



**AALBORG UNIVERSITY**  
DENMARK

Study Board of  
Art & Technology  
Fall 2016

## Art and Technology, AAU, 3rd Semester 2016

### Dynamic Art and Technology / Teknologi og dynamisk kunst



Philips Design. Bubelle Dress

## Semester details

School	CAT
Study board	ArT & Technology
Study regulation	BA Study Program in Art & Technology, The Faculty of Humanities, AAU, September 2015.

## Semester Theme

### Wearability

For this year's edition of Dynamic Art and Technology, the theme is 'Wearability'. Clothes are one of the few goods people interact with from the very first day of their life onwards. The style and amount of clothes worn is often based on the social and geographic background, but it also serves different physical purposes. While they can be used as a protection from weather or different surfaces, their most unique trait is that they can also be used to express one's personality, mood, attitude or current feelings. What we wear and also how we wear it depends on how we feel, what we want to do on a day, and on external circumstances like the weather or the people who surround us. Projects should extend the idea of clothing by giving expressiveness to clothes and building interactive, technology enhanced clothing experiences. These can be either general purpose, for special events (e.g. Aalborg Karneval) or for special locations (e.g. amusement parks).

Students are meant to design and implement and interplay of wearable technology and fashion design. Not only does the technological side have to provide a dynamic and reactive aspect but the overall design needs to be fashionable in the sense that it should be attentive to style and expression. The final implemented prototype needs to be wearable and mobile.

Each group must work in close communication with their supervisor, with the idea to exhibit a poster of the intended design and a prototype version of the performative clothing experience (at Rendsburggade 14, 9000 Aalborg). As part of the yearly ArT exhibition the students should additionally organize a fashion show across all groups.

### Semester Project Deliverables

This semester, students will be divided into groups of four to five students and each group will work on a single project with the goal of creating an interactive wearable art installation and/or performance to be included in the end-of-semester exhibition.

The project reports will present your research in a particular area of investigation. They should clearly present the motivation, design, implementation, and analysis of the artwork. The report should include the following sections:

#### ABSTRACT

A short paragraph summarizing the main aspects of the investigation---context, problem, results, and insights.

#### INTRODUCTION

This is where you set the context for your work. What is the big picture? What is the motivation for investigating this area?

#### PROBLEM STATEMENT

Here you concisely state what the problem is you are investigating. You may also present a hypothesis to be supported or rejected through your own experiments.

## **BACKGROUND**

This should contain previous work in the area you are investigating. This is of major importance in conducting any type of research, academic or otherwise. You should clearly identify antecedents and point out both the importance and shortcomings of each in relation to your own work. Always reference refutable sources (i.e., peer-reviewed journals, books, etc.) and, when possible, primary sources (i.e., the original author of the work) to avoid misinformation. Google and Wikipedia are okay only as starting points.

## **DESIGN**

Here is where you outline your process of creation and the decisions you made along the way. Elaborate on and justify your artistic, aesthetic, and technical choices. Describe your experiment design and any methods you may have used.

## **IMPLEMENTATION**

How was the final work constructed? Include overall system diagrams and exhibition arrangement. Detail the most important aspects of the implementation and place the rest in the appendix. One should be able to fully and unambiguously re-create your artwork based on the information in this section.

## **ANALYSIS**

Was your work successful? Support this with experimental data. If you made an initial hypothesis, do your observations support or reject it?

## **FUTURE WORK**

Is there anything you could have done better? How? If you were to develop this project more, what would you work on next?

## **CONCLUSION**

This is where you bring it all together. It is NOT simply a summary of what you have done---that is supplied by the abstract. You should connect all the dots and synthesize new insights here. What can others learn from this?

## **BIBLIOGRAPHY**

List of references following the Harvard referencing style.

## **APPENDIX**

Include all data produced during your investigation. This can include experimentation/observation logs, transcriptions of interviews, survey data, source code, etc. Note that the main text can reference the information in this section.

All figures, tables, and images in the report must be labeled with a brief description and cited in the main text. You are also required to make a video documentation of the final artifact and hand it in with the report.

Three hard copies of the project report must be produced (one for the examiner, one for the censor and one for the department secretary and archiving purposes). The video and any other relevant digital media (e.g., images, sounds) should be provided on a CD/DVD and submitted with the printed report in a pocket inside the back cover.

All material in the report that is not the original creation of the students in the group must be properly acknowledged by using the Harvard referencing style. Failure to do this will be considered plagiarism and will lead to immediate failure and possibly also to expulsion from the program.

**Semester coordinator:**

Markus Löchtefeld

**Secretary:**

Anne Nielsen

**Supervisors:**

Ann Morrison, Markus Löchtefeld

**Overview of the modules****Module 8: Dynamic Art and Technology (15 ECTS)**

- Artistic and Academic Methodology III (Affective Design)
- Digital Representation II (Rapid Prototyping)
- Programming II

Coordinator:

Markus Löchtefeld

Teaching staff:

Ann Morrison, Markus Löchtefeld, Ståle Stenslie

**Module 9: Programming Interactive Systems (5 ECTS)**

- Programming III

Coordinator:

Markus Löchtefeld

Teaching staff:

Markus Löchtefeld

**Module 10: Art and Technology Concept Design (5 ECTS)**

- Method Design and Analysis
- Concept Design and Diagrams

Coordinator:

Ståle Stenslie

Teaching staff:

