City University of Hong Kong
Course Syllabus

offered by C School of Creative Media
with effect from Semester A 2017/18

Part I Course Overview

Course Title:	Sustainable Art & Design
Course Code:	SM3726
Course Duration:	1 Semester /13 weeks (3 hours/week)
Credit Units:	3
Level:	B3
Proposed Area: *(for GE courses only)*	☐ Arts and Humanities ☐ Study of Societies, Social and Business Organisations ☐ Science and Technology
Medium of Instruction:	English
Medium of Assessment:	English
Prerequisites: *(Course Code and Title)*	Nil
Precursors: *(Course Code and Title)*	Nil
Equivalent Courses: *(Course Code and Title)*	Nil
Exclusive Courses: *(Course Code and Title)*	Nil

Part II Course Details

1. Abstract

(A 150-word description about the course)

The course introduces students to sustainable values in art and product development by highlighting the responsibility of the artist/designer towards the ecological, economical and social influence of his/her creation.

Ecological sustainability in art and design includes a holistic understanding of production and transportation methodologies and their application in a digital environment. It also includes notions energy efficiency and the use of eco-friendly materials in products and art pieces. Social sustainability in art and design encompasses clear and honest communication of a product, information or art piece and its positive influence on the society.

2. Course Intended Learning Outcomes (CILOs)

(CILOs state what the student is expected to be able to do at the end of the course according to a given standard of performance.)

No.	CILOs[#]	Weighting* (if applicable)	Discovery-enriched curriculum related learning outcomes (please tick where appropriate)		
			A1	*A2*	*A3*
1.	Archive comprehensive knowledge on sustainable art and design and digital design methodologies			√	
2.	Invent sustainable solution for art and design using digital fabrication methodologies		√		
3.	Develop a sustainable design, product or art pieces in scale 1:1			√	√
4.^	Transform basic technical competence into a unique style or personal signature		√	√	√
		100%			

** If weighting is assigned to CILOs, they should add up to 100%.*

[#] Please specify the alignment of CILOs to the Gateway Education Programme Intended Learning outcomes (PILOs) in Section A of Annex.

A1: Attitude
Develop an attitude of discovery/innovation/creativity, as demonstrated by students possessing a strong sense of curiosity, asking questions actively, challenging assumptions or engaging in inquiry together with teachers.

A2: Ability
Develop the ability/skill needed to discover/innovate/create, as demonstrated by students possessing critical thinking skills to assess ideas, acquiring research skills, synthesizing knowledge across disciplines or applying academic knowledge to self-life problems.

A3: *Accomplishments*
Demonstrate accomplishment of discovery/innovation/creativity through producing /constructing creative works/new artefacts, effective solutions to real-life problems or new processes.

^ Negotiated Learning Outcome (NLO) explicitly articulating the elements of Discovery oriented learning.

3. Teaching and Learning Activities (TLAs)

(TLAs designed to facilitate students' achievement of the CILOs.)

TLA	Brief Description	CILO No.						Hours/week (if applicable)
		1	2	3	4			
Lecture	Lecture, In-class discussion and analysis on art and design produced using subtractive and additive manufacturing technologies and solutions	✓	✓					
Lecture	Lecture, In-class discussion and analysis on possible future sustainable art or design solutions using mass customisation and production on demand	✓	✓					
Workshop	Workshop in creating a sustainable art or design prototype (Individual or/ and small group project). Project to be produced in scale 1:1.		✓	✓	✓			

4. Assessment Tasks/Activities (ATs)

(ATs are designed to assess how well the students achieve the CILOs.)

Assessment Tasks/Activities	CILO No.						Weighting*	Remarks
	1	2	3	4				
Continuous Assessment: 100%								
Analysis of current digital manufacturing methodologies in a sustainable context (Individual write up)	✓						15%	
Design Prototype in scaled model using Computer Aided Design Software and laser cut (Individual Presentation)		✓	✓	✓			25%	
Create a fully digital conceived product/design/ artwork that can be produced with international standard using Computer Numeric Controlled production facilities in subtractive and additive technologies (Group Project)	✓	✓	✓	✓			45 %	
Develop a digital marketing strategy and web platform for online customisation, showcase and fabrication. (Group Project)	✓		✓	✓			15 %	
Examination: 0% (duration: , if applicable)								
** The weightings should add up to 100%.*							100%	

5. Assessment Rubrics

(Grading of student achievements is based on student performance in assessment tasks/activities with the following rubrics.)

