



AALBORG UNIVERSITY
DENMARK

Study Board of
Art & Technology
Fall 2016

Art and Technology, AAU, 1st semester 2016

Sculpture and Technology / Skulptur og teknologi



Right: Exhibition, Kunsten, 2013, Textile, string, wire, glue. Left: Flaming Cactus, Animus Art Collective, NY, 2011, plastic strips, lamppost



Bottom: Ghost of A Gone By Era, Art & Technology, 1st semester, 2014., Plastic, Dvd covers, light bulb, wire, glue

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

The semester project for ArT1 2015 is called: Sculpture and Technology – Sensing Sculptures of Memory

Description of the semester project

At the core of the human condition is the fact that our biological self has a very finite time on this earth. And the road is paved with goodbyes. Goodbye to your childhood fantasies, goodbye to favorite locations as you move from place to place, goodbye to friends, lovers, partners and family members, goodbye to withering photos and obsolete technologies, goodbye to busted smartphones and worn-out laptops. As we cling on to material artifacts, invent virtual environments, partake in embodied practices and make use of each other to keep our memories from blurring into the horizon, it is the student's main assignment to address this phenomenon of remembering what has been lost, from an artistic standpoint, by working with specific senses, memory and loss from a sculptural and technological stance. The students must use materials, surfaces, textiles, textures to create sculptures or sculptural installations that rely on haptic sensing, touch, taste, hearing and smell in conjunction with the visual. Within the arts there are several related approaches, such as Touch Art, Haptic Art, Tactile Arts and Crafts, Sound art, Responsive Sculptures and other types of art forms that either addresses the issue in a direct, critical or sensitive way. Given their different properties and affordances, the students rework found materials into new aesthetic artifacts that demand more than the visual sense and enable us to recall certain memories.

The precise content of the assignment will be worked out within each group based on common interests in the phenomenon, a specific target audience and location, interest in specific materials (glass, plastic, metal, rubber, electronic waste etc.) and personal views on the matter. Each group will therefore present their own unique approach to sensing sculptures, loss, memory and remembrance and work out a problem statement that clearly defines the approach. The only requirement is that the sculptures should either be interactive or kinetic with respect to integrating basic technological means, made primarily from found materials and focus for the design must be brought onto the selected target group set by the semester coordinator.

Semester coordinator

Jakob Borrits Sabra, KOM
Jakob@sabra.dk

+45 60920036

Secretariat

Anne Nielsen, KOM
amn@hum.aau.dk

+45 9940 9919

Supervisors

Jakob Borrits Sabra, KOM
 Line Marie Bruun Jespersen, KOM

Overview of the modules

Module 1: Sculpture and Technology (15 ECTS)

Courses:

Materials - form, structure and composition
 Perception in Theory and Praxis I
 Artistic and Academic Methodology I (Creative Methods)
 Sketching Techniques I

Supervisors:

Jakob Borrits Sabra, KOM
Line Marie Bruun Jespersen, KOM

Teaching staff:

Thomas Kristensen, KOM
Dario Parigi, BYG
Elizabeth Jochum, MT
Bo Allesøe Christensen, KOM
Jakob Borrits Sabra, KOM

Module 2: Problem-Based Learning (5 ECTS)**Course:**

Problem Based Learning

Supervisors:

Jakob Borrits Sabra, KOM

Teaching staff:

Jakob Borrits Sabra, KOM

Ulla Konnerup, KOM

Module 3: Physical Interface Design I (5 ECTS)**Courses:**

Basic Electronics
Sensors and Actuators I

Supervisors:

Martin Kibsgaard, MT
Markus Löchtefeld

Teaching staff:

Martin Kibsgaard, MT

Module 4: History of Art and Technology I (5 ECTS)**Course:**

History of Art and Technology I

Supervisors:

Line Marie Bruun Jespersen, KOM

Teaching staff:

Line Marie Bruun Jespersen, KOM

Departments:

KOM	Department of Communication and Psychology
AD	Department of Architecture, Design and Mediatechnology (Architecture and Design)
MT	Department of Architecture, Design and Mediatechnology (Mediatechnology)
BYG	Department of Civil Engineering
ITS	IT-support

Module 1: “Sculpture and Technology” (Skulptur og teknologi) (15 ECTS) HSA110017F

Location:

ArT1

Study Board:

ArT & Technology

Module coordinator:

Jakob Borrits Sabra

Jakob@sabra.dk

+45 60920036

Method of work and language:

Project work in groups.