Ståle Stenslie

**Module 11: Art in Context I – Art Theory (5 ECTS)**

- Theory of Art and Aesthetics

Coordinator:

Line Marie Bruun Jespersen

Teaching staff:

Line Marie Bruun Jespersen

**Contact:**

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+47 9056 2963

**Departments:**

KOM	Department of Communication and Psychology
AD	Department of Architecture, Design and Media Technology (Architecture and Design)
MT	Department of Architecture, Design and Media Technology (Media Technology)
BYG	Department of Civil Engineering
PLAN	Department of Development and Planning

# Module 8: Dynamic Art and Technology (Teknologi og dynamiske kunst) (15 ECTS) HSA330021H

## Location:

ArT3

## Study Board:

Art & Technology

## Module coordinator:

Markus Löchtefeld

## Method of work and language:

Method of working: Group and project work.

English

## Module contents:

Module contents: The basis of this module is human perception of movements and transitions, both physical and emotional. Students will work with principles of creation for time-based artefacts, and the experience of artefacts expressing temporal, spatial, and affective transitions. A variety of media technologies and engineered solutions will be tested and applied in the creation of products, artefacts and installations in the project unit, including mechanical and electronic alternatives of creating and controlling movement, position in space and autonomous motion.

During the semester, students work theoretically and experimentally with projects that challenge their creative and technical skills and produce artistic effects focused on different types of interaction between humans and machines.

## Courses:

In connection with the module, courses may be offered within the following areas:

- Artistic and Academic Methodology III (Affective Design)
- Sensor Networks
- Digital Representation II (Rapid Prototyping)
- Programming II

## Objectives:

The objective of Module 8: Dynamic Art and Technology is to introduce students to basic problem areas and solutions regarding the creation of products, artefacts, performances and installations, which results in the expression of transitions both physically and emotionally

## Learning objectives:

During this module students should acquire:

Basic **knowledge** about

- artistic works supported by technologies expressing physical and emotional transition
- the creation and perception of artefacts expressing physical and emotional transition
- a variety of mechanical and electronic technologies used in dynamic art contexts
- artistic expression using media technologies for the production of real-time interactivity
- academic and artistic methods and tools to be used when working with design and

implementation of artefacts or installations that express or trigger physical and emotional movement

#### **Skills in**

- identifying and formulating an art problem within the semester theme
- analyzing an artistic problem and developing alternative concepts for the defined problem
- motivating the application of certain technologies in connection with the design of installations expressing transitions
- identifying, developing and describing the interaction between form, choice of materials and technological solutions with a view to achieving a clear aesthetic expression and performance
- applying academic and artistic methodologies, in regard to interaction between technology, choice of materials, aesthetic expression, and user experience in connection with the development of dynamic artefacts and installations

#### **Competencies in**

- describing and analyzing works and installations which use adaptive technologies
- employing autonomous technologies in design and implementation of artefacts or installations expressing physical and emotional movement
- contextualizing own artistic solutions (to state-of-art, socio-cultural requisites and consequences, art theoretical and aesthetic dimensions, etc.)
- describing the completed design in an academic form and communicating this in a project report, portfolio, etc.

The module is completed with:

### **Examination 8**

An external combined written and oral examination in **Module 8: “Dynamic Art and Technology”** (Teknologi og dynamisk kunst).

#### **Form of examination:** b)

The examination will take the form of a conversation between the students, the examiner and an external examiner on the basis of the project report prepared by the student(s), which may be in the form of a process report or portfolio as well as the product created by the students. The project exam will also address other content from the module courses.

Number of pages: the written work must not exceed 10 pages per student (15 pages in the case of individual reports).

Duration of examination: 20 minutes

**Evaluation:** Grading according to the 7-point scale.

Proportional weighting: An aggregate grade is awarded for the artefact, the written and oral performances.

The assessment results in an individual grade.

Credits: 15 ECTS

The written report, the product and the oral examination should demonstrate that the student has fulfilled the objectives outlined above.

In the evaluation of the examination performance, the grade 12 will only be awarded to students who demonstrate that they have fulfilled the objectives for the subject exhaustively or with only few insignificant omissions.

<b>Exam dates:</b>	The dates for the oral evaluation are Week 3, January 16 <sup>th</sup> to 20 <sup>th</sup> 2017.
<b>Exhibition dates:</b>	Nov 30, Dec 1, 2016
<b>Hand-in date:</b>	December 22, 2016 at 10 am
<b>To:</b>	Through Digital Exam

## **Course: Artistic and Academic Methodology III (Affective Design)**

(1.5 ECTS)

Affective design is about designing strong and specific emotions in user(s). The lecture series will first introduce the wider field as inspired by Human- Computer-Interaction before focusing on the artistic methodology of Inverse Thinking. This is a variation of negative teleology, where a work of art seemingly defeat a constructive purpose. Inverse Thinking is therefore a method aiming at the production of opposites or negations that postulate rather different choices from what one actually intends. Such kinds of chameleon tactics are often used by activists to produce strongly affective experiences that provoke opinions and discussions. The intention behind this is to cause deeper reflections on the issues at hand. The goal of the Inverse Thinking method is to both test and challenge artistic concepts as well as promote reflection on the issue at hand. Further the lecture series aim to provide the students with a theoretical toolkit that help produce more effective, convincing and impressive works of art. Assessment: through the semester project.

