

# Sample Syllabus – Class on Creative Design

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This course requires students to read, reflect on a selection of authors' ideas, and then share their findings with the class. Weekly preparation for class includes a careful reading of all the assigned texts and short reading reports of maximum 200 words for each paper. The weekly readings will collectively provide a conceptual toolkit for the design of creative interactive art works. When reading an article, students need to look for the “big picture” and important concepts that will inform their own work on the design of interactive artwork. Their task in this class is to identify and reflect on these high level concepts. They will be useful as both scholarly citations and as functional design tools for interactive works of art.

We will apply these concepts in practice - the point of this course is to master the use of these theoretical principles in the design of a full interactive artwork. Students, in groups of 2 will have the responsibility of designing an interactive artifact that instantiate one or two theoretical concepts being discussed in the class. The artwork must be digital and interactive. The deliverable will consist of original software and complete documentation. The documentation is a writing that describes, analyzes, and discusses the design choices embedded within the artwork, conceptually, technically, and critically, and the resulting experience for the participants. The paper needs to include their use of the design concepts of the weekly reading, analyze and describe their design decisions in the interactive artifact that they have created. Students will also be expected to orally present the artifact. The formal writing of their final project should be in the form of an interactivity paper, preferably in the CHI extended abstract format: <http://saralaoui.com/wp-content/uploads/2015/11/CHI2016ExtendedAbstractsFormat.docx>

Students will be graded on the quality of the work and the discussions they lead, and also on their general participation in the intellectual activity of the class. The criterion in both cases will be the effective understanding and application of the concepts of the authors in the design of their artifact.

If appropriate, students should also prepare a video of their project, preferably with narration. The analysis of the artwork will rely on concepts drawn from the course readings. The evaluation of the participant’s experience will rely on qualitative or quantitative methodologies of the student’s choice.

## Learning Outcomes

The students will be able to:

- Identify the key design principles across a range of related texts.
- Apply these key principles in the design of their interactive artifact.
- Prepare and deliver a short oral and written presentation demonstrating their application in the design of the interactive artifact.
- Conduct an in-depth project about the design and evaluation of an interactive artwork.
- Participate substantively in discussions across the range of texts included in the course readings.

## Evaluation:

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| • Reports on weekly readings                          | -- 25% |
| • General Participation                               | -- 15% |
| • Final artwork / Paper / Video and Oral Presentation | -- 60% |

## Readings:

### Week 1: New Media

- L. Manovich, "The Language of New Media", Cambridge MA, MIT Press, 2001 [Chapter 1]
- W. Benjamin. "The Work of Art in the Age of Mechanical Reproduction" [pages. 319-333] from *Photography in Print, Writings from 1816 to the Present*, ed. Vicki Goldberg, Simon and Shuster, New York NY, 1991

### Week 2: Creativity Support Tools

- L. Candy, Z. Bida, "Understanding and evaluating creativity", *Proceedings of the ACM conference on Creativity & Cognition*, 2007.
- R. Wakkary, K. Tanenbaum, "Sustainable identity: the creativity of an everyday designer", *Proceedings of the ACM Conference on Human Factors in Computing Systems CHI '09*

### Week 3: Aesthetics and Experiential Art

- P. Wright, J. Wallace and J. McCarthy, J. (2008). "Aesthetics and experience centered design". *ACM Transactions on Computer-Human Interaction (TOCHI)*, 15(4)
- M. Petersen, O. Iversen, O. Krogh, and M. Ludvigsen (2004). "Aesthetic interaction: a pragmatist's aesthetics of interactive systems". In *Proceedings of the ACM Conference on Designing Interactive Systems (DIS)*.

### Week 4: Interactive Performance

- Dixon, S. (2007). "Digital performance: a history of new media in theater, dance, performance art, and installation". MIT press. [Chapter 1]
- Salter, C. (2010). "Entangled: Technology and the Transformation of Performance". MIT Press. [Chapter 6 – Bodies]
- Reeves, S., Benford, S., O'Malley, C. and Fraser, M. (2005). "Designing the spectator experience". In *Proceedings of the ACM Conference on Human Factors in Computing Systems CHI'05*.

### Week 5: Interactive Musical Interfaces

- T. Machover, "HyperInstruments: A Composer's Approach to the Evolution of Intelligent Musical Instruments", *CyberArts(1992)*, [pages 67–76]
- B. Caramiaux, A. Altavilla, S. Pobiner, A. Tanaka, "Form Follows Sound: Designing Interactions from Sonic Memories", *Proceedings of the ACM Conference on Human Factors in Computing Systems, CHI'15*.

### Week 6: The Moving Body and Choreography

- T. Schiphorst and M. Cunningham (1997). "Making dances with a computer, choreography and dance". Harwood Academic Press, 4(3)
- S. Fdili Alaoui, B. Caramiaux, M. Serrano, F. Bevilacqua. "Movement qualities as interaction modality", In *Proceedings of ACM Conference on Designing Interactive Systems (DIS) 2012*

### Week 7: Aesthetic Interactions

- H. Ishii and B. Ullmer, "Tangible bits: towards seamless interfaces between people, bits and atoms", *Proceeding of of the ACM Conference on Human factors in computing systems CHI'97*
- S. Mann, "Wearable Computing: A First Step Toward Personal Imaging," *Computer* 30, No. 2, 25–31.