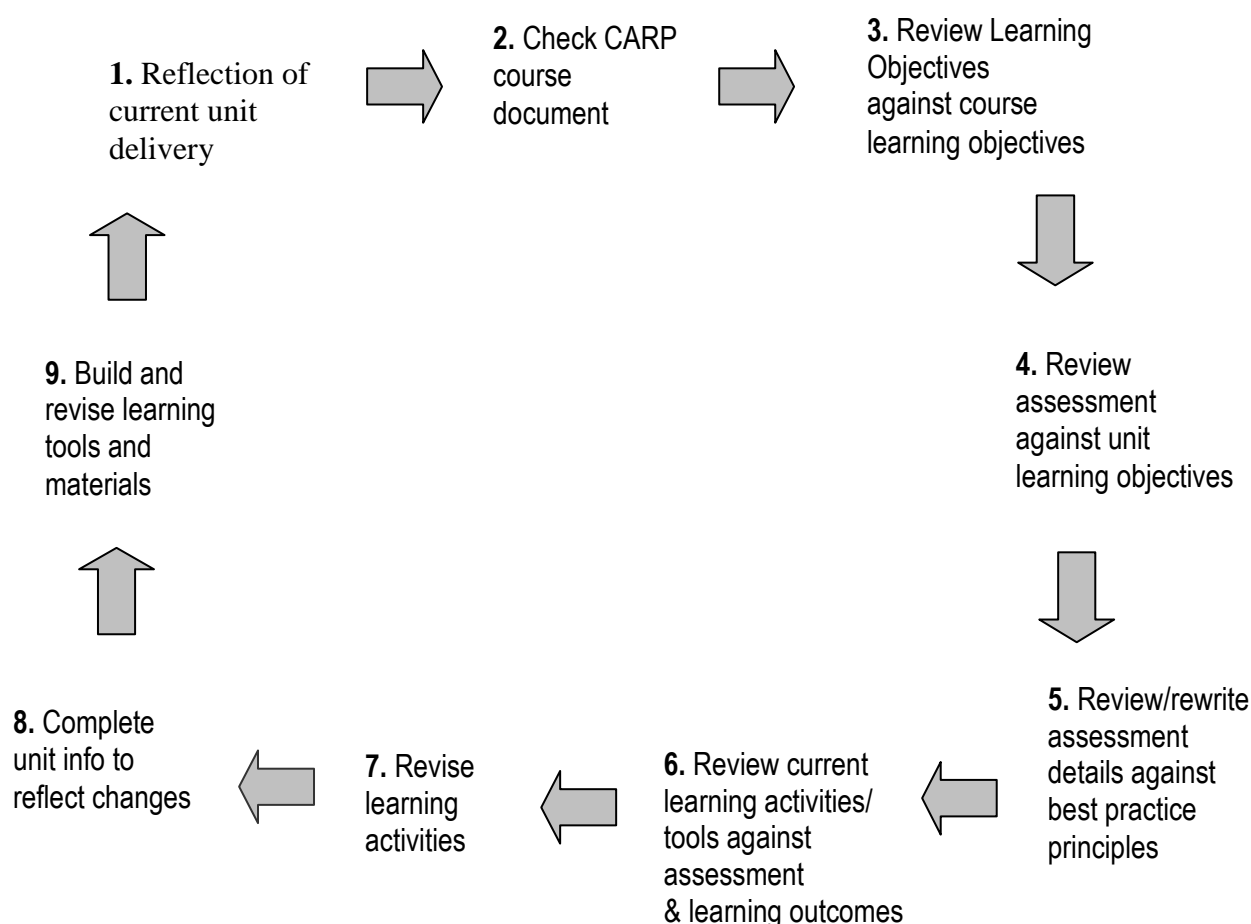# Steps to Developing/Reviewing a Unit of Study

To insure the process of developing and/or reviewing units is efficient, productive and enjoyable it is important to follow a well defined process and essential to keep central records of each meeting. This suggested sequence of steps which can be adopted as part of an ongoing cycle of reflection.

This document includes templates to make the review easier and which allow you to clearly map learning objectives with assessments, graduate attributes and learning materials. We suggest you have the template available electronically at meeting so it can be projected for the team to view and updated as you go.

This review should be completed with the input of a team of 3-4 with expertise and experience led by the unit coordinator. The development team will need to meet regularly (weekly or fortnightly) for 1-3 hours to achieve each of the following steps through discussion and consensus. These requirements and stages are detailed within this document.

The following demonstrates the cycle and stages of unit review/development:

1. Reflection of current unit delivery → **2.** Check CARP course document → **3.** Review Learning Objectives against course learning objectives

↓

4. Review assessment against unit learning objectives

↓

5. Review/rewrite assessment details against best practice principles

9. Build and revise learning tools and materials

↑

8. Complete unit info to reflect changes ← **7.** Revise learning activities ← **6.** Review current learning activities/ tools against assessment & learning outcomes ←

Steps to developing/reviewing your unit:

a/ Establish development team including**:** the unit coordinator (who facilitates review project), additional content expert (from teaching team), learnline technical expert, teaching and learning facilitator, quality officer, scribe and a discipline representative as an out of session participant.

b/ Establish roles, risk management, timeline and meeting schedules with reference to overall project milestones**.** Before beginning the review process outlined below, at the first meeting the coordinator should clarify goals, discuss and record roles and expectations and the team should agree on a schedule for meetings.

c/ Work through the following unit review steps.
At this point the group will be ready to start formulate the design using the templates provided in this document. These steps itemise each component of the unit's design and thus guide the team towards the requirements for a comprehensive unit review while at the same time compiling information that needs to be inserted into the *Unit Info Guide* for students. These steps include:

1. **Reflection of unit delivery for Semester 1**: Brainstorm and share staff and students' experience of the unit in semester one and categorise the issues arising under headings which reflect the review process (learning outcomes, assessment, learning methodology, print/online learning materials, student support strategies). Establish which of these require immediate, short term and long term attention.

