



University of NSW Project X



SUMMARY FOR BENCHMARKING

How well is interdisciplinary learning supported by the assessment design?

This unit introduces students from a range of disciplines to cross disciplinary approaches for art & design through an online unit. This unit focuses on the development of cross disciplinary project proposals. Students identify themes and allocate themselves to teams for further work.

How well does the assessment design fit the ID cohort?

Does it fit the level of student expertise?

This research-led approach aims to introduce students to interdisciplinary masters level study. Considerable independent work is expected.

Does it respond to the range and style of cohort learning expectations? This broad and scaffolded analytical approach is applicable to wide range of learning approaches.

How well does the assessment design align to intended ID learning outcomes?

Do the tasks and criteria sufficiently support development of students' disciplinary practices ?

The breadth of knowledge about ID approaches developed through the previous unit/subject/course (MM5) is brought to students' individual approaches.

Do the tasks and criteria sufficiently support development of students' interdisciplinary skills?

The focus is on expansion of individual practice through ID project application, although projects may be completed as part of a team. ID skill development is targeted through this approach.

Do the student and staff roles influencing the direction / aims of the tasks support the ID learning outcomes?

Tasks explicitly require development of own brief via an iterative development process. This is led by the student with feedback and input from staff and students from a variety of disciplinary backgrounds.

Do the student and staff roles influencing the process / development of the tasks support ID learning outcomes?

Tasks explicitly require development of own project outcomes, building on a brief developed by the student according to his/her own interests or identified by the group. Feedback draws heavily on cross-peer group interaction, and group work where relevant, and peer comment via online environments.

UNIT/SUBJECT/COURSE OUTLINE + OUTCOMES

This course is available from 2nd year through to masters.

Large-scale outdoor installations, follies, and symbolic structures, have a long tradition of raising public awareness, sending signals, and representing ideas. This project is to develop a Scheme Design for an installation, sculpture or other intervention, which will serve as a symbol an international conference for design education. The outcome will convey the value and significance of both design and design education, and particularly their cross-disciplinary, (or cross-faculty) natures. By carrying out a real design (and construction) project within a 3-Faculty teaching course, we will be celebrating both the design process and the design education process, and both in their cross-disciplinary dimension. Local and international students are welcome to participate from a wide range of disciplines including art, design, engineering, architecture etc.

Learning Outcomes:

- Students will develop an understanding of the multi-disciplinary processes required for the design of a significant structure relevant to their other coursework.
- Be able to work in multidisciplinary design teams
- Be able to demonstrate through group work and a single assessment their communication skills in a multidisciplinary design team.

UNIT/SUBJECT/COURSE ACTIVITIES & ASSESSMENT TASKS

| Assessment 1 – Interim Jury | Individual work (20%) Group Work (20%) |
|-----------------------------|--|
| Assessment 2 – Final Jury | Individual Work (20%) Group Work (20%) Parity Faculty Grade (10%) Peer Assessment (10%) |

ASSESSMENT CRITERIA / MARKING

- Application of research to project
- · Evidence of understanding the aesthetic/environmental impact of project on the immediate site
- Presentation of written and visual tasks
- Team / Peer Assessment
 - Proposed as communicated by
 - Developed scaled site model
 - Developed scaled joint/junction model including colour chart and samples
 - Submitted A1 colour perspective poster



A Multi Disciplinary Design Workshop

ConnectED 2010 - the Brief Project X³: Multi-Disciplinary Design Studio

Faculty of Engineering Multi-Disciplinary Design Centre, Kensington Campus.

7th to 22nd January 2010,

Summary

To develop a Scheme Design for an installation, sculpture or other intervention, which will serve as a symbol for ConnectED 2010, the Design Education Conference to be held at UNSW from 28June-1July 2010.

Introduction

Large-scale outdoor installations, follies, and symbolic structures, have a long tradition of raising public awareness, sending signals, and representing ideas. They include some of the most imaginative and inspiring structures created by artists and engineers over the millennia. The Sphinx, the Eiffel Tower, Tatlin's Monument, the Statue of Liberty, all fall into this tradition, not to mention recent examples like the Angel of the North, Waste Man, Christo's fabric wraps, and even the Big Pineapple.

They have in common the desire to celebrate and communicate an idea, a movement, or an event. They are built to last for widely differing time spans, and they are made from widely differing materials.

