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# Week 6 Workshop

COS10025 – Technology in an Indigenous context project

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# Acknowledgement of Country

We respectfully acknowledge the Wurundjeri People of the Kulin Nation, who are the Traditional Owners of the land on which Swinburne’s Australian campuses are located in Melbourne’s east and outer-east, and pay our respect to their Elders past, present and emerging.

We are honoured to recognise our connection to Wurundjeri Country, history, culture, and spirituality through these locations, and strive to ensure that we operate in a manner that respects and honours the Elders and Ancestors of these lands.

We also respectfully acknowledge Swinburne’s Aboriginal and Torres Strait Islander staff, students, alumni, partners and visitors.

We also acknowledge and respect the Traditional Owners of lands across Australia, their Elders, Ancestors, cultures, and heritage, and recognise the continuing sovereignties of all Aboriginal and Torres Strait Islander Nations.

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# Workshop 6

**The aim of today's class is to focus on Design criteria / Benefits and Constraints and receive feedback from the facilitator.**

Weekly Project plan

Activity 1: Design criteria / Benefits and Constraints



# Weekly Project plan

## Week 7 – Design Justification

The team will work on justifying your team design ideas (all 5-design idea)

1. Why your team decided to choose those designs?
2. Which two designs were best choice out of the five?
3. Why haven't the team chosen the other 3 design ideas?

## Week 8 – Design debate

- Your team should justify your low priority design ideas.
- Your team must work on how to make those 3 low priority design ideas as a good one.

## Week 9 – Design finalisation

- Finalise your team design ideas
- Go through team presentation expectations

# Weekly Project plan

## Week 10 – Design Evaluation

The team will work on evaluating your team design ideas (all 5-design idea)

- Use the design criteria document to check

## Week 11 – Design Presentation

- Your team should present your design ideas during workshop on-campus compulsory.
- Each team member will present for 2-3 mins.

## Week 12 – Final report submission

- Submit your individual final project reflection report
- Submit your peer assessment report

# Assessment #1: Innovation Concept

- Team-based assessment
- Due date: 21<sup>st</sup> Apr 2023, 23:59 pm
- Marks allocated: 20% of your final mark
- Recommended word-count range: 800 words for each team member (4000 for 5 team members or 4800 words for 6 team members)
- Aim of this task:
  - Expects the team to deepen your research and explain your design ideas for a selected challenge
  - Each team should explain 5 design ideas for 5 team members or 6 design ideas for 6 team members



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# Assessment #1 – Part A

Assignment 1 – Innovation concept (team-based)

The Part A of Assignment 1

- Project Overview

A detailed description of the township, people, problem statement

- A brief introduction to the Identified Challenge/problem

The team should explain identified challenge with enough references (with research evidences)



# Assessment #1 – Part B

Design idea 1

A description of the design idea

- Design idea - A detailed explanation of the design idea (any technical concept, devices, application)
- Design Specifications
  1. List of hardware and software requirements (Explain in detail each hardware/software required)
  2. Design functioning (explain in detail)
- Benefits of design idea
  1. What are the benefits of the design?
  2. How will it impact the community?
  3. How the design is culturally appropriate for the community/environment?
  4. How does the design idea benefit the community in accordance with the guidelines such as access & equity, health & safety, appropriateness, affordability, environmental health, and sustainable livelihoods (few based on the design idea)
- Constraints of design idea
  1. What are some of the potential challenges identified when using the design for present and future needs



## A 10x4 grid of dots. There are 10 rows and 4 columns of dots. Each row contains 4 dots, and each column contains 10 dots. The dots are arranged in a regular grid pattern.

A 10x4 grid of dots. There are 10 rows and 4 columns of dots. Each row contains 4 dots, and each column contains 10 dots. The dots are arranged in a regular grid pattern.

# Develop design ideas for selected challenge

When your team comes up with a design idea, you have to use combination of technologies that solves the problem. It should be an appropriate design, easy to use, affordable, environmentally suitable, and sustainable solution.

The team must consider

1. What are the benefits of the design?
2. How will it impact the community?
3. How the design idea is **culturally appropriate** for the community?
4. Lastly while proposing a design idea please consider the guiding principles

# Design Criteria

The above design criteria are used by a team member to satisfy his/her design idea with a standard design criterion. Please use the above 7 design criteria's that your design idea should satisfy.

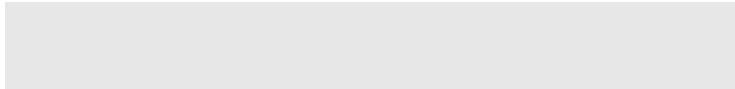
no	Design Criteria	Satisfy expected design criteria	Tick ( )
1	At least use minimum 3 different approaches'	Analyse (and/or)	
		Reduce (and/or)	
		Eradicate (and/or)	
		Prevent (and/or)	
		Predict	
2	At least use 1 or 2 different technologies	Example 1 (4G/5G technology)	
		Example 2 (choose your own)	
		Example 3 (choose your own)	
		Example 4 (choose your own)	
		Example 5 (choose your own)	
3	At least use 3 or more different devices	Example 1 (Sensor)	
		Example 2 (IoT device)	
		Example 3	
		Example 4	
		Example 5	
4	At least list minimum 3 benefits	Benefit 1	
		Benefit 2	
		Benefit 3	
5	At least list minimum 3 Impacts	Impact 1	
		Impact 2	
		Impact 3	
6	At least list minimum 3 guiding principles	Access & equity	
		Health & safety	
		Appropriateness	
		Affordability	
		Environmental health	
7	At least list minimum 2 Constraints	Sustainable livelihoods	
		Constraints 1	
		Constraints 2	

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# Activity 1

## Design criteria / Benefits and Constraints

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# 1<sup>st</sup> Activity

Aim : Design criteria / Benefits and Constraints

- Instructions :
- Design Criteria
    1. Check your design idea with the design criteria (Table above)
    2. Each design idea should satisfy the 7 design criteria's
    3. Check each criteria and satisfy the minimum requirements
  - Benefits and Constraints
    1. What are the benefits/impact of your design idea?
    2. Does your design idea benefit the community in accordance with the guidelines?
    3. Any potential challenges (constraints) identified when using your design idea for present and future needs



Teamwork: 45 minutes

# Next week

- Continue working on justifying your team design ideas (design concepts)
- Finalise Assessment 1 Innovation concept before the submission due end of week 7