AALBORG UNIVERSITET

ArT & Technology Semester Description 1. Semester 2018

Semester details

School: MPACT

Study board: ArT & Technology

Study regulations: BA Study Program in Art & Technology, The Faculty of Humanities, AAU, September 2015: http://www.fak.hum.aau.dk/digitalAssets/109/109056_ba_art_2015_hum_aau.dk.pdf

Semester framework theme

The first semester at Art and Technology introduces the new students to being a student of Art and Technology at AAU.

At first semester the students get a course in PBL, to prepare the students to do problem based work in project groups at a PBL.

First semester also include a course in History of Art and Technology, which serves as an introduction to the field of Art and Technology, its historical contexts, and to provide the students with knowledge of central concepts and artists in the field.

In the course Physical Interface Design the students are introduced to basic electronics and the use of sensors and actuators.

The semester project on first semester focus on sculptural artefacts, and the project work is supported by courses in perception, sketching, artistic and academic methodologies (creative methods) and materials. The courses are designed to support the project work. Students will be split in project groups early in the semester, the 21st of September. The group formation process will take departure in methods and tools taught in the PBL course.

Most of the courses on first semester are introductions, and will be followed by similar courses on later semesters: courses like Perception, HAT and PID will continue during the first year of study, while Artistic and Academic Methodology will be part of all semester project modules, but with alternating themes.

Along the course work, the semester also introduces the students to the use of the facilities at Art and Technology: the ArTLab, the Wet Lab and the Electronics Lab. The semester focuses on establishing a good study environment, good study skills and –habits among the students, and introducing the students to all aspects of the everyday life at AAU.

Important dates and events during the semester:

21.9.2018 Group formation for the semester project

18.9.2018 PBL Poster Presentation

18.10.2018 Artistic and Academic Methodology I: Concert in Platform4

09.11.2018 Deadline for HAT assignments

17.01-24.01.2018 Writing week HAT

12.11.2018- 19.11.2018 Writing week PID

Exhibition dates: 28.11-29.11.2018

20.12.2018 Semester Report Deadline 10 a.m. Submit your semester report on Digital Exam

Semester organisation and time schedule

Semester coordinator

Line Marie Bruun Jespersen, KOM

linebruun@hum.aau.dk
Tlf: 2128 0047

Secretariat

Anne Nielsen, KOM

amn@hum.aau.dk

+45 9940 9919

Supervisors

Sandro Masai, KOM

Anca Horvath, KOM

Line Marie Bruun Jespersen, KOM
Signe Meisner Christensen, AD

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:

Sandro Masai, KOM

Anca Horvath, KOM

Line Marie Bruun Jespersen, KOM
Signe Meisner Christensen, AD

Teaching staff:

Thomas Kristensen, KOM

Dario Parigi, BYG

Tony Brooks, MT

Walther Jensen, MT

Elizabeth Jochum, KOM

Bo Allesøe, KOM

Jakob Borrits Sabra, KOM

Module 2: Problem-Based Learning (5 ECTS)

Course:

Problem Based Learning

Supervisors:

Tony Brooks, MT

Teaching staff:

Tony Brooks, MT

Elizabeth Jochum, KOM

Module 3: Physical Interface Design I (5 ECTS)

Courses:

Basic Electronics

Sensors and Actuators I

Supervisors:

Walther Jensen, MT

Teaching staff:

Walther Jensen, MT

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

Course:

History of Art and Technology I

Supervisors:

Line Marie Bruun Jespersen, KOM
Signe Meisner Christensen, AD

Teaching staff:

Line Marie Bruun Jespersen, KOM
Signe Meisner Christensen, AD
Morten Søndergaard, KOM

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
IT	IT-support

Semester coordinator and secretary assistance

Semester coordinator: Line Marie Bruun Jespersen

Secretariat assistance: Anne Nielsen

Module description (description of each module)

Module title, ECTS credits

Sculpture and Technology

15 ECTS

Location

1. Semester

Module coordinator

Line Marie Bruun Jespersen, KOM

Type/Method and language

Group and project work

English

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.

Academic content

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.

Scope and expected performance

15 ECTS credits. 1 ECTS credit = 27,5 hours of work. 15 ECTS = 412,5 hours of work consisting of preparation for course sessions, course participation, group work, exercises, counselling and exams.

Module activities (course sessions etc.)

Description of the semester project

The semester theme of the first semester is “Sculpture and Technology”.

This semester focuses on intersections between sculpture and technolog whilst the semester project aims at the creation of a sculptural artefact, which include both features of movement and sound.

During the semester, the students will participate in a series of courses, that are designed to support the project work. The courses in the semester will introduce various materials, different construction methods, various forms of technology that can be included to create dynamic effects as well as different ways to include sound as a significant part of an art work.

As part of the courses offered in the semester, the students will carry out three larger experiments that are designed to give hands-on experiences with sculptural objects, sound and movement. The three experiments are:

1. A concrete sound art composition (part of Artistic and Academic Methodology I)
2. A mobile (part of Materials, Structure, Composition)
3. A machine/circuit that generate sound (part of Physical Interface Design).

Each of these experiments will be described in more detail in the courses. The experiments must be considered as research for the semester project, and you must account for how you use results and learning outcomes from the three experiments in the semester project in the “Design” section of the report (see report outline below).