The event that Project X will celebrate, is ConnectED 2010, the international conference for Design Education, to be held on the UNSW Kensington Campus (at John Niland Scientia building), in July 2010.

According to the ConnectED 2010 website,

"Creativity and innovation are at the core of design, and collaboration across disciplines is central for design concepts to become reality, whether working in the engineering, built environment or design professions. The emerging field of multidisciplinary design provides a challenge to the concept of "discipline", and it offers opportunities for new models of design education. ConnectED 2010 is a platform for the discussion of research and strategies that address the promise and possibilities of design education that crosses disciplinary boundaries."

Project X therefore represents an excellent opportunity to convey the value and significance of both design and design education, and particularly their X-disciplinary, (or X-faculty) natures. By carrying out a real design (and construction) project within a 3-Faculty teaching course, we will be celebrating both the design process and the design education process, and both in their X-disciplinary dimension.

FBE, COFA and FoE are the key players in UNSW's design community, and they are also the host Faculties for the Conference. The Design Studio will be staffed by



representatives from all three Faculties and student teams will, as far as possible, comprise representatives from the three Faculties.

Our task in the time available is to work together to produce Scheme Designs that will be evaluated within the Course, and then considered separately by the Project X Jury. This Jury will select the Winning Design, which is intended to be developed and constructed by students in another Course: Project X: Multi Disciplinary Construction, which runs in Session 1, 2010.

Client

Our Client is the Organising Committee for ConnectED 2010. See the web site for further details (http://www.connected2010.com.au/), and to inform you of our Client and to start to appreciate our Client's needs and aims. This is a contemporary multi-disciplinary educational conference on design. What does that mean to you?

The Project X Jury may choose more than one Winning Design to be taken forward for construction in Session 1 2007, will comprise representatives from:

- the ConnectED 2010 Organising Committee
- UNSW
- Sydney's design community

Winning Designs

While there is a bona fide intention to build a structure to celebrate ConnectEd 2010 in Session 1 '07, UNSW may elect not to arrange for the construction of the structure represented by the Winning Design(s), or any structure. Also, student designs that are judged by the Project X jury, are subject to the following conditions: that intellectual property rights including copyright, and moral rights, in the designs, are assigned to UNSW.

Purpose/Envelope/Functionality

It is not intended that the structure will have a practical function. An exhibition of the design and construction process is now planned at a separate location.

ESD Criteria

The effects of built environment activity can no longer be ignored, for any built project. To that end one of the major design tenets will be the LACK of our impact on the environment, or else the existence of a favourable impact. Your design should examine this in several parts:

Materials and their source, Fabrication, Erection, Disassembly Disposal or recycling Returning the site to its previous state.

You should consider how close your design is to a 'zero emissions' design. You will need to research and confirm what zero emissions might mean in your case. There may be student teams that will contemplate going further of course, either practically or symbolically. Some argue that there is no more important issue facing designers today, than response to climate change, and that it requires profoundly



multi-disciplinary design solutions. Does that place special responsibilities on the agenda for X-discipline design and for the teaching of design?

Scheme Design

This is a term taken from the practice of architectural design. For our purposes it means the status of your design when your 'scheme' is clear, but before you commence 'detailed' resolution of the design. That is, your models / drawings / written descriptions and specifications have been developed to the point where all major questions have been answered.

This will require, at least, a description of design intent, and how and how well the design meets the basic purposes of the Brief, a description and discussion of its form and shape, its placement and siting, its ESD response, its geometry, materials, and surfaces, and its constructability in terms of structural behaviour and stability, jointing proposals, and proposals for prefabrication / construction / removal / site repair. There will be other items, depending on your specific design.

For evaluation, there will of course be other deliverables describing your research and process – see Course Outlines.

Materials

Whatever materials you choose to use in your design, they should take into account the Brief assumption that the design is to be fabricated, constructed (then removed and disposed of) as and where described, and within the proposed programme, and without requiring an extravagant budget. These requirements will be included in the criteria for evaluating your Course submission.

Judging for the Winning Submission will be a separate process, beyond evaluation for the Course. If you wish to have a realistic chance of your design becoming the Winning Design, you will need to pay attention in addition to actual budget constraints, which will be advised at the commencement of the Course.

Signage

Designs must take account of the requirement that all Materials Sponsors will be clearly acknowledged in one or more prominent locations on or near the structure.

