

DESN2002: Design Thinking and Innovation

Singapore PSB

Trimester 3 - 2023 (Singapore)



THE UNIVERSITY OF
NEWCASTLE
AUSTRALIA

OVERVIEW

Course Description

The world is full of 'wicked problems', issues of great complexity with multiple overlapping concerns and stakeholders. The Design Thinking suite of methods and techniques assists the lay designer as well as the expert to untangle systemic and service design problems across a wide range of sectors and disciplines. Using inclusive and empathetic approaches that foster innovation, this course will produce critically, pedagogically and creatively informed research that generates real-world impact. In this course, students will explore various methods and techniques related to Design Thinking, applying these to inform their own disciplinary practices, in ways that respond to the experiences of end users, and the needs of multiple stakeholders.

Academic Progress Requirements

Nil

Assumed Knowledge

To enrol in this course, you must have successfully completed at least 60 units, chosen from any courses offered by UON.

Contact Hours

Singapore PSB

Lecture

Face to Face On Campus

1 hour(s) per week(s) for 12 week(s)

Tutorial

Face to Face On Campus

2 hour(s) per week(s) for 12 week(s)

Unit Weighting Workload

10

Students are required to spend on average 120-140 hours of effort (contact and non-contact) including assessments per 10 unit course.

COURSE OUTLINE

www.newcastle.edu.au

CRICOS Provider 00109J

CONTACTS

Course Coordinator	Singapore PSB Ms Angelina Tu Angelina.Tu@newcastle.edu.au Consultation:
Teaching Staff	Other teaching staff will be advised on the course Canvas site.
School Office	School of Humanities Creative Industries and Social Sciences Social Sciences Building Callaghan CHSF-PSB-Singapore@newcastle.edu.au +61 2 4985 4500

SYLLABUS

Course Content	Topics will include: <ol style="list-style-type: none">1. Design Thinking values and theories, informed by the related field of Art Thinking;2. Methods, techniques and processes for advanced iteration, rapid prototyping, and project implementation;3. Design Thinking suite of methods and techniques applied to project lifecycles with an emphasis on interdisciplinary practice;4. Experiential and user centred approaches such as co-design, participatory design, empathy mapping, and 'personas';5. Analysis of exemplars and precedents in professional practice from a variety of disciplinary perspectives;
Course Learning Outcomes	On successful completion of this course, students will be able to: <ol style="list-style-type: none">1. Interpret established Design Thinking theories, concepts and processes, as well as analyse new directions in the field;2. Apply user centred research methods that appropriately respond to an area of practice to generate a solution to a specific real-world problem;3. Communicate an understanding of various problem-solving methods and their relationship to Design Thinking strategies;4. Critically reflect on their own disciplinary practice through the lens of Design Thinking and/or Art Thinking;5. Collaborate effectively in group based work
Course Materials	Refer to Course Site

SCHEDULE

Week	Week Begins	Topic	Learning Activity	Assessment Due
1	4 Sep	Introduction to Design Thinking Methods	Design Thinking techniques in context: Systems, service, and interaction design	
2	11 Sep	Creativity for Purpose	Engaging with case studies: The United Nations Sustainable Development goals	
3	18 Sep	Methods and techniques for Design Thinking across commercial and social enterprise	Defining through empathy: Stakeholders, user journeys, personas	
4	25 Sep	Building the world better: Identifying and untangling 'wicked problems'	For the common good: Strategies for working effectively in teams	
5	2 Oct	Transdisciplinary practices in research: Interviews, data collection, digital footprints	Using ethnographic and interaction design methods	
6	9 Oct	From fearless ideation to innovation	Big ideas – what are they?	1: A Visual/ Verbal Slide Presentation 20%
Mid term break				
7	23 Oct	From ideation to prototype	Strategy session 1: Mindset shift, from thinking to making	
8	30 Oct	Practical methods and techniques for prototyping: software, materials, documentation methods	Strategy session 2: Defining the problem through personas, story mapping, user journeys and more	
9	6 Nov	Reality check 1: Prototypes in the real world	Strategy session 3: Identifying Roses, Buds and Thorns	
10	13 Nov	Reality check 2: Feedback session	Research to prototype 1: Tutor/Group consultations	2. Research to Prototype {WIREFRAMES} 40%
11	20 Nov	Advanced prototypes: digital or physical?	Research to prototype 2: Project workshop session	
12	27 Nov	Knowing is showing: Developing the prototype Innovations in Action	Research to Prototype: Cohort Analysis Session	3: Book Review/Design Thinking for Self 40%
13	4 Dec			
Examination Period				
Examination Period				

ASSESSMENTS

This course has 3 assessments. Each assessment is described in more detail in the sections below.

	Assessment Name	Due Date	Involvement	Weighting	Learning Outcomes
1	A Visual/ Verbal Slide Presentation to an Audience	Week 6	Individual	20%	1, 2, 3, 5
2	Research to Prototype	Week 10	Individual	40%	2, 3, 5
3	Online Blog	Week 12	Individual	40%	1, 2, 4

Late Submissions

The mark for an assessment item submitted after the designated time on the due date, without an approved extension of time, will be reduced by 10% of the possible maximum mark for that assessment item for each day or part day that the assessment item is late. Note: this applies equally to week and weekend days.

