Opasraportti

TTK/Department of Architecture (2012 - 2013)

Tutkintorakenteisiin kuulumattomat opintokokonaisuudet ja -jakset

450534P: 3DI-studio MAX, So Operative Use with CAD, 1 op  
450543A: Archicad Advanced, 1 op  
450533P: Archicad Basics, 2 op  
453505A: Architectural Construction, Professional Skills, 3 - 10 op  
455517S: Architectural Lighting, 5 op  
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450535P: Autocad Architecture Basics, 2 op  
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453522P: Basics of Architectural Construction, studio course, 7 op  
453535P: Basics of Building Physics, 2 op  
455501P: Basics of Design, 5 op  
450521P: Computer Aided Design I, 5 op  
456527A: Condition Assessment of Buildings, 5 op  
452522P: Contemporary Architecture I, basic course, 7 op  
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453503A: Design of Apartment Blocks, 8 op  
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452506A: Housing Design, 8 op  
450545A: Illustrator Basics, 1 op  
450524A: Image Manipulation / Photoshop & Illustrator, 2 op  
450547A: Indesign Basics, 1 op  
030005P: Information Skills, 1 op  
454526S: Interactive Urban Planning, 10 op  
455517A: Interior Design, 5 - 10 op  
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Opintojaksojen kuvaukset

Tutkintorakenteisiin kuulumattomien opintokokonaisuuksien ja -jaksojen kuvaukset

450534P: 3DI-studio MAX, So Operative Use with CAD, 1 op

Voimassaolo: 01.08.2011 -
Opiskelumuoto: Basic Studies
Laji: Course
ECTS Credits:
1 op

Language of instruction:
Finnish

Timing:
flexible

Learning outcomes:
Objective: Introduction to 3Ds MAX modelling and illustration rendering in conjunction with other CAD software.
Learning outcomes: Students are able to transfer 3d models between 3ds MAX and other CAD and image processing software, supplement them and produce photorealistic images.

Contents:
Import/export, editors, material, lightning, camera and calculation settings

Mode of delivery:
Teaching in the classroom (computer lab)

Learning activities and teaching methods:
Lectures and practical work.

Target group:
2nd year bachelor level students

Recommended optional programme components:
3D3

Recommended or required reading:
Software help files and handouts.

Assessment methods and criteria:
Based on a project work (the presentation material of a design course at the Department of Architecture or an equivalent work).

Person responsible:
parttime teacher Emma Hulaud

Working life cooperation:
No

Other information:
The course is intended for the students of the Department of Architecture only

450543A: Archicad Advanced, 1 op

Voimassaolo: 01.08.2011 -
Opiskelumuoto: Intermediate Studies
Laji: Course
Vastuuyksikkö: Department of Architecture
Arvostelu: 1 - 5, pass, fail
Opettajat: Tuominen, Pekka Johannes
Opintokohteen kielet: Finnish

Language of instruction:
Finnish

Timing:
flexible

Learning outcomes:
Objective: To initiate the students into efficient use of Building Information Modeling in Archicad environment.
Learning outcomes: Students are able to produce complex building components and detail models for a building, using the programme.

Contents:
Self-made objects, complex forms, schedules and legends.

Mode of delivery:
Lectures and project work in the classroom (computer lab)
Learning activities and teaching methods:
Lectures 12 hours, contact teaching 12 hours and project work carried out in the computer lab.

**Target group:**
Bachelor level students

**Prerequisites and co-requisites:**
Archicad basics

**Recommended or required reading:**
Software help files and handouts.

**Assessment methods and criteria:**
Based on a project work (the presentation material of a design course at the Department of Architecture or an equivalent work).

**Person responsible:**
Tuomainen Pekka

**Other information:**
The course is intended for the students of the Department of Architecture only

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**450533P: Archicad Basics, 2 op**

**Voimassaolo:** 01.08.2011 -

**Opiskelumuoto:** Basic Studies

**Laji:** Course

**Vastuuysikkö:** Department of Architecture

**Arvostelu:** 1 - 5, pass, fail

**Opettajat:** Tuominen, Pekka Johannes

**Opintokohteen kielet:** Finnish

**Language of instruction:**
Finnish

**Timing:**
1st half of the autumn semester and 2nd half of the spring semester

**Learning outcomes:**
Objective: Introduction to conventional Building Information Modeling in Archicad Environment.
Learning outcomes: Students are able to produce presentation drawings based on the information model using basic tools and recognize the basic functions of the program in order to produce building permit level drawings.

**Contents:**
Project management, detailing tools, section, facade and perspective views.

**Mode of delivery:**
Lectures and project work in the classroom (computer lab)

**Learning activities and teaching methods:**
Lectures 12 hours, contact teaching 12 hours in computer lab, plus independent working.

**Target group:**
2nd year bachelor level students

**Recommended or required reading:**
Software help files and handouts.

**Assessment methods and criteria:**
Based on a project work (the presentation material of a design course at the Department of Architecture or an equivalent work).

**Person responsible:**
Tuominen Pekka

**Other information:**
The course is intended for the students of the Department of Architecture only

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**453505A: Architectural Construction, Professional Skills, 3 - 10 op**

**Voimassaolo:** 01.08.2005 - 31.07.2017

**Opiskelumuoto:** Intermediate Studies

**Laji:** Course

**Vastuuysikkö:** Department of Architecture
ECTS Credits: 3-10

Language of instruction: Finnish

Timing: autumn terms

Learning outcomes:
To introduce students to the essential issues within architectural construction and energy efficiency of buildings. Learning outcomes: After completing the course the student has through independent work acquainted with principles of energy efficiency in buildings and the tasks of an architect in order to be able to define the architect's tasks in the process of designing energy efficient buildings. The student can implement his / her skills of architectural construction in producing difficult and demanding drawings of building parts and details nearly independently.

Contents:
The content of the course is defined in connection with the assignment of the exercise project. The task is to design a low emission, renewable energy-using and energy efficient building.

Mode of delivery:
Lectures and project work in studio

Learning activities and teaching methods:
Lectures, field trips and project work in studio.

Target group:
1st year master level students

Prerequisites and co-requisites:
Completion of BSc in architecture.

Recommended optional programme components:
Energy Efficient Buildings course

Recommended or required reading:
List of readings will be handed out during the course.

Assessment methods and criteria:
The evaluation is made based on outcome of the individual exercise work completed independently.

Grading:
1 – 5

Person responsible:
Professor Jouni Koiso-Kanitila

Other information:
not applicable

455517S: Architectural Lighting, 5 op

Voimassaolo: 01.08.2005 -
Opiskelumuoto: Advanced Studies
Laji: Course
Vastuuysikkö: Department of Architecture
Arvostelu: 1 - 5, pass, fail
Opettajat: Henrik Pihlajaniemi
Opintokohteen kielet: English

Language of instruction: English

Timing:
Spring term 1 & 2

Learning outcomes:
The objective of the course is to study the relationship between architecture and light. The studies cover both natural and artificial light.
Learning outcomes: After completing the course the student commands the concepts of natural and artificial lighting, in order to be able to analyze the relationship between architecture and light, using basic concepts of lighting. The student can prepare a lighting scheme for his/her own design project and make a CAD-visualized lighting design based on the scheme, utilizing both natural light and various artificial light sources. The student is able to apply the principles of sustainability in his/her design solutions, in utilizing natural light and in selection of light sources.

Contents:
The lectures deal with architecture and light, concepts of light, modes of lighting as well as different sources of artificial light and types of light fixtures. Both indoor and outdoor lighting solutions are studied. Aspects of sustainability and energy efficiency are included in the contents of the course, in connection with designing and controlling natural light, as well as selecting lighting sources and making illumination solutions, using artificial lighting. The project work comprises a lighting analysis of a selected interior and a concept level CAD-visualized lighting design, which is connected to the exercise work in contemporary architecture. The course includes visits to places and interiors of interest within lighting design.

Mode of delivery:
Contact teaching and independent studying.

Learning activities and teaching methods:
12h lectures and/or contact teaching and 36h personal or/and group tutoring.

Target group:
4th year of studies (1st year of master level).

Recommended optional programme components:
Course is part of module Design of Public Buildings. Architectural Lighting course is suggested to proceed together with Interior Design course.

Recommended or required reading:
Course literature will be announced separately.

Assessment methods and criteria:
The student attends the lectures and completes a design exercise according to the instructions. The evaluation is made based on the outcome of the exercise work. No exam is included in the course.

Person responsible:
University Teacher Henrika Pihlajaniemi

450536P: Artlantis basics, 1 op

Voimassaolo: 01.08.2011 -
Opiskelumuoto: Basic Studies
Laji: Course
Vastuuysikkö: Department of Architecture
Arvostelu: 1 - 5, pass, fail
Opettajat: Tuominen, Pekka Johannes
Opintokohteen kielet: Finnish

Language of instruction:
Finnish
Timing:
flexible

Learning outcomes:
Objective: Using the Artlantis rendering application.
Learning outcomes: Students are able to import a 3D model file from another program and combine it with additional format files with Artlantis. The student is able to edit the material, lighting and camera adjustments of the produced 3D file in order to create reproducible, almost photorealistic views.

Contents:
Basic features of the program.

Mode of delivery:
Lectures and project work in the classroom (computer lab)

Learning activities and teaching methods:
Lectures 12 hours, contact teaching and practical work 12 hours in computer lab.

Target group:
2nd year Bachelor level students

Recommended or required reading:
Software help files and handouts.

Assessment methods and criteria:
Based on a project work (the presentation material of a design course at the Department of Architecture or an equivalent work).