2. **Read through and familiarise yourself with the CARP QA Course document**, particularly the items 9. learning outcomes and 15. approaches to learning.

3. **Review unit learning outcomes** with reference to **course learning outcomes**

4. **Review /consider appropriate assessment for meeting these objectives and to meet guidelines for good assessment:** formative, authentic, relevant.

5. **Review/rewrite assessment details for students info**: weighting, word count, task, presentation, criteria

6. **Consider current learning activities and tools, whether they augment achieve each learning outcome and assessment task according to guidelines for experiential learning.**

7. **Think about what learning activities will help your students build their skills and knowledge to produce the assessment tasks and achieve learning outcomes**

8. **Complete Unit information** sections for learning outcomes, learning approach, assessment summary and details, study plan

d/ Establish system and timeline for evaluation and continuous improvement

a/ Establish development team

Unit development for: CUC106

Project Team:

Project Manager	Nicola (Theme Leader)
Coordinator	Jodi Tuty/Simon hobbs
Content Expert	Penny Wurm, Dan Baschera, Ricardo Sante, Simon Hobbs
Technical/ learnline expertise	Jodi/Barbara
Quality Facilitator	Sharon Bridgeman
LILLS	Joanne Witt
Reference Group Members	Barbara White, Lee Skertchly

b/ Establish roles, risk management, timeline and meeting schedules

Timeline 2009 review:

Date	Project Milestone	Notes
Oct 2	- Initiate groups - Step 1: Reflection of unit delivery for Semester 1 - Essential adjustments for Sem 2 delivery – UI/Learning Materials/Learnline	
Oct 16	Step 2: Review unit learning outcomes with reference to course learning outcomes	
Oct 30	- Step 3: Review assessment for meeting these objectives and to meet guidelines for good assessment: formative, authentic. - Step 4: Review assessment details for students info: weighting, word count, task, presentation, criteria	
Nov 13	Step 6: Consider current learning activities and tools, whether they augment/achieve each learning outcome and assessment task according to guidelines for authentic, project based learning principles.	
Nov 27	Step 7: Think about what learning activities will help students build their skills and knowledge to produce the assessment tasks and achieve learning outcomes	
Dec	Finalise Unit information for S.1	
Jan/Feb	Finalise learning materials / online learning tools	

Risk Management:

Risk	Mediation Strategy
Schedule Slippage	Online learning materials can be built as we go through the semester as a last resort
Changes in Team members availability	Provide option for conference phone and or email participation in process
Problems with team participation/attendance	Find alternative rep from disciplines
Technical Problems	Ensure alternative learning tools are available, minimise impact to students, employ expertise in TLQG and ITMs where necessary.

c/ Work through the following unit review steps.

Step 1. Reflection on unit delivery for Semester One - Brainstorm and share staff and students' experience of the unit in semester one and categorise the issues arising under the headings in the table below which reflect each stage in review process and can thus be incorporated in to your planning for the review of your unit. Establish which of these require immediate, short term and long term attention.

Review categories	Issues	Timing for response		
		Immediate SS	Short-term S1 2010	Long term S1 2011
Learning outcomes	Check off changes with team		✔	
Assessment	Check off changes with team		✔	
Learning methodology	Check off changes with team		✔	
Learning materials	Discuss feasibility and nature of building content related to designing for culture and sustainability.		✔	
Learnline/ICT	Adjusting look and feel in as part of project by unit coordinators and theme leader to bring common units in line with one another.		✔	
Student support	On going explorations for the best mechanisms for supporting external and NESB students.		✔	

Step 2. Review **unit learning outcomes** with reference to **course learning outcomes using the template provided over the page.**

Your assessment choices and learning methodologies will be driven by the learning outcomes of the unit so it's important to check these first against the course learning outcomes and the learning outcomes of the partner unit in the other TEP stage. You may also wish to review the wording to make it more meaningful to students and more descriptive. If you need to review your learning outcomes UQ have a useful guide for writing learning objectives provided in Attachment A

3a. First map your existing unit learning outcomes with your course learning outcomes

	Unit Learning outcomes: Successful completion of this unit should enable students to:
1	Integrate key environmental, technical, economic and cultural considerations in the creation of a sustainable design for resource poor contexts.
2	Utilise creative and innovative problem solving techniques in design
3	Build and evaluate a design prototype in response to a real-world problem
4	Effectively work in a team to organise and complete your design brief and report.
5	Present the outcomes of your design project through a professional, written technical report and a formal oral presentation
6	Demonstrate in your written report and oral presentation, effective researching, reading, critical thinking and analysis, and referencing skills.
7	Demonstrate professional IT communication skills
8	Address diversity through the key graduate skills: harmonious leadership, social responsibility, communication, creativity, and flexibility.

A tick (√) in a cell means the L.O is relevant to the course level criterion, and a double tick (√√) means it is **very** relevant.

CU Program Learning Outcomes

Unit learning Outcomes

At the completion of this course students will be able to demonstrate:	1	2	3	4	5	6	7	8
1 the practical skills required for successful university study, including: assignment writing, reading and thinking critically, referencing, researching and IT skills;		√	√	√	√	√	√	√
2 graduate skills in communication, teamwork, leadership and social responsibility, and;	√	√	√	√	√	√	√	√
3 contextual & cultural knowledge applicable to their course of study and their professions.	√	√	√					√

3b. Now consider your unit learning outcomes against the learning outcomes of the partner unit .

