (1 day)	50%	Start Date: Not Applicable Due Date: Week 11: 18 November - 24 November

Assessment Details

IDEAS - Research, Conceptualisation and Investigative Development

Assessment Overview

In this assessment task you will develop a research paper and concept proposal that evaluates body-focussed interactive designs and include theories and issues from the field of human-computer interaction and media arts. Feedback will be provided on a regular basis studio through discussion with peers and tutors. Summative assessment and feedback will be provided digitally based on the rubric.

Course Learning Outcomes

- CLO1 : Describe and apply key theories, issues and frameworks from the field of human-computer interaction and media arts, to the evaluation of body-focused interactive designs

Detailed Assessment Description

A detailed description of assignment requirements is available on Moodle.

Assessment Length

5 min presentation

Submission notes

Digitally submit one Pdf with the file name SDES9154_Task1_ StudentName_ StudentNumberto Moodle at least one hour before class. Presentation of prototype in class.

Assessment information

How will students receive feedback on this task:

Formative feedback as group discussion via Moodle and in online studio sessons, including peer-to-peer review via blogs, and online discussion. Written summative feedback will be provided at the end of the assignment.

Assignment submission Turnitin type

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

Generative AI Permission Level

Planning/Design Assistance

You are permitted to use generative AI tools, software or services to generate initial ideas, structures, or outlines. However, you must develop or edit those ideas to such a significant extent that what is submitted is your own work, i.e., what is generated by the tool, software or service should not be a part of your final submission. You should keep copies of your iterations to show your Course Authority if there is any uncertainty about the originality of your work.
If your Convenor has concerns that your answer contains passages of AI-generated text or media that have not been sufficiently modified you may be asked to explain your work, but we recognise that you are permitted to use AI generated text and media as a starting point and some traces may remain. If you are unable to satisfactorily demonstrate your understanding of your submission you may be referred to UNSW Conduct & Integrity Office for investigation for academic misconduct and possible penalties.
For more information on Generative AI and permitted use please see here.

Product – Investigative Development, Realisation and Prototyping

Assessment Overview

In this assessment task you will integrate and refine the design concepts you developed in Assessment Task 1, into final iterations of your wearable or body-focussed interaction design. Feedback will be provided on a regular basis studio through discussion with peers and tutors. Summative assessment and feedback will be provided digitally based on the rubric.

Course Learning Outcomes

- CLO2 : Develop and refine an interactive prototype, service or environment through an iterative process of research, development, testing and evaluation.
- CLO3 : Combine wearables and bio-sensing to build a resolved, functioning, body-sensing interactive artefact, service or environment.

Detailed Assessment Description

A detailed description of assignment requirements is available on Moodle.

Assessment Length

5 min presentation

Submission notes

Submit one pdf document with file naming convention: DDES9154 task2_studentname_studentnumber Max file size 200MB to Moodle I hr before class on due date

Assignment submission Turnitin type

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

Generative AI Permission Level

Assistance with Attribution

This assessment requires you to write/create a first iteration of your submission yourself. You are then permitted to use generative AI tools, software or services to improve your submission in the ways set out below.
Any output of generative AI tools, software or services that is used within your assessment must be attributed with full referencing.
If outputs of generative AI tools, software or services form part of your submission and are not appropriately attributed, your Convenor will determine whether the omission is significant. If so, you may be asked to explain your submission. If you are unable to satisfactorily demonstrate your understanding of your submission you may be referred to UNSW Conduct & Integrity Office for investigation for academic misconduct and possible penalties.
For more information on Generative AI and permitted use please see here.

General Assessment Information

Under normal circumstances, feedback for assessments in this course will be delivered in a format that is suitable for the assessment task within a period of 10 working days of submission.

Grading Basis

Standard

Requirements to pass course

In addition to completion of assessment tasks, students are expected to participate.

Lack of participation will result in grade deductions.

0% duction = 90% attendance, including arriving on time and active participation in lectures and tutorials.

2% duction = 80% attendance, including arriving on time and active participation in lectures and tutorials.

4% deduction = 70% attendance, including arriving on time and active participation in lectures and tutorials.

6% deduction = 60% attendance, including arriving on time and active participation in lectures and tutorials.

8% deduction = 50% attendance, including arriving on time and active participation in lectures and tutorials.

10% deduction = 40% attendance, including arriving on time and active participation in lectures and tutorials.

Course Schedule

Teaching Week/Module	Activity Type	Content
Week 1 : 9 September - 15 September	Studio	Wearables and bio-sensing Interaction course overview.
Week 2 : 16 September - 22 September	Studio	Wearables as media
Week 3 : 23 September - 29 September	Studio	The Body Politic
Week 4 : 30 September - 6 October	Studio	Critical and Speculative Wearables
Week 5 : 7 October - 13 October	Presentation	IDEAS - Research, conceptualisation, Investigative development Provotypes and Probotypes
Week 6 : 14 October - 20 October	Other	Flexibility week
Week 7 : 21 October - 27 October	Studio	Prototypes and Problem solving
Week 8 : 28 October - 3 November	Studio	Wearables and video documentation – Communicating concepts
Week 9 : 4 November - 10 November	Studio	Strike a pose –Professional documentation in the photography studio.
Week 10 : 11 November - 17 November	Studio	Mock presentation - Pitching prototypes
Week 11 : 18 November - 24 November	Presentation	PRODUCT – Realisation and prototyping.

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

Materials kits will be available for this course from the Textile Studio. The kit provides materials for the course workshops and is provided at cost price.

Recommended Resources

Students in this course work in a wide variety of media, some of which you may not have access to at home. All students however need access to sketching materials, pens, pencils, paper; image editing and desktop publishing software; and simple modelling materials such as paper, card, glue to make mock-up models. Depending on the nature of your design propositions, you may also need access to 3D modelling software.

Reading texts will be distributed via Moodle.

Additional Costs

Prototyping materials vary greatly depending on your individual project. Most maker spaces carry a range of basic materials that can be purchased. Makerspace services are at user pay rates. https://www.making.unsw.edu.au/making-centre/

Recycling materials is encouraged and recycling areas are set aside in 4th floor D block.

Course Evaluation and Development

It is important that students complete the myExperience course and teaching surveys for this

course. This is completely anonymous and provides important student observations and suggestions to ensure that the course is continually improved. To see how the course convenor has responded to student feedback from these surveys, please see the View Feedback on Student Surveys section in the course Moodle site.

Your feedback is an essential part of ongoing evaluation and improvement of this course. Recent improvements have focussed on tailoring course activities to identify and develop students individual disciplinary strengths, within the interdieciplinary course context.

Staff Details

Position	Name	Email	Location	Phone	Availability	Equitable Learning Services Contact	Primary Contact
	Patricia Flan agan					No	Yes

Other Useful Information

Academic Information

For essential student information relating to:

- UNSW and Faculty policies and procedures;
- Student Support Services;
- Student equity and disability;
- Special Consideration in the event of illness or misadventure;
- Examination information;
- Review of results;

Please see: https://www.unsw.edu.au/arts-design-architecture/student-life/resources-support/protocols-guidelines

Academic Honesty and Plagarism

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

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.

Important note: UNSW has a "fit to sit/submit" rule, which means that if you sit an exam or submit a piece of assessment, you are declaring yourself fit to do so and cannot later apply for Special Consideration. This is to ensure that if you feel unwell or are faced with significant circumstances beyond your control that affect your ability to study, you do not sit an examination or submit an assessment that does not reflect your best performance. Instead, you should apply for Special Consideration as soon as you realise you are not well enough or are otherwise unable to sit or submit an assessment.

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 x 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

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