**Person responsible:**
Tuominen pekka

**Other information:**
The course is intended for the students of the Department of Architecture only.

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**450535P: Autocad Architecture Basics, 2 op**

**Voimassaolo:** 01.08.2011 -

**Opiskelumuoto:** Basic Studies

**Laji:** Course

**Vastuuyksikkö:** Department of Architecture

**Arvostelu:** 1 - 5, pass, fail

**Opintokohteen kielet:** Finnish

**Language of instruction:**
Finnish

**Timing:**
1st half of the autumn term

**Learning outcomes:**
Objective: Introduction to conventional Building Information Modeling in Autocad Architecture environment.
Learning outcomes: Students are able to produce presentation drawings based on the information model using basic tools and recognize the basic functions of the program in order to produce building permit level drawings.

**Contents:**
Project management, detailing tools, section, facade and perspective views.

**Mode of delivery:**
Lectures and project work in the classroom (computer lab)

**Learning activities and teaching methods:**
Lectures 12 hours, contact teaching and project work 40 hours carried out in the computer lab.

**Target group:**
2nd year bachelor level students

**Recommended or required reading:**
Software help files and handouts

**Assessment methods and criteria:**
Based on a project work (the presentation material of a design course at the Department of Architecture or an equivalent work).

**Other information:**
The course is intended for the students of the Department of Architecture only.

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**455990A: Bachelor's Thesis / Architecture, 8 op**

**Voimassaolo:** 01.08.2007 -

**Opiskelumuoto:** Intermediate Studies

**Laji:** Course

**Vastuuyksikkö:** Department of Architecture

**Arvostelu:** 1 - 5, pass, fail

**Opintokohteen kielet:** Finnish

**ECTS Credits:**
8

**Language of instruction:**
Finnish

**Timing:**
Spring term of the 3rd year of bachelor's degree studies

**Learning outcomes:**
Objective: The bachelor's thesis work completes the bachelor level studies.
Learning outcomes: The student is able to utilize the acquired knowledge and apply learned skills in can in practical design work. The student is able to solve design problems and visualize solutions in different scales and to implement different possibilities of visual expression as part of creative work.

Contents:
Opiskelija työstää aiemmin tekemänsä pakollisen 3. vuosikurssin opintojakson suunnitteluharjoitustyön kandidaatintyöksi (joko nykyäikainen arkkitehtuuri III, asemakaavasuunnittelu, asuntosuunnittelu, kerrostalousuunnittelu tai arkkitehtuurin historia III harjoitustyökurssit) ohjattuna opintojaksona.

Mode of delivery:
Individual project work and contact teaching in studio and computer lab.

Learning activities and teaching methods:
The bachelor’s work is supervised by the laboratory whose exercise work has been selected for the basis for the bachelor’s work. The final project is presented in a common bachelor's work seminar in May.

Target group:
3rd year bachelor students

Prerequisites and co-requisites:
Compulsory basic and intermediate studies, the 3rd year exercise project which has been selected by the student as the basis for the bachelor's work.

Recommended optional programme components:
study units included in the preparatory module

Recommended or required reading:
-

Assessment methods and criteria:
Opiskelija laatii kanidaatin työn ohjaavan laboratorion ohjeiden ja osaston kandidaatintyöohjeiden mukaisesti. Kandidaatintyöstä tehdään A3 tulosteista yhteinen noidottu kooste.

Grading:
pass / fail

Person responsible:
Professor n.n. in the supervising laboratory

Working life cooperation:
No

Other information:
Erilliset, yksityiskohtaisemmat kandidaatintyön ohjeet on julkaistu osaston nettisivuilla.

453521P: Basics of Architectural Construction, lecture course, 3 op

Voimassaolo: 01.08.2012 -
Opiskelumuoto: Basic Studies
Laji: Course
Vastuuysikkö: Department of Architecture
Arvostelu: 1 - 5, pass, fail
Opettajat: Jouni Koiso-Kanttila, Jari Heikkilä
Opintokohteen kielet: Finnish
Leikkaavuudet:
ay453521P Basics of Architectural Construction, lecture course (OPEN UNI) 3.0 op

ECTS Credits:
3
Language of instruction:
Finnish
Timing:
spring term, autumn term
Learning outcomes:
Objective: To give the student general data on architectural construction and on the functional requirements set for building parts.
Learning outcomes: After completing the course the student can explain the basic concepts of architectural construction and present the functional principles of the building parts and structures of a wood constructed one-family house.
Contents:
Lectures on the education and the position of an architect in a building project, building concepts, basics of structural technology and building physics. Visits to realized projects.
Mode of delivery:
Lectures and an exam

Learning activities and teaching methods:
The course includes lectures and an exam. The course includes visits to realized projects. List of readings will be handed out during the course.

Target group:
1st and 2nd year bachelor students

Prerequisites and co-requisites:
The courses of the basics of Building Physics, Structural Technology (basic course) and Wooden Structures are recommended to take at the same time.

Recommended optional programme components:
not applicable

Assessment methods and criteria:
The evaluation is based on the exam.

Grading:
1 - 5

Person responsible:
Professor Jouni Koiso-Kanttila, docent Jari Heikkilä

Working life cooperation:
no

Other information:
not applicable

453522P: Basics of Architectural Construction, studio course, 7 op

Voimassaolo: 01.08.2012 -
Opiskelumuoto: Basic Studies
Laji: Course
Vastuuysikkö: Department of Architecture
Arvostelu: 1 - 5, pass, fail
Opettajat: Jouni Koiso-Kanttila
Opintokohteen kielet: Finnish

ECTS Credits:
7

Language of instruction:
Finnish

Timing:
spring terms

Learning outcomes:
Objective: To familiarize the student in detail with constructions and design of wood-framed one-family houses.
Learning outcomes: After completing the course the student knows the basics of designing a wood-framed single-family house.

Contents:
The course includes the design of a wood frame house.

Mode of delivery:
Lectures and exercise work

Learning activities and teaching methods:
Project work in studio

Target group:
2nd year bachelor level students

Recommended optional programme components:
The lectures within the Basics of Architectural Construction, lecture course are linked with the contents of this course. The courses of the basics of Building Physics, Structural Technology (basic course) and Wooden Structures are recommended to take at the same time.

Recommended or required reading:
List of readings will be handed out during the course.

Assessment methods and criteria:
The evaluation is based on the outcome of the exercise work. No exam is included in the course.

Grading:
1-5
453535P: Basics of Building Physics, 2 op

Voimassaolo: 01.08.2005 -
Opiskelumuoto: Basic Studies
Laji: Course
Vastuuysikkö: Department of Architecture
Arvostelu: 1 - 5, pass, fail
Opettajat: Mäkinen, Seppo Johannes
Opintokohteen kielet: Finnish

ECTS Credits:
2
Language of instruction:
Finnish
Timing:
Autumn term
Learning outcomes:
The aim of the course is to clarify the basic concepts of building physics and the production methods and technical qualities of main building materials.

Learning outcome: After completing the course the student will have the command of basic concepts of building physics. The student can explain how heat, air and humidity transfer in structures and give an account on the causes of most typical damages in buildings. The student can make a summary of the properties of the most important building materials.

Contents:

Learning activities and teaching methods:
Lectures, exercises and exam.
Recommended or required reading:

455501P: Basics of Design, 5 op

Voimassaolo: 01.08.2005 -
Opiskelumuoto: Basic Studies
Laji: Course
Vastuuysikkö: Department of Architecture
Arvostelu: 1 - 5, pass, fail
Opettajat: Aulikki Herneoja
Opintokohteen kielet: Finnish

Language of instruction:
Finnish
Timing:
Spring term 1 & 2
Learning outcomes:
The objective of the course is to guide the student to understanding the basics of design and detailing closely connected to architecture.

Learning outcomes: After completing the course the student can carry out a design exercise, making good use of the basics of design and detailing closely related to architecture. The exercise work is based on application of
basics of design and detailing to practice. The student is able to apply the principles of sustainability in his / her design solutions and material selection.

Contents:
Lectures deal with basics of design related to architecture taking into account sustainable development perspective. The focus is on basics of detailing and jointing, the examination of relationship between material, colour and light, introduction of fixed furnishing and designing of stairs. Course includes a visit to architecture target introduced by architect himself from design and detailing perspective.

Mode of delivery:
Contact teaching and independent studying.

Learning activities and teaching methods:
12h lectures and/or contact teaching and 48 h personal or/and group tutoring

Target group:
2nd year Bachelor level students.

Recommended or required reading:
Literature is giving during the course.

Assessment methods and criteria:
The student attends the lectures and completes a design exercise according to instructions. The evaluation is made based on outcome of the exercise work. No exam is included in the course.

450521P: Computer Aided Design I, 5 op

Voimassaolo: 01.08.2005 -
Opiskelumuoto: Basic Studies
Laji: Course
Vastuuysikkö: Department of Architecture
Arvostelu: 1 - 5, pass, fail
Opettajat: Asko Leinonen
Opintokohteen kielet: Finnish

Language of instruction:
Finnish

Timing:
The autumn and spring terms

Learning outcomes:
Objective: The aim of the course is to initiate the student in the routines and concepts of using computers as an aid in architectural design. Software generally used by architects' offices are being introduced as well as accessories of computer technologies.
Learning outcomes: The students are able to use CAD applications to design standard 2D drawings and to produce printable sheets, can model 3D objects with the surface modeling techniques, can adjust lightning objects and materials in 3D models, can modify the settings for perspective views, know the main differences between a traditional CAD and a BIM (building information modeling), can make page layouts and are able to improve digital photos using image editing software.