Constructability

Your design must be capable of:

- being carried through to detailed design and justification (in a later Course)
- being fabricated and constructed
- standing safely on the site for a period of 4 weeks
- being disassembled, removed, and disposed of or recycled.

You should assume that structural verification of your design by analysis and 'proof testing' will be needed later, during the detailed design and justification stage. This will certainly be needed for the Winning Design, which may need to be verified to BCA (Building Code of Australia) requirements.

For present purposes, you need to research your design proposal sufficiently to reassure us that it can be developed into a buildable and stable structure. This will involve some investigation of your proposed materials and their structural



characteristics, potential prefabrication and jointing methods, and preliminary investigations of stability.

Site

The area on which the structure may be sited is outlined on a plan of UNSW Kensington Campus that will be available at commencement of the Course. It extends generally along the line of the University Mall from the west face of the John Niland Scientia building, to the Mall steps just west of the Red Centre, and includes open spaces to the north and south of the Mall, eg between the Electrical Engineering and Mechanical Engineering Buildings, but not Science Square opposite the Red Centre.

Your design may require a very small footprint within that area, or it may spread over a significant portion of the area, or anything in between. It might be a 'connecting' structure, device or visual element that links some of the sub-spaces, or it may be stand-alone within any part of the site area. For the period of 16-20 July we will need to share the site with the tents and displays that will be mounted for 'O Week', and a negotiation will be needed in due course with the organisers. For the present, we will assume that there will be a degree of flexibility in the layout of the relatively small structures used for O week

There are several existing features within the site area that have major significance in the life and heritage of the campus, and whose safety and security must not be compromised in any way. The Bronwyn Oliver sculpture ('Globe') is a prime example.

Other Constraints / Opportunities

Traditional Owners:

UNSW has affirmed reconciliation between all Australians including indigenous Australians. As we contemplate working on and about the site, we might well reflect on the Cadugal people who are the traditional custodians of the land.

Land and Land Usage:

UNSW Kensington campus has a unique topography. This might be mapped and utilised by the design teams.

Regarding footings and anchorage that may be needed for your structure, we will be able to make limited penetrations into gardens and lawns, subject to agreement with UNSW Facilities Management, and provided we have clear and reliable plans for full reinstatement. Regarding anchorage, use of mass (water, bricks, sand), may be preferable methods for providing resistance against wind uplift, overturning and sliding.

UNSW Facilities Management are supportive of the Project, and have given agreement-in-principle for a temporary structure. Their final sign-off will be required however for construction of the chosen scheme.

The safe passage of pedestrians, and service and emergency vehicles, along and across the Mall and its surrounds, will be an important condition of acceptable siting, particularly for any schemes that touch the Mall itself. Access and egress to and from building entry and exit points will need to remain unimpeded.



Buildings and Connection to Buildings:

Because of potential complications regarding structural certification, it is not envisaged that designs will rely on the application of loads to the structures or facades of existing buildings surrounding the site.

Nevertheless, if an otherwise excellent design relies on the application of some small loads to existing structures, consideration may be given to (future) investigation into the feasibility of achieving this.

Orientation:

This is to be determined by the respective designs teams. See the attached readings and reflect on how important orientation is.

Aspect:

The UNSW Kensington Campus' topography might lend itself to present the viewer or user with some unique views of the campus and or environs

Ideas:

No limit.

Get to know your team and expect the impossible.

OH&S

The construction of Project X will involve people, whether they are a user or an observer. We must not endanger them in either case.

Power:

It is not envisaged that night lighting will be provided for display purposes, unless the design relies on it for a specific reason. In that case, the design would carry a risk regarding budgeting for provision of the necessary power and lights.

Temporary power will be available if necessary for construction and disassembly purposes.

Water:

It is not envisaged that water or drainage will be connected to the Winning Design. Special cases can of course be made, but with attendant budgeting risk. This applies for any other site services that may be envisaged by the design.

 Note: See Toolkit for Carbon Neutral Developments bedzed in the UK and the work of the architect Bill Dunster

Part 1

http://www.bioregional.com/news-views/publications/bedzed-toolkit-forcarbon-neutral-developments-part-1-construction-materials-report/

Part 2

<u>http://www.bioregional.com/news-</u> views/publications/toolkitforcarbonneutraldevelopmentspart2oct03/