	CUC100 learning outcomes: Successful completion of this unit should enable students to:	**CUC106** Matching Outcome
1	Reflect on 21st century global trends and their effect on their proposed professions	1
2	Evaluate their needs and plans for success in their university study and as graduates,	
3	Strengthen their research skills in regard to their ability to identify, access, evaluate, organise, reference and communicate information	6
4	Develop skills in reading, note taking, paraphrasing, writing, and critical evaluation for academic assignments	5, 6
5	Complete assignments in a range of academic genres for the humanities	
6	Apply commonly required computing skills, such as word processing, Internet, email, and create visual presentations and spreadsheets	7
7	Utilise a variety of learning technologies including university's online learning environment	7

3c You should now be ready to review your unit learning outcomes

	Unit Learning outcomes: Successful completion of this unit should enable students to:
1	Integrate key environmental, technical, economic and cultural considerations in the creation of a sustainable design for resource poor contexts.
2	Utilise creative and innovative problem solving techniques in design
3	Build and evaluate a design prototype in response to a real-world problem
4	Effectively work in a team to organise and complete your design brief and report.
5	Present the stages of the design project through a series of professional written reports and a formal oral presentation
6	Demonstrate effective researching, reading, critical thinking and analysis, and referencing skills in your written report and oral presentation.
7	Demonstrate professional IT communication skills
8	Address diversity through the key graduate skills: harmonious leadership, social responsibility, communication, creativity, and flexibility.

4. Review appropriate assessment for meeting these objectives and to meet guidelines for good assessment:
Think about ways to assess whether students have achieved these learning objectives taking in to consideration current thinking on effective assessment which includes an emphasis on formative assessment, criterion based assessment and assessment that is authentic, relevant and meaningful. The following table will help you cover all the necessary considerations for good assessment. See the CHSE Core Principles of Effective Assessment .

Assessment task	Due date	Weighting	Why this task — what learning outcome does it assess?	Nature of planned feedback
				Nb Informal - ongoing feedback is provided in class / via email and discussion forums to scaffold students' preparation of assignments in class.
1. Research report: a. annotated references b. completed report	Fri wk 3 Fri wk 4	5% 15%	5, 6,7,8	Formal - Rubric and written comments
2. Project proposal	Fri Wk 7	20%	1, 2, 4, 5, 6, 7, 8	Formal - Rubric and written comments
3. Final product a. Model/Prototype	Wk 10 (in class/ext Fri)		1, 2, 3, 4, 5, 7, 8	Formal - Rubric and written comments
b. Presentation of Project	Wk 11 (in class/ext Fri)		1, 2, 3, 4, 5, 7, 8	Formal - Rubric and written comments
c. Written report	Fri Wk 13		1, 2, 3, 4, 5, 6, 7, 8,	Rubric and written comments

	Unit Learning outcomes: Successful completion of this unit should enable students to:
1	Integrate key environmental, technical, economic and cultural considerations in the creation of a sustainable design for resource poor contexts.
2	Utilise creative and innovative problem solving techniques in design
3	Build and evaluate a design prototype in response to a real-world problem
4	Effectively work in a team to organise and complete your design brief and report.
5	Present the stages of the design project through a series of professional written reports and a formal oral presentation
6	Demonstrate effective researching, reading, critical thinking and analysis, and referencing skills in your written report and oral presentation.
7	Demonstrate professional IT communication skills
8	Address diversity through the key graduate skills: harmonious leadership, social responsibility, communication, creativity, and flexibility.

5. Review/rewrite assessment details (as per table below) to include in unit information guide: Include weighting, word count, task, presentation, criteria. (Note **criteria** needs to be detailed so that students are informed up front exactly what points they will be marked on. You may also like include a standards table - two examples of layout for criteria with one that includes a standards table is provided at the end of attachment C)

Assignment 1: Insert assessment title	
Due date:	*Monday, Week xx*
Length:	**words**
Value:	**%**
Task	Outline the task and criteria here
Preparation	_____
Presentation	
Assessment criteria	

NB Please see Attachment D (p. 27) for assessment details 2010

6. Consider current learning activities and tools, whether they augment achieve each learning outcome and assessment task according to guidelines for experiential learning**.**

6a. *Ensure everyone is familiar with flexible learning principles and guidelines for experiential learning* before reviewing whether your current learning outcomes meet these principles. Attachement D provides a summary of suggested approaches to designing learning activities for authentic, experiential learning approaches.

6b. Check appropriateness of learning activities by mapping them to learning outcomes and assessment tasks using the table over the page to determine whether the learning activities augment the assessment tasks and unit learning outcomes fill out the following table and adjust learning activities if necessary.