Assessment Task	Criterion	Excellent (A+, A, A-)	Good (B+, B, B-)	Fair (C+, C, C-)	Marginal (D)	Failure (F)
1. Analysis of current digital manufacturing methodologies in a sustainable context	Capacity for self-directed learning to understand the principles digital design fabrication methods	– High	– Significant	– Moderate	– Basic	– Not even reaching basic level
	ABILITY to explain the methodology and procedures	– High	– Significant	– Moderate	– Basic	– Not even reaching basic level
2. Design Prototype in scaled model using Computer Aided Design Software and laser cut 3. Create a fully digital conceived product/design/ artwork that can be produced with international standard using Computer Numeric Controlled production facilities in subtractive and additive technologies 4. Develop a digital marketing strategy	Ability to explain, in detail and with accuracy the design decisions and qualities embedded within the work.	– Work has strong affective quality and the articulation of personal styles and signature – Excellent appreciation, exploration and/or application of the aesthetic and expressive qualities of the medium – Work raises questions and instill insights about the	– Strong appreciation, exploration and/or application of the aesthetic and expressive qualities of the medium – Ability to create project/ work that demonstrate the processes of thinking and creative exploration – Proper adjustment of plans and	– Basic appreciation and/or application of the aesthetic and expressive qualities of the medium – Limited ability to create project/ work that demonstrate the processes of thinking and creative exploration – Adjustment of plans and strategies in response to	– Marginal appreciation of the aesthetic and expressive qualities of the medium – Marginal ability to create project/ work that demonstrate the processes of thinking and creative exploration – Limited adjustment of plans and strategies in response to resources (time, space, equipment, etc) available	– No appreciation of the aesthetics and expressive qualities of the medium – Fail to create project/ work that demonstrate the processes of thinking and creative exploration – Minimal adjustment of plans and strategies in response to resources (time, space, equipment, etc) available

and web platform for online customisation, showcase and fabrication.		process of conception, creative strategization and production – Innovative exploration by combining knowledge from different disciplines (e.g. mathematics, psychology, physics, anthropology, etc.) to create an inter-disciplinary project – Efficient adjustment of plans and strategies in response to resources (time, space, equipment, etc) available with constructive adjustment	strategies in response to resources (time, space, equipment, etc) available and constructive feedback/ suggestions	resources (time, space, equipment, etc) available		

Note: All A+/A/A- grade assignment should comply with the highest performance of Discovery-oriented learning.

Part III Other Information (more details can be provided separately in the teaching plan)

1. Keyword Syllabus

(An indication of the key topics of the course.)

Sustainable Art, Design and Communication

Digital Design Methodologies, Digital Fabrication

Eco-Footprint

2. Reading List

2.1 Compulsory Readings

(Compulsory readings can include books, book chapters, or journal/magazine articles. There are also collections of e-books, e-journals available from the CityU Library.)

1.	Massive Change, Author: Bruce Mau; 2004
2.	1000 new eco designs and where to find them, Author: Rebecca Proctor; 2009
3.	Sustainable Graphic Design: Tools, Systems and Strategies for Innovative Print Design, Author: Wendy Jedlicka; 2009
4.	http://en.wikipedia.org/wiki/Sustainability
5.	http://inhabitat.com/

2.2 Additional Readings

(Additional references for students to learn to expand their knowledge about the subject.)

1.	https://en.wikipedia.org/wiki/Numerical_control
2.	https://en.wikipedia.org/wiki/3D_printing
3.	Beorkrem, Christopher. *Material strategies in digital fabrication*. Routledge, 2013.
4.	Gary Rohrbacher and Anne Filson, *Make: Design for CNC: Practical Joinery Techniques, Projects, and Tips for CNC-routed Furniture*, Maker Media, 2015

Annex
(for GE courses only)

A. Please specify the Gateway Education Programme Intended Learning Outcomes (PILOs) that the course is aligned to and relate them to the CILOs stated in Part II, Section 2 of this form:

GE PILO	**Please indicate which CILO(s) is/are related to this PILO, if any** ***(can be more than one CILOs in each PILO)***
PILO 1: Demonstrate the capacity for self-directed learning	
PILO 2: Explain the basic methodologies and techniques of inquiry of the arts and humanities, social sciences, business, and science and technology	
PILO 3: Demonstrate critical thinking skills	
PILO 4: Interpret information and numerical data	
PILO 5: Produce structured, well-organised and fluent text	
PILO 6: Demonstrate effective oral communication skills	
PILO 7: Demonstrate an ability to work effectively in a team	
PILO 8: Recognise important characteristics of their own culture(s) and at least one other culture, and their impact on global issues	
PILO 9: Value ethical and socially responsible actions	
PILO 10: Demonstrate the attitude and/or ability to accomplish discovery and/or innovation	

GE course leaders should cover the mandatory PILOs for the GE area (Area 1: Arts and Humanities; Area 2: Study of Societies, Social and Business Organisations; Area 3: Science and Technology) for which they have classified their course; for quality assurance purposes, they are advised to carefully consider if it is beneficial to claim any coverage of additional PILOs. General advice would be to restrict PILOs to only the essential ones. (Please refer to the curricular mapping of GE programme: http://www.cityu.edu.hk/edge/ge/faculty/curricular_mapping.htm.)

B. Please select an assessment task for collecting evidence of student achievement for quality assurance purposes. Please retain at least one sample of student achievement across a period of three years.

Selected Assessment Task