### **Lesson 1: Introduction to Affective Design**

Lecture

The lecture will introduce the origin of and various concepts behind affective design and how it might be used to produce strong, affective experiences. The students will get an overview of the field both in Human- Computer-Interaction (HCI) and artistic practice.

Ståle Stenslie

#### **Literature**

	Pri. lit. no of p.	Sec. lit. no of p.	Dig. upload
Picard, R. W. (1997) <i>Affective Computing</i> , pp. 21 – 25. MIT Press.	x		
Tikka, H. (2003). <i>Affective environments: configuring the affective user?</i> In <i>Discovering New Media, Working Papers</i> , University of Art and Design Helsinki UIAH, publication series F 26, Helsinki. Download from <a href="http://mlab.uiah.fi/culturalusability/papers/Tikka_paper.html">http://mlab.uiah.fi/culturalusability/papers/Tikka_paper.html</a>	x		

### **Lesson 2: Shock, Awe and Fear**

Lecture

Strong emotions can both attract and scare audiences. The lecture will present how to use inverse thinking in production of psychophysically challenging works of art.

Ståle Stenslie

#### **Literature**

	Pri. lit. no of p.	Sec. lit. no of p.	Dig. upload
The 'Sensation' exhibition. (1997). Download from:	x		



<a href="http://www.artdesigncafe.com/">http://www.artdesigncafe.com/</a>			
Norman-Rosenthal-Sensation-Royal-Academy-of-Arts-London-1997 <a href="http://www.flashartonline.com/interno.php?pagina=articolo_det&amp;id_art=649&amp;det=ok&amp;title=SENSATION">http://www.flashartonline.com/interno.php?pagina=articolo_det&amp;id_art=649&amp;det=ok&amp;title=SENSATION</a>	x		

slides and other resources

### Lesson 3: Inverse Thinking

Lecture

The lecture will present Inverse Thinking as a relevant methodology to produce strong and provocative works of art. Various projects from different fields will be presented, analysed and discussed. Research and document relevant artistic projects for presentation in class

Ståle Stenslie

#### Literature

	Pri. lit. no of p.	Sec. lit. no of p.	Dig. upload
Julius, A. (2002). Transgressions – The offences of art, pp. 16–51. Thames & Hudson, London.	x		

slides and other resources

### Lesson 4: Affective Art.

Lecture

Can it really be produced? Can affect be manipulated? Or is it the outcome of a 'lucky strike' or the 'stroke of genius'? The lecture will discuss the predictability and programmability of affections.

Ståle Stenslie

#### Literature

	Pri. lit. no of p.	Sec. lit. no of p.	Dig. upload
Badiou, A. Fifteen Theses on Contemporary Art. Lacanian Ink 22. Downloaded from <a href="http://www.lacan.com/frameXXIII7.htm">http://www.lacan.com/frameXXIII7.htm</a>	x		

### Lesson 5: Reflections in Inverse Thinking I

Lecture

The lecture will dissect and discuss various concepts prepared by students

Script up to three scenarios using Inverse Thinking as a methodology. Present in class.

Ståle Stenslie

#### Literature

	Pri. lit. no of p.	Sec. lit. no of p.	Dig. upload

### Lesson 6: Reflections in Inverse Thinking II

Lecture

The lecture will dissect and discuss various concepts prepared by students

Script up to three scenarios using Inverse Thinking as a methodology. Present in class.

Ståle Stenslie

## Literature

	Pri. lit. no of p.	Sec. lit. no of p.	Dig. upload

## Course: Digital Representation II (Rapid Prototyping)

(1.5 ECTS)

This course will introduce the main techniques for 2D and 3D prototyping. In addition, it will introduce techniques for digital creation and cutting of textiles.

### Lesson 1: Introduction to prototyping and rapid prototyping based on digital designs

Lecture/Workshop

Make sure your computer is set up with 2D and 3D editing software. The 2D software should be able to handle vectors and the 3d software should be able to output .stl files. For 2D: Adobe Illustrator or Autocad are recommended and for 3D: Sketchup or Maya are recommended but other and free alternatives are possible to use in the course.

Peter Skotte

## Literature

	Pri. lit. no of p.	Sec. lit. no of p.	Dig. upload
Lecture Notes			yes

### Lesson 2: 2D representations / Tools

Lecture/Workshop

How to rapidly make physical representations of digital 2D material. What is possible and what are the limits? Demonstration of methods available generally and at AAU.

Peter Skotte

## Literature

	Pri. lit. no of p.	Sec. lit. no of p.	Dig. upload
Lecture Notes			yes

### Lesson 3: 3D representations / Tools

Lecture/Workshop

How to rapidly make physical representations of digital 3D material. What is possible and what are the limits? Demonstration of methods available generally and at AAU.

Peter Skotte

## Literature

	Pri. lit. no of p.	Sec. lit. no of p.	Dig. upload
Lecture Notes			yes

## Lesson 4: Hands on experience

Workshop

Work on own designs to gain practical experience with creating physical representations of digital designs.

Peter Skotte

### Literature

	Pri. lit. no of p.	Sec. lit. no of p.	Dig. upload
Lecture Notes			yes

## Lesson 5+6: Textile Cutting

Workshop

Digital fabrication methods for designing and cutting textiles. Demonstration of new methods available at AAU

Peter Skotte

### Literature

	Pri. lit. no of p.	Sec. lit. no of p.	Dig. upload
Lecture Notes			yes

## Course: Programming II

(2 ECTS)

### Lesson 1: Programming Review and Structures

Lecture

Review of basic programming constructs: variables, functions, arrays, loops, and control structures. Introduction to structures.