English

Module contents:

In this module, students work with basic theories and practical methods in regard to the creation of sculptures and sculptural installations and the design of physical artefacts as an aesthetic manifestation. Using materiality as a point of departure, students work with basic principles of form, tactility, structure, composition and artistic expression. Students experiment with a variety of materials and basic technologies in connection with the design and creation of physical artefacts. Students work theoretically and experimentally with a variety of formal, static and dynamic principles, and contexts of use.

Courses:

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

1. Materials - Form, Structure and Composition
2. Perception in Theory and Practice I
3. Artistic and Academic Methodology I: Creative Methods and Academic Writing
4. Sketching Techniques

Learning objectives:

The objective of Module 1: “Sculpture and Technology” is to introduce the students to basic problem subjects and solutions in relation to the creation and construction of artefacts, products and installations of sculptural and aesthetic quality.

During this module, students should acquire:

Basic **knowledge** about

- physical artefacts, sculptures and sculptural installations
- application of basic technology in connection with the production and use of artefacts
- aesthetic and artistic means of expression, interaction of form and technology and choice of materials
- methods and tools for the creation of a work from idea to completed artefact

Skills in

- identifying, formulating, and analyzing an artistic problem within the theme “sculpture and technology” and developing alternative concepts for a selected problem

- describing and motivating choice of methods in connection with the production of sketches, models and prototypes of artefacts
- identifying, developing and describing artistic ideas and concepts, and the interaction between form and technology, choice of materials and aesthetic expression
- applying appropriate technologies and construction methods in connection with the production and use of artefacts

Competencies in

- describing and analyzing physical artefacts, sculptures and sculptural products
- producing conceptual suggestions of artefacts with artistic quality
- developing practical skills regarding aesthetics and artistic idioms
- describing the completed product in texts, diagrams, drawings, and models, and communicating this in a project report, portfolio, etc.

The module is completed with:

Examination 1

An internal combined written and oral examination in **Module 1: “Sculpture and Technology”** (Skulptur og teknologi).

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

Form of examination: b)

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 per student and 10 minutes for assessment and communication of grades per group, however, the duration of the examination is maximum 2 hours.

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.

Exam dates:	16-19 January
Exhibition dates:	30 November-2nd December
Deadline:	
Hand-in date:	December 22, 2016, at 10 am
To:	Digital Exam

Course: Materials - form, structure and composition

(2 ECTS)

The course provides an insight, with both theoretical and hands-on approach, on how physical principles and material properties affect, directly or not, the work of sculptors.

Lesson 1: Basic Principles of Equilibrium

Lecture with exercise

Sculptures rarely have a purely structural intent; however sculptures need to be shaped in certain ways in order to exist as physical objects, and structural and material limitations could be understood as opportunities for artistic expression. The lecture introduces fundamental concepts of forces, moments and equilibrium through the use of simple operations and graphic force diagrams. Practical example and exercises will be provided for the application of such concepts in the context of sculpture. Students will be called to create a “mobile”, a type of kinetic sculpture based on the principle of equilibrium.

TBA

Lecturer: Dario Parigi

Literature

	Pri. litt. no of p.	Sec. litt. no of p.	Dig. upload
Daniel L. Schodek, 1993, Structure in Sculpture (pages 40-46)	6		

Lesson 2: Balance and Movement: Kinetic Sculptures

Lecture

Students will be introduced to the kinetic potential of sculpture through an overview of the constraints and mechanisms that can be combined and assembled in order to achieve an artistic expression.

TBA

Lecturer(s): Dario Parigi

Literature

	Pri. litt. no of p.	Sec. litt. no of p.	Dig. upload
Daniel L. Schodek, 1993, Structure in Sculpture (pages 86-93)	6		

Lesson 3: Balance and Stability - part 1

Lecture

The concepts introduced in the first lecture will be applied in the determination of the stability of a structure with both single and multiple supports, either under its own self weight and when subjected to external loads.