Assessment 1 - A Visual/ Verbal Slide Presentation to an Audience

Assessment Type	Individual
Description	Based on a given bank case study, put together a 5-slide (deck) to dissect the problem and provide solution/s using Design Thinking principles.
Weighting	20%
Length	10 – 15 min
Due Date	Week 6
Submission Method	Online
Assessment Criteria	Criteria for this assignment will be discussed in class and made available on course site
Return Method	Online
Feedback Provided	Online

Assessment 2 - Research to Prototype

Assessment Type	Individual
Description	Students are given the chance to demonstrate their understanding and hands-on ability to construct wireframes and then explain the rationale behind them.
Weighting	40%
Length	15 – 20 min
Due Date	Week 10
Submission Method	Online
Assessment Criteria	Criteria for this assignment will be discussed in class and made available on course site
Return Method	Online
Feedback Provided	Online

Assessment 3 - Online Blog

Assessment Type	Individual
Description	Students are encouraged to reflect on what has been learnt and to apply the principles and processes in a reflection piece for themselves.
Weighting	40%
Length	1500 word
Due Date	Week 12
Submission Method	Online
Assessment Criteria	Criteria for this assignment will be discussed in class and made available on course site
Return Method	Online
Feedback Provided	Online

ADDITIONAL INFORMATION

Grading Scheme

This course is graded as follows:

Range of Marks	Grade	Description
85-100	High Distinction (HD)	Outstanding standard indicating comprehensive knowledge and understanding of the relevant materials; demonstration of an outstanding level of academic achievement; mastery of skills*; and achievement of all assessment objectives.
75-84	Distinction (D)	Excellent standard indicating a very high level of knowledge and understanding of the relevant materials; demonstration of a very high level of academic ability; sound development of skills*; and achievement of all assessment objectives.
65-74	Credit (C)	Good standard indicating a high level of knowledge and understanding of the relevant materials; demonstration of a high level of academic achievement; reasonable development of skills*; and achievement of all learning outcomes.
50-64	Pass (P)	Satisfactory standard indicating an adequate knowledge and understanding of the relevant materials; demonstration of an adequate level of academic achievement; satisfactory development of skills*; and achievement of all learning outcomes.
0-49	Fail (FF)	Failure to satisfactorily achieve learning outcomes. If all compulsory course components are not completed the mark will be zero. A fail grade may also be awarded following disciplinary action.

*Skills are those identified for the purposes of assessment task(s).

Communication Methods

Communication methods used in this course include:

- Canvas Course Site: Students will receive communications via the posting of content or announcements on the Canvas course site.
- Email: Students will receive communications via their student email account.
- Face to Face: Communication will be provided via face to face meetings or supervision.

Course Evaluation

Each year feedback is sought from students and other stakeholders about the courses offered in the University for the purposes of identifying areas of excellence and potential improvement.

Oral Interviews (Vivas)

As part of the evaluation process of any assessment item in this course an oral examination (viva) may be conducted. The purpose of the oral examination is to verify the authorship of the material submitted in response to the assessment task. The oral examination will be conducted in accordance with the principles set out in the [Oral Examination \(viva\) Procedure](#). In cases where the oral examination reveals the assessment item may not be the student's own work the case will be dealt with under the [Student Conduct Rule](#).

Academic Misconduct

All students are required to meet the academic integrity standards of the University. These standards reinforce the importance of integrity and honesty in an academic environment. Academic Integrity policies apply to all students of the University in all modes of study and in all locations. For the Student Academic Integrity Policy, refer to <https://policies.newcastle.edu.au/document/view-current.php?id=35>.

Adverse Circumstances

The University acknowledges the right of students to seek consideration for the impact of allowable adverse circumstances that may affect their performance in assessment item(s). Applications for special consideration due to adverse circumstances will be made using the online Adverse Circumstances system where:

1. the assessment item is a major assessment item; or
2. the assessment item is a minor assessment item and the Course Co-ordinator has specified in the Course Outline that students may apply the online Adverse Circumstances system;

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3. you are requesting a change of placement; or
 4. the course has a compulsory attendance requirement.

Before applying you must refer to the Adverse Circumstance Affecting Assessment Items Procedure available at:
<https://policies.newcastle.edu.au/document/view-current.php?id=236>

Important Policy Information

The Help button in the Canvas Navigation menu contains helpful information for using the Learning Management System. Students should familiarise themselves with the policies and procedures at <https://www.newcastle.edu.au/current-students/no-room-for/policies-and-procedures> that support a safe and respectful environment at the University.

This course outline was approved by the Head of School. No alteration of this course outline is permitted without Head of School approval. If a change is approved, students will be notified and an amended course outline will be provided in the same manner as the original.

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