MM17

University of Sydney
Biomimicry in Practice

Innovative, Critical Aware, Collaborative, Self Motivatived, Developed, Competent

| Students | Expertise |
| | ID cohort |

| Learning Outcomes | Disciplinary focus |
| | ID skills |

| Pedagogy | Task aims |
| | Task process |

Individual work / Group work
- Prep Research
- Project Work
- Presentation
- Peer Review
- Self Reflection
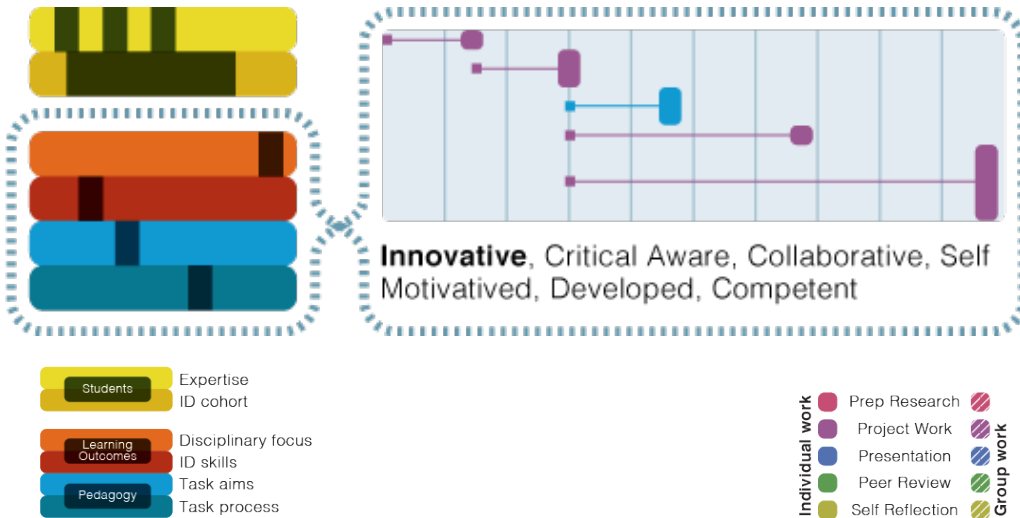
SUMMARY FOR BENCHMARKING

How well is interdisciplinary learning supported by the assessment design?

Deepening and extension of disciplinary knowledge and application is supported via a wide-ranging approach to an interdisciplinary thematic. This is supported by a balanced approach to student-led learning. The key ID contribution is from a range of perspectives delivered by staff acting as 'consultants' to assist innovative development of students' individual projects.

How well does the assessment design fit the ID cohort?

Does it fit the level of _student expertise_?
Students enrolled across a range of levels are supported by a flexible approach and the incorporation of new influences within a disciplinary framework.

Does it respond to the _range and style of cohort learning expectations_?
General bias towards art practice learning culture, however this is framed via a design studio approach. The range of disciplines included is broad, and the translation of ideas relies on the development of creative ideas toward a themed agenda.

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

Do the _tasks and criteria_ sufficiently support development of students' _disciplinary practices_?

Extend knowledge base and design thinking practices in relation to each student's particular discipline.

Do the _tasks and criteria_ sufficiently support development of students' _interdisciplinary skills_?

Development of interdisciplinary skillset such as collaboration etc. is not the focus of the unit. The key ID contribution is from a range of perspectives delivered by staff acting as 'consultants' to assist innovative development of students' individual projects.

Do the student and staff roles influencing the _direction / aims_ of the tasks support the ID learning outcomes?

Balanced: a structured brief provided by staff is open to interpretation for a range of outcomes determined by the student.

Do the student and staff roles influencing the _process / development_ of the tasks support ID learning outcomes?

Balance of both student and staff input to the generation and development of the assessment outcome.