Contents:
During the autumn term the students study computer aided 2D drafting in Autocad and 3D modeling in SketchUp Pro. In the autumn term the students complete a small modeling exercise. During the spring term the students study lights and materials in 3ds Max Design, study either Revit Architecture or ArchiCAD building information software, study photo editing and page layout using Adobe Photoshop and Indesign software. In the spring term the students also complete independently the building design exercise using the software studied.

Mode of delivery:
Contact teaching and independent studying

Learning activities and teaching methods:
40 h lectures, 70 h contact teaching in computer lab and 30 h independent studying in computer lab.

Target group:
1st year Bachelor level students

Recommended or required reading:
The course literature will be announced separately

Assessment methods and criteria:
The evaluation is based mainly on the exercises

Person responsible:
456527A: Condition Assessment of Buildings, 5 op

Voimassaolo: 01.08.2005 -
Opiskelumuoto: Intermediate Studies
Laji: Course
Vastuuysikkö: Department of Architecture
Arvostelu: 1 - 5, pass, fail
Opettajat: Anu-Sisko Soikkeli
Opintokohteen kielet: Finnish

Language of instruction: Finnish
Timing: not specified, not every year
Learning outcomes:
The course provides the student with facilities for making a condition assessment even in a demanding renovation project.
Learning outcomes: After completing the course the student can draw conclusions from the condition and the requirements for renovation of a building. The student can classify the forms of condition assessment, carry out the assessment and prepare a report.
Contents:
Common methods and all phases of condition assessment. As an exercise a condition assessment is made a situ and in laboratory circumstances.
Mode of delivery:
Contact teaching and independent studying.
Learning activities and teaching methods:
Lectures, laboratory exercises, group work, examination.
Target group:
Master level students.
Recommended or required reading:
Study compendium. Course literature will be announced separately.
Assessment methods and criteria:
Design project and exam.
Person responsible:
N.N.

452522P: Contemporary Architecture I, basic course, 7 op

Voimassaolo: 01.08.2012 -
Opiskelumuoto: Basic Studies
Laji: Course
Vastuuysikkö: Department of Architecture
Arvostelu: 1 - 5, pass, fail
Opettajat: Matti Sanaksenaho
Opintokohteen kielet: Finnish

Language of instruction: Finnish
Timing: Spring term 1-2
Learning outcomes:
To provide an understanding of architecture and guide to creative design work.
Learning outcomes: After completing the course the student can name internationally essential phenomena and important names within modern architecture. He/she can explain the main features of the development of post-war Finnish architecture. The student can design a small building, implementing the design basics included in the course, i.e. basics of giving form to space, architectural solutions and dimensioning. The student can carry out the design work utilizing background information (basics of housing design, dimensioning) and fundamentals of dimensioning of dwellings. Furthermore, the student is able to illustrate his/her design with the help of computer technology.

Contents:
Lectures on basic architectural concepts, architectural phenomena of current interest, the nature of artistic work and knowledge of housing design. Composition and design exercises with emphasis on dimensioning and basics of housing design. Visitor lectures are part of course.

Mode of delivery:
Lectures, exercises and a written examination. The type of the examination will be specified at the beginning of the course. Contact teaching and independent studying.

Learning activities and teaching methods:
lectures + contact teaching 135 hours.

Target group:
1st year students.

Prerequisites and co-requisites:
450525P Techniques of Visual Presentation in Architecture and 453501P Architectural Construction, Basic Course

Recommended or required reading:
William J.R. Curtis: Modern architecture since 1900, Richard Weston: Materials, form and architecture, Jari & Sirkka-Liisa Jetsonen: Finnish summer houses

Assessment methods and criteria:
Based on examination and exercises.

452521P: Contemporary Architecture I, elements, 5 op

Voimassaolo: 01.08.2012 -
Opiskelumusto: Basic Studies
Laji: Course
Vastuuysikkö: Department of Architecture
Arvostelu: 1 - 5, pass, fail
Opettajat: Matti Sanaksenaho
Opintokohteen kielet: Finnish

Language of instruction:
Finnish

Timing:
Autumn term 1-2

Learning outcomes:
To provide an understanding of architecture and guide to creative design work.
Learning outcomes: After completing the course the student can name internationally essential phenomena and important names within modern architecture. He/she can explain the main features of the development of post-war Finnish architecture. The student can design a small building, implementing the design basics included in the course, i.e. basics of giving form to space, architectural solutions and dimensioning. The student can carry out the design work utilizing background information (basics of housing design, dimensioning) and fundamentals of dimensioning of dwellings. Furthermore, the student is able to illustrate his/her design with the help of computer technology.

Contents:
Lectures on basic architectural concepts, architectural phenomena of current interest, the nature of artistic work and knowledge of housing design. Composition and design exercises with emphasis on dimensioning and basics of housing design. Visitor lectures are part of course.

Mode of delivery:
Lectures, exercises and a written examination. The type of the examination will be specified at the beginning of the course. Contact teaching and independent studying.

Learning activities and teaching methods:
lectures + contact teaching 95 hours.

Target group:
1st year students.

Prerequisites and co-requisites:
450525P Techniques of Visual Presentation in Architecture and 453501P Architectural Construction, Basic Course

**Recommended or required reading:**

**Assessment methods and criteria:**
Based on examination and exercises

**Person responsible:**
Prof. Matti Sanaksenaho.

452524A: Contemporary Architecture II, basics, 7 op

**Opiskelumuoto:** Intermediate Studies
**Laji:** Course
**Vastuuysikkö:** Department of Architecture
**Arvostelu:** 1 - 5, pass, fail
**Opettajat:** Matti Sanaksenaho, Antti Karsikas
**Opintokohteen kielet:** Finnish

**Language of instruction:**
Finnish

**Timing:**
Spring term 1-2

**Learning outcomes:**
To provide an understanding of architecture and guide to creative design work.

Learning outcomes: After completing the course the student can name internationally essential phenomena and important names within modern architecture. He/she can explain the main features of the development of post-war Finnish architecture. The student can design a small (housing and public) building, implementing the design basics included in the course, i.e. basics of giving form to space, architectural solutions, dimensioning and understand the meaning of light in housedesign. The student can carry out the design work utilizing background information, basics of housing design e.g. dimensioning, site, space, materials, natural light as a part of expression of architecture. Furthermore, the student is able to illustrate his/her design with the help of computer technology.

**Contents:**
Lectures on basic architectural concepts, architectural phenomena of current interest, the nature of artistic work and knowledge of housing design. Composition and design exercises with emphasis on dimensioning and basics of housing design. Visitor lectures are part of course.

**Mode of delivery:**
Lectures, exercises and a written examination. The type of the examination will be specified at the beginning of the course. Contact teaching and independent studying.

**Learning activities and teaching methods:**
lectures + contact teaching 150 hours.

**Target group:**
2nd year students.

**Recommended optional programme components:**
452501P Contemporary Architecture I, CAD I and CAD II

**Recommended or required reading:**

**Assessment methods and criteria:**
Based on examination and exercises.

452523A: Contemporary Architecture II, elements, 7 op

**Voimassaolo:** 01.08.2012 -
**Opiskelumuoto:** Intermediate Studies
**Laji:** Course
**Vastuuysikkö:** Department of Architecture
**Arvostelu:** 1 - 5, pass, fail
**Opettajat:** Matti Sanaksenaho
Opintokohteen kielet: Finnish

**Timing:**
Finnish

**Learning outcomes:**
After completing the course the student can name internationally essential phenomena and important names within modern architecture. He/she can explain the main features of the development of post-war Finnish architecture. The student can design a small (housing and public) building, implementing the design basics included in the course, i.e. basics of giving form to space, architectural solutions, dimensioning and understand the meaning of light in housedesign. The student can carry out the design work utilizing background information, basics of housing design e.g. dimensioning, site, space, materials, natural light as a part of expression of architecture. Furthermore, the student is able to illustrate his/her design with the help of computer technology.

**Contents:**
Lectures on basic architectural concepts, architectural phenomena of current interest, the nature of artistic work and knowledge of housing design. Composition and design exercises with emphasis on dimensioning and basics of housing design. Visitor lectures are part of course.

**Mode of delivery:**
Lectures, exercises and a written examination. The type of the examination will be specified at the beginning of the course. Contact teaching and independent studying.

**Learning activities and teaching methods:**
lectures + contact teaching 110 hours.

**Target group:**
2nd year students.

**Prerequisites and co-requisites:**
452501P Contemporary Architecture I, CAD I and CAD II.

**Recommended or required reading:**

**Assessment methods and criteria:**
Based on examination and exercises.

**Working life cooperation:**
Yes

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452503A: Contemporary Architecture III, 8 op

**Voimassaolo:** 01.08.2006 -
**Opiskelumuoto:** Intermediate Studies

**Laji:** Course

**Vastuuysikkö:** Department of Architecture

**Arvostelu:** 1 - 5, pass, fail

**Opettajat:** Mahlamäki Rainer

**Opintokohteen kielet:** Finnish

**Language of instruction:**
Finnish

**Timing:**
autumn term

**Learning outcomes:**
The objective of the course is to initiate the students through lectures and exercises into the architecture and design principles of public buildings.

**Contents:**
The lectures deal contemporary architecture by analyzing for example schools, libraries, exhibition buildings and sacral buildings. There are both domestic and international examples. The lectures deal also with current features as well as the effects of technical solutions to the architecture of the building. Guest lectures are part of the course program.
The design task will be a tutored exercise or an architectural competition of a small public building. The exercise is tutored in common studio sessions and intermediate critiques. The completed works are presented in an open critique.