TBA

Lecturer: Dario Parigi

Literature

	Pri. litt. no of p.	Sec. litt. no of p.	Dig. upload
Daniel L. Schodek, 1993, Structure in Sculpture (pages 46-85)	39		

Lesson 4: Balance and Stability - part 2

Lecture with exercise

An intuitive graphic method will be introduced for the determination of the center of mass of a three dimensional sculpture.

TBA

Lecturer: Dario Parigi

Literature

	Pri. litt. no of p.	Sec. litt. no of p.	Dig. upload
Daniel L. Schodek, 1993, Structure in Sculpture (pages 46-85)	39		

Lesson 5: Shapes and Stresses in Structural Systems

Lecture with exercise

Analysis of stresses developing in elements of different structural systems: tension, compression, and bending.

TBA

Lecturer: Dario Parigi

Literature

	Pri. litt. no of p.	Sec. litt. no of p.	Dig. upload
Deplazes, A., 2005, Constructing Architecture: Materials, Processes, Structures (pages 113-138)	25		
Daniel L. Schodek, 1993, Structure in Sculpture (pages 104-126)	22		

Lesson 6: Introduction to Materials: Metal

Lecture

Material properties and crafting techniques have a direct impact on the way the sculptor can work with the material and what forms can be made with it.

The lecture presents the mechanical and physical properties of metals, crafting tools, techniques and construction details.

TBA

Lecturer: Dario Parigi

Literature

	Pri. litt. no of p.	Sec. litt. no of p.	Dig. upload
Deplazes, A., 2005, Constructing Architecture: Materials, Processes, Structures (77-112)	35		
Daniel L. Schodek, 1993, Structure in Sculpture (pages 242-253)	11		

Lesson 7: Introduction to Materials: Wood

Lecture

The lecture presents the mechanical and physical properties of wood, crafting tools, techniques and construction details.

TBA

Lecturer: Dario Parigi

Literature

	Pri. litt. no of p.	Sec. litt. no of p.	Dig. upload
Deplazes, A., 2005, Constructing Architecture: Materials, Processes, Structures (pages 56-76)	10		
Daniel L. Schodek, 1993, Structure in Sculpture (page 253)	1		

Lesson 8: Introduction to Materials: Concrete

Lecture

The lecture presents the mechanical and physical properties of concrete, crafting tools, techniques and construction details.

TBA

Lecturer: Dario Parigi

Literature

	Pri. litt. no of p.	Sec. litt. n of p.	Dig. upload
Deplazes, A., 2005, Constructing Architecture: Materials, Processes, Structures (pages 56-76)	20		
Daniel L. Schodek, 1993, Structure in Sculpture (pages 260-265)	5		

Course: Perception in Theory and Praxis I

(1 ECTS)

This course is divided between introducing historical and present theories of perception, and assignments of environmental investigation putting these theories to practice.

Lesson 1-2: Perception in Theory and Praxis – Introduction

The first two lessons will focus on the relation between perception and its content, i.e. the materials related to visual and tactile perception. We will especially dive into challenges of 1) understanding how these relations obtain, and 2) the means of expressing these relations. Both will support the students in picking materials and objects for the assignment in lesson 3+4.

It is important that students have read Ingold (2007) in advance of the first lesson, chap. 1 of Wade and Swanston (2004) and checked out the webmineral web page.

Assignment – Environmental Investigation – will be handed out in relation to the course.

Date for lesson – 5/9-2016

Lecturer: Bo Allesøe Christensen

Literature relevant for the main semester report will be given in relation to the course

Literature

	Pri. lit. no of p.	Sec. lit. n of p.	Dig. upload
Gibson, J. J. (1979). <i>Ecological Approach to visual perception</i> . London: Routledge, Chapter 8	40		
Gordon, I. (2004). <i>Theories of Visual Perception</i> , 3rd. ed. Hove and New York: Psychology Press, ch. 1+6		47	
Ingold, T. (2007). "Materials against Materiality" <i>Archaeological Dialogues</i> 14(1): 1-16	16		
Wade, N.J. and Swanston, M. (2004). <i>Visual Perception – an introduction</i> . Hove and New York: Psychology Press		32	
http://webmineral.com/help/Habits.shtml			

Lesson 3-4: Lecture (and assignment presentation)

After the students have presented the result from the assignment the course will end with a lecture that touches upon the understanding of the history and science behind theories of perception.