The semester project; a sound sculpture, must live up to the following criteria:

- The sculpture/artifact must include more than one construction principles (carving, modeling, joining, casting)
- The sculpture/artifact must have sound as a significant part of the work.
- The sculpture/artifact must include some form of movement by application of one or more methods for making objects move introduced in the courses
- The sculpture/artifact must be able to be exhibited on 1-4 of the Cube plinths. Each cube measure 40x40cm.

The ways of including moving parts and sound are limited to the technologies and methods taught in the courses.

During the semester the students will present their sound compositions in a concert at Platform 4, the mobiles and the semester projects will be exhibited at the final semester exhibition.

The outline of the semester project report is listed below. Each project group must also produce a short video (max. 2 min.) that document the sound sculpture in action.

Report outline:

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?
Introduce the theme and general description of the project. What is your project about? What are the main concerns, issues or topics relevant to the theme [PROBLEM AREA]? How does your specific project relate to broader context or art-historical context?

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.

What is your declared problem statement, or problem formulation? What specific aspect do you want to address? Is it a societal concern? Is the problem of a material, environmental, perceptual, psychological, educational, mental or universal state – or more of those combined?

”State of the Art”

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.

Theory

What relevant theories have you researched as part of this project? List 3-4 theories or academic sources that will inform your overall research. This can be grounded-theory or state-of-the-art (fr example, interaction design for modern museums). These theories are part of the background research for your project, and will be specific to each group (i.e. not PBL or AAM course literature). How will this ACQUIRED, discipline-specific knowledge help your project and overall research design?

DESIGN (incl. Design Process)

Continue to the semester project:

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.

It is in this section you include all the research and experiments you carried out during the process, including the experiments in the courses: the concrete sound art composition, the mobile and the assignment in PID. It is important that you show what you have learned from the experiments, and how this learning is informing your final semester project. That means that documentation of the experiments and the results, as well as your reflections on how the learning outcome informs your semester project, must be presented in the report.

Key questions: What were the different processes you went through during this project? What were the most significant methods you used to a) gain knowledge of the topic and the project, b) to design, construct and produce your art project. Do not just describe what you did, but reflect on the iterative design process and the outcomes.

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? How do you analyze the data? What do you hope to find out from this study?

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 are the success criteria? What can others learn from this?

BIBLIOGRAPHY

Bibliography/Reference List

- References used in the project (theory, websites and other artworks)
- Use APA Referencing Style
- All images and figures must be labeled.

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.

Include a link to a 2 min video that document your semester project ”in action”

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.

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

Citations/Referencing "APA Quick"
= http://guides.libraries.psu.edu/apaquickguide/quiz

http://www.academicintegrity.uoguelph.ca/plagiarism/quiz-citation-and-referencing

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:

Sandro Masai, KOM

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Elizabeth Jochum, KOM

Bo Allesøe, KOM

Jakob Borrits Sabra, KOM

Artistic and Academic Methodology I (Creative Methods)

In this course we will work with sound, through a hands-on creative process in a mini-project. You will learn about how concrete sound has been used historically in art and music, what tools they used in the early days of electronic sound, and how similar techniques have been used today, but with very different aesthetics. Based on what you learn, each of you will compose a concrete sound work, and reflect on your creative process. These pieces will be played in a public concert at the end of the course.

The course will be given in the form of a series of lectures, including an introduction to hands on tools to work with sound. An important part of the course is the individual assignment.

Examination of the course is based on active participation and hand-in of the assignment.

Lecturer: Palle Dahlstedt, Obel Professor in Art & Technology, composer, sound artist and musician.

Lecture 1

Introduction to the history of sound and concrete music

We will look at how recorded sound became a medium for artistic expression in the early 20th Century, and how the genre of concrete music became an important foundation of electronic music.

	Pri. lit. no of p.	Sec. lit. no of p.	Dig. upload
Taylor & Cahen. The History of Sound Art, 2011 (105 minutes of audio + PDF booklet infographics)			
Michel Chion. 3 modes of listening, from Audio-Vision, Columbia University Press, 1994, pp.25-34			

Lecture 2

Tools for working with sound, then and now

Artistic expression is to a large degree shaped by which tools are available - they decide

what can be done, and how. But this is a spiralling process, since artists exploring new expressions also want new tools. We will look at this process using the history of concrete music as an example, including its more modern offspring genres of sample-based electronica.

	Pri. lit. no of p.	Sec. lit. no of p.	Dig. upload
D. Teruggi. Technology and musique concrète: the technical developments of the Groupe de Recherches Musicales and their implication in musical composition, *Organised Sound* 12(3): 213–231, 2007	18		
Brian Speise. From Grapefruit to Plastic Surgery: Experiments in Contemporary Musique Concrète, *DanceCult* 6(1), 2014	9		

Lecture 3

Sound recording and editing in practice

We will look at tools and techniques to record sound, to be able to work with it in a computer. We will also learn basic sound editing, mixing and processing, inpreparation for the individual assignment, which will be handed out in the end of the lecture.

In this lecture, you will work with the free version (demo version) of the audio software **Reaper**, which is available here. Please install this prior to the lecture..

	Pri. lit. no of p.	Sec. lit. no of p.	Dig. upload
Reaper and recording basics See Moodle for pdf			x

Lecture 4

Workshop+presentation

Presentation and Concert

The public concert will take place at the independent art & performance venue Platform4. Bring all your friends!

Materials – Form, Structure and Composiiton

Lecture 1

Lecture with exercise

Basic Principles of Equilibrium

Sculptures has almost never 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 the 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.