6b cont. Mapping learning outcomes to learning tasks and assessment

Alignment of unit learning outcomes to learning activities and assessment		
Unit Learning Outcomes	Learning Activities/Topics	Assessment List formative and summative assessments
Integrate key environmental, technical, economic and cultural considerations in the creation of a sustainable design for resource poor contexts.	Lecture: The design overview	**1. Research report:** a. annotated references
Utilise creative and innovative problem solving techniques in design	The EWB issues and resources ▪ Constructive communication ▪ Finding and evaluating information	**1. Research report:** b. completed report
Build and evaluate a design prototype in response to a real-world problem	The project topics ▪ Searching for quality information ▪ Note-taking, paraphrasing and summarizing ▪ Plagiarism and referencing	**2. Project proposal**
Effectively work in a team to organise and complete your design brief and report.	Project context ▪ Cultural, **environmental** and economic considerations ▪ Report writing ▪ Academic writing	**3. Final product** a. Model/Prototype
Present the stages of the design project through a series of professional written reports and a formal oral presentation	The project and you ▪ Report writing ▪ One minute talks ▪ Using Word effectively	b. Presentation of Project
Demonstrate effective researching, reading, critical thinking and analysis, and referencing skills in your written report and oral presentation.	The design concept ▪ What is good design? ▪ Forming groups and assigning roles ▪ Creating a project plan	c. Final written report
Demonstrate professional IT communication skills **Addressed in all L. activities**	Project proposal ▪ Writing the proposal	
Address diversity through the key graduate skills: harmonious leadership, social responsibility, communication, creativity, and flexibility. **Addressed in all L. activities**	Evaluating your design ▪ Evaluation methodology ▪ Creating a design matrix	
	Evaluating alternatives ▪ Reviewing your project progress ▪ Exploring improvements and alternatives	
	Creating effective presentations ▪ Effective oral communication ▪ Using PowerPoint effectively	

7. Think about what learning activities will help your students build their skills and knowledge to produce the assessment tasks and achieve learning outcomes. Consider learning activities, week by week under topics, which conform to best practice experiential learning models. These activities should be the same for both external and internal although they may be completing in a different forum or mode. Learning activities may include lectures on certain topics, group activities, individual exercises or commentary, online activities, reading tasks, field trips, guest lecturers, research activities, peer assessment tasks etc . *NB Use template below which can be inserted in your Unit Info Guide*

Weekly Study Plan

Week	Topics and learning activities	Assessment
1	**Communication, context & credibility** o Importance of communication o Introduction to the EWB and the project context o Evaluation credibility of information sources	
2	**Finding & using information** o Searching for quality information o Note-taking, paraphrasing & summarising o Plagiarism & referencing	
3	**Report Writing** o Anatomy of a good report o Brainstorming & planning o Academic writing	1a Annotated References
Proposal		
4	**The Design Approach** o What is good design & how do you get there? o Requirements, constraints,& assumptions o Effective use of the word processor	
5	**Design Concepts** o Cultural, environmental & technical considerations o Forming groups and assignment roles o Creating a project plan	1b Research Report
6	**Project Proposal** o Working in groups o Writing the proposal	

	Prototype	

7	**Modelling your design**
	
	  o Building a prototype/model
	  o Creating a design matrix
		2 Project proposal

8	**Evaluating design alternatives**
	
	  o Evaluating methodology
	  o Exploring improvements & alternatives	

9	**Communicating your design**
	
	  o Effective oral presentations
	  o Using PowerPoint effectively	

	Presentation	
10	**Model presentations** o Final touches to your prototypes	3a.Design prototype/model
11	**Project Presentations**	3b Project presentations

12	**Finishing up reports**
	
	  o Finalise your reports,
	  o Lecturers available for feedback
		3c. Final report

8. Complete Unit information

Insert sections completed above into relevant points in the Unit Information s for learning outcomes, learning approach, assessment summary and details, study plan. Edit the remainder of TLQG to customise for your particular course since some standardised information varies from course to course e.g. submission details, exams etc.

D/ Establish timeline and teams to build/review learning materials

Inevitably, despite best intentions and effort you will need to review and adjust your design for the unit and assessment as you gather feedback from the teaching staff and students and observe how the concept translate to practice.

You should do this at the end of each semester as an adjunct to reviewing the unit information booklet for each semester.

A thorough review should be done at the end of each year utilising SELT data, discussions with the teaching team, focus groups and discussions with the unit writing teams.

CUC106 Assignment details

Contents

Assignment 1: Research Report for Project
Part A – Three annotated references

Deliverables	• ***3 references**, with a filled-in 'reference details template' for each* • *Approx 80 - 100 words of 'annotation' (summary) per source* • *Approx 80 - 100 words of credibility evaluation per source*
Due Date & Value	*See Assessment Overview in CUC 106 Learnline site.*
Marking Criteria	See Assessment Overview in CUC 106 Learnline site.

Task Overview	**Relevance to Project**
	
	The purpose of this assignment is to help you explore a possible project, by finding and 'annotating' (essentially summarising) some background information relevant to *your specific project*.
	
	Description
	
	The following is a brief overview – see further on for detailed steps:
	
	1. Choose a potential design project
	
	2. Find and annotate three sources of information (web page, book, newspaper article etc).
	
	   • The information should describe different aspects of the region/context/technology that are relevant to *your specific project*.
	
	   • The information could include research into what design solutions have already been tried (locally, or in similar situations elsewhere in the world).
	
	3. Show why the sources that you use are *credible*, or trustworthy.
	
	   • Academic writing requires that information sources should be reliable
	
	   • A simple Google search does not necessarily find credible sources.
	
	At the end of this activity, you should be some way to understanding the local situation as it relates to your specific project and what some possible solutions might be.

Requirements Your assignment needs to be presented using the following format:

- Single document, MS word or PDF format, with Assessment Cover Sheet (downloadable from Learnline) at the front.

- At the top of the first page, clearly state your chosen project.

- Include your name and page number in the footer of each page of the document.

- For each of your chosen sources, prepare the following:

    i. A '*reference detail template*', filled out with the bibliographical details of the source. (see attachment #1 at the end of this assignment sheet)

    ii. A *descriptive annotation* (summary) of the central themes and key points within the source. This should include a comment on how the information is relevant to your specific project.