The goal of the course is to deepen the understanding of the history and science behind theories of perception.

Chapter 8 of Gibson (1979) is required reading here.

After the students have presented the result from the assignment the course will end with a lecture that touches upon the understanding of the history and science behind theories of perception.

The goal of the course is to deepen the understanding of the history and science behind theories of perception.

Date for lesson - 8/9-2016

Lecturer: Jakob Borrits Sabra

Literature relevant for the main semester report will be given in relation to the course

Literature

	Pri. lit. no of p.	Sec. lit. no of p.	Dig. upload
Gibson, J. J. (1979). <i>Ecological Approach to visual perception</i> . London: Routledge, Chapter 8.	40		

Course: Artistic and Academic Methodology I (Creative Methods)

(1 ECTS)

Lesson 1: Introduction Academic Writing

Workshop

This workshop provides students with an introduction to the fundamentals of academic writing. Special attention will be given to organizational and research methods for ArT semester reports (including bibliographic references citation methods), as well as case studies/user studies, and challenges unique to interdisciplinary and co-authored reports. Special attention will be dedicated to online resources, AAU library services, as well as PBL requirements.

Date for lesson - see calendar.

Lecturer: Elizabeth Jochum

Literature

	Pri. lit. no of p.	Sec. lit. no of p.	Dig. upload
Writing in College (Univ of Chicago) by Joseph Williams and Lawrence McEnernery.	?		
https://owl.english.purdue.edu/owl/resource/658/01/	?		
http://www.chicagomanualofstyle.org/home.html	?		
http://www.en.aub.aau.dk	?		
Form & Style (Carole Slade & Robert Perrin) Chapter 1, 3, and 7	?		
Handbook for Writers (Ruszkiewicz et al.) Ch 6: How Do You Write in College?	?		

Lesson 2: Academic Methodology: Applied Methods.

Workshop

What is applied research, and how is it relevant to ArT study and your project reports? This workshop provides students with an introduction to applied methods in the humanities with a specific focus on new media art and interdisciplinary research projects that combine scientific and artistic methods. We discuss specific evaluation methods that frame applied research in Art and Technology and HCI research.

Date for lesson - see calendar.

Lecturer: Elizabeth Jochum

Literature

	Pri. lit. no of p.	Sec. lit. no of p.	Dig. upload
New Media Art (Mark Tribe) https://wiki.brown.edu/confluence/display/MarkTribe/New+Media+Art	X		
Interactive Experience in the Digital Age (Candy and Ferguson)- Introduction	X		
"Blending Art Events and HCI Research" (Reilly et al.)	X		

Lesson 3: Artistic Methods: Sculpture & Performance Early History.

Lecture

This class traces the intersection of sculpture, kineticism and performance in the early twentieth century avant-garde. We specifically look at works by Umberto Boccioni, Fortunato Depero, Maholy-Nagy and Alexander Calder to chart the development of non-figurative sculpture in European and American kinetic art and its impact on late-twentieth century sculpture.

Date for lesson - see calendar.

Lecturer: Elizabeth Jochum

Literature

	Pri. lit. no of p.	Sec. lit. no of p.	Dig. upload
"Colori" (Fortunato Depero).	X		
"Absolute Motion + Relative Motion = Dynamism" (Umberto Boccioni)	X		
Beyond Modern Sculpture: CH 1 "Sculpture's Vanishing Base," Ch 6 "Kineticism: The unrequited Art" (Jack Burnham).	X		

Lesson 4: Artistic Methods: Sculpture/Performance/Installation late 20th/ early 21st century

Lecture

This class discusses the performative turn in sculpture that includes systems and generative art. We consider how relevant works by Robert Breer and Billy Klüver and Fujiko Nakaya developed by E.A.T. artists for the Expo '70 and other contemporary interactive sculptures, as well as Cybernetic Serendipity and Nine Evenings, as well as contemporary robotic art works, deliberately experiment with performance elements and structure to interrogate the concept of sculpture in the postmodern age.

Date for lesson - see calendar.