Lecturer: Dario Parigi

Set readings:

	Pri. lit. no of p.	Sec. lit. no of p.	Dig. upload
Daniel L. Schodek, 1993, Structure in Sculpture (pages 40-46) [6 pages]	6		
Handouts: lecture slides			
Daniel L. Schodek, 1993, Structure in Sculpture (pages 72-85)		13	

Lecture 2

Introduction to Materials: Metal

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, structural systems, construction details.

Lecturer: Dario Parigi

	Pri. lit. no of p.	Sec. lit. no of p.	Dig. upload
Daniel L. Schodek, 1993, Structure in Scupture (pages 242-253) [10 pages]	10		
Handouts: lecture slides			
Deplazes, A., 2005, Constructing Architecture: Materials, Processes, Structures (113-138)		25	
Daniel L. Schodek, 1993, Structure in Sculpture (pages 104-138)		34	

Lecture 3

Introduction to Materials: Wood

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

Lecturer: Dario Parigi

	Pri. lit. no of p.	Sec. lit. no of p.	Dig. upload
Deplazes, A., 2005, Constructing Architecture: Materials, Processes, Structures (pages 77-93)	15		

Lecture 4

Lecture with exercises

Balance and Stability - part 1

A method for the determination of the center of mass of a three dimensional sculpture will be introduced.

Lecturer: Dario Parigi

	Pri. lit. no of p.	Sec. lit. no of p.	Dig. upload
Daniel L. Schodek, 1993, Structure in Sculpture (pages 46-71) [25 pages]	25		
Handouts: lecture slides			

Lecture 5

Lecture and laboratory work

Introduction to Materials: Concrete

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

The task for preparation of the concrete workshop will be introduced.

Lecturer: Dario Parigi

	Pri. lit. no of p.	Sec. lit. no of p.	Dig. upload
Deplazes, A., 2005, Constructing Architecture: Materials, Processes, Structures (pages 56-76) [20 pages]	20		
Handouts: lecture slides			

Daniel L. Schodek, 1993, Structure in Scupture (pages 260-265)		45	

Lecture 6

Balance and Stability – part 2

A method for 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, will be introduced.

Lecturer: Dario Parigi

	Pri. lit. no of p.	Sec. lit. no of p.	Dig. upload
Daniel L. Schodek, 1993, Structure in Sculpture (pages 46-85)			
Handouts: lecture slides			

Lecture 7

Workshop

Concrete workshop

The workshop will provide hands-on experience on casting concrete and will constitute a complementary experience to the understanding of the concepts of stability and equilibrium

Lecturer: Dario Parigi

Handouts: lecture slides

Lecture 8

Balance and Movement: Kinetic Sculptures

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.

Lecturer(s): Dario Parigi

	Pri. lit. no of p.	Sec. lit. no of p.	Dig. upload
Daniel L. Schodek, 1993, Structure in Sculpture (pages 86-93)			
Handouts: lecture slides			

Perception in Theory and Praxis I

Lecturer: Bo Allesøe

Lesson 1+2

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.

The lectures will consist of brief introductions followed by exercises based on the literature, hence familiarizing yourself with the literature is important

	Pri. lit. no of p.	Sec. lit. n of p.	Dig. upload
Fulkerson, M. (2015) Touch. *Stanford Encyclopedia of Philosophy*, https://plato.stanford.edu/archives/spr2016/entries/touch/	13		
Gordon, I. (2004). *Theories of Visual Perception*, 3rd. ed. Hove and New York: Psychology Press, ch. 2,4,5 (7-54; 73-142) 44+69	113		
Wade, N.J. and Swanston, M. (2004). *Visual Perception – an introduction*. Hove and New York: Psychology Press. Chap. 1, pp. 1-32		32	
Total	126		

Lesson 3

The goal of this lesson is to introduce to Gibson's concept of affordance, as well as a new theory of perception called enactivism. Chapter 8 of Gibson (1979) is required reading here.

The students will be introduced to an environmental assignment they will have to present in lesson 4

	Pri. lit. no of p.	Sec. lit. n of p.	Dig. upload
Gibson, J. J. (1979). *Ecological Approach to visual perception*. London: Routledge, Chapter 8.	40		
Noe, A. (2016) Strange Tools: Art and human nature. Hill and Wang.	App. 20 p.		

Total.	60		

Lesson 4

This lesson will consist of student presentations and a recap of their experience working with theories of perception in practice. A perspectivation towards working with perception in student semester projects will be made.

	Pri. lit. no of p.	Sec. lit. n of p.	Dig. upload
Ingold, T. (2007). “Materials against Materiality” *Archaelogical Dialogies* 14(1): 1-16	16		
Total	16		

Sketching Techniques I

The purpose of the course is to introduce the students to basics in visual graphical representation and communication using analogue and digital sketching approaches, tools and techniques.

The course is comprised of two full days lecture and workshop days. On the first day of the course students will first and foremost be introduced to a brief history of virtual representation, representation as field and craft, and contemporary modern day visual communication strategies relevant for communicating project ideas to todays audiences, both through printed and digital media. Focus will be exercises and workshops on reading spatial drawings and sketching through early phases of a design or ideation process, relevant to the artwork and design work currently set for the students.

During the second day of the course, the focus will shift from drawing and sketching on paper, to digital virtual environments, introducing the HTC VIVE head-mounted virtual reality set. Students will learn how to sketch and animate their ideas into experiences in a virtual environment.