    Some good info on how to write a descriptive annotated bibliography is provided at the website below:
    http://www.library.mun.ca/guides/howto/annotated_bibl.php

    iii. An *analysis of the source's credibility,* identifying the strong & weak points and any potential biases. Use the Credibility Evaluation Criteria (provided as attachment #2 at the end of this assignment sheet) to ensure you have addressed the major factors that determine credibility.

Detailed Guidelines

1. Choose a design project

- First, choose a project scenario that interests you from the EWB options.

> *Example*
> *"Water and Sanitation"* is not specific enough to be a design project.
> A specific project in this area could be something like:
> - "*Improving water quality through improved toilet design",* or:
> - "*Improving accessibility to education via the use of mobile phones as mobile learning platforms*".
>
> Your project needs to be specific so that your research can be focussed.

- Come up with a *specific* **design project** within that scenario. To narrow the choice, read the Suggested Design Projects in the EWB project brief for some ideas (see EWB resources).

2. Formulate your research questions

How should you begin trying to understand the situation related to your project? A good way of doing this is to write down some questions that you'll need to answer before you can design a solution.

Here are some to get you started, but you'll need to write some tailored to your own project too:

- What exactly is the problem? (Impacts? Population affected?)
- Why hasn't it been solved already? (Barriers / obstacles?)
- What are the key cultural and environmental considerations in the region that relate to this project?
- What products (if any) are currently being used?
- What's currently available in the market that would be appropriate for this setting (perhaps with modifications)?

You don't need to answer all these questions in this assignment, but keep them for use in your later assignments!

Detailed Guidelines

3. Find & Annotate Credible Sources

- Search for sources that answer your research questions.

NOTE: It's normal (and essential!) that as you start reading about your project, you will need to alter or add to your research questions.

- Find at least 3 credible sources of information that are relevant to your project. These sources should be different types – for example, they can't all be corporate websites, or all newspaper articles.
- Assess the credibility of the sources you find.

Use the evaluation criteria provided in the weekly Learning Materials to do this

- Discard sources that you think are not credible. (Note that assessing credibility is like mini-research into the author of your information!)

Preparation

Review weeks 1 to 4 of the study materials.

Textbook references:

- Chapter 1 'Orientation to Academic writing' and
- Chapter 5 'Referencing'

Submission

- Submit 1 document only
- See the 'Assessments' section of Learnline for instructions.

Attachment #1: **Reference details templates**

These details are commonly required by a number of referencing styles.
For each of your sources, select the appropriate one (copy & paste) and fill it out.

For more information about referencing checkout the Library referencing guides.
http://www.cdu.edu.au/library/LILL/referencing.html

Book

Authors or Editors (Surname, Initials)
e.g. by *Atkinson, J*

Year of publication
e.g. 1994

Book title
 e.g. Codes of conduct for Australian companies operating overseas

Edition - not needed for first edition
e.g. 5th

Publisher
e.g. Community Aid Abroad

Place of publication
e.g. Fitzroy, Vic

Webpage

Author (person or organisation)
 e.g. Engineers Without Borders Australia
Note: author of page may be different than site sponsor

Year site created or revised
e.g. 2009

Title of page or document
e.g. Our aims

Name and place (if available) of sponsor of site
e.g. Engineers Without Borders Australia Elsternwick Victoria

Date of viewing site - date month year
e.g. 9 September 2009

URL
e.g.   http://www.ewb.org.au/about/aboutewb/ouraims

Document from a website (e.g pdf)

Author (person or organisation)
Note: author of page may be different than site sponsor
e.g. Kaspura, A

Date document created
e.g. August 2008

Title of document
e.g. The Future of global electricity production: An international energy agency perspective

Name and place (if available) of sponsor of site
 e.g. Engineers Australia Canberra

Date of viewing site - date month year
e.g. 9 September 2009

URL
e.g
http://www.engineersaustralia.org.au/shadomx/apps/fms/fmsdownload.cfm?file_uuid=06EE7DF4-CDEE-9B4C-18DD-1515E51C8C2C&siteName=ieaust

Article from a journal database

Authors of article (Surname, Initials)
e.g. Barry, B

Year of publication
e.g. 1990

Article title
 e.g. How not to defend liberal institutions

Journal title
e.g. British Journal of Political Science

Volume, Issue and page numbers
e.g. vol. 20, no. 1, pp. 1-14

Date viewed
e.g. 9 September 2009

Database name
e.g. Jstor

Government reports

Author (person or organisation)
Note: the author of the page or document, may differ from Sponsor of site
 e.g. Department of Families, Housing, Community Services and Indigenous Affairs

Year report created
e.g. 2009

Title of page or document
e.g. Strategic Indigenous Housing and Infrastructure
Program – Review of Program Performance

Name and place (if available) of sponsor of site
e.g. Department of Families, Housing, Community Services and Indigenous Affairs,
Canberra

Date of viewing site - date month year
e.g. 9 September 2009

URL
e.g.
http://www.fahcsia.gov.au/sa/indigenous/progserv/housing/Documents/sihip_review.pdf

Attachment #2: Credibility Evaluation Criteria

- In your assignment, write a short paragraph for each criteria, addressing the questions raised in 'considerations'.
- It may not be possible to find out the answer to every question, but that in itself is sometimes an important outcome!