UNIT/SUBJECT/COURSE OUTLINE + OUTCOMES

This unit of study examines how artists are inspired by elements in nature to develop more sustainable approaches to their practice. By exploring materials and processes relevant to your own practice you will develop artworks using new understandings of sustainable art practices using examples of biomimicry and sustainability. These include formal concepts of lightness derived from Haiku poetry, a type of creative minimalist realism that strives to use the least amount of materials and energy to communicate ideas. Through active engagement in studio and research classes, field trips and online image bank collecting and discussion, you will develop a series of individual studio projects, combining your current skills with experiments in new materials and processes, towards the realisation of a final work.

Learning Outcomes:
- Demonstrate rigorous and independent thinking
- Communicate your ideas creatively and effectively using the minimum of materials and processes for each work
- Demonstrate and in-depth understanding of contemporary art practices, histories and theories in relation to biomimicry
- Use appropriate technologies and media to effectively gather information to develop your project
- Better able to critically evaluate information around the approaches of other artists and designers

UNIT/SUBJECT/COURSE ACTIVITIES & ASSESSMENT TASKS

2D Drawing (10%)
Experimental Model (20%)
Found Object Presentation (20%)
Online Forum (10%)
Final Artwork (40%)

# ASSESSMENT CRITERIA / MARKING
(Generic faculty criteria applied)

- **Competence** This refers to the development and application of practical and intellectual competency and skills appropriate to the unit of study.
- **Development** Students are expected to develop the ability to initiate and realise their own objectives for studio practice and theory work within the requirements of the unit of study and their developing knowledge of its historical and theoretical context. Students are expected to improve their abilities, competency and understanding through a semester, and in successive semesters.
- **Critical awareness** Students are expected to develop a critical awareness and knowledge of the unit of study and the ability to objectively evaluate their own work, select appropriate methods and materials and to formulate and evaluate ideas/methods.
- **Innovation**
  Innovative and imaginative thinking, appropriate to the unit of study, is a measure of the quality of ideas underlying a student's work and of development in their studies.
- **Commitment** Commitment and self-motivation are important to a student's successful study in the unit of study. The level of commitment to study in the academic program is reflected in:
  - o The development of self motivation applied to individual, group or assignment-based work
  - o The degree of participation in all units of study including group work, project submissions, essays and discussions
  - o The development of a consistent work pattern
  - o The regularity and punctuality of attendance and submissions.

CAEL2057 Biomimicry in Practice
Semester 1, 2015
Unit of Study Outline
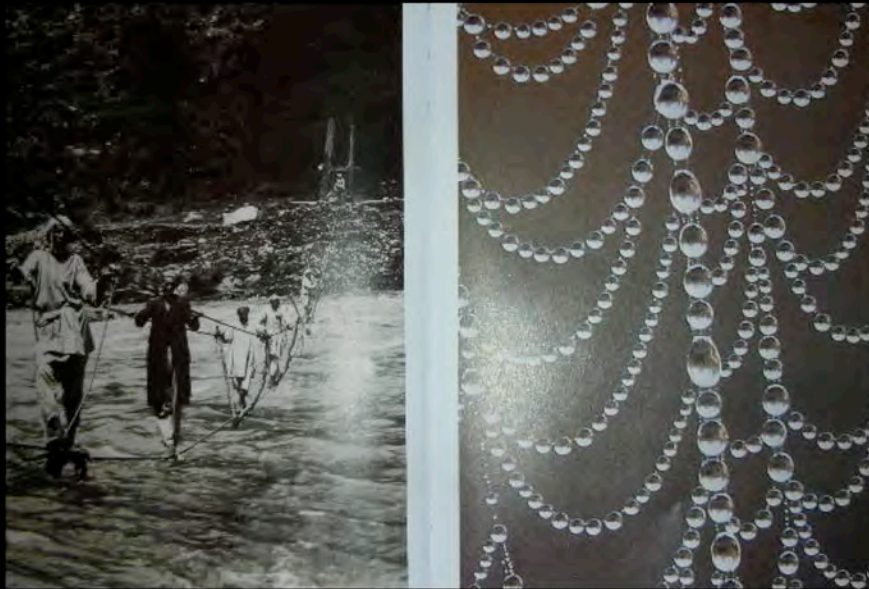
This Unit of Study Outline MUST be read in conjunction with the relevant University policies and Faculty resolutions on assessment, attendance, late work, plagiarism, and special consideration (available at http://sydney.edu.au/policies/ and http://sydney.edu.au/handbooks/sca/rules/faculty_resolutions.shtml). In determining applications and appeals relating to these matters, it will be assumed that every student has taken the time to familiarise themselves with these key policies and procedures.