Lecturer: Elizabeth Jochum

Literature

	Pri. lit. no of p.	Sec. lit. no of p.	Dig. upload
Beyond Modern Sculpture: Ch 7 "Light Sculpture as Medium," Ch 8 "Robots and Cyborg Art" (Jack Burnham)	X		
"The Machine as Autonomous Performer" in Interactive Experience in the Digital Age (Bown et al.)	X		
"The Telegarden and Other Oddities" in Robots and Art: An Unlikely Symbioses. Jochum and Goldberg.	X		

Course: Sketching Techniques I

(1 ECTS)

Lesson 1-2: From ideas to realisation, analogue and digital drawing tools.

Workshop

Lecturer: Jakob Borrits Sabra

In the first lecture the students will be introduced to different ways of communicating dreams, thoughts and ideas via sketching techniques using pen and pencil before introducing Adobe Indesign, Illustrator and Photoshop.

The students will be encouraged to express themselves by trying to understand the enjoyment of sketching using both analogue and digital tools. In the first lecture the students will be introduced to graphical representation techniques in the format of image, poster and report page. The second lecture will introduce Adobe Photoshop and manipulation of images, superimposition and other techniques.

Date for lesson - see calendar.

Literature

	Pri. lit. no of p.	Sec. lit. no of p.	Dig. upload
Ching, F.D.K, 1998, Design Drawing, Ch. 9+10, John Wiley & Sons, Inc.,	40		
Video tutorials from Adobe TV: Adobe Photoshop CC http://tv.adobe.com/channel/how-to/			

Lesson 3-4: Print and presentation with Adobe Indesign

Workshop

The students will learn the basics of Adobe Indesign to be able to set up their reports and exporting them to print. The students will learn about the differences between screen-based and printing press quality. Focus will be on screen-based media as reports are to be uploaded digitally in the future.

Literature

	Pri. lit. no of p.	Sec. lit. no of p.	Dig. upload
Video tutorials from Adobe TV: Adobe Indesign CC http://tv.adobe.com/channel/how-to/			

Module 2: “Problem Based Learning” (Problembaseret læring) (5 ECTS) HSA110021F

Location:

ArT1

Study Board:

ArT & Technology

Module coordinator:

Jakob Borrits Sabra, KOM

jbsa@create.aau.dk

+45 60920036

Method of work and language:

Group work

English

Module contents:

This module consists of an introduction to the main constituents of art and technology projects: problem-based learning and project work including statement of problem, artistic practice, academic methods and technological means. Furthermore, the module introduces group work and supervision. The module is arranged as a minor project including lectures and workshops.

Courses:

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

- Problem Based Learning

Learning objectives:

During this module, students should acquire:

Basic **knowledge** about

- problem-based learning and project work
- the importance of choice of methods
- the application of technological means and materials

Skills in

- identifying and formulating an artistic problem within the areas art and technology
- describing and validating choice of methods for solving a defined problem
- collecting and applying relevant knowledge in relation to a defined problem

- finding and applying practical solutions

Competencies in

- structuring and reflecting on a problem-based project process
- participating in professional and interdisciplinary and intercultural collaboration in order to solve a defined problem.

The module is completed with:

Examination 2

An internal oral project examination in **Module 2 “Problem Based Learning”** (Problembaseret læring) on the basis of a project report that must not exceed 3 pages per student.

Form of examination: b)

Duration: 15 min per student.

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 above.

Exam dates:	
Exhibition dates:	
Deadline:	
Hand-in date:	No hand-in. Group presentations
To:	

Scope and expectations:

In order to pass the course students will have to attend 80% of the course and show active participation in the Parking Day event on the 19th of Sept.. Additionally the students will make a presentation of the problem statement, the work process and the results of the work with Parking Day in order to pass the course. Specifics regarding the presentation, including a schedule and time frame will be given during the PBL course.

Module activities (course sessions etc.) Beside the listed activities below, the module will consist of workshop-activities, ad hoc student presentation and feedback as well as supervision.

Course: Problem Based Learning

(2 ECTS)

Lesson 1: PBL – introduction

Lecture (1 and 2)

The purpose of the first 2 lectures is to give an introduction to the Aalborg PBL model, which is based on group work and group supervision. Furthermore, in relation to Art and Technology, we will look at the play based extended concept of PBL, namely PpBL (Problem and play based learning).