Criteria	Considerations
Authority & Affiliation	**Who wrote it?** - *Can you find their name?* - *What can you find out about the author? Are they an expert in the subject? Do they have the appropriate qualifications and expertise?* - *What about the publisher or sponsoring institution? What kind of reputation does it have? What is the purpose of the organisation?*
Accuracy & Validity	**Is the information provided correct and the assertions justified?** - *Does it seem reasonable given what you already know about the topic?* - *Can you verify the facts from other reputable sources?* - *Have the author's sources been provided so that you can verify them?* *If it is an article or conference paper has it been peer reviewed?* - *Was the technique or procedure successful? Based on the evidence provided how logical are their claims and conclusions?*
Currency	**Is it recent enough for your topic?** - *When was the piece published or posted on the internet?* - *Does the information contain the latest theories, details etc?*
Coverage	**Depth/Scope** - *Is it targeted towards more towards the novice or the expert?* - *Is it generalised summary or an in depth look at a specific aspect of a topic?* - *How well does it cover the main arguments/theories related to this topic?* - *Is this information applicable/transferable to the context of your question? E.g. legal advice may not transfer from one country to another.*

Assignment 1: Research Report for Project

Part B – Complete Research Report

Deliverables	***Approx 500 words*** *(excluding references, title page, table of contents).*
Due Date & Value	*See Assessment Overview in CUC 106 Learnline site.*
Marking Criteria	See Assessment Overview in CUC 106 Learnline site.
Task Overview	**Relevance to Project** *In this assignment, you will use your research, critical thinking and writing skills to create a report. The report should represent a well-thought-out, viable Design Project option to offer your Group when it's formed.* **Description** This assignment is a research report. In the report, you are required to state your proposed Design Project, and describe: • the specific need or problem your Design Project aims to address, and the important facts & information you discovered about it • the details of possible solution(s) identified, and why they might 'fit' the situation You are encouraged to: • use the sources you found for assignment 1A. • refer to other sources to extend your knowledge base • relate the information found to your Design Project topic and possible design solutions Note: Generic summaries of information about the region or project theme will not earn a pass! You cannot just use the source summary you did in assignment 1A. At the end of this activity, you should have a clear idea of a Design Project, including how it relates to the local context, what barriers and obstacles exist, what possible solutions have been tried, and what sort of designs might work.

Requirements   Your assignment needs to be presented professionally using the following format:

- Single document, MS word or PDF format, with Assessment Cover Sheet (downloadable from Learnline) at the front.

- Title Page, clearly stating your chosen Design Project.

- Include your name, student number, and page number in the footer of each page of the document.

- Use the following structure (as a minimum) for your research report:

    iv. **Introduction**, including**:**

    - *Background*
      One or two sentences describing the context and the problem your design responds to.

    - *Aim*
      One or two sentences identifying what your research report intends to achieve.
      (Not what your *project* intends to achieve).

    - *Scope*
      One or two sentences about what specific focus or limits the design will have. This could relate to the aspect of the problem, users, geographic region

    v. **Research Findings**
    Your findings should be grouped by research area in a logical order to 'tell the story' of the background info *as it relates to your project*. You should not group your findings by reference/source.

    Note: You are expected to correctly use in-text referencing appropriate for the CDU Harvard method.

    vi. **Conclusion**
    Should be a short response (a few sentences) to your Aim. It should summarise the main findings of your research, and what these findings mean for possible design solutions.

    Note: It should not contain vague statements that are not supported by your research findings!

    vii. **References**
    You should have a reference list, listed in alphabetical order using correct CDU Harvard format.
    Warning: This requires considerable attention to detail for correct punctuation and formatting!

    Note: Reference lists should only include sources that you actually used *in-text references* for in your report (as opposed to a bibliography, which includes all sources that you used, but did

not cite using in-text referencing).

Preparation   Review weeks 1 to 4 of the study materials.

Textbook references:

- Chapter 1 'Orientation to Academic writing' and
- Chapter 5 'Referencing'

Submission   • Submit 1 document only

- See the 'Assessments' section of Learnline for instructions.

Assignment 2: Project Proposal

Deliverables	***Approx 1000 words*** *(excluding references, title page, table of contents).*
Due Date & Value	*See Assessment Overview in CUC 106 Learnline site.*
Marking Criteria	See Assessment Overview in CUC 106 Learnline site.

Task Overview

Relevance to Project

In this assignment, you create a plan for carrying out the Design Project selected by your group. It will include research, design, and group management aspects. Importantly, you will describe the basic design concept chosen to proceed with. The plan will be useful to you as a roadmap for completing the project.

Description

This assignment is a project proposal. In the proposal, you are required to state your proposed Design Project, and describe:

- What exactly your design project is setting out to achieve
- Why your design project is useful and suitable
- The basic design concept you have chosen
- The project management aspects required to ensure success

You are encouraged to:

- use the sources & research from Assignments 1A & 1B
- refer to other sources to extend your knowledge base
- work as a group to get the best result

At the end of this activity, you should have a clear idea of what is required to complete your Design Project, and how to get there.

Requirements

Your assignment needs to be presented professionally using the following format:

- Single document, MS word or PDF format.
- Include your names, student numbers, and page numbers in the header/footer of each page of the document.

Use the following structure as a guide for your research report:

PTO

1   Assignment Cover Page

2   Title page, with:

   (i)   Design Project title

   (ii) Group details in a table, listing names, student numbers, and the role each group member had for this proposal

3   Table of contents

4   Introduction, with:

   (i)   Project Aim – 1 or 2 sentences detailing what your design project is setting out to achieve.

   (ii) Project Justification - an overview of the context and the problem/situation the design project looks to solve. This explains in 1 or 2 paragraphs why the project is needed, and why the chosen approach is appropriate.

   (iii) Project Scope – inclusions, exclusions, constraints, assumptions, and key deliverables of the project. (Important to get right!)

   (iv) Purpose of the Proposal – in 1 or 2 sentences, describe how this specific document relates to your project, and what it covers.