CAEL2057 Biomimicry in Practice

UNIT DESCRIPTION

This unit of study examines how artists are inspired by elements in nature to develop more sustainable approaches to their practice. Biomimicry looks to nature's innovative and efficient solutions to solve human problems. By exploring materials and processes relevant to your own practice, you will develop artworks using new understandings of sustainable art practice using principles of biomimicry and sustainability. These include formal concepts of lightness derived from Haiku poetry, a type of creative minimalist realism that strives to use the least amount of materials and energy to communicate ideas. Through active engagement in studio and research classes, field trips and online image bank collecting and discussion, you will develop a series of individual studio projects, combining your current skills with experiments in new materials and processes, towards the realisation of a final work.

OBJECTIVES AND OUTCOMES

SCA generic attributes of graduate be found at:
http://sydney.edu.au/sca/current_students/graduate_attributes.shtml

On successful completion of this unit of study, students are expected to:

1.	At the end of this unit you should be able to *demonstrate an in-depth understanding of contemporary art practices, histories and theories in relation to biomymicry and sustainable approaches to art practice that inform your own creative processes*
2.	*You should be able to communicate your ideas creatively and effectively, especially using the minimum of materials and processes for each work, echoing a sustainable approach.*
3.	*You should be able to demonstrate rigorous and independent thinking around sustainable art practice and the works you develop, and the works of others in the group.*
4.	*It is hoped that you will develop an ability to engage critically with social, cultural and ethical issues and apply local and international perspectives to extend your creative practice using the principles of biomymicry and sustainable practice.*
5.	*You should also be able to use appropriate technologies and media to effectively gather information to develop your projects, using the internet and other media sources, such as journals.*
6.	*It is hoped that through this unit, you will be better able to critically evaluate information around the approaches of other artists, and designers in order to develop an understanding of this new the context for your work.*

LEARNING STRUCTURE

Handbook: 1 x 3 - hour studio class/week

		Per week	Per semester
Face-to-face teaching*	Total number of lecture hours		
	Total number of tutorial or seminar hours	1	12
	Total number of studio practical hours	1	12
	Total number of technical workshop hours	1	12
Independent study*	Total number of on-line hours	1	12
	Total number of self-directed learning hours	5	72
	Total Learning Commitment	**Hours***	**Hours**

*Face-to-face teaching includes academic led classes, technical workshops or demonstrations please see timetable for accurate times of face to face .
**Independent study incudes directed and self-directed learning.

The university allocates credit points (usually 6) to each unit of study in your degree program. 1 credit point is approximately equal to a minimum of 1.5 to 2 hours of student effort (i.e. time spent engaged in activities related to that unit of study) per week. In 6 Credit Points, this time is split between face-to-face time (for example, 2 hours), and independent study time (7 hours). (i.e. a total of 117-156 hours for the semester). You should regard the outside class and personal study time allocations as a reasonable indication of the amount of time that is expected for satisfactory performance in the unit of study; however you are encouraged to spend additional time in order to perform at a higher standard.

You can log on to the eLearning system via MyUni. Alternatively, you can bookmark the login page directly at http://elearning.sydney.edu.au/. Log in with your unikey.

If you have any difficulties logging in or using the system, visit the Student Help area of the Sydney eLearning site, http://sydney.edu.au/elearning/student/.