Lesson 1

Lecture + exercises

Graphical Spatial Representation

Lesson 1 will introduce the students to sketching as a communicative tool in art and spatial design, following Francis D.K Chings principles of Form and Space. The students will learn projection drawing in architecture and spatial design, how to read plan drawings, elevation drawings, section cuts and how they are constructed. This to help them later on, as they will engage in drawings for exhibition designs, scale and placement of artifacts and interior maps.

Lecturer: Jakob Borrits Sabra

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

	p.	p.	
Francis D.K.Ching: Architeture, Form, Space and Order, 3rd Edition, pp. 2-30 + 96-103.	28+7		
Total	35		

Lesson 2

Lecture + exercises

Graphical Spatial Representation

Following Bill Buxtons principles in "Sketching User Experiences: getting the design right and the right design", lesson 2 will introduce Sketching as a tool for ideation ahead of prototyping, and a way to test the design of user experiences. This lesson will both hold theoretical concepts as well as more practical sketching exercises.

Lecturer: Jakob Borrits Sabra

	Pri. lit. no of p.	Sec. lit. n of p.	Dig. upload
Bill Buxton: Sketching User Experiences - Getting the design right and the right design, pp. 105-115 + 139-143 + 299-309	10+4+10		
Total	24		

Lesson 3+4

Lecture + exercises

VR Sketching

During lesson 3 and 4, students will be introduced to VR and Sketching in a VR environment using Tiltbrush and HTC VIVE VR equipment.

The students will be introduced to sketching from the perspective of virtual reality and digital user environments using TILTBRUSH for HTC VIVE. The students will draw and sketch through motions in accordance with their semester assignments.

The lessons will prepare for following lessons on more advanced VR sketching.

Literature:

	Pri. lit. no of p.	Sec. lit. n of p.	Dig. upload
VIVE Tutorial: https://www.youtube.com/watch?v=a27UPxbtWr0			

VIVE SETUP: https://www.vive.com/us/setup/			
VIVE TILTBRUSH TUTORIAL: https://www.youtube.com/watch?v=R6iQqtRjUrE			
Total			

Lecturer: Jakob Borrits Sabra

Examination

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.

Module description (description of each module)

Module title, ECTS credits

Problem Based Learning

5 ECTS

Location

1. Semester

Module coordinator

Tony Brooks

Type/Method and language

Group work

English

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.

Academic content

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.

Scope and expected performance

5 ECTS credits. 1 ECTS credit = 27,5 hours of work. 5 ECTS = 137,5 hours of work consisting of preparation for course sessions, course participation, group work, exercises, counselling and exams.

Module activities (course sessions etc.)

Description:

Group forming is a key PBL aspect and this will be in focus on the first meeting. Students are requested to prepare by (1) selecting and bringing their own art (self-created) example to share with peers via an “elevator pitch” presentation (approximate 2 minutes); (2) prepare text/image for creating a brief profile on themselves and their art and technology

interest - online link will be given; (3) All students will meet all others in semester in a round table activity so students should think and prepare what they would like to say about themselves to peers.

In this module students work in groups on a mini(micro)-project resulting in a group poster and group oral/slide presentation (e.g. Powerpoint). These will all be exhibited/presented at a seminar event with an audience of peers and staff.

Following the seminar students individually write a short 2-3 page text document (report) in the form of an essay informing on their individual process analysis where each student analyzes/reflects on the way they structured and managed the processes in the actual project.

The text documentation should be uploaded by each student for examination at the AAU digital exam resource.

Project Detail:

Poster: Each student group will receive a specific PBL topic that they are tasked to research and communicate via creation of a poster (detail given in lecture 1). Posters from all groups cumulate to become a 'jigsaw' of what constitutes PBL and will, as a printed outcome, be mounted and exhibited and presented by each group alongside a seminar planned for 18th September afternoon. At the event, each group should stand by their poster and present it and answer questions from guest audience members.

Oral/slide presentation: The groups will, in addition to the poster, each create a presentation (e.g. PPT/Prezi/etc). Slides inform of the group's PBL topic and its relation to PBL generally (holistically). Presentation slides complement/support the oral presentation. Presentations combine to be a seminar that takes place immediately following the exhibition/poster session (after a break) - (detail given in lecture 1).

Seminar: Senior students, ArT staff, and PBL staff etc are invited to attend to offer feedback comments and discussion points on the posters and presentations to support student PBL learning.

All students are required to know all aspects of PBL not only their specific topic to be able to input (comments with reflection and critique) to presentations and posters of other groups.

Report detail:

In the report students' individually and independently document their own process in a descriptive way alongside reflections that are more analytical on how PBL-theory and concepts were applied in order to explain the reasoning behind decisions when planning, organizing, and implementing the process. Reflections and self-critique to explain successes, challenges, and problems are expected alongside how these led to learning gain from a knowledge, skill, and competence perspective.

The report assignment is titled as "Process Analysis" with author name and e-mail address. Additionally the group number and names with all e-mail contacts in included for supervisor reference. The report should be written according to the supplied template APA style/format and should be a between 2-3 pages in body text (references and title page are additional).

Reports are uploaded to AAU Digital Exam system by midnight 23rd September. FYI:

Aalborg uses an automatic digital plagiarism checker on uploads.

Process detail:

In this micro-project students work in groups. The group formulates a research question through studying PBL literature holistically and then with a focus specifically to given topic. The title of the group's poster is also the title of their presentation. Each poster and opening presentation slide should have the name of group and members. All members are responsible for the work. Similarly in the oral presentation the work/presentation is equally shared.