**Recommended optional programme components:**
The course continues the teaching given in Contemporary Architecture I-II courses, but this time focusing on the design of a public building. Prerequisite: contemporary architecture I-II. Contemporary Architecture III course offers one option for a Bachelors' thesis. Separate instruction will be delivered.

**Recommended or required reading:**
Summary of the lectures. List of readings will be handed out at the lectures.

**Assessment methods and criteria:**
Exercise (design project and possible exam). The form of the exam will be announced each year. The grading is based on evaluation of the achieved goals of the task, quality of the exercise and exam

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452504A: Contemporary Architecture IV, 15 op

- **Voimassaolo:** 01.08.2005 -
- **Opiskelumuoto:** Intermediate Studies
- **Laji:** Course
- **Vastuuksikkö:** Department of Architecture
- **Arvostelu:** 1 - 5, pass, fail
- **Opettajat:** Mahlamäki Rainer
- **Opintokohteen kielet:** Finnish

**Language of instruction:**
Finnish/English

**Timing:**
spring term

**Learning outcomes:**
The objective of the course is to initiate the students through lectures and exercises into the architecture and designing of public buildings.
Learning outcomes: After completing the course the student has the skills to sketch a medium-size (approx. 1000 -3000 m²) public building, taking into account the structural, technical and important security requirements (exercise). Furthermore, the student recognizes the social and technical background, as well as and trends of contemporary architecture related with public buildings (lectures).

**Contents:**
The lectures deal current features in architecture and specific issues related to the topic of the design exercise. The task of the exercise is to design a medium-size public building, including the principles of fire safety, acoustics, load bearing structures and technical installations. Guest lectures are part of the course program.

**Learning activities and teaching methods:**
The course comprises lectures, a design exercise and an exam. The exercise is tutored in common studio sessions and intermediate critiques. The completed works are presented in an open critique. Evaluation is based on the architectural quality and implementation of the objectives of the design project, and the result of the exam.

**Recommended optional programme components:**
The course is compulsory for all master level students. Prerequisite: contemporary architecture III or bachelor's degree. Teachings of structural technology and building techniques are implemented in the exercise. The exercise is linked with the courses of interior design and architectural lighting.

**Recommended or required reading:**
Summary of the lectures. List of readings will be handed out at the lectures.

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455522S: Design in Urban Context, 10 op

- **Voimassaolo:** 01.08.2012 -
- **Opiskelumuoto:** Advanced Studies
- **Laji:** Course
- **Vastuuksikkö:** Department of Architecture
- **Arvostelu:** 1 - 5, pass, fail
- **Opettajat:** Aulikki Herneoja
**Opintokohteen kielet:** English

**Language of instruction:**
English

**Timing:**
Autumn term 1 & 2

**Learning outcomes:**
To give a general overview of history, theory and praxis of industrial design in the urban context and to develop the student's facility for research.

Learning outcomes: After completing the course the student is able to recognize an industrially designed product and analyze its design related substance and is able to make commentary literary synopsis. The student can carry out an exercise work of designing an object related to urban context, applying the contents of the course as well as history of industrial design and contemporary design The student is able to apply the principles of sustainability in his / her design solutions and material selection.

**Contents:**
The lectures deal with main issues of the history of industrial design and recent features of design emphasis on urban context. Research skills are dealt with when students make a commentary synopsis of a book on contemporary design / designer. The viewpoints of sustainability are included in the lectures and discussions held during the course. The emphasis of the course is on design exercise work, which is a design task object related to Urban Space Detailing course.

**Mode of delivery:**
Contact teaching and independent studying.

**Learning activities and teaching methods:**
16h lectures and/or contact teaching and 80 h personal or/and group tutoring

**Target group:**
4th year students (1st year of master level).

**Recommended optional programme components:**
Course is part of module Design-Led Urban Renewal. Design project is connected with Urban Space Detailing.

**Recommended or required reading:**
Literature is given during the course.

**Assessment methods and criteria:**
The student participates in lectures, makes lecture diary, commentary synopsis and delivers a design exercise made by given instructions. The evaluation is based on the outcome of the design project (2/3) and lecture diary and commentary synopsis together (1/3). No exam is included in the course.

**Person responsible:**
University Lecturer Aulikki Herneoja

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**453503A: Design of Apartment Blocks, 8 op**

**Opiskelumuoto:** Intermediate Studies

**Laji:** Course

**Vastuuysikkö:** Department of Architecture

**Arvostelu:** 1 - 5, pass, fail

**Opettajat:** Jouni Koiso-Kanttila

**Opintokohteen kielet:** Finnish

**ECTS Credits:**
8

**Language of instruction:**
Finnish

**Timing:**
spring term

**Learning outcomes:**
To introduce students to the essential issues within architectural construction.

Learning outcome: After completing the course the student can explain the functional principles of the building parts and structures of a multi-storey building and implement these principles in construction design of main structural elements and complimentary building parts. The student is able to design a block of flats which fulfils the building regulations and to produce its working and detail drawings.
Contents:
The content of the course is defined in connection with the assignment of the exercise project.

Learning activities and teaching methods:
Lectures, field trips and project work in studio.

Target group:
3rd year bachelor level students

Recommended optional programme components:
Completion of Architectural Construction, basic course. The exercise is a part of the compulsory joint studio course arranged in collaboration with the Laboratories of Contemporary Architecture and Urban Design. The student may present the project of the course as his/her Bachelor's work.

Recommended or required reading:
List of readings will be handed out during the course

Assessment methods and criteria:
The evaluation is based on the outcome of the exercise work and the exam.

Grading:
1-5

Person responsible:
Professor Jouni Koiso-Kanttila

Working life cooperation:
no

453511A: Electrical Installation, 2 op

Voimassaolo: 01.08.2005 -
Opiskelumuoto: Intermediate Studies
Laji: Course
Vastuuysikkö: Department of Architecture
Arvostelu: 1 - 5, pass, fail
Opintokohteen kielet: Finnish

ECTS Credits:
2

Language of instruction:
Finnish

Timing:
spring term

Learning outcomes:
To give the student a general idea of systems of electricity and lighting in various types of buildings.
Learning outcome: After completing the course the student recognizes the technical symbols of electrical installations and systems, can interpret the plans, define the need of space required by the systems and present how the installations of the systems, their maintenance and detecting of damage can be taken into consideration in the design work. The student can also explain the central criteria of artificial lighting design.

Contents:
Lectures on official regulations, space reservations for electrical equipment, electrical plans and knowledge of the electrical information file, mounting and space reservations. Lighting technology, sources of light and lamps.
Design exercises: necessary provisions in designs for spaces, ducts and piping routes, drawing up of an electrical plan. Exercises are based on the design exercise of the course 453503A Design of Apartment Blocks.

Learning activities and teaching methods:
Lectures, exercises and written examination. The course is compulsory.

Recommended or required reading:
Announced during the course.

453506A: Energy Efficient Building, lecture course, 4 op

Voimassaolo: 01.08.2013 -
Opiskelumuoto: Intermediate Studies
Laji: Course
ECTS Credits: 2

Language of instruction: Finnish

Timing: Autumn term

Learning outcomes: The aim of the course is to provide the student with basic knowledge of energy efficiency and general knowledge of Sustainable Development in constructing and developing. Learning outcomes: After completing the course the student can explain the basic concepts of energy and material efficiency in architectural construction. The student can apply this knowledge in energy calculations.

Contents: Lectures on the principles on energy efficiency, energy calculations and sustainable development in constructing

Mode of delivery: lectures, energy calculation exercises and exam

Learning activities and teaching methods: Personal and/or group tutoring.

Target group: 2nd year master level students

Recommended optional programme components: Architectural Construction, professional skills course

Recommended or required reading: List of readings will be handed out during the course.

Assessment methods and criteria: Assessment is based on energy calculation exercise and exam

Grading: 1-5

Person responsible: Professor Jouni Koiso-Kanttila, lecturer Seppo Mäkinen

Other information: not applicable

450502A: Excursion Abroad, 2 op

Vuonna: 01.08.2005 -
Opiskelumuoto: Intermediate Studies
Laji: Course
Vastuuysikkö: Department of Architecture
Arvostelu: 1 - 5, pass, fail
Opettajat: Mahlamäki Rainer
Opintokohteen kielet: Finnish

Language of instruction: Finnish/English

Timing: autumn term

Learning outcomes: The aim excursion program is to visit top-quality architectural sights in the target city or country. The purpose of the study trip is to complement the theoretical teaching of architecture, its three-dimensional and empirical character as well as its relation to place and history. The excursion program should reflect the given lecture courses, covering examples of history, contemporary architecture and town planning.

Learning outcomes: After the study trip the student has a better understanding of the features of internationally significant architecture.

Contents:
The excursion program may include individual buildings, housing estates or urban spaces and environments as well as visits to local architecture schools.

Learning activities and teaching methods:
The 14 days study trip is organized at the end of the first half of the autumn term in the second year of the master level. The excursion leader is selected and the target and the frame for the program of the excursion are decided upon by the end of the previous year. The detailed program and travel arrangements will be completed during the spring term of the 1st year of the master level together with the excursion leader, who is one of the full-time teachers of the Department. The students have to cover their own expenses of the excursion.

Target group:
The study trip is a compulsory study unit in the master's degree.

