City University of Hong Kong
Course Syllabus

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

Part I Course Overview

Course Title:	New Media Art Theory and History
Course Code:	SM3160
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)

This course examines the theory and history of new media art. In particular, it will inquire into the use of computational and networked media as forms of artistic expression. The core focus of the course is: (a) to present the conceptual fundamentals of computation/information; (b) to motivate students to reflect on the main features of computation as an artistic medium; and (c) to appreciate the importance of learning about the history of ideas and practices in the field of new media art.

This course will consider the development of computational and networked media art from its early experiments to the present day. It will give students a broad overview of digital art. A historical study of the foundations of new media art is important, because many artists and designers use terms like “digitality”, “information”, or “computation”, without fully understanding their meaning. The writings of early pioneers in the field of computer art are particularly lucid and clear in addressing these conceptual foundations. Moreover, many visionary and potentially fruitful ideas proposed by the early pioneers have not yet been implemented, particularly those concerning the potential of computation as an artistic medium. Their ideas and experiments show a strong willingness to experiment with the possibilities and limitations of new media. The cybernetics movement, for instance, remains an important example of interdisciplinary research that extends the idea of computation into biology, anthropology, sociology, psychology, and other areas.

Instructors may also choose to focus on a specific topic, such as for instance net art, database art, computational cinema, natural language processing, text generation, Artificial Intelligence, artificial life, bioart, robotic art, art/science collaborations, Virtual Reality, etc.

While the main emphasis of this course is on theories of new media, students will learn through hands-on practice, not only reading and writing essays but also producing experimental art works that address core issues in the history of media art.

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.	Describe in detail the meaning of computation, its historical development, and the philosophical debates that have developed around it.		X	X	
2.	Theorize the main characteristics of computational and networked media art as a distinct paradigm.		X	X	X
3.	Describe theoretical work that applies computation across different disciplines.		X	X	
4.	Conduct independent research about the history of media art.		X	X	
5.	Produce digital artworks in response to core issues encountered during the historical research.		X	X	X
6.^	Associate, combine and integrate multiple sources of information to evaluate the outcomes of research		X	X	X
** If weighting is assigned to CILOs, they should add up to 100%.*		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	6	
Class presentation	Class presentations describing and analyzing key works in the history of digital media art	✓	✓	✓				
Discussion sessions	Brainstorming sessions, discussions, and presentations where students reflect on the question of whether and how computation is an artistic medium.	✓	✓		✓			
Lectures and debates	Lectures and in-class debates about the work of key historical figures and projects in the development of computational and networked art	✓		✓	✓			
workshops	Class workshops illustrating different techniques in computational or algorithmic art			✓		✓		
Exhibition visits	Visit and discuss exhibitions of digital media art works	✓	✓		✓		✓	
Class presentations	Class presentations of students' own ideas and ongoing media art projects					✓	✓	

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	6		
Continuous Assessment: 100%								
Creation of an artwork that draws on computational and/or networked media.	✓	✓			✓	✓		
Production of a detailed research report explaining the various steps/decisions/changes in the creation of the student's art work, and the influence of computational concepts on the process.	✓	✓			✓	✓		
In-class presentation and critique of the student's ongoing work, with a strong emphasis on the programming techniques used to produce the work.	✓	✓			✓	✓		
Essay or in-class presentation describing whether computation can be considered a medium of expression and why (or why not), using historical examples.	✓	✓	✓	✓		✓		
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. Artwork Creation	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.	– 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 planning and	– 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	– 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)	– 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

Assessment Task	Criterion	Excellent (A+, A, A-)	Good (B+, B, B-)	Fair (C+, C, C-)	Marginal (D)	Failure (F)
		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	(time, space, equipment, etc) available and constructive feedback/ suggestions	available		