Markus Löchtefeld

Review assignments and literature from Programming I.

### Literature

	Pri. lit. no of p.	Sec. lit. no of p.	Dig. upload
Programming Interactivity: A Designer's Guide to Processing, Arduino, and Openframeworks. " O'Reilly Media, Inc.", 2009.	30		yes

### Lesson 2: Object-oriented Programming I

Lecture

Introduction to object-oriented concepts: class versus instance/object, member variables/functions, constructors, public versus private members.

Markus Löchtefeld

### Literature

	Pri. lit. no of p.	Sec. lit. no of p.	Dig. upload
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Reas, Casey, and Ben Fry. Processing: a programming handbook for visual designers and artists. Vol. 6812. Mit Press, 2007.	30		yes
"Objects" - Daniel Shiffman 2008 <a href="https://processing.org/tutorials/objects/">https://processing.org/tutorials/objects/</a>			yes

### Lesson 3: Object-oriented Programming II

Lecture

Markus Löchtefeld

#### Literature

	Pri. lit. no of p.	Sec. lit. no of p.	Dig. upload
Lecture notes.			

### Lesson 4: Simple Graphics & Mouse and Keyboard input

Lecture

Introductory to 2D graphic concepts and coordinate systems in response to user input. Drawing of primitive graphics, working with shapes and colours, images and simple image manipulation in Processing.

Markus Löchtefeld

#### Literature

	Pri. lit. no of p.	Sec. lit. no of p.	Dig. upload
<a href="https://processing.org/tutorials/drawing/">https://processing.org/tutorials/drawing/</a>			yes
Lecture notes.			

### Lesson 5: Real-time Graphics I

Lecture

Programming real-time graphics.

Introductory concepts in real-time graphics programming: the window, frame rate, animation versus draw callbacks, and drawing basic shapes. Basics of meshes including drawing primitives, vertices, and colors.

Markus Löchtefeld

#### Literature

	Pri. lit. no of p.	Sec. lit. no of p.	Dig. upload
Lecture notes.			

### Lesson 6: Real-time Graphics II

Lecture

Working with textures and images.

Markus Löchtefeld

#### Literature

	Pri. lit. no of p.	Sec. lit. no of p.	Dig. upload
Lecture notes.			yes

## Lesson 7+8: Wearable Technologies

Lecture and Workshop

Introduction into prototyping and programming wearable technologies. Topics will include the extension of the Arduino platform for wearables (Lillypad), suited Sensors and Actuators and Algorithms for detection of human physiological states. Prototyping skills for the creation of interactive clothing will be tackled as well.

Literature

	Pri. lit. no of p.	Sec. lit. no of p.	Dig. upload
Olsson, T., Gaetano, D., Odhner, J., & Wiklund, S. (2008). Open Software: Fashionable prototyping and wearable computing using the Arduino.	104		yes

## Module 9: Programming Interactive Systems (Programming of interactive systemer) (5 ECTS) HSA33002F

### Location:

ArT3

### Study Board:

Art & Technology

### Module coordinator:

Markus Löchtefeld

### Method of work and language:

Individual or small groups.

English

### Module contents:

In this module, students learn about basic principles of software and how different digital systems can be designed to create alternative forms of interactions between man and machine. Students will learn principles of object-oriented programming and how algorithms can be developed in order to design new forms of human-computer interaction.

### Courses:

In connection with the module, courses may be offered within the following areas:

- Programming III
- Digital Networks

### Learning objectives:

During this module students should acquire:

Basic **knowledge** about

- real-time input/output streams used in programming interactive systems
- serial communication protocols used for inter-application communication, internet-based communications, etc.
- basic user interface design principles for realizing a software interface for human-computer interaction

- data mapping strategies used in building interactive systems

**Skills in**

- applying technical knowledge to develop and demonstrate the use of an interactive system
- analyzing use of the artefact
- synthesizing knowledge in written documentation

**Competencies in**

- evaluating artefacts from a technical perspective
- identifying further learning needs in the area of programming interactive systems.

The module is completed with:

**Examination 9**

An internal combined written and oral examination in **Module 9: “Programming Interactive Systems”** (Programming af interaktive systemer).

The examination is a 7-day assignment on a set subject.

**Form of examination:** b)

The examination will take the form of a conversation between the student, the examiner and an internal censor on the basis of the artefact and report prepared by the student(s).

Number of pages: the written part must not exceed 5 pages.

**Evaluation:** Grading according to the 7-point scale.

Credits: 5 ECTS

The written report, the product and the oral examination should demonstrate that the student has fulfilled the objectives outlined above

In the evaluation of the examination performance, the grade 12 will only be awarded to students who demonstrate that they have fulfilled the objectives for the subject exhaustively or with only few insignificant omissions.

<b>Exam dates:</b>	See dates in moodle/calendar.
<b>Hand-in date:</b>	
<b>To:</b>	Through Digital Exam

**Course: Programming III**

(1 ECTS)

**Lesson 1: Communication Protocols**

Lecture

Basic concepts in digital communication: what is a protocol?, packets (header + data), addresses and ports, generating/parsing serial byte streams.