454560S: Extension Course / Urban Design, 5 - 10 op

Opiskelumuoto: Advanced Studies
Laji: Course
Vastuuysikkö: Department of Architecture
Arvostelu: 1 - 5, pass, fail
Opettajat: Hentilä, Helka-Liisa
Opintokohteen kielet: Finnish

Language of instruction:
Finnish
Timing:
Autumn term 1-2.
Learning outcomes:
The aim is to go deeply into theories and practices of planning and urban design.
Learning outcomes: After completing the course the student can describe different methods of producing and ways of implementing background material, inquiries and research results as part of planning process. The student can also describe their role in strategic planning.
Contents:
The course concentrates on the borderline between theory and practice in strategic urban planning.
Mode of delivery:
Contact teaching and independent studying.
Learning activities and teaching methods:
24-48 ha contact teaching, including seminars.
Target group:
5th year Master level students.
Recommended optional programme components:
The course is part of module Strategic Planning and it is tightly connected to Municipal Planning (454505S).
Recommended or required reading:
Study material is announced separately.
Assessment methods and criteria:
Exercise (written report) and participation in seminars. Grading is based on the exercise.
Person responsible:
Prof. Helka-Liisa Hentilä

455560S: Extension Course in Architectural Design, 10 op

Opiskelumuoto: Advanced Studies
Laji: Course
Vastuuysikkö: Department of Architecture
Arvostelu: 1 - 5, pass, fail
Opettajat: Aulikki Herneoja
Opintokohteen kielet: English

Language of instruction:
Finnish/English
Learning outcomes:
The aim of the course is to give the student the opportunity to go deeply into a special issue of design according to the his/her own choice.

Learning outcome: After completing the course the student is able to quite independently carry out a project work related to design. In the work he/she can implement the previously learned through particular issues, which will be defined individually with the teacher. Alternatively the student can deepen into the selected topic through project work.

Contents:
The content of the course is formed by the subject being studied. The student completes an exercise project as agreed with the teacher. There are no lectures organized during the course. Visits to sites closely related to the subject selected by the student are made. The course may include 3D CAD tuition of 3D visualization (lectures 30 h, exercise work 20 h).

Learning activities and teaching methods:
The course is intended for 5th year students and is part of the Architectural Design advanced module.

451511A: Historic Preservation, 10 op

Voimassaolo: 01.08.2005 -
Opiskelumuoto: Intermediate Studies
Laji: Course
Vastuuysikkö: Department of Architecture
Arvostelu: 1 - 5, pass, fail
Opettajat: Anna-Maija Ylimaula
Opintokohteen kielet: Finnish

Language of instruction:
Finnish and English

Timing:
Spring term I and 2

Learning outcomes:
The aim of the course is to provide basic knowledge of historic preservation and the history and theories of the protection of the built environment as well as of the practical methods and to initiate the students into application of these methods in practice.

Learning outcomes: During the course the student learns to analyze the meaning and the content of the built heritage and environment. The student is able to specify architectural, cultural and historical values of buildings, built environments and different places, their identity and integrity. After completing the course the student is able to tell what are the historical and theoretical foundations of preservation and the used contemporary methods. The student is able to apply the methods into practice starting with the documentation and assessment and resulting in historic preservation and the plan for protecting the built environment.

Contents:
The course content is an entity in which the lectures and the exercise are connected.

Lectures: The lectures are dealing with the history and theories of the preservation of architectural heritage, the legislation and international recommendations as well as the practice and the contemporary methods of historic preservation.

Exercise: The preservation plan of a cultural milieu/historic preservation atlas, assessment and a plan to develop of the chosen area or object of the environment.

Mode of delivery:
Lectures and contact teaching in design studio.

Learning activities and teaching methods:
Lectures 32 h and 80 h contact teaching in design studio. Design task is done partially as group work. Field trips.

Target group:
4th year Master's level students.

Prerequisites and co-requisites:
The student has passed courses 1-III of history of architecture or has substituting study credits.

Recommended optional programme components:
This course is part of the complementary module of the sustainable urban development. This course is recommended to be taken before the Restoration Planning course (451515S)

Recommended or required reading:
See separate list of literature and the provided material on the database of the course.
Assessment methods and criteria:
The student participates in the lectures and writes a learning diary and does the exercises demanded during the course.

Grading:
The evaluation is based on the quality of the learning diary and the delivered exercises.

Person responsible:
Professor N.N, University teacher N.N.

451531P: History of Architecture I, lecture course, 5 op

Voimassaolo: 01.08.2012 -
Opiskelumuoto: Basic Studies
Laji: Course
Vastuuylsikkö: Department of Architecture
Arvostelu: 1 - 5, pass, fail
Opettajat: Anna-Maija Ylimaula
Opintokohteen kielet: Finnish

Language of instruction:
Finnish
Timing:
Autumn term I and 2
Learning outcomes:
Providing basic information on the History of Architecture from prehistory till 18th century. In addition students learn to use essential stylistic vocabulary of architecture.
Learning outcomes: After completing the course the student can evaluate the interaction between style periods of European architectural history, technical development and social changes. The student can classify the different eras and recognize their most significant buildings and architects. After the course the student can interpret the classical language of architecture the classical grammar of architecture, as well as recognize the historical layers of built environment.
Contents:
Lectures discuss the general history of architecture and discipline of styles from prehistory until the end of 18th century and introduce old building methods like brickwork bonds and traditional vault constructions.
Mode of delivery:
Lectures, additionally independent studies
Learning activities and teaching methods:
Lessons 48 hrs
Target group:
1st year Bachelor level students
Recommended optional programme components:
Course is combined to exercises (451532P)
Recommended or required reading:
Handouts, digital slides. A literature list will be delivered during the course.
Assessment methods and criteria:
Assessment is based on two written examinations.
Grading:
1-5 in two written examinations.
Person responsible:
Professor (act) Anna-Maija Ylimaula, University lecturer N.N.

451532P: History of Architecture I, studio course, 4 op

Opiskelumuoto: Basic Studies
Laji: Course
Vastuuylsikkö: Department of Architecture
Arvostelu: 1 - 5, pass, fail
Opettajat: Anna-Maija Ylimaula
Opintokohteen kielet: Finnish
Language of instruction: Finnish and English
Timing: Autumn term 1 and 2
Learning outcomes: The objective of the course is to teach the student to observe the built environment and its historical layers and to teach them to use the architectural vocabulary.
Learning outcomes: Having completed the course the student is able to observe the built environment and is able to identify and to describe different historical styles and layers of architecture. The student is also able to present these observations by using different drawing technics and writing and the student knows how to observe the built environment.
Contents: Exercises consist of three separate tasks. The exercises are designed to train the students to observe the built environment and to use the vocabulary of architectural styles and history of architecture. The aim is to learn the terminology of classical architecture and to be able to express the classical language by drawing and writing. The aim is also to enhance the student's own ability to sense and observe the special qualities of the built environment.
Mode of delivery: Contact teaching and independent studying
Learning activities and teaching methods: 48h contact teaching in design studio.
Target group: 1st year Bachelor level students
Recommended optional programme components: The course is related to the History of Architecture 1, lecture course (451531P)
Recommended or required reading: A list of literature will be handed out during the course
Assessment methods and criteria: Design tasks and supplementary lectures and the evaluation sessions
Person responsible: Professor (act) Anna-Maija Ylimaula, University teacher N.N.

451533A: History of Architecture II, lecture course, 4 op

Voi massaolo: 01.08.2012 -
Opiskelumuoto: Intermediate Studies
Laji: Course
Vastuuysikkö: Department of Architecture
Arvostelu: 1 - 5, pass, fail
Opettajat: Anna-Maija Ylimaula
Opintokohteen kielet: Finnish

Language of instruction: Finnish (literature partly in English)
Timing: Autumn term I and 2
Learning outcomes: Providing basic information on the historic development of architecture and on the history of modern architecture during the 19th and 20th centuries.
Learning outcomes: During the course the student learns to recognize the historical roots of the contemporary architecture and recount the development up to today. Having completed the course, the student recognizes the most essential phenomena and styles of 19th and 20th century architecture and can reflect own personal views on contemporary architecture.
Contents: Course discusses the general history of architecture of 19th and 20th centuries.
Mode of delivery: Lectures, additionally independent studies.
Learning activities and teaching methods: Lectures 48 hrs
Target group: 2nd year Bachelor level students
Prerequisites and co-requisites:
History of architecture I, lecture course (451531P)

Recommended optional programme components:
Course is combined to practices (451534A)

Recommended or required reading:
Handouts, digital slides. A literature list will be handed out during the course

Assessment methods and criteria:
Assessment is based on two written examinations

Grading:
1-5 in two written examinations

Person responsible:
Professor (act) Anna-Maija Ylimaula, University lecturer N.N.

451534A: History of Architecture II, studio course, 3 op

Language of instruction:
Finnish

Timing:
Autumn term I and 2

Learning outcomes:
The aim of the course is to learn how to measure and do the measurement drawings as well as the inventory of historical buildings and building groups.
Learning outcomes: Having completed the course the student is able to do measurement drawings of the buildings, and have knowledge about the customary methods of documentation and inventory. Through the subject area of the course the student learns about the traditional building methods.

Contents:
During the course measurement drawings of a historical building or building groups are done. Both traditional and new methods of documentation, inventory and measurement are studied. The course includes a fieldwork where the traditional building methods and techniques are also studied.

Mode of delivery:
Contact teaching and independent studying.

Learning activities and teaching methods:
48 h contact teaching in design studio. 2 field trips.

Target group:
2nd year Bachelor level students.

Recommended optional programme components:
The course is related to the History of Architecture 2, lecture course (451533A)

Recommended or required reading:
A list of literature will be handed out during the course.