The lecturer supervises and supports groups in their project work.

Each group and individual student will receive feedback on poster, presentation performance, and report writing.

Questions can be addressed to <tb @ create.aau.dk> (omitting spaces in address).

Rationale

The project concept is designed so that students thoroughly explore PBL toward practical outcomes and learn by:-

- Actively researching PBL – both holistically and with a specific focus
- Creating a poster as a tangible 'product/outcome' (i.e. using their creative/design/production skills and artistic flair). The posters as a collective from all groups can be considered as a jigsaw metaphor – so all fit as parts to the bigger picture of what PBL constitutes.
- Creating a slide presentation (i.e. using their creative/design/production skills and artistic flair),
- Presenting orally from two perspectives (poster + presentation = (1) prepared oral + (2) improvising/'thinking on their feet' to answer questions)
- Textually documenting on process analysis (descriptively and analytically with reflection and critique) - from the lectures (e.g. given content, student own notes, etc.,) and from group/individual self-studies, and from supporting peer/staff input comments at the seminar (which, importantly, should be noted, reflected, and critiqued/discussed upon by the group post seminar to aid PA writing).

Problem-based learning [lecturer Tony Brooks (6 lectures)].

Lecture 1: PBL Study skills 1: + Overview to the course. Brief history and introduction to AAU PBL. Research-based education. Group forming and use of supervisor. Related artistic practice. Planning and Process

Literature

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

*PBL Aalborg Model (brochure): http://www.aau.dk/digitalAssets/148/148025_pbl-aalborg-model_uk.pdf			
Method and project writing – an introduction (available in both DK + ENG -) author Thomas Harboe (pp. 17-45)	28		
The good paper - http://samfundslitteratur.dk/bog/good-paper (available in both ENG + DK. In DK as ”Den gode opgave”, 2012 [Lotte Rienecker, Peter Stray Jørgensen, Signe Skov] – Samfundslitteratur. Pp. 67-93	26		
Kolmos, A. et al. (eds): The Aalborg PBL Model. Progress, Diversity and Challenges. Aalborg University Press. pp. 73-93 https://pdfs.semanticscholar.org/92b1/41a90b4775edd7c2e28be864eb487d737ff0.pdf	20		

Lecture 2: PBL Study skills 2 + Research Design, Questioning techniques, Problem identifying and formulation. Preparations (a) Poster creation (b) Oral Presentation: making and presenting; Methods

Literature

	Pri. lit. no of p.	Sec. lit. no of p.	Dig. upload
Method and project writing – an introduction (available in both DK + ENG -) author Thomas Harboe (pp. 61-84)	23		
The good paper - http://samfundslitteratur.dk/bog/good-paper (available in DK as ”Den gode opgave”, 2012 [Lotte Rienecker, Peter Stray Jørgensen, Signe Skov] – Samfundslitteratur. Pp.109-143	34		

Lecture 3: PBL Study skills 3 + Technology; Scribo introduction, Milestones and deliverables. Literature and information search. Reading and taking notes

Literature

	Pri. lit. no of p.	Sec. lit. no of p.	Dig. upload
Method and project writing – an introduction (available in both DK + ENG -) author Thomas Harboe (pp. 202-210)	7		

The good paper - http://samfundslitteratur.dk/bog/good-paper (available in DK as ”Den gode opgave”, 2012 [Lotte Rienecker, Peter Stray Jørgensen, Signe Skov] – Samfundslitteratur. Pp. 145-180	35		

Lecture 4 + 5:

PBL Study skills 4 + 5: 18th September Seminar and exhibition (deliverable).

25th September Report upload (deliverable

Questionnaires, Observation, Literature searching, Documentary source material, What is theory, Problem statement, Operationalization, Sampling, Arguing

Literature

	Pri. lit. no of p.	Sec. lit. no of p.	Dig. upload
The good paper - http://samfundslitteratur.dk/bog/good-paper (available in DK as ”Den gode opgave”, 2012 [Lotte Rienecker, Peter Stray Jørgensen, Signe Skov] – Samfundslitteratur pp 347 -415	68		
Method and project writing – an introduction (available in both DK + ENG -) author Thomas Harboe (pp. 86-161)	75		

Lecture 6: Seminar and report feedback to each student and group and review learning expectations.

Lesson 7:

Introduction to Qualitative and Quantitative Research Methods

Artistic research methods involve qualitative and quantitative research. Quantitative Research is used to quantify the problem by way of generating numerical data or data that can be transformed into usable statistics. It is used to **quantify** attitudes, opinions, behaviors, and other defined variables – and generalize results from a larger sample population. Quantitative Research uses measurable data to formulate facts and uncover patterns in research. Quantitative data collection methods include various forms of surveys - online and paper surveys, mobile surveys, face-to-face interviews, telephone interviews, longitudinal studies, and systematic observations.

Qualitative Research is primarily exploratory research: it is used to gain an understanding of underlying reasons, opinions, and motivations. It provides insights into the problem or helps to develop ideas or hypotheses for potential quantitative research. Qualitative Research is also used to uncover trends in thought and opinions, and dive deeper into the problem. Qualitative data collection methods vary using unstructured or semi-structured techniques, including focus groups (group discussions), individual interviews, and participation/observations.

This course introduces students to the basics of qualitative and quantitative methods for

artistic research and introduces the concept of Research Design.