Markus Löchtefeld

**Literature**

Lecture notes.

**Further information on multimedia protocols (not required):**

DMX (lighting and stage):

- Elation Professional. (2008). DMX 101: A DMX 512 handbook.  
[http://ritelites.com/yahoo\\_site\\_admin/assets/docs/dmx101\\_handbook.296102453.pdf](http://ritelites.com/yahoo_site_admin/assets/docs/dmx101_handbook.296102453.pdf)
- Kar, U. (2013). The DMX512 Packet, <http://www.dmx512-online.com/packt.html>.

HTTP (hypertext/web):

- Marshall, J. (2012). "HTTP Made Really Easy", <http://www.jmarshall.com/easy/http/>.
- tutorialspoint. (2014). "HTTP Quick Guide",  
[http://www.tutorialspoint.com/http/http\\_quick\\_guide.htm](http://www.tutorialspoint.com/http/http_quick_guide.htm).

MIDI (musical instruments):

- MIDI Manufacturers Association. (2009). MIDI and music synthesis.  
[http://www.midi.org/aboutmidi/tut\\_midimusicynth.php](http://www.midi.org/aboutmidi/tut_midimusicynth.php)
- MIDI Manufacturers Association. (1995). MIDI Message Table 1,  
<http://www.midi.org/techspecs/midimessages.php>.

OSC (sound control):

- Wright, M. (2002). The Open Sound Control 1.0 specification. [http://opensoundcontrol.org/spec-1\\_0](http://opensoundcontrol.org/spec-1_0)

## **Lesson 2 + 3: Serial Communication Workshop: Physical + Digital Communication**

Lecture and Workshop

Workshop on sending data serially from a computer to an Arduino to control something physical as well as sending data serially from an Arduino to a computer. Using a sensor to control a graphical object.

Markus Löchtfeld

### **Literature**

Lecture notes.

## **Lesson 4 + 5: Shape Generation Workshop**

Lecture and Workshop

Shape generation techniques for (artistic) 3D representation and visualization.

Markus Löchtfeld

### **Literature**

Lecture notes.

## **Lesson 6+7: Basic User Interface Design**

Lecture

In this lecture we will explore the basics of user interface design including simply perceptual and memory principles, simple, design laws, Hick's Law and Fitts's Law.

Markus Löchtfeld

### **Literature**

	Pri. lit. no of p.	Sec. lit. no of p.	Dig. upload
MacKenzie, I. Scott. <i>Human-computer interaction: An empirical research perspective</i> . Newnes, 2012.			yes

Lecture notes.

## Lesson 8: Creating an Audiovisual Instrument

Workshop

Combining the presented topics in graphics, sound, and user input to create a real-time audiovisual instrument.

Markus Löchtfeld

### Literature

	Pri. lit. no of p.	Sec. lit. no of p.	Dig. upload
Reas, Casey, and Ben Fry. Processing: a programming handbook for visual designers and artists. Vol. 6812. Mit Press, 2007.	30		yes

## Module 10: Art and Technology Concept Design (Konseptudvikling for oplevelsesteknologi) (5 ECTS) HSA330023F

### Location:

ArT3

### Study Board:

Art & Technology

### Module coordinator:

Ståle Stenslie

### Method of work and language:

Individual work in relation to course activities

English

### Module contents:

The module "Art Concept Design" focuses on concept design processes and method development of interactive installations and/or place-based events. The module introduces academic methods such as qualitative or quantitative of research and analysis and methods of artistic experimental creativity as measures in artistic concept development processes. Furthermore, the module introduces oral and written presentation techniques.

### Objectives

In connection with the module, courses may be offered within the following areas:

- Method Design and Analysis
- Concept Design and Diagrams

### Learning objectives:

During this module, students should acquire:

Basic **knowledge** about

- various qualitative methods in relation to the analysis and understanding of users, places and their usages, etc.



- quantitative methods in relation to the analysis and understanding of users, places and their usages, etc.
- theories and methods of artistic and experimental practices

**Skills in**

- conceptualizing various forms of interactive or relational experience
- employing and combining various methods of concept development
- presenting artistic concepts to various target groups

**Competencies in**

- designing and conceptualizing interactive installation and/or place-based events
- handling complexity related to concept design processes
- identifying own learning needs and to structure own learning related to concept design.

The module is completed with:

**Examination 10**

An internal combined written and oral examination in **Module 10 “Art and Technology Concept Design”** (Konceptudvikling for oplevelsesteknologi).

**Form of examination:** b)

The examination is a free assignment, which is evaluated by one examiner and awarded a pass/fail grade.

For the examination students have to submit a written presentation of an artistic concept within the subject field of Art & Technology. The written part must not exceed 5 pages. The oral examination consists of a student presentation followed by a discussion between the student and the examiner.

**Evaluation:** pass/fail. In case of a Fail grade, an additional examiner will also evaluate the assignment.

**Substitution:** the examination may be substituted by satisfactory and active participation in courses, i.e. 80% presence and submission of all assignments set during the course.

Credit: 5 ECTS

The examination should demonstrate that the student has fulfilled the objectives outlined above.