TBA

Lecturer: Jakob Borrits Sabra

Literature

	Pri. lit. no of p.	Sec. lit. no of p.	Dig. upload
Hans Kiib in "The Aalborg PBL model" - Playbased Learning (Moodle)	X		

Lesson 2: Problem Statement – How (we create it) and Why (we need it)

(Lecture 3 and 4)

Lecture 3 will give an introduction to the historical and pedagogical roots of Problem Based Learning, the ontological and epistemological positions and to the principles and praxis of the *Aalborg PBL-model*

Lecture 4 will concentrate on the extended concept of PBL, problem and play based learning (PpBL) and how the concept and principles relate to ArT.

Group exercise (45 min): Identifying a problem

TBA

Lecturer: Ulla Konnerup

Literature will be given out during the PBL – period

Literature

	Pri. lit. no of p.	Sec. lit. no of p.	Dig. upload
Kiib, H. (2004). PpBL in architecture and design. I Aalborg Pbl Model: Progress, Diversity and Challenges. Aalborg Universitetsforlag.	197-211		
Kolmos, A., Du, X., Holgaard, J. E., & Jensen, L. P. (2008). Facilitation in a PBL environment. UCPBL UNESCO Chair in Problem Based Learning.			
Kolmos, A., & Fink, F. K. (2004). The Aalborg PBL model: progress, diversity and challenges (pp. 9-18). L. Krogh (Ed.). Aalborg: Aalborg University Press.			

Lesson 3: Writing Academic Reports

Lecture (5 and 6)

During this part of the course student will acquire basic knowledge about report writing, academic language and be introduced to how to plan and execute the process of writing a report based on a problem statement.

Lecturer: Jakob Borrits Sabra

Literature

	Pri. lit. no of p.	Sec. lit. no of p.	Dig. upload
Harvard referencing guide (upload on moodle)			x
12 pieces of advice for writing - translation, Andersen, 1999, Den skinbarlige virkelighed, 3rd. edition, p 293 (upload on moodle)			x

Lesson 4: PBL – supervision and evaluation.

Lecture (7)

During this part of the course, supervision and the relation between supervisors and students will be on the agenda. Furthermore, challenges related to evaluation and examination will be addressed in relation to the Aalborg model of doing group exams.

TBA

Lecturer: Jakob Borrits Sabra

Literature

Module 3: “Physical Interface Design I” (Fysisk interface design I) (5 ECTS) HSA110019D

Location:

ArT1

Study Board:

ArT & Technology

Module coordinator:

Martin Kibsgaard (Media Technology)

kibsgaard@create.aau.dk

Method of work and language:

Individual or small groups

English

Module contents:

In this module, students learn about basic principles of electronics and how different electronic sensors and actuators can be interfaced to a microcontroller to design alternative forms of interactions between man and machine.

Courses:

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

- Basic Electronics
- Sensors and Actuators I

Learning objectives:

During this module students should acquire:

Basic **knowledge** about

- basic electronics: resistors, diodes, and transistors
- sensing possibilities: binary (buttons) and continuous (analog) sensors
- related work in sensor technology and the media arts

Skills in

- developing and applying a physical interface using specific sensors and actuators
- analyzing use of the artefact
- synthesizing knowledge in written documentation

Competencies in

- evaluating an artefact with regards to basic electronics, sensors, and actuators.

The module is completed with:

Examination 3:

An internal written examination in **Module 3: “Physical Interface Design I”** (Fysisk interface design I).

Form of examination: c)

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

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

Exam dates:	Writing week: 30.09-10.10.2016
Exhibition dates:	
Deadline:	
Hand-in date:	10.10.2016 at 8.00 am
To:	Through Digital Exam

Scope and expectations:

The world of electronics is an essential gateway to the creation of many interesting projects. This course will cover some of the general concepts regarding working with electronics, with the goals of providing course participants with

- Understanding of and ability to work safely with basic electronics
- Ability to do basic calculations on resistor-diode circuits
- Knowledge of different types of electronic sensor and actuators
- Ability to design, simulate and build basic circuits

The content of the course is developed for entry-level participants with little or no experience with electronics. The course will cover theoretical concepts (such as electronic units and ohms law) as well as practical concepts. Each lecture covers a set of skills which will be put into use at assignments both during and after each lecture.

Course: Basic Electronics

(1 ECTS)

Lesson 1: Introduction to Basic Electronics.

Lecture

Electricity recap: Current, Voltage, Power, Resistance, Units, Kirchoff's circuit laws, Ohm's law. Materials needed for the course.