5   Body of Report, logically organised into headings that cover:

   (i)   Background – Describe the following:
         (NOTE: You're encouraged to re-use parts of Assig 1B here, but you may need to do further research as well)

         (a)   The issue or problem your design project is looking to address. You need to provide sufficient details to prove that your project is not misguided, ie. that you understand the problem & context. Don't just *list* the details – explain to the reader *what they mean* for your design project.

         (b)   Existing approaches / products / technologies you have discovered that might be applicable here (how & why?).

   (ii) Design Concept – Describe the following:

         (a)   The basic design concept you have chosen, including *why*. Start with an overview. Diagrams or sketches would be helpful. This does NOT have to be detailed design! The design concept should show clearly what the rough arrangement is, and how & why it will work.

         (b)   Some specific component alternatives you are considering *within* this design concept (not instead of it), but require further research to decide between. Eg. Designing a composting toilet, you're not yet sure what kind of pan to use, but you have narrowed it down to 3 specific types.

(c)   Any issues that need to be investigated further to decide on specific components, and determine feasibility, ie. 'check the fit' (e.g. possible environmental / cultural / technical issues)

(iii)   Model Construction – Describe the following:

(a)   How a model of the design might be constructed/produced, including details of the major materials and equipment that will be needed (overview, not detailed to the number of screws etc).

(b)   An approximate costing of what you need to spend to create the model (these should not be more than about $25 per group member).

(iv)   Project management details:

(a)   Weekly schedule: a table showing what each group member will do when, including project milestones.

(b)   Communication plan: how you plan to communicate as a group (e.g. meetings, via email, learnline group for externals etc). Expected response time to contacts etc should be included.

(c)   Risk plan: identification of the major risks and plans for dealing with them.

6   Conclusion

7   References
Note: Must be CDU Harvard method, with correct formatting.

PTO

Preparation   Contact your group to discuss and plan your project. As a group, you first need to agree on a project idea, and write the aim and scope.

Once you have written the project aim and scope you can then divide the project into **3 roles**:

- Group coordinator/editor: responsible for coordinating the various project deliverables and ensuring the professional presentation of all components.

- Researcher: responsible for investigating the issues for the project and writing them up.

- Designer: responsible for designing, producing and writing up the model.

For each project deliverable (e.g. proposal, final report) there is a group component and an individual component based on the different roles.

For the project proposal the **group responsibilities** are:

- To write the project aim and scope (discussed above)

- To allocate out the individual responsibilities

- To work out the schedule to complete your various tasks (being mindful of the project milestones)

- To devise your communication schedule

- To complete your risk plan

For the project proposal the **individual responsibilities** for each role are:

- Researcher: responsible for writing the background research in the body, including identifying issues for further research. Includes working with the designer to prove the design will fit.

- Designer: responsible for writing the sections on design concept & model, including the costing.

- Coordinator/editor: responsible for combining the parts and the overall report presentation (ensuring it has a title page etc). This member will be responsible for the background part in the introduction, conclusion and reference list.

Submission
- Submit 1 document only
- See the 'Assessments' section of Learnline for instructions.

Assignment 3a: Construction of a model

Deliverables	*A physical model, representing your design*
Due Date & Value	*See Assessment Overview in CUC 106 Learnline site.* Note that Value differs depending on Group Role.
Marking Criteria	See Assessment Overview in CUC 106 Learnline site. *Note that Criteria differ depending on Group Role.*
Submission	• Internal Students: Bring the model to class in the week it's due, and be prepared to briefly explain the key aspects of the model in front of the class. • External Students: Submit a single file of **either** a video (avi/mpeg/wmv), **or** a PDF/Word/Powerpoint document containing photos of your model, including a brief explanation of the key aspects of the design.
Task Overview	In this assignment, you create a physical model of your proposed Design. One of the aims of constructing a physical model is to determine whether or not your idea (design) will work as-is, or whether modifications will be required.
Requirements	Given the diversity of the project topics, the model may take a variety of forms. However, the guidelines below should be followed: • The model must be a physical, 3-dimensional representation of your proposed design (ie. NOT drawings, although these would be useful for planning, and for the Final Report). • It does not have to be fully to scale, or functional. Most importantly, it should clearly demonstrate the concept of your design - including layout, arrangement, and general construction. • The emphasis in marking is on demonstrating and communicating the design concept, not just on the level of construction skills demonstrated.
Group Roles	This assessment will be divided between the roles as follows: • Group coordinator/editor: does not need to be involved directly (can be starting on the Presentation) • Researcher: responsible for ensuring that the model/prototype is consistent with the research and project description • Designer: responsible for sourcing the materials (though costs should be split) and building the model/prototype.

Assignment 3b: Project Presentation

Deliverables	*A presentation about your project* *Internals: 6 minute oral presentation with PowerPoint slides* Externals: 8 – 12 PowerPoint slides with notes
Due Date & Value	*See Assessment Overview in CUC 106 Learnline site.* Note that Value differs depending on Group Role.
Marking Criteria	See Assessment Overview in CUC 106 Learnline site. *Note that Criteria differ depending on Group Role.*
Submission	• Internal Students: Oral presentation during class time • External Students: Submit Powerpoint via Learnline
Task Overview	Present your design project to the class group in a formal oral presentation. The purpose of the presentation is to communicate why your project is a good idea. As a group, try to sell your idea to the audience. Your presentation should not be a summary of your final report - it does not need to include all the details or be as comprehensive in its coverage. All students need to participate in the presentation.
Requirements	Your presentation could include: 1 an overview of the chosen project, including the identified need and relevance of design 2 an overview of the design 3 how the design might be realised (e.g. construction method) 4 any constraints/issues surrounding the design 5 a demonstration of how the model/prototype works. *The presentation is to be made as a group.* ***Internal students****: will deliver the presentation in the workshop. All students **must** talk during the presentation or receive no credit.* ***External students****: will prepare a PowerPoint presentation. Use the notes section of the slide to write the script that would be read aloud if the presentation was delivered. Ensure in the notes, you indicate which group member would be speaking/ and thus has written the content of the notes for that slide.*

Group Roles   The group is responsible for the following aspects of this task:

- Determining the content of the slides
- External: writing the notes sections
- Internal: delivering the presentation

It is strongly suggested that all students (internal and external) use the notes view of PowerPoint to prepare their aspects of the presentation. Clearly indicate here who is responsible for each slide's content. External students **must** do this.