<b>Exam dates:</b>	See dates in moodle/calendar.
<b>Hand-in date:</b>	
<b>To:</b>	Through Digital Exam

**Scope and expectations:**

See objectives. Students are expected to participate actively in lectures

**Participants:**

ArT3

**Prerequisites for participation:**

None other than having fulfilled 1<sup>st</sup> and 2<sup>nd</sup> semester at ArT

**Course: Concept and Method Designs in ArT**

(2 ECTS)

The course introduces both theoretical and practical elements leading to the creation of a concept. Lectures and exercises will be combined throughout the course. Different perspectives of designing concepts for an artistic intervention will be discussed. The goal is to make the students able to present a concept for a project clearly and convincingly. Students should be able to disseminate the idea, intention, relevance, and strategy for realization behind a forthcoming, possible project..

### Lesson 1: Artistic Methods.

Lecture

The lecture gives an overview of artistic approaches to concept design processes and method development relevant to interactive installations and/or location specific events. The students will get a basic understanding of what concept design is and why it is so important to artistic practice.

Ståle Stenslie

#### Literature

	Pri. lit. no of p.	Sec. lit. no of p.	Dig. upload
Marinetti. F. T.: The Futurist Manifesto. 1909. <a href="http://cscs.umich.edu/~crshalizi/T4PM/futurist-manifesto.html">http://cscs.umich.edu/~crshalizi/T4PM/futurist-manifesto.html</a>	x		
Leavy, Patricia (2008) Method Meets Art: Arts-Based Research Practice. Guilford Press. P. 4 – 16.	x		

### Lesson 2: Qualitative Methods in ArT.

Lecture

The lecture will present qualitative methods useful for the analysis and understanding of users, places and their usages for creating valuable experiences.

Ståle Stenslie

#### Literature

	Pri. lit. no of p.	Sec. lit. no of p.	Dig. upload
Norman K. Denzin, Yvonna S. Lincoln (2011) The SAGE Handbook of Qualitative Research. SAGE.	x		

### Lesson 3: Quantitative Methods in ArT.

Lecture

The lecture will present quantitative methods in relation to the analysis and understanding of users, places and their usages relevant to ArT practice.

Ståle Stenslie

#### Literature

	Pri. lit. no of p.	Sec. lit. no of p.	Dig. upload
Borgdorff, Henk, Artistic research within the fields of science. Download from <a href="http://www.utbildning.gu.se/digitalAssets/1322/1322679_artistic-research-within-the-fields-of-science.pdf">http://www.utbildning.gu.se/digitalAssets/1322/1322679_artistic-research-within-the-fields-of-science.pdf</a>	x		

Slides and other resources

### Lesson 4: Concepts, Language and Concept Designs.

Lecture

What is a concept? Why do they matter? Are they limits to our thinking? Or do they fertilize us with meaning? How to use them for communication and conveying the message?

The lecture will include a workshop in writing, presenting and discussing artistic concepts. The main task is to design and conceptualize an interactive installation and/or place-based event. This should then be presented in class for group discussion.

Ståle Stenslie

### Literature

	Pri. lit. no of p.	Sec. lit. no of p.	Dig. upload
Schwartzman, M. See Yourself Sensing – Redefining Human Perception. Black Dog Publishing, 2011. Note: this book contains several examples of how to mediate installations/media art in a concise and precise manner.	x		

Slides and other resources

### Lesson 5: Conceptual Activism.

Lecture

Overview of the complex ecosystem behind various conceptual and activist interventions. The lecture will present relevant examples for analysis and discussion. Further the lecture will discuss artistic intentions and ideas in comparison to actual, completed artworks.

Reading the mandatory texts and participating in discussion.

Ståle Stenslie

### Literature

	Pri. lit. no of p.	Sec. lit. no of p.	Dig. upload
Julius, Anthony. Transgressions – The Offences of Art. Thames & Hudson, London 2002. P. 16 – 21.	x		

Slides and other resources

### Lesson 6: Big Data as Artistic Concept and Method

Lecture

Big Data has recently become a key term that both serves as a conceptual framework and practice based tool for artistic works. With online applications and social networks such as Facebook, YouTube, Instagram and Photosynth, artists are given access to millions, if not billions of photos, videos and other data. How can these Big Data and the tools to crunch them be used methodologically to produce works of art? Or Gigamap our digital realities? Or twisted to be used differently and discursively from the daily data bombardment caused by Big Data themselves?

The lecture gives a historical, philosophical and critical introduction to Big Data and how it has been used in artistic contexts. The aim of the lecture is to provide the students with qualitative and artistic methods that easily can be used on site during the course' excursion/mapping of Aalborg. Students are expected to read the mandatory texts and participate in class discussion.

Ståle Stenslie

### Literature

	Pri. lit. no of p.	Sec. lit. no of p.	Dig. upload
Dumbill (2012) What is Big Data? <a href="https://beta.oreilly.com/ideas/what-is-">https://beta.oreilly.com/ideas/what-is-</a>	x		

<a href="#">big-data</a>			
Lev Manovich (2013) Software Takes Command (International Texts in Critical Media Aesthetics). Bloomsbury Academic.	x		
Birger Sevaldson. GIGA-MAPPING: visualization for complexity and systems thinking in design: <a href="http://www.nordes.org/opj/index.php/n13/article/view/104/88">http://www.nordes.org/opj/index.php/n13/article/view/104/88</a>	x		
Fry, Ben (2008) Visualizing Data. O'Reilly Media, Inc.	x		

Slides and other resources

## Lesson 7: Aalborg Concept I

Workshop

The workshop shall design and conceptualize an interactive installation and/or place-based events relevant to Aalborg. The concept should use one or several of the methods presented throughout the course.