Assessment Task	Criterion	Excellent (A+, A, A-)	Good (B+, B, B-)	Fair (C+, C, C-)	Marginal (D)	Failure (F)
2. Research Report	Students should demonstrate ability to apply knowledge and skills to undertake independent research, build up argument and analysis. The threshold of 'discovery' lies in a student's proactively turning theory into praxis, to transform course material into self-owned authorship.	– Excellent grasp of materials, ability to explain key concepts, assumptions, and debates, demonstrating sound knowledge of the field – Rich content, exceptional ability to integrate various resources into primary and secondary levels based on demand; – Design and conduct research which is firmly built on thorough knowledge of existing	– Firm grasp of materials, ability to explain key concepts and assumptions – Adequate content, strong ability to integrate various resources into primary and secondary levels based on demand; – Design and conduct research which is built on thorough knowledge of existing theoretical frameworks – Appropriate	– Comprehensive grasp of materials and ability to explain key concepts – Adequate content, fair ability to integrate various resources into primary and secondary levels based on demand – Design and conduct research which is built on knowledge of theoretical frameworks – Appropriate judgments about existing research	– Loose grasp of materials, cannot explain key concepts – Weak content, with primary and secondary levels – Design and conduct research which is appropriate for the research objective – Marginal judgments about existing research – Poor ability to approach a text or a theme using a variety of theories and analytical tools	– Poor grasp of materials – Inadequate content, without primary and secondary levels – Fail to design and conduct research which is appropriate for the research objective – Fail to make reasonable judgments about existing research – Fail to approach a text or a theme using a variety of theories and analytical tools

Assessment Task	Criterion	Excellent (A+, A, A-)	Good (B+, B, B-)	Fair (C+, C, C-)	Marginal (D)	Failure (F)
		theoretical frameworks – Evaluative judgments about existing research and demonstrate application of strong critical thinking skills – Strong ability to approach a text or a theme using a variety of theories and analytical tools, or using a single theory/methodology in depth. – Strong organization of research findings with effective organization and procedural clarity at the	judgments about existing research and demonstrate application of critical thinking skills – Ability to approach a text or a theme using a variety of theories and analytical tools	– Weak ability to approach a text or a theme using a variety of theories and analytical tools		

Assessment Task	Criterion	Excellent (A+, A, A-)	Good (B+, B, B-)	Fair (C+, C, C-)	Marginal (D)	Failure (F)
		same time demonstrating the importance of the process – Insightful suggestion of how the research findings may lead to future research				
3. Essay	Students should demonstrate ability to utilize primary and secondary sources, build up argument and analysis. 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.	– Excellent grasp of research material, able to explain key concepts, assumptions and debates – Rigorous organization, coherent structure, distinct thesis, properly argued with strong narrative – Insightful	– Firm grasp of materials, able to explain key concepts and assumptions – Reasonable organization, balanced structure, adequate content, sufficient ability to integrate various resources	– Comprehensive grasp of materials, able to explain key concepts – Fair organization, weak structure, adequate content, fair ability to integrate various resources based on demand – Relevant points to the subject	– Loose grasp of materials, cannot explain key concepts – Poor organization and structure, weak content, limited use of resources – Relevant points to the subject matter, marginal ability to interpret opinions – Insufficient and/or unorganized bibliography	– Poor grasp of materials – No organization and structure, inadequate content, no/ irrelevant use of resources – Irrelevant points to the subject matter, minimal ability to interpret opinions – Irrelevant bibliography

Assessment Task	Criterion	Excellent (A+, A, A-)	Good (B+, B, B-)	Fair (C+, C, C-)	Marginal (D)	Failure (F)
		interpretation of the subject matter with distinct themes and thesis – Critical analysis with insightful comments opening up new issues, or suggesting the ability to theorize – Ability to approach a text or a theme using a variety of theories and analytical tools – Strong bibliography suggesting breadth and depth of coverage and informed	based on demand – Clear ideas which keep to the point, clear-cut subject, ability to interpret opinions independently – Organized bibliography which can be utilized in accordance with the topic	matter, fair ability to interpret opinions – Unorganized bibliography which can be utilized in accordance with the topic		