LEARNER PREPARATION

Pre-requisites	None
Co-requisites	None
Computer access requirements	Email and internet access essential
OHS	Dust mask and safety glasses closed in shoes – no thongs

UNIT SCHEDULE

Week	Week beginning	Lecture/Seminar
1	2 March	Introduction – lecture, assessment and program outline - in class exercise
2	9 March	Studio class – Assessment task 1 Due + studio development class – Intro project 2
3	16 March	Student presentation and critique then refinement of Assessment task 2 – in class studio
4	23 March	Presentation, assessment and documentation of assessment task 2 Experimental model (2d/3d/4D)
5	30 March	Field visit (inner west …bring transport if possible –or car pool) walking shoes please
	6 April	Common week no classes
6	13 April	Found object presentation and assessment task 3 - in class discussion and documentation and refinement of collection
7	20 April	Review Week – No elective classes (studio is open if you want to come in and use it)
8	27 April	Studio class – demonstrations Introduction and context seminar to online assessment task 4
9	4 May	Lightness object final assessment task 5 - 3dHaiku workshop – concept development session – group feedback - scoping images prep for next week
10	11 May	Studio class – demonstrations Online forum, comments and images sharing due for completion assessment task 4
11	18 May	Ongoing object development – feedback and group discussion
12	25 May	Ongoing object development – presentation discussion – installation issues
13	1 June	Assessment of final artwork task 5

This detailed information provides background to the MM summary.
The content was originally produced for the delivery of this unit/subject/course.
Some content not directly relevant to the Multiple Measures project has been edited/ removed.

Semester calendar can be found at http://sydney.edu.au/about/dates.

ASSESSMENT TASKS AND DUE DATES

Handbook: observation drawing (10%) and experimental model (20%) and found object presentation (20%) and final artwork (40%) and online forum (10%)

Task	Component		Due date	Relative Weighting %
1	2d drawing	*	DUE WEEK 2	(10%)
2	Experimental model	*	DUE WEEK 4	(20%)
3	Found object presentation	*	DUE WEEK 6	(20%)
4	Online forum	*	DUE WEEK 9	(10%)
5	Final artwork	*	DUE WEEK 13	(40%)

* Denotes the assessment must be passed to satisfy the requirements of the course.

Unit Overview

Welcome to Article Lightness – this course explores a process, better not to think or plan works ahead to far, all projects will feed into final works.

The following concepts will be explored in the coming weeks – they are designed to offer a range of fundamental concepts for consideration and practice based engagement

- *Objects* and their relationship to the world.
- *Light* as a phenomena, tool or component.
- *Sustainability* of your practice to ensure your future.
- *Material and process* knowledge brings new work, and allows for more resolved work.
- *Colour* as a form of light, another phenomena or material and part of the toolkit of visual communication.
- *Biomimicry* – looking at nature to improve and inspire man made objects.
- *Haiku* a form of creative minimalist realism – using the smallest amount of objects to communicate your idea.

We will look at the world in relation to the history of these ideas, how they were generated and key moments in time in relation to their development.

Over the next 13 weeks we will consider different aspects of these concepts and do in class projects that work in and around them to understand how they can be of use to you.

All assessment tasks will be given in class on or before week 6, they are progressive and sequential, each one building on those that came before it.

All assessment tasks are compulsory and in order to pass, all students need to complete the tasks given each week in class, sometimes there will be weekly homework. The online component is an important part of the course and is also a must for those wanting to pass. Failure to complete a compulsory assessment can result in AF.

The online components will be a discussion page on the unit web page, you will be asked to make comments and ask questions as well as upload images and video or other materials relevant to the program.

Suggested READING REQUIREMENTS – others will be shared in class as projects unfold

Lightness" Julian Vincent 010 Publishers Rotterdam, Bukers and Van Hinte 1999

Pearce, Peter: Structure in Nature is a Strategy for Design. Cambridge, Massachusetts: The MIT Press, 1978

ONLINE COMPONENTS
- worldchanging.com   website by Alex Steffan
- Thecanaryproject.com –Ed Morris art for the environment

ASSESSMENT CRITERIA

You can find the Faculty assessment criteria and grade descriptors at
http://sydney.edu.au/sca/current_students/examination_assessment/examination_assessment.shtml.

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