Introduction to the lab..

Safety.

Date for lesson - see calendar.

Lecturer: Martin Kibsgaard

Literature

	Pri. lit. no of p.	Sec. lit. no of p.	Dig. upload
Platt, C., 2015, Make: Electronics - learning through discovery, 2nd Edition, p1-352	352		

Slides and Online Resources

Lesson 2: Electronic Components

Lecture

Electronic Components: Resistors, Diodes, Switches, Transistors, (Capacitors), Power supply, Multimeter. Calculate different circuits containing resistor networks. Build them and measure them. Prototyping. Safety recap.

Date for lesson - see calendar.

Lecturer: Martin Kibsgaard

Literature

	Pri. lit. no of p.	Sec. lit. no of p.	Dig. upload
Platt, C., 2015, Make: Electronics - learning through discovery, 2nd Edition, p1-352	352		

Slides and online resources

Lesson 3: Reading schematics

Lecture

Reading schematics: Symbols, Approaches. Example schematics: Voltage divider, Switch with pull-up resistor, Blink circuit, etc. Calculating component values.

Software to visualize and simulate.

Building circuits from schematics.

Date for lesson - see calendar.

Lecturer: Martin Kibsgaard

Literature

	Pri. lit. no of p.	Sec. lit. no of p.	Dig. upload
Platt, C., 2015, Make: Electronics - learning through discovery, 2nd Edition, p1-352	352		

Slides and online resources

Lesson 4: Building circuits and approaches to debugging circuits

Lecture

Building circuits and approaches to debugging circuits ("Why isn't it working?"). Measuring with multimeter and oscilloscope.

Date for lesson - see calendar.

Lecturer: Martin Kibsgaard

Literature

	Pri. lit. no of p.	Sec. lit. no of p.	Dig. upload
Platt, C., 2015, Make: Electronics - learning through discovery, 2nd Edition, p1-352	352		

Slides and online resources

Course: Sensors and Actuators I

(1 ECTS)

Lesson 1: Overview of different sensors

Lecture

Overview of different sensors: Motion, Light, (Cameras), Sound, Pressure, Temperature, Switches, Triggers, Distance.

Inertial measurement units (IMUs): Acceleration, Rotation, Magnetic.

Date for lesson - see calendar.

Lecturer: Martin Kibsgaard

Literature

	Pri. lit. no of p.	Sec. lit. no of p.	Dig. upload
Platt, C., 2015, Make: Electronics - learning through discovery, 2nd Edition, p1-352	352		

Slides and online resources

Lesson 2: Overview of different actuators

Lecture

Overview of different actuators: Motion, Light, Sound, Temperature.

How to control high power actuators: Transistors, Relays.

Safety.

Date for lesson - see calendar.

Lecturer: Martin Kibsgaard

Literature

	Pri. lit. no of p.	Sec. lit. no of p.	Dig. upload
Platt, C., 2015, Make: Electronics - learning through discovery, 2nd Edition, p1-352	352		

Slides and online resources

Lesson 3: Using the sensors and actuators to build circuits.

Workshop

Basic introduction to Arduino and microcontrollers: Input, Output, Digital, Analog. Basic introduction to programming a microcontroller.

Date for lesson - see calendar.

Lecturer: Martin Kibsgaard

Literature

	Pri. lit. no of p.	Sec. lit. no of p.	Dig. upload
Platt, C., 2015, Make: Electronics - learning through discovery, 2nd Edition, p1-352	352		

Slides and online resources

Lesson 4: Wider scope

Workshop

Idea generation with electronics and semester projects.

Date for lesson - see calendar.

Lecturer: Martin Kibsgaard

Literature

	Pri. lit. no of p.	Sec. lit. no of p.	Dig. upload
Platt, C., 2015, Make: Electronics - learning through discovery, 2nd Edition, p1-352	352		

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

Location:

ArT1

Study Board:

Art & Technology

Module coordinator:

Line Bruun Jespersen, KOM 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 teknologi-historie 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

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
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: http://newsgrist.typepad.com/files/claire-bishop-the-social-turn-collaboration-and-its-discontents-in-2006-artforum.pdf		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’Aleva: 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. http://www.robertsmithson.com/essays/fragments.htm	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