Ståle Stenslie

### Literature

Slides and other resources

## Lesson 8: Aalborg Concept II

Workshop

Continuation and group wise final presentation of results from the workshop started in Lesson 7.

Ståle Stenslie

### Literature

Slides and other resources

## Module 11: “History of Art and Technology II” (5 ECTS) HSA330025D

### Location:

ArT3

### Study Board:

Art & Technology

### Module coordinator:

Line Bruun Jespersen, KOM [linebruun@hum.aau.dk](mailto:linebruun@hum.aau.dk)

### Module teachers are additionally:

### Method of work and language:

Individual work in relation to course activities

English

### Module contents:

The module is an introduction of the students to the history of art and technology with special emphasis on the theories and techniques, which have been or are currently prevailing in the areas of art experience and aesthetics.

Together with History of Art and Technology I the module introduces the students to examples of artists, artworks and historic events that are significant to the history of Art and Technology.

Using the teaching forms of lectures, workshops and seminars, the module will introduce problems regarding description and analysis of artworks.

### **Courses:**

In connection with the module, courses may be offered within the following area:

- History of Art and Technology II

### **Learning objectives:**

During this module, students should acquire:

Basic **knowledge** about

- the history of art and technology, including selected styles of art and scientific theories within the area of art and technology
- aesthetic theories within the field of art and technology
- central works of selected art periods and genres

**Skills** in

- analyzing works of art within selected art periods and genres
- applying central concepts and analytical methods within the history of art and technology – and acquiring familiarity with their historical context and conditions

**Competencies** in

- comparing various works from selected art periods as regards artistic expression, technological contents, and experience effect
- applying central works from the history of Art & Technology as a framework for reflection and inspiration in relation to their own works

The module is completed with:

### **Examination 11**

An internal written examination in **Module 11 “History of Art and Technology II”** (Kunst- og teknologihistorie II).

**Form of examination:** c)

The examination is a 7-day assignment on a set subject. The assignment is evaluated by one examiner and awarded a pass/fail grade.

Number of pages: the written work must not exceed 10 pages.

**Evaluation:** pass/fail. In case of a Fail grade, an additional examiner will also evaluate the assignment.

**Substitution:** the examination may be substituted by satisfactory and active participation in courses, i.e. 80% presence and submission of all assignments set during the course.

Credits: 5 ECTS.

The examination should demonstrate that the student has fulfilled the objectives outlined

Exam dates:	Writing week: 11.-18.11.2016
Hand-in date:	18.11.2016 at 8.15 am

To:	Through Digital Exam
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### Scope and expectations:

The basic goal of the course is to teach the students to operate with aesthetic theories when they analyze artifacts, and to have a basic notion of the different meta-theoretical discourses (phenomenology, hermeneutics, structuralism, (neo)kantianism, poststructuralism) in the field of modern culture and art 'before the digital revolution' (decadence, modernism, avant-garde, kitsch, and post-modernism).

It is also a sub-goal of the course to teach the students to write expositions based on theories and the analysis of artifacts.

The students are expected to read one primary text for each lecture – and each lecture will center on this text. The students are expected to prepare either to do 5 minutes talks about the primary text, i.e. using one of the basic elements of expository writing – resume, paraphrase, controlling idea, argument or voice; Or, to use the text in the analysis of an artwork. During the course, each student should do one presentation in order to qualify for the (reduced) final assignment.

The course will be concluded with each student writing an exposition on a chosen topic from the course that will be marked. If the student has qualified for it (minimum 80% physical attendance and all assignments), the length of the exposition should be max. 5 pages with a free topic from the semester's teaching. If the student does not qualify, the examination will be as described above under 'form of examination./c)'.  
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## Course: History of Art and Technology II

5 ECTS

### Lesson 1: Introduction to History of Art and Technology II. 20th century art and technology I

Lecture

Brief description: Based on the text by Botin/Jamison the lecture focuses on selected works by artists from the 20th century in order to investigate the relationship between art and technology in the 20th century. Group work and class discussions.

Distribution of assignments.

Lecturer:

Line Marie Bruun Jespersen

#### Literature

	Pri. lit. no of p.	Sec. lit. no of p.	Dig. upload
Lars Botin, Andrew Jamison: The Hybrid Imagination. Chapter	XX		yes
Stephen Farthing. Art the Whole Story. Thames & Hudson. 2012		pp. 316-449	

### Lesson 2: History of Installation Art I

Lecture

This lecture focus installation art, that falls under the title "The Dream Scene" in Claire Bishops book: Installation Art – A Critical History.

Group work and discussions on central examples handed out during the lecture.

ArT3: Student presentation on Allan Kaprow: Essays on the Blurring of Art and Life.

Paper assignment: Research: find at least 70 pages from at least 3 different sources that can help you broaden and deepen your understanding of your assigned artwork. Search for texts/articles about the artwork, the artist, the theme in the artwork, similar art/artists etc

Lecturer:

Line Marie Bruun Jespersen

### Literature

	Pri. lit. no of p.	Sec. lit. no of p.	Dig. upload
Claire Bishop: Installation Art. A Critical History. Tate Publishers 2005	pp. 6-81		yes
Anne Ring Petersen: Installationskunsten. Mellem billede og scene. Museum Tusulanums Forlag. 2009	pp.471-488		yes
Anne Ring Petersen: Installationskunsten. Mellem billede og scene. Museum Tusulanums Forlag. 2009			
Julie H. Reiss: From Margin to Center. The spaces of installations art. MIT Press. 2001		XX	

### Lesson 3: History of Installation Art II

Lecture

This lecture focus on what Claire Bishop calls “Heightend Perception” in Installation Art – A Critical History. Group work and discussions on central examples handed out during the lecture.