Lecturer: Elizabeth Ann Jochum

Required Reading

	Pri. lit. no of p.	Sec. lit. no of p.	Dig. upload
Qualitative research & Evaluation Methods by Patton Michael Quinn - CH 5 (20 pages) (pdf)	20		x
"Mixed Methods" (10 pages) (pdf)	10		x
"Research Design" in *Encyclopaedia of Survey Research Methods* (SAGE) Editor Paul Lavrakas. (2008) (6 pages) (pdf)	6		x
"Quantitative Research", *The SAGE Encyclopaedia of Theory in Psychology*. (Ed. Harold Miller). (2016) 6 pages (pdf)	6		x

Lesson 8

Fundamentals of Academic Writing

This course introduces students 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.

Peer Review Assignment Given in class.

Lecturer: Elizabeth Ann Jochum

Required Reading:

	Pri. lit. no of p.	Sec. lit. no of p.	Dig. upload
Form & Style (Carole Slade & Robert Perrin) Chapter 1, 3, and 7 (pdf) (21 pages)	21		x
Handbook for Writers (Ruszkiewicz et al.) Ch 6: How Do You Write in College? (pdf) (11 pages)	11		x

Additional Suggested Literature (with page number range):

Kiib, H. (2004). PpBL in architecture and design. I The Aalborg PBL Model. Progress, Diversity and Challenges. Aalborg University Press pp. 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.

http://vbn.aau.dk/files/16177510/facilitation_in_a_pbl_environment.pdf

Walliman, N. Your Research Project: Designing and Planning Your Work (3rd ed.) London, Sage.

American Psychological Association. (2010). Publication manual of the American Psychological Association (6th ed.). Washington, DC: American Psychological Association.

See - http://www.apastyle.org/manual/

Also - http://www.apastyle.org

Ryberg, T., Davidsen, J., & Hodgson, V. (2016). Problem and Project Based Learning in Hybrid Spaces: Nomads and Artisans. In Proceedings of the 10th International Conference on Networked Learning 2016. Read the paragraph: Students as Artisans - the A&D students

http://vbn.aau.dk/files/233125045/Problem_and_Project_Based_Learning_in_Mixed_Spaces_Nomads_and_Artisans_published.pdf

Shields, G.J & Pears, R. (2016) Cite Them Right (10th Ed.): The Essential Referencing Guide. London: Macmillan.

White, P. Developing Research Questions (2nd Ed.). London: Macmillan

Online Videos:

http://www.ted.com/talks/ken_robinson_says_schools_kill_creativity

Materials will be uploaded to Moodle, however students are recommended to take own notes, purchase, loan (library etc) or otherwise access the recommended literature. Additional details in lectures.

Examination

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.

Module description (description of each module)

Module title, ECTS credits

Physical Interface Design I

5 ECTS

Location

1. Semester

Module coordinator

Walther Jensen

Type/Method and language

Individual or small groups

English

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.

Academic content

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.

Scope and expected performance

5 ECTS credits. 1 ECTS credit = 27,5 hours of work. 5 ECTS = 137,5 hours of work consisting of preparation for course sessions, course participation, group work, exercises,

counselling and exams.

Module activities (course sessions etc.)

Course: Basic Electronics

Lesson 1: Introduction to Basic Electronics.

Introduction to the course, exam, electricity, terminology, Ohm's law, units and the resistor.

Date for lesson - see calendar.

Lecturer: Walther Jensen

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	352		

Slides and Online Resources

Lesson 2: Electronic Components

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: Walther Jensen

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	352		

Slides and Online Resources

Lesson 3: Reading schematics

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: Walther Jensen

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	352		

Slides and Online Resources

Lesson 4: Building circuits and approaches to debugging circuits

Building circuits and approaches to debugging circuits (“Why isn‟t it working?”). Measuring with multimeter and oscilloscope.

Date for lesson - see calendar.

Lecturer: Walther Jensen

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	352		

Slides and Online Resources

Course: Sensors and Actuators I

Lesson 1: Overview of different actuators

Actuators and how to control them.

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	352		

Slides and Online Resources

Lesson 2: Overview of different sensors

Sensors. Prototyping electronics. Connectors.

Date for lesson - see calendar.

Lecturer: Walther Jensen

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	352		

Slides and Online Resources

Lesson 3: 555 Timers and how to use them to build circuits.

Capacitors and the 555 timer. Monostable and astable 555 circuits.

Date for lesson - see calendar.

Lecturer: Walther Jensen

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	352		

Slides and Online Resources

Lesson 4: 555 Timers and how to use them continued.

Continuing with the 555 timer. Bistable and square wave generator circuits. Combining multiple circuits. From input to output.

Date for lesson - see calendar.

Lecturer: Walther Jensen

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	352		

Slides and Online Resources

Examination

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.

History of Art and Technology

What is art, what is and what is technology? These questions are fundamental for the study of art and technology. This course will provide tools and a conceptual framework for engaging with these questions – both in practice and when discussing and debating issues around art and technology. The form of the course will be a historical approach, which means that we will explore how the question of art and technology has been approached by artists and thinkers mainly through the 20th Century. The historical approach also serves to highlight how the relationships between art, technology and the world are closely conditioned by historical circumstances and formed through specific cultural practices. A central focus will be to engage with artistic practices and art works. These artifacts and modes of artistic creation will be a point of departure for leaning about how technology shape and is shaped by human interaction.

There are scheduled two sessions for exercises on texts and topics taught in lectures and supervision in relation to the written assignments. Signe and Line will be in charge of these sessions.

