

**City University of Hong Kong
Course Syllabus**

**offered by School of Creative Media
with effect from Semester A 2018 /19**

Part I Course Overview

Course Title: Media Art and the Environment

Course Code: SM3703

Course Duration: One semester

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)

In this immersive course and expedition, students will partner with environmental research organizations to explore technologies to collect data about the environment, and visualize the data to create new media art. The course will innovatively use new computational tools to create art that promotes sustainability and environmental awareness.

Each offering, students will research, prototype and create works directly connected to a selected ecosystem with assistance from research scientists to learn how art and science together can promote green environment. Sophisticated sensor, location and presentation technologies will be used to produce artworks inextricably linked to the natural features of the sites. The ecosystems will be 'read' using computational sensing to measure hidden phenomena and collect scientific data to discover new ways to visualize and understand climate change and dynamic environmental forces.

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. | Apply the art history movement in Land Art as a reference for working with the environment as both an sculptural medium and ecological design. | | ✓ | | |
| 2. | Gain skills in a range of emerging sensing, scanning, projecting, locative and light technologies and demonstrate they can be executed non-invasively in remote sites. | | | ✓ | |
| 3. | Interpret computational data about the environment into new aesthetic forms (visually, sonically, sculpturally, etc) | | | ✓ | |
| 4. | Create a new media artwork that merges the scientific data of new sensing technologies with an expanded understanding of site, sustainability, design, and process. | | | | ✓ |
| 5. [^] | Associate, combine and integrate knowledge from different disciplines (e.g. mathematics, sciences, literature etc.) into course assignments | | ✓ | | |
| | | 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.

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

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.

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 | 5 | |
| Project | Students will present projects and prototypes that reflect new methods of artistic actions taken within art history. | ✓ | | | | | |
| Project | Students will present projects and prototypes that show an understanding of sustainable design | ✓ | | | | | |
| Workshop | Students will travel to a remote site and use emerging sensing technologies to 'read' the environment | | ✓ | | | | |
| Research | Students will partner with science organizations to pursue embedded research in specific ecosystems including the cultural formations, histories and aesthetics. | | ✓ | | | ✓ | |
| Development | Students will present varied possibilities with visualization of collected environmental data and info-aesthetics | | | ✓ | | | |
| Project | Students will create and present an artwork that uses new technologies to better understand the natural environment | | | | ✓ | ✓ | |

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 | 5 | | |
| Continuous Assessment: 100% | | | | | | | |
| Clear, compelling and effective presentations of ideas and concepts. Powerpoints are presented to the class that propose ideas for how data can be collected and reshaped into an artistic expression. | ✓ | ✓ | ✓ | | | | |
| Visually clear and concise new media artworks that show an understanding of sustainable design, a new knowledge of sensing technologies, a background in earthworks in art history, and reveal a new way of looking at the natural environment. | | | | ✓ | ✓ | | |
| Collected datasets that are accurate and offer new perspectives on site and environment | | ✓ | | | ✓ | | |
| Written documentation that shows that they understand the concepts behind their prototypes. | ✓ | ✓ | ✓ | | | | |
| Documentation of their artistic process | | | | ✓ | | | |
| 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) |
|-----------------|---|---|---|--|--|---|
| I. Presentation | This assessment will grade on content and fluency of presentation. Students should show their co-operation to conduct a well-organized presentation with their own argument and evidence from readings and notes. The threshold of 'discovery' lied in a student's self initiatives to conduct additional research and to personalize theories for her/his personal daily experience. | <ul style="list-style-type: none"> - Rich, informative content, excellent grasp of the material with in-depth and extensive knowledge of the subject matter - Rigorous organization, coherent structure, and systematic exposition with a strong sense of narrative - Superior presentation skills: distinct pronunciation, fluent expression and appropriate diction, exact time-management - Critical analysis with insightful comments opening up new issues, or suggesting the ability to | <ul style="list-style-type: none"> - Good content with firm grasp of the material that informs the audience on a subject matter - Reasonable organization, balanced structure and composition - Good verbal communication: comprehensible pronunciation, fluent expression and diction, fair time-management | <ul style="list-style-type: none"> - Adequate content with comprehensive grasp of the material demonstrating basic knowledge of the subject matter - Fair organization, weak structure and composition - Fair presentation skills: acceptable pronunciation, expression and diction, fair time-management | <ul style="list-style-type: none"> - Weak content, loose grasp of the general ideas with some knowledge of the subject matter - Poor organization, structure and composition - Poor presentation skills: marginal pronunciation, expression and diction, poor time-management | <ul style="list-style-type: none"> - Inadequate content, fail to identify the general ideas with knowledge of the subject matter - No organization, structure or/and composition - Poor presentation skills: marginal pronunciation, expression and diction, minimal time-management |

| Assessment Task | Criterion | Excellent (A+, A, A-) | Good (B+, B, B-) | Fair (C+, C, C-) | Marginal (D) | Failure (F) |
|---|--|--|---|---|--|---|
| | | theorize | | | | |
| 2. New Media Artwork, Documentation, Dataset Collection | Students should demonstrate ability to utilize primary and secondary sources, execute creative ideas and projects. The threshold of 'discovery' lies in a student's proactively turning theory into praxis, to transform course material into self-owned authorship. | <ul style="list-style-type: none"> - 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 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 | <ul style="list-style-type: none"> - 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 strategies in response to resources (time, space, equipment, etc) available and constructive feedback/ suggestions | <ul style="list-style-type: none"> - 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 resources (time, space, equipment, etc) available | <ul style="list-style-type: none"> - 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 | <ul style="list-style-type: none"> - 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 |

| Assessment Task | Criterion | Excellent (A+, A, A-) | Good (B+, B, B-) | Fair (C+, C, C-) | Marginal (D) | Failure (F) |
|-----------------|-----------|--|---------------------|---------------------|-----------------|----------------|
| | | inter-disciplinary project – Efficient adjustment of plans and strategies in response to resources (time, space, equipment, etc) available with constructive adjustment | | | | |