ArT3: Student presentation on: Michael Fried. Art and Objecthood.1967

Lecturer:

Line Marie Bruun Jespersen

### Literature

	Pri. lit. no of p.	Sec. lit. no of p.	Dig. upload
Claire Bishop: Installation Art. A Critical History. Tate Publishers 2005	pp. 48-81		
Michael Fried: Art and Objecthood. 1967	XX		
Anne Ring Petersen: Installationskunsten. Mellem billede og scene. Museum Tusulanums Forlag. 2009	pp.471-488		yes
Anne Ring Petersen: Installationskunsten. Mellem billede og scene. Museum Tusulanums Forlag. 2009		XX	
Julie H. Reiss: From Margin to Center. The spaces of installations art. MIT Press. 2001		XX	

### Lesson 4: History of Installation Art III

Lecture

This lecture focus on “Mimetic Engulfment” in: Installation Art – A Critical History.

Student presentation on Jaques Lacan: The Mirror Stage. (Page numbers missing)

Lecturer:

Line Marie Bruun Jespersen

### Literature

	Pri. lit. no of p.	Sec. lit. no of p.	Dig. upload
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Claire Bishop: Installation Art. A Critical History. Tate Publishers 2005	pp. 82-101		
Jaques Lacan: The Mirror Stage.	XX		

## Lesson 5: History of Installation Art IV

### Lecture

This lecture focus on “Activated Spectatorship” in: Installation Art – A Critical History. Group work and discussions on central examples handed out during the lecture.

Student presentation on Nicolas Bourriaud: Relational Aesthetics.

Lecturer:

Line Marie Bruun Jespersen

### Literature

	Pri. lit. no of p.	Sec. lit. no of p.	Dig. upload
Claire Bishop: Installation Art. A Critical History. Tate Publishers 2005	pp. 102-133		
Nicolas Bourriaud: Relational Aesthetics.	XX		
Claire Bishop: Artificial Hells.		XX	
Claire Bishop: The Social Turn. Collaboration and its discontents. Art Forum. Feb. 2006: <a href="http://newsgrist.typepad.com/files/claire-bishop-the-social-turn-collaboration-and-its-discontents-in-2006-artforum.pdf">http://newsgrist.typepad.com/files/claire-bishop-the-social-turn-collaboration-and-its-discontents-in-2006-artforum.pdf</a>		XX	

## Lesson 6: 20th century art and technology

### Lecture

Based on the Introduction to Art Since 1900 the lecture focuses on various analytical/theoretical strategies for understanding and analysing art. The lecture focus on selected artists from the 20th century and their work. Exercises in art analysis (group work) will be part of this lecture.

4 group presentations, based on the main themes of the introduction to Art Since 1900. Guidelines for the presentations will be handed out in lecture 1. Comparison and discussion of the results of Bishop and Buchloh, Krauss, Foster et. al

Lecturer:

Line Marie Bruun Jespersen

### Literature

	Pri. lit. no of p.	Sec. lit. no of p.	Dig. upload
Hal Foster, Roslind Krauss, Yves-Alain Bois, Benjamin H. D. Buchloh : Art Since 1900. Modernism, Antimodernism, Postmodernism. Thames & Hudson. 2012	XX		yes
Anne D’Alewa: Methods and Theories of Art History. Lawrence King Publishing. 2012	pp.5-15	pp.15-151	
Stephen Farthing. Art the Whole Story. Thames & Hudson.		2012 pp.452-459, pp. 484-491, 497-508.	



## Lesson 7: Sites and Non-sites. Art in- and outside the white cube.

Lecture

This lecture is about the sitings of art: Art in public space, Land Art and the institutionalisation of the art world in the 20th century. Found objects, readymades and other approaches to the artefact and materiality in art.

Group discussion of Sculpture in the expanded field

Lecturer:

Line Marie Bruun Jespersen

### Literature

	Pri. lit. no of p.	Sec. lit. no of p.	Dig. upload
Brian O'Doherty: InsideThe White Cube. The Ideology of the Gallery Space. University of California Press. 1999	XX		
Rosalind Krauss: Sculpture in the expanded field.	XX		yes
Robert Smithson: Fragments of a conversation. <a href="http://www.robertsmithson.com/essays/fragments.htm">http://www.robertsmithson.com/essays/fragments.htm</a>	XX		
Carol Duncan: The Art Museum as Ritual. In: The Art of Art History. A Critical Anthology. Donald Preziosi. Oxford History of Art. 2009		pp.424-434	yes
Brian O'Doherty: InsideThe White Cube. The Ideology of the Gallery Space. University of California Press. 1999		XX	

## Lesson 7: Sites and Non-sites. Art in- and outside the white cube.

Workshop

The excursion will take place during the course – not necessarily as lecture number 8. The students get different exercises/assignments that has to be done while at ARoS.

Lecturer:

Line Marie Bruun Jespersen