20.09. ArT1 and ArT3. This session combines texts from the course and significant art works in a series of exercises that focus on using the various theoretical positions to broaden and deepen the understanding of the art works.

11.10 ArT1. Supervision in relation to the written assignment, and peer-to-peer feedback.

ArT3. Discussion of extracts of key texts on systems and networks, which thematically bridge between lectures in the HAT cours and the ArT3 semester theme. Students will be asked to analyze and discuss the texts and selected art works, and to relate their findings to their semester projects.

A part of the course is a short written paper. Hand in is the 9th of November. A more detailed description of the assignment will be handed out during Lecture 1.

1. Lecture

Ars and Techne - Technology and artistic practices

Foundational framework for understanding the present day relationship between art and technology. Historical conditions, modernization and the separation of art and technology.

At least in some conceptions and discourses, particularly in the humanities a separation between art and technology have been defined and maintained, while in other conceptions and discourses, art and technology coexist and cross-pollinate vigorously on various levels. (Shiner, Latour)

In the first lecture we will look at significant historical examples of these different notions of the relationship between art and technology. The examples are:

Renaissance: Ars and Techne, Leonardo da Vinci and the concept of the Homo Universalis

Kant, Modern Aesthetics, Enlightenment and the separation of the domains of knowledge belonging to art and technology (introduces a schism between art (aesthetics) and technology (progress)

The lecture will also look at different roles technology play in various contemporary art works: from (production) tool to material, and how these different uses of technology impact the art works. (McLuhan: medium is the message/McLuhan: Understanding Media/Edward E. Shanken: Art and Electronic Media/ Mumford: Art and Technics: The tool and the object/Latour On Technological Mediation)

Lecturer: Line, Signe

Set reading

	Pri. lit. no of p.	Sec. lit. n of p.	Dig. upload
Edward A. Shanken, Art and Electronic Media. London. Phaidon Press. 2009. P.13-51	38		x
Marshall McLuhan and Quentin Fiore: The Medium is the Message. Penguin Books 1967. A collection of quotes			x
Larry Shiner: The Invention of Art. A Cultural History. University of Chicago Press. 2001 p. 3-9 (until it says “Part 1”)	6		
Total	38		

2. Lecture

Histories of Sound + art

This lecture introduces to the vast and complex impact of sound on art in the 20th century. Sound and its ubiquity in modern society bears testiment to the emergence and transformation of new forms of artistic practices in which technology and mediation play a vital part. Evidence of sound as materiality, physicality, mentality, performativity, mediality playing into scientific (thermodynamic), psychological, cultural, sociological, structural and linguistic ‘readings’ of modernity is abundant in artistic practices throughout the 20th century - and the course will showcase examples to the effect and perspectives of this (as much as the limited time allows).

Set literature:

	Pri. lit. no of p.	Sec. lit. n of p.	Dig. upload
Douglas Kahn (2012), “Noises of the Avant-Garde” in Sterne, J. (ed): The Sound Studies Reader, London: Routledge, pp. 427-449	22		x
Seth Kim-Cohen (2009) Non-cochlear Sound. Introduction, pp. xv-xxiv	10		x
Peter Weibel: Sound as the Medium of Art	3		x
Claudia Giannetti (1997): “**Aesthetic Paradigms of Media Art”. Karlsruhe: ZKM,** Source: http://www.mediaartnet.org/themes/aesthetics_of_the_digital/aesthetic_paradigms/. 10 (pri litt) online	10		
Total	55		x

3. Lecture

Machines + Art

Nowhere is the question of art, or the questioning of art’s autonomy, more evident than in the discourses and practices of machines. This question(ing) in many ways refers to the issue and philosophical question of the cyborg and the notion of ‘(post)humanity’ - are we machines ourselves? or will the machines replace us? These fundamental issues, and their interconnected challenges of how best to represent the effects of ‘modernity’, not least ‘modern man’ in his/her contexts, resonate in art practices throughout the 20th century: from the processing of the effects of world wars and nuclear and ecological threats to our environment and existence; to the advent of modern medicine, space travel and modern democracy. The course will give examples of some of the key formative ideas of the machine, its close and ambiguous relationship to both human creativity and destruction, and how the negotiation of those extremes are evident in concrete art + machine practices - from Dada and concretist Machine Art to Bioart.

Set reading:

	Pri. lit. no of p.	Sec. lit. n of p.	Dig. upload
Andreas Broeckman: Machine Art in the Twentieth Century, MIT Press, chapter 1.	45		

Maria Antoine Gonzales Valeria: BIOART ON THE VERGE OF AESTHETIC ONTOLOGY, p.1-18.	18		
Total	63		

Lecturer: Morten Søndergaard

4. Lecture

The loss of idealism in art - early 20th Century

Avant-garde art movements in the beginning of the 20th Century, such as DADA contributed to new understandings of the relation between art and technology and responded to the failure and destructive forces of technological rationalism as it was catalyzed by world war. This lecture will focus on artistic responses to, and critiques of, the role of technology in Europe just after World War 1. We will engage with the idea that technology changes fundamentally the status of reality and human perception.