Assessment methods and criteria:
participation in the lectures, field work and evaluation sessions. Inventory project.

Grading:
The evaluation is based on the quality of the inventory project.

Person responsible:
Professor (act) Anna-Maija Ylimaula, University teacher N.N.

451504A: History of Architecture III, 3 op

Language of instruction:
Finnish

Timing:
Autumn term I and 2

Learning outcomes:
The aim of the course is to learn how to measure and do the measurement drawings as well as the inventory of historical buildings and building groups.

Contents:
During the course measurement drawings of a historical building or building groups are done. Both traditional and new methods of documentation, inventory and measurement are studied. The course includes a fieldwork where the traditional building methods and techniques are also studied.

Mode of delivery:
Contact teaching and independent studying.

Learning activities and teaching methods:
48 h contact teaching in design studio. 2 field trips.

Target group:
2nd year Bachelor level students.

Recommended optional programme components:
The course is related to the History of Architecture 2, lecture course (451533A)

Recommended or required reading:
A list of literature will be handed out during the course.

Assessment methods and criteria:
participation in the lectures, field work and evaluation sessions. Inventory project.

Grading:
The evaluation is based on the quality of the inventory project.

Person responsible:
Professor (act) Anna-Maija Ylimaula, University teacher N.N.
Language of instruction:
Finnish (literature in English and Swedish)
Timing:
Autumn 2, spring term I and 2
Learning outcomes:
The aim is to provide basic knowledge on the history of the Scandinavian and Finnish architecture from the prehistory until the 20th century.
Learning outcomes: After completing the course the student masters the historical background of the architecture of Finland and Scandinavia starting from pre-historical times. The student recognizes the temporal and stylistic layers of the history of our building tradition and is able to explicate features of Finland’s architectural evolvement in a relation with the international development and especially in correlation to Sweden and the other Nordic countries.
Contents:
Lecture discusses the history of architecture in Scandinavia and especially in Finland from prehistory till 20th C.
Mode of delivery:
Lectures, additionally independent studies.
Learning activities and teaching methods:
Lectures 48 h
Target group:
3rd year Bachelor level students.
Prerequisites and co-requisites:
History of architecture I and II, lecture courses (451531P and 451533A)
Recommended optional programme components:
The course is related to the History of Architecture III, practices course (451505A). Together with the Architecture III, practices course, this course can form the Bachelor's diploma work (8 ECTS) of the Bachelor's degree.
Recommended or required reading:
Handouts, digital slides. A literature list will be handed out during the course.
Assessment methods and criteria:
Assessment is based on written examinations.
Grading:
1-5 in written examinations
Person responsible:
Professor N.N., University lecturer N.N.

451505A: History of Architecture III practices, 5 op

Voimassaolo: 01.08.2011 -
Opiskelumuoto: Intermediate Studies
Laji: Course
Vastuuyksikkö: Department of Architecture
Arvostelu: 1 - 5, pass, fail
Opettajat: Anna-Maija Ylimaula
Opintokohteen kielet: Finnish

Language of instruction:
Finnish
Timing:
Autumn 1
Learning outcomes:
The aim of the course is to teach how to do the restoration plan of a small-scale historical building. The course concentrates on the evaluation of building heritage and the architectural design for the re-use of a historical building.
Learning outcomes: Students learn to observe, analyse and evaluate the special requirements of the historical building particularly when its function is converted into new use.

Contents:
The restoration plan of a small-scale historical building which is based on the assessment and evaluation of the building. The student may present the project of the course as Bachelor's diploma work.

Learning activities and teaching methods:
64 h contact teaching in design studio. Field trips.

Target group:
Elective course. 3rd year Bachelor level students. The student may present the project of the course as Bachelor's diploma work.

Recommended optional programme components:
The course is an elective course. The course is related to the History of Architecture III, lecture course (451504A). Together with the Architecture III, lecture course, this course can form the Bachelor's diploma work (8 ECTS) of the Bachelor degree.

Recommended or required reading:
The lecture material and other materials concerning the course will be uploaded to the project drive of the department. A list of literature will be handed out during the course.

Assessment methods and criteria:
Students participate in lectures, field work and evaluation sessions and present a restoration plan.

Person responsible:
Professor (ma) N.N, University teacher N.N.

451540A: History of Architecture and renovation, varying courses, 2 - 10 op

Voimassaolo: 01.08.2005 -
Opiskelumuoto: Intermediate Studies
Laji: Course
Vastuuysikkö: Department of Architecture
Arvostelu: 1 - 5, pass, fail
Opettajat: Anna-Maija Ylimaula
Opintokohteen kielet: Finnish
Voidaan suorittaa useasti: Kyllä

Language of instruction:
Finnish and English

Timing:
Autumn and spring terms

Contents:
The content of the course is defined separately.

Mode of delivery:
variable

Target group:
Bachelor level students

Prerequisites and co-requisites:
Elective course

Recommended or required reading:
Defined separately

Assessment methods and criteria:
The course does not include any lectures or examinations. Assessment depends on the assignment.

Person responsible:
Professor (act) Anna-Maija Ylimaula

454521P: History of Urban Design, 5 op

Voimassaolo: 01.08.2005 -
Opiskelumuoto: Basic Studies
Laji: Course
Vastuuysikkö: Department of Architecture
Language of instruction:
Finnish (part of literature in English)

Timing:
Spring term 1-2

Learning outcomes:
The objective of the course is to introduce student to urban design and to give historical background to contemporary urban design.
Learning outcomes: Having completed the course the student identifies and is able to describe different historical phases of urban design. The student also identifies and is able to describe elements of urban form as well as implement them in an urban design project. The student can also independently obtain information needed in a small urban design project.

Contents:
Lectures comprise elements of urban form and historical phases of urban design in Western world and in Finland especially. The design studio comprises of a small urban design project.

Mode of delivery:
Contact teaching and independent studying.

Learning activities and teaching methods:
32 h lectures + 64 h contact teaching in design studio.

Target group:
1.st year Bachelor level students

Recommended or required reading:
Study compendium. Course literature will be announced separately.

Assessment methods and criteria:
Design project and exam. The evaluation is based on the outcome of the design project (2/3) and exam (1/3).

Person responsible:
Prof. Helka-Liisa Hentilä
The design task will be tutored in groups.

**Learning activities and teaching methods:**
A housing design task is included in the course. The course is the second part of the 3rd year joint design project.

**Prerequisites and co-requisites:**
Design project is connected with courses Town Planning (454503A) and Design of Apartment Blocks (453503A). The Laboratory of Contemporary Architecture offers lectures in first autumn term and tutoring for the exercise mainly in second autumn term. Prerequisite: contemporary architecture I-II.

**Recommended or required reading:**
Course handout; Kahri, Pyykönen: Asuntosuunnittelu.

**Assessment methods and criteria:**
The course is completed by participating the lectures and performing the design task. The exercise will be graded after the course Design of Apartment Blocks is completed and will be based on the evaluation of the overall architectural quality, which is the final grading.

### 450545A: Illustrator Basics, 1 op

**Voimassaolo:** 01.08.2011 -

**Opiskelumuoto:** Intermediate Studies

**Laji:** Course

**Vastuuysikkö:** Department of Architecture

**Arvostelu:** 1 - 5, pass, fail

**Opintokohteen kielet:** Finnish

**Language of instruction:**
Finnish

**Timing:**
autumn term

**Learning outcomes:**
Objective: Introduction to basic features of Illustrator in page layout and drawing and manipulating vector graphics.
Learning outcomes: Students are able to master the basics of vector graphic functions and to recognize the main features of the possibilities of the program software. The students are able to produce pages for media, combining illustrations and texts from numerous different sources.

**Contents:**
Vector graphics, importing illustrations, page layout and exporting and publishing PDFs.

**Mode of delivery:**
Lectures and project work in the classroom (computer lab)

**Learning activities and teaching methods:**
Lectures 12 hours, contact teaching and practical work 12 hours in computer lab.

**Target group:**
Bachelor level students

**Recommended or required reading:**
Software help files and handouts.

**Assessment methods and criteria:**
Based on a project work (the presentation material of a design course at the Department of Architecture or an equivalent work).

**Other information:**
The course is intended for the students of the Department of Architecture only

### 450524A: Image Manipulation / Photoshop & Illustrator, 2 op

**Voimassaalo:** 01.08.2005 - 31.07.2012

**Opiskelumuoto:** Intermediate Studies

**Laji:** Course

**Vastuuysikkö:** Department of Architecture

**Arvostelu:** 1 - 5, pass, fail

**Opettajat:** Tuominen, Pekka Johannes

**Opintokohteen kielet:** Finnish
Language of instruction:
In Finnish.

Learning outcomes:
To teach image manipulation from the point of view of architectural presentation.
Learning outcome: The student is able to select the most suitable programs and file formats in consideration of their technical differences. The student can produce an output (image manipulation), using basic functions of the programs and special functions essential for manipulating architectural images. The student can select suitable file formats and produce appropriate versions of the images for different purposes.

Contents:
Lectures on basic functions of programs, means of image manipulation and printing of documents. The exercise of the course is to make a printed poster with the help of the programs taught.

Learning activities and teaching methods:
The programs used are Adobe Photoshop and Adobe Illustrator.