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 design, sensing technologies, earthworks, new media sculpture, installation art, data visualization, environment, info-aesthetics

2. Reading List

2.1 Compulsory Readings

(Compulsory readings can include books, book chapters, or journal/magazine articles. There are also collections of

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| 1. | Nil |
| 2. | |

e-books, e-journals available from the CityU Library.)

2.2 Additional Readings

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

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| 1. | Janet Abrams and Peter Hall (eds). <i>Else/Where: Mapping New Cartographies of Networks and Territories</i> . Minneapolis: University of Minnesota Design Institute, 2006. (ISBN-10: 0972969624; ISBN-13: 978-0972969628) |
| 2. | John A. Adam. <i>Mathematics in Nature: Modeling Patterns in the Natural World</i> . Princeton: Princeton University Press, 2006. (ISBN-10: 0691127964; ISBN-13: 978-0691127965) |
| 3. | Philip Ball. <i>The Self-Made Tapestry: Pattern Formation in Nature</i> . Oxford: Oxford University Press, 2001. (ISBN-10: 0198502435; ISBN-13: 978-0198502432) |
| 4. | John Beardsley. <i>Earthworks And Beyond: Contemporary Art In the Landscape</i> . New York: Abbeville Press, 1998. (ISBN-10: 0789208814; ISBN-13: 978-0789208811) |
| 5. | Meg Calkins. <i>The Sustainable Sites Handbook: A Complete Guide to the Principles, Strategies, and Best Practices for Sustainable Landscapes (Wiley Series in Sustainable Design)</i> . New York: Wiley, 2011. (ISBN-10: 0470643552; ISBN-13: 978-0470643556) |
| 6. | Rachel Carson. <i>Silent Spring</i> . New York: Houghton Mifflin Company, 1962. (ISBN-10: 0618249060; ISBN-13: 978-0618249060) |
| 7. | Peter Droege. <i>Climate Design: Design and Planning for the Age of Climate Change</i> . San Rafael, California: ORO Editions, 2010. (ISBN-10: 0982060718; ISBN-13: 978-0982060711) |
| 8. | Vicky Eckert and Efren Zuniga. <i>Green Graphics</i> . Barcelona: Index Books, 2011. (ISBN-10: 8492643544; ISBN-13: 978-8492643547) |
| 9. | Ben Fry. <i>Visualizing Data: Exploring and Explaining Data with the Processing Environment</i> . Sebastopol, California: O'Reilly Media, 2008. (ISBN-10: 0596514557; ISBN-13: 978-0596514556) |
| 10. | Jeffrey Kastner (ed.). <i>Land and Environmental Art</i> . New York: Phaidon Press, 1998. (ISBN-10: 0714856436; ISBN-13: 978-0714856438) |
| 11. | Miwon Kwon. <i>One Place after Another: Site-Specific Art and Locational Identity</i> . Cambridge: MIT Press, 2004. (ISBN-10: 026261202X; ISBN-13: 978-0262612029) |
| 12. | Manuel Lima. <i>Visual Complexity: Mapping Patterns of Information</i> . Princeton: Princeton Architectural Press, 2011. (ISBN-10: 1568989369; ISBN-13: 978-1568989365) |

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| 13. | Casey Reas and Chandler McWilliams. <i>Form+Code in Design, Art, and Architecture (Design Briefs)</i> . Princeton: Princeton Architectural Press, 2010. (ISBN-10: 1568989377; ISBN-13: 978-1568989372) |
| 14. | James L. Sipes. <i>Sustainable Solutions for Water Resources: Policies, Planning, Design, and Implementation</i> . New York: Wiley, 2010. (ISBN-10: 0470529628; ISBN-13: 978-0470529621) |
| 15. | Julie Steele and Noah Illinsky (eds). <i>Beautiful Visualization: Looking at Data through the Eyes of Experts (Theory in Practice)</i> . Sebastopol, California: O'Reilly Media, 2010. (ISBN-10: 1449379869; ISBN-13: 978-1449379865) |
| 16. | Peter S. Stevens. <i>Patterns in Nature</i> . New York: Little Brown and Company, 1979. (ISBN-10: 0316813311; ISBN-13: 978-0316813310) |
| 17. | Ann Thorpe. <i>The Designer's Atlas of Sustainability: Charting the Conceptual Landscape through Economy, Ecology, and Culture</i> . Washington: Island Press, 2007. (ISBN-10: 1597261009; ISBN-13: 978-1597261005) |
| 18. | Daniel A. Vallero and Chris Brasier. <i>Sustainable Design: The Science of Sustainability and Green Engineering</i> . New York: Wiley, 2008. (ISBN-10: 0470130628; ISBN-13: 978-0470130629) |
| 19. | David Wade. <i>Li: Dynamic Form in Nature (Wooden Books)</i> . New York: Walker & Company, 2003. (ISBN-10: 0802714102; ISBN-13: 978-0802714107) |