Lecturer: Signe Meisner Christensen

Set reading:

	Pri. lit. no of p.	Sec. lit. n of p.	Dig. upload
Lewis Mumford (1952) “Art and the Symbol” in *Art and Technics,* Columbia University Press, New York, pp. 3-32	29		
Bruno Latour, “On Technological Mediation - Philosophy, Sociology, Genealogy” in *Common Knowledge* vol. 3 n 2. Pp. 29-43	14		
Robert Hughes, “The Faces of Power” in *The Shock of the New,* pp. 57-111		54	
Total	43	54	

5. Lecture

The shattering of perception – film montage and kinetic art

26.9

This lecture focuses on the relationship between the human body and the machinization of society in early 20th Century. The advent of machinic vision in film, the disciplining of bodies in industrial production – and the cultures of mass consumption – all of this can be understood as material expression of an altered relation between the human body and technological apparatuses. How did these changes become processed in art? We will engage with new artistic forms and film, such as kinetic art and futurism.

Lecturer: Signe Meisner Christensen

Set reading:

	Pri. lit. no of p.	Sec. lit. n of p.	Dig. upload
Jonathan Crary (2001), “Modernity and the Problem of Attention” in *Suspensions of Perception, Attention, Spectacle, and Modern Culture,* The MIT Press, Cambridge Mass .and London, pp.11-79	68		
Walter Benjamin (2008/1936) “The Work of Art in the Age of Its Technological Reproducibility”, in *The Work of Art in the Age of Its Technological Reproducibility and Other Writings on Media,* eds. Jennings, M.W., Doherty, B., and Levin, T.Y., Harward University Press, pp. 19-55		36	
Total	68	36	

6. Lecture

Creativity and Technology

What does creativity mean in relation to technology? Here we will explore models of artistic practice in the 20th century, which challenge not only well-established notions of fine art, but also conventional ideas of technology. We will engage with an “assemblage-approach” one that defies disciplinary boundaries. Such types of artistic investigations can be found in the radical art movement FLUXUS, which spread from USA to Europe and also established a base in Denmark in the early 1960s. As point of departure we will discuss the exhibition on Fluxus: *Introduction to the Fluxus-Galaxy* at Kunsten in 1993. Another artistic experiment is E.A.T. (Experiments in Art and Technology) a non-profit organization founded in 1966 in which artists and engineers collaborated closely on performances that included new technology. Finally Black Mountain College (1953-) developed models for artistic creativity that did not respect boundaries between art and technology.

Set reading:

	Pri. lit. no of p.	Sec. lit. n of p.	Dig. upload
Jussi Parikka (2017) “Systemic(s) Events of Creativity, in *Systemics (or, Exhibion as a Series)* ed. Joasia Krysa, pp. 23-32		10	
Owen F. Smith (2006) “Fluxus Praxis: An Exploration of Connections, Creativity and Community” in Chandler, Annemarie, Neumark, Norie (eds.): *At a Distance: Precursors to Art and Activism on the Internet,* The MIT Press, London and New York, pp. 116-138	22		

Nathalie Heinrich (2014) “Practices of Contemporary Art – A Pragmatic Approach to a New Artistic Paradigm” in Zembylas, Tasos (ed.) *Artistic Practices – Social Interactions and Cultural Dynamics,* Routledge, London and New York, pp, 32-43	12		
Total	33	10	

7. Lecture

Art and Information

Teaching format: Lecture (engaging with mail art archive at Kunsten)

This lecture focuses on the relation between art and information. With the emergence of an information society in the second prt of the 20th Century, communication has changed dramatically. We will engage with the phenomenon of mail art network in the form of Mogens Otto Nielsen’s Mail Art Archive, which is part of the collection at Kunsten, Museum of Art in Aalborg. Prior to the age of the internet and a digital information culture, mail art artists built trans-national networks, exchanging and circulating all kinds of material and media as art practice. This historical precedent of information art will be connected to later art practices of the late 20th century and 21st century who work under the conditions of a full blown infosphere, which has transformed reality and human relations. The lecture will explore how artists engage critically and creatively with a world shaped by information.

Set reading

	Pri. lit. no of p.	Sec. lit. n of p.	Dig. upload
Tiziana Terranova (2004) “Communication Biopower” in *Network Culture – Politics for the Information Age,* Pluto Press, London and New York, pp. 131-157	26		
Theis Vallø Madsen (2015) “In-between gift exchange economy and an anti-economy of sharing” in *Ants in the Archive,* PhD dissertation, pp. 60-90		30	
Total	26	30	

Lecturer: Signe Meisner Christensen

8. Lecture

Art and Technology in everyday life and in public space

This lecture focus on the sites and contexts of art and technology, outside the gallery spaces, such as art and technology displayed in public spaces,

The lecture will present examples of artists and art works that explore and/or critique the role of technology in contemporary society through intervention into or referencing to the contexts and surroundings. The art works that are in focus in this lectrue, adress

technologies such as tv/cinema, commercials/billboards, surveillance and smart technologies, art works that are to be experienced from cars, planes etc. These art works are commenting on or criticizing main themes in western lifestyle , such as consumerism, capitalism and the entertainment industry.

The main examples in the lecture are art works from tha Russian constructivism and artists like Dan Graham, Jenny Holzer, Robert Smithson, Rafael Lozano-Hemmer, Superflex and Jens Haaning.

Set reading:

	Pri. lit. no of p.	Sec. lit. n of p.	Dig. upload
Rosalind Krauss: Sculpture in the Expanded Field in: In October, Vol. 8 (Spring, 1979) pp. 30-44	14		x
Guy Debord: Society of the Spectacle. Rebel Press. P. 6-18	12		x
Robert Smithson: Fragments of a conversation. http://www.robertsmithson.com/essays/fragments.htm		x	x
Total	28		

Examination

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.