450547A: Indesign Basics, 1 op

Voimassaolo: 01.08.2011 -
Opiskelumuoto: Intermediate Studies
Laji: Course
Vastuuysikkö: Department of Architecture
Arvostelu: 1 - 5, pass, fail
Opettajat: Emma Hulaud
Opintokohteen kielet: Finnish
Leikkaavuudet:
ay450547A Indesign Basics (OPEN UNI) 1.0 op

ECTS Credits:
1 op

Language of instruction:
Finnish

Timing:
flexible

Learning outcomes:
Objective: Basic features of page layout in Indesign.
Learning outcomes: Students master the basic page layout features and understand the possibilities of the software. Students are able to produce pages ready for release combining visual and textual material from various sources.

Contents:
Placing formatted text and pictures, page layout and PDF publishing.

Mode of delivery:
Teaching in the classroom (computer lab)

Learning activities and teaching methods:
Lectures and practical work.

Target group:
architecture students, bachelor level

Recommended or required reading:
Software help files and handouts.

Assessment methods and criteria:
Based on a project work (the presentation material of a design course at the Department of Architecture or an equivalent work).

Person responsible:
parttime teacher Emma Hulaud

Other information:
The course is intended for the students of the Department of Architecture only

030005P: Information Skills, 1 op
**ECTS Credits:**
1 ECTS credit

**Language of instruction:**
Finnish

**Timing:**
2nd or 3rd year

**Learning outcomes:**
Students know the different phases of information retrieval process and basic techniques of scientific information retrieval. They will find the most important reference databases of their discipline and know how to evaluate information sources and retrieval results.

**Contents:**
Retrieval of scientific information, the retrieval process, key databases of the discipline, and evaluation of information retrieval and information sources.

**Mode of delivery:**
Blended teaching: classroom training, web-based learning material and exercises in Optima environment, a final assignment on a topic of the student's own choice

**Learning activities and teaching methods:**
Training sessions 8h, group working 7h, self-study 12h

**Target group:**
Compulsory for all students of the Faculty of Technology. In the Faculty of Science the course is compulsory for students of biology, physics, geosciences, chemistry, geography and information processing science. The course is optional for students of biochemistry and mathematics.

**Prerequisites and co-requisites:**
-

**Recommended optional programme components:**
-

**Recommended or required reading:**

**Assessment methods and criteria:**
Passing the course requires participation in the training sessions and successful completion of the course assignments.

**Grading:**
pass/fail

**Person responsible:**
Science and Technology Library Tellus, tellustieto (at) oulu.fi

**Working life cooperation:**
-

**Other information:**
-

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**454526S: Interactive Urban Planning, 10 op**

**Voimassaolo:** 01.08.2012 -

**Opiskelumuoto:** Advanced Studies

**Laji:** Course

**Vastuuysikkö:** Department of Architecture

**Arvostelu:** 1 - 5, pass, fail

**Opettajat:** Hentilä, Helka-Liisa

**Opintokohteen kielet:** Finnish
Language of instruction:
Finnish.
Timing:
Spring 1-2
Learning outcomes:
To give in-depth approach to integrative urban planning theories and practices as well as to go deeply into basic surveys linked to urban planning and general methods of collecting information.
Learning outcomes: After completing the course the student can identify and describe theories and practices of integrative planning. The student can also describe main principles of sustainable planning and set planning goals. The student can also use various surveys as part of the planning process, evaluate adequacy of the surveys and argument the adequacy in the context of sustainable planning. The student can also produce surveys on the planning area by using different methods, analyse them and make conclusions. The student can also implement the analysis results in the design phase.
Contents:
Lectures focus on different aspect of sustainable and integrative urban planning and urban development. Seminars focus on basic surveys related to and practices of integrative planning. The exercise consists of an analysis phase, case studies and design project.
Mode of delivery:
Contact teaching plus independent studying.
Learning activities and teaching methods:
16 h lectures + 16 h seminar + 64 h contact teaching in design studio
Target group:
4th year Master level students.
Recommended optional programme components:
Course is part of module Sustainable Urban Development. Design project is connected with course Historic Preservation (451511A).
Recommended or required reading:
Study compendium. Literature will be announced separately.
Assessment methods and criteria:
Exercise (analysis, case study, design project). Grading is based on the exercise.
Person responsible:
Prof. Helka-Liisa Hentilä.

455517A: Interior Design, 5 - 10 op

Voimassaolo: 01.08.2012 -
Opiskelumuoto: Intermediate Studies
Laji: Course
Vastuuyksikkö: Department of Architecture
Arvostelu: 1 - 5, pass, fail
Opettajat: Aulikki Herneoja
Opintokohteen kielet: Finnish
Leikkaavuudet:
ay455517A Interior Design (OPEN UNI) 5.0 op

Language of instruction:
English
Timing:
Spring term 1 & 2
Learning outcomes:
The objective of the course is to provide students with basic skills of interior design and to guide the students to practical design work. When extending the course to 10 cr / 5 ECTS the aim of the lectures and the exercise work of the course is to deepen the students' knowledge in special issues within interior design, in particular designing fixed furniture.
Learning outcomes: After completing the course the student can analyze space and make sketches for an interior, utilizing various sectors of interior design in a creative manner. The student can implement the basic concepts of interior design when presenting his / her design work. The student is able to apply the principles of sustainability in his / her design solutions and material selection. When extending the course to 10 cr / 5 ECTS after completing the course the student can prepare working drawings and identify quality factors, displaying his / her command of the basics of designing fixed furniture. The student is able to apply the principles of sustainability in his / her
design solutions and material selection, e.g. taking into account sorting of waste and principles of life-cycle housing.

**Contents:**
Lectures deal with basic concepts of interior design and the connection between architecture and interior design and aspects of sustainable development. The focus is on materials, colours and lighting of the space, basics of design of fixed furniture and textiles. The exercise work is a sketch level design of an interior. When extending the course to 10 cr / 5 ECTS lectures deal with special issues within interior design and aspects of sustainability, with focus on fixed furniture design. The student is initiated to practices of fixture design and quality factors through analyzing two kitchens. The exercise work is a working drawing level fixture design. Visits to professionally designed interiors are included in the course.

**Mode of delivery:**
Contact teaching and independent studying.

**Learning activities and teaching methods:**
12h lectures and/or contact teaching and 36h personal or/and group tutoring. When extending the course to 10 cr / 5 ECTS additional 12h lectures and/or contact teaching and 36h personal or/and group tutoring included

**Target group:**
4th year of studies (1st year of master level).

**Recommended optional programme components:**
Course is part of module Design of Public Buildings. Interior Design is suggested to proceed together with course Architectural Lighting.

**Recommended or required reading:**
Literature is given during the course.

**Assessment methods and criteria:**
The student attends the lectures and completes a design exercise according to instructions. The evaluation is made based on outcome of the exercise work. No exam is included in the course.

**Person responsible:**
University Lecturer Aulikki Herneoja

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**452505S: International Studio, 15 op**

Opiskelumuoto: Advanced Studies

Laji: Course

Vastuuysikkö: Department of Architecture

Arvostelu: 1 - 5, pass, fail

Opettajat: Mahlamäki Rainer

Opintokohteen kielet: Finnish

**Language of instruction:**
Finnish/English

**Timing:**
autumn term

**Learning outcomes:**
The objective of the course is to widen and deepen the student's knowledge of public buildings, housing design and design in general through lectures and exercises.

Learning outcomes: After completing the course the student can set his / her own objectives to the given task and offer solutions in the form of drawings and models.

**Contents:**
The lectures deal current features in architecture and specific issues related to the topic of the design exercise. The student selects the topic of the task by him- / herself with the help of the teachers. The exercise should comprise a design project (extent at least 8 ECTS) complemented by a written survey.

**Learning activities and teaching methods:**
The exercise is tutored in common studio sessions and intermediate critiques. The completed works are presented in an open critique. Evaluation is based on the architectural quality, standard and processing of the exercise.

**Recommended optional programme components:**
The course is compulsory for all students in the Architectural Design and Building Design orientations.

Prerequisite: contemporary architecture IV.

**Recommended or required reading:**
List of readings will be handed out at the lectures.
**451521A: Introduction to Japanese History of Art and Aesthetics, 5 op**

**Voimassaolo:** - 31.07.2011  
**Opiskelumuoto:** Intermediate Studies  
**Laji:** Course  
**Vastuuyksikkö:** Department of Architecture  
**Arvostelu:** 1 - 5, pass, fail  
**Opettajat:** Minna Eväsoja  
**Opintokohteen kielet:** Finnish  
**Voidaan suorittaa useasti:** Kyllä

**Language of instruction:**  
Finnish

**Learning outcomes:**  
Learning outcome: After completing the course the student can describe the main features of the basics of general history of Japanese art, explain the chronology of different eras and recognize their most essential examples.

**Contents:**  
Lectures on the history of Japanese art, written examination.

**Learning activities and teaching methods:**  
Organized as an intensive study unit.

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**450099S: Master's Thesis, 30 op**

**Opiskelumuoto:** Advanced Studies  
**Laji:** Diploma thesis  
**Vastuuyksikkö:** Department of Architecture  
**Arvostelu:** 1 - 5, pass, fail  
**Opintokohteen kielet:** Finnish

**ECTS Credits:**  
30

**Language of instruction:**  
Finnish/English

**Timing:**  
Recommended timing the spring term of the 2nd year of the master level.

**Learning outcomes:**  
Objective: The diplomas thesis completes the master's degree studies.

Learning outcomes: The student is able to set objectives to the given design task, and through utilizing processes of creative work is able to develop various solutions based on analyses and problem solving, regardless of the scale of the task. The student is able to apply advanced working methods and tools in a creative manner in the solutions visualization. The student is capable of taking responsibility of his own professional developing and specialization.