This assessment will be divided between the roles as follows:

Group coordinator/editor: Responsible for the creation of the slide show - overall look and feel, organisation, and appearance of the slides.

Researcher: Participates in the group aspects of this task

Designer: Participates in the group aspects of this task.

Note that your mark will consist of the group component and your individual mark. To qualify for the group component make you must get at least 40% for the individual component (across Assignment 3a, 3b and 3c)

Assignment 3c: Final Report

Deliverables	*Approx 2000 – 3000 words*, ***up to 4000 words max*** *(excluding references, title page, table of contents, appendices).*
Due Date & Value	*See Assessment Overview in CUC 106 Learnline site.* Note that Value differs depending on Group Role.
Marking Criteria	See Assessment Overview in CUC 106 Learnline site. *Note that Criteria differ depending on Group Role.*

Task Overview	**Description & Relevance to Project**
	Write a report that describes your design project. It should be a 'stand-alone' document presenting your design, and demonstrating its feasibility & suitability.
	It might help to imagine it's for submission to a potential funding body such as a government or a Non-Government Organisation, who would use it to decide whether to fund your design.
	NOTE: You're encouraged to re-use parts of your previous assignments for this Unit, but it is expected that improvements will have been made where needed.

Requirements	Your report needs to be presented professionally using the following format:

- Single document, MS word or PDF format.

- Include your names, student numbers, and page numbers in the header/footer of each page of the document.

Use the following structure for your report, with sub-headings as appropriate:

8   Assessment Cover Sheet

9   **Title page**, with:

  (i)   Design Project title (ie. "Design of a …")

  (ii) Group details in a table, listing names, student numbers, and the role each group member had

10 Contents Page

11 **Introduction**, with:

  (i)   Project Justification – 1 or 2 paragraphs that 'set the scene' for your project and why it is necessary.

  (ii) Project Aim – 1 or 2 sentences detailing what your design project sets out to achieve. (Be quite specific).

  (iii) Project Scope – inclusions, exclusions, constraints, assumptions,

and key deliverables of your design project.

    (iv)   Purpose of the Report – in 1 or 2 sentences, describe how this specific document relates to your project, and what it covers.

12 Background

    (i)   The issue or problem your design project is looking to address. You need to provide sufficient details to prove that your project is not misguided, ie. that you understand the problem & context. Don't just *list* the details – explain to the reader *what they mean* for your design project.

    (ii)   Existing approaches / products / technologies you have discovered that might be applicable here (how & why?).

13 Evaluation of Alternatives

(Note: Depending on what alternatives you considered, it may make more sense to include this section before, within, or after, the 'Design Concept' section. This is up to you.)

    (i)   Briefly describe the alternatives that were evaluated using the Decision Matrix

    (ii)   Briefly explain & justify the criteria, rankings, weightings and rating schemes that you used in developing the Decision Matrix.

    (iii)   Present the final Decision Matrix developed for the evaluation

    (iv)   Provide a summary and analysis of the outcome (1-2 paras).

14 Design Concept, using suitable sub-headings:

    (i)   A description of your design.
You should include whatever pictures of the model and/or sketches and/or drawings you think convey your concept best. Start with an overview, then discuss the various aspects / components in more detail.
Mention general construction, materials, functionality, required equipment, etc.

    (ii)   A description of the specific target / users of your design, including how the design would be used to meet their needs. ie. Who would use your design, what for, and how? This is where you establish the suitability & fit of your design.

    (iii)   Estimated final costs of the 'real-world' design (not the model/prototype) in Australian dollars. Costs need only be approximate for large-scale projects, but remember estimates always need some form of justification or basis.

    (iv)   Discussion of the feasibility & sustainability of your design, with key areas of strength & weakness (or uncertainty) identified.

    (v)   Known limitations & possible improvements for your design

15 Conclusion

16 **References**

Must be CDU Harvard method, with correct formatting.

17 **Appendix A:** Reflection on Project Management (300 – 400 words)

(a) For each role, what was the most successful aspect of the management of your project/group? Why?

(b) For each role, what was the major difficulty you faced with the management of the project/group? What steps could you take to avoid this in future?

Preparation

For the final report the group responsibilities are:

- To write the reflections on the project management (Appendix A)

For the final report the individual responsibilities for each role are:

- Group coordinator/editor: the introduction, evaluation of alternatives using the Decision Matrix, and conclusion. As always the coordinator is also responsible for combining the parts and the overall report presentation (ensuring it has a title page etc).

- Researcher: background, description of the target / users of the design and how it would be used, discussion of feasibility & sustainability of the design, and reference list.

- Prototype designer: Description of the design, the costs, and the limitations & recommendations for improvement.

Submission

- Submit 1 document only

- See the 'Assessments' section of Learnline for instructions.

NOTE: To qualify for the group component mark you must get at least 40% for the individual component (across Assignment 3a, 3b and 3c).