Assessment Task	Criterion	Excellent (A+, A, A-)	Good (B+, B, B-)	Fair (C+, C, C-)	Marginal (D)	Failure (F)
		insights				
4. In-Class Participation/ Presentation/ Critique	This assessment task reviews students' participation and performance in discussions, debates and peer critique during the tutorial sessions. The evidence of 'negotiation', the sign of discovery, lies in students' pre-class preparation and interpersonal sensitivity to his/her peer members.	– Active in-class participation, positive listening, strong ability to stimulate class discussion and comment on other points – In-depth pre-class preparation and familiarity with peer reports and other materials – Interpret others' views with an open mind and ready to negotiate – Readiness to share personal insight via analysis and	– Active in-class participation, positive listening, ability to initiate class discussion and comment on other points – Adequate pre-class preparation and familiarity with peer reports and other materials – Interpret opinions effectively	– Attentive in in-class participation, listening with comprehension, but only infrequently contributing – Adequate pre-class preparation but little familiarity with peer reports and other materials – Fair ability in interpreting opinions	– Unmotivated to participate in class discussion or comment on other people's views – Little pre-class preparation and familiarity with peer reports and other materials – Poor ability in interpreting opinions	– Unwilling to participate in class discussion and comment on other points, even when requested by the teacher – No pre-class preparation and familiarity with peer reports and other materials – Minimal ability in interpreting opinions

Assessment Task	Criterion	Excellent (A+, A, A-)	Good (B+, B, B-)	Fair (C+, C, C-)	Marginal (D)	Failure (F)
		synthesis with informed views – Constructively critical, thus facilitating the discovery of new issues				

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.)

Computational and Networked Media Art; Information Arts; Cyberculture;

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	Berry, David. The Philosophy of Software: Code and Mediation in the Digital Age, (Basingstoke: Palgrave Macmillan, 2011).
2	Dolphijn, Rick and van der Tuin, Iris. *New Materialism* (London: Open Humanities Press, 2012).
3.	Flusser, Vilem. *Towards A Philosophy of Photography*, trans. Anthony Mathews, London: Reaktion Books, 2000.
4.	Flusser, Vilem. "The Photograph as Post-Industrial Object: An Essay on the Ontological Standing of Photographs" *Leonardo* 19:4 (1986), pp 329–332.
5	Fuller, Matthew, *Software Studies: A Lexicon*. (London: MIT Pres, 2008).
6.	Galloway, Alexander R. Protocol: How Control Exists after Decentralization (Cambridge: MIT Press, 2004).
7	Hayles, N. K. (2004) 'Print Is Flat, Code Is Deep: The Importance of Media-Specific Analysis', *Poetics Today*, 25(1): 67–90.
8.	Latour, Bruno. Pandora's Hope: Essays on the Reality of Science Studies (Cambridge & London: Harvard University Press, 1999).
9	Selections from Stieger, Bernard. Technics and Time. 3 vols. (Stanford: Stanford University Press (1998-2010).
10.	Wardrip-Fruin, Noah. The New Media Reader (Cambridge & London: MIT Press, 2003).

2.2 Additional Readings

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

1.	Bogost, Ian. Unit Operations: An Approach to Videogame Criticism (Cambridge: MIT Press, 2006).
2.	Bolter, Jay David and Gromala, Diane. Windows and Mirrors: Interaction Design (Cambridge: MIT Press, 2005)
3.	Bolter, Jay David and Grusin, Richard. Remediation: Understanding New Media

	(Cambridge: MIT Press, 2000).
4.	Cavallaro, Alessio, Jonson, Annemarie, and Tofts, Darren. Prefiguring cyberculture: an intellectual history (Cambridge: MIT Press, 2002).
5.	Floridi, Luciano (ed). The Blackwell Guide to the Philosophy of Computing and Information (London: Blackwell, 2004).
7.	Kirschenbaum, Matthew G. Mechanisms: New Media and the Forensic Imagination (Cambridge: MIT Press, 2008).
8.	Kittler, Friedrich A. and Metteer, Michael. Discourse Networks, 1800 / 1900 (California: Stanford University Press, 1992).
10.	Manovich, Lev. The Language of New Media (Cambridge: MIT Press, 2002).
11	Montfort, Nick. and Bogost, Ian. Racing the Beam: The Atari Video Computer System (London: MIT Press, 2009).
12.	Ricardo, Francisco J. Literary Art in Digital Performance: Case Studies in New Media Art and Criticism (Paperback) (London, New York: Continuum, 2009).
13	Selections from Stieger, Bernard. Technics and Time. 3 vols. (Stanford: Stanford University Press (1998-2010).
14.	Wardrip-Fruin, Noah. Expressive Processing: Digital Fictions, Computer Games, and Software Studies (Paperback) (Cambridge: MIT Press, 2009).