**Contents:**  
The student defines the contents of his / her work, consulting the supervisor of the diploma thesis. The study programme board accepts the contents, the subject and the topic of the thesis work.

**Mode of delivery:**  
Individual work

**Learning activities and teaching methods:**  
The diploma thesis work is supervised by a staff member of the Department. The work is presented and evaluated in the diploma seminar.

**Target group:**  
2nd year master level students

**Prerequisites and co-requisites:**  
all the additional studies required for the architect's degree, totaling 90 ECTS

**Recommended optional programme components:**  
The diploma work is part of the advanced studies of the curriculum.

**Recommended or required reading:**  
-
Assessment methods and criteria:
The thesis work is made independently by the student. One week before the final presentation the student pins up the panels of the diploma for display at the department submits a bound copy of the diploma thesis work, including reductions of the panels for the use of the evaluation board and the library.

Grading:
1 - 5

Person responsible:
Professor n.n. in the supervising laboratory

Working life cooperation:
Yes

Other information:
separate detailed diploma thesis instructions are published on the web pages of the Department of Architecture.

454505S: Municipal Planning, 15 op

Voimassaolo: 01.08.2005 -
Opiskelumuoto: Advanced Studies
Laji: Course
Vastuuyksikkö: Department of Architecture
Arvostelu: 1 - 5, pass, fail
Opettajat: Hentilä, Helka-Liisa
Opintokohteen kielet: Finnish

Language of instruction:
Finnish
Timing:
Autumn term 1-2.

Learning outcomes:
To initiate students into strategic and participatory land use planning and to provide basic information on planning at regional and national levels.
Learning outcomes: After completing the course the student can understand the main principles of strategic and participatory planning and is able to use knowledge produced by stakeholders as part of the planning process. The student also identifies main phases and methods of general and regional planning, is able in co-operation with others to set strategic goals and to comprise a holistic general land use vision. The student can also describe how a participatory planning process is managed.

Contents:
The course consists of lectures and authentic exercises in sustainable local planning as part of regional and national planning, impact assessment, strategic planning, management of planning processes and stakeholder participation. Depending on the target area, exercises aim to sustainable management of growth or shrinkage strategies as part of planning. Students train their co-operational skills also by working in groups throughout the course.

Mode of delivery:
Contact teaching and independent studying.

Learning activities and teaching methods:
24 h lectures + 156 h other contact teaching (field trips, participatory planning seminars, contact teaching in design studio).

Target group:
5th year Master level students.

Recommended optional programme components:
The course is part of module Strategic Planning and it is connected to Extension Course of Planning (454560S).

Recommended or required reading:
Study compendium. Course literature will be announced separately.

Assessment methods and criteria:
exercise (planning project), participatory planning seminars and exam. The evaluation is based on the outcome of the planning project (2/3) and exam (1/3).

Person responsible:
Prof. Helka-Liisa Hentilä

Other information:
The course is organized in close cooperation of a northern municipality and it includes some simulation of participatory planning practices with local stakeholders.
454523A: Neighborhood Design, 5 op

Voimassaolo: 01.08.2005 - 31.07.2015
Opiskelumuoto: Intermediate Studies
Laji: Course
Vastuuysikkö: Department of Architecture
Arvostelu: 1 - 5, pass, fail
Opettajat: Hennu Kjisik
Opintokohteen kielet: Finnish

Language of instruction:
Finnish.

Timing:
Spring term 1

Learning outcomes:
The course will provide basic knowledge about the planning of urban space. Learning outcomes: After completion of the course the student will understand the basic factors that affect the interdependence between spatial design and functional planning as well as recognises the principles of interaction between the human being and the built environment. The student will be able to perceive the specific characteristics of a given area and produce a design that corresponds to the level of a general town plan.

Contents:
The lectures cover basic aspects that affect the spatial design of a given area and the planning of different functions therein. The exercise consists of designing a plan on the level of a general town plan.

Learning activities and teaching methods:
16 h lectures + 64 h contact teaching in design studio.

Target group:
2nd year Bachelor level students.

Prerequisites and co-requisites:
History of Urban Design (454521P).

Recommended or required reading:

Assessment methods and criteria:
Exercise (design project) 2/3 of grade, exam 1/3 of grade.

Person responsible:
Prof. Hennu Kjisik

450510P: Orientation, 2 op

Voimassaolo: 01.08.2005 - 31.07.2015
Opiskelumuoto: Basic Studies
Laji: Course
Vastuuysikkö: Department of Architecture
Arvostelu: 1 - 5, pass, fail
Opintokohteen kielet: Finnish

ECTS Credits:
2

Language of instruction:
Finnish

Timing:
Autumn term I, first week of studies

Learning outcomes:
The aim of the course is to introduce the student to the university, academic studies, the department and the studies in the field of Architecture.

Objective: To initiate the student with working methods of studies in architecture.
Learning outcomes: After the orientation the student is able to ask for essential information concerning his / her studies, and to recognize the study environment and the teachers. Additionally the student is able to describe the practices and study methods at the Department of Architecture and is able to form an idea of the architect's work.

Contents:
The contents of the orientation are: opening of the academic year of the university, information sessions organized by the faculty, detailed information on the studies at the Department of Architecture. The students are familiarized with the practices of the school, some of the teachings of the laboratories and drawing techniques and equipment. The orientation week includes a two days workshop.

Grading:
pass / fail

Person responsible:
Arch. Martti Tuomala (coordinator)

450541A: Photoshop, Advanced Photomanipulation, 2 op

Voimassaolo: 01.08.2011 -
Opiskelumuoto: Intermediate Studies
Laji: Course
Vastuuysikkö: Department of Architecture
Arvostelu: 1 - 5, pass, fail
Opettajat: Asko Leinonen
Opintokohteen kielet: Finnish
Leikkaavuudet:
ay450541A Photoshop, Advanced Photomanipulation (OPEN UNI) 2.0 op

ECTS Credits:
2 op
Language of instruction:
Finnish
Timing:
flexible
Learning outcomes:
Objective: Adding a finishing touch in Photoshop to images produced with other rendering software. Learning outcomes: Students are able to complete image renderings from 3d modelling software and to supplement them by combining elements from photos for a photorealistic and expressive end-result.
Contents:
Color correction, perspective correction.
Mode of delivery:
Teaching in the classroom (computer lab)
Learning activities and teaching methods:
Lectures and practical work.
Target group:
architecture students, bachelor level
Recommended optional programme components:
ps basics
Recommended or required reading:
Software help files and handouts.
Assessment methods and criteria:
Based on a project work (the presentation material of a design course at the Department of Architecture or an equivalent work).
Person responsible:
parttime teacher Emma Hulaud
Working life cooperation:
No
Other information:
The course is intended for the students of the Department of Architecture only

450546A: Powerpoint and PDF (presentations and portfolios), 1 op
**Language of instruction:**
Finnish

**Timing:**
1st half of the spring term

**Learning outcomes:**

Learning outcomes: Students are able to use the slide layout functions of the Powerpoint software program and to use the custom and transition settings of the program. Based on the function of the document students are able to modify the settings in order to create PDF files.

**Contents:**
Editing and using of slides. PDF Maker settings

**Mode of delivery:**
Lectures and project work in the classroom (computer lab)

**Learning activities and teaching methods:**
Lectures 12 hours, contact teaching and practical work 12 hours in computer lab.

**Target group:**
Bachelor level students

**Recommended or required reading:**
Software help files and handouts.

**Assessment methods and criteria:**
Based on a project work (the presentation material of a design course at the Department of Architecture or an equivalent work).

**Other information:**
The course is intended for the students of the Department of Architecture only

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**450504A: Practical Training, 3 - 6 op**

**Language of instruction:**
Finnish / English

**Timing:**
The best timing for practical training in architect's office is the summer after the 3rd or 4th year.

**Learning outcomes:**
The aim of practical training in architect's office is to initiate the student into architects' work and tasks. It is essential for students to get to know the work field of an architect in order to begin his / her own professional career after graduation most efficiently. Recommended places of work for practical training are private or public design and planning offices lead by qualified architects.

Learning outcomes: After completing the practical training the student is able to describe one possible occupation after his / her graduation. The student can recognize and solve problems of the working environment. The student is able to implement theoretical knowledge in practice. The student recognizes the architect's professional tasks at his / her work place during the practical training.

**Mode of delivery:**
At least two months compulsory practical training (3 cr) is required for the architect's degree. The student has to write a report and present a testimonial of the training. The practical training is supervised by the laboratory of architectural construction, which also provides the practical training instructions for students. The student finds the placement for practical training by her-/himself.

**Grading:**
pass / fail

**Working life cooperation:**
yes

450503A: Practical Training / Construction Site, 5 op

**Voimassaolo:** 01.08.2005 -
**Opiskelumuoto:** Intermediate Studies
**Laji:** Practical training
**Vastuuysikkö:** Department of Architecture
**Arvostelu:** 1 - 5, pass, fail
**Opintokohteen kielet:** Finnish

**ECTS Credits:**
6

**Language of instruction:**
Finnish

**Timing:**
Recommended timing is the summer after the 1st or the 2nd year of the Bachelor's degree studies.

**Learning outcomes:**
After completing the training the student can describe one typical construction site and working environment from the point of view of his/her studies. The student can name problems observed in the working environment and propose some improvements. The student recognizes links between the working life and his/her studies.

**Contents:**
The objective of the practical training at a construction site is to familiarize the students with the work life of a construction site. The aim is to provide the students with an overall view of the kind of a building construction, which may be a design task of the trainee after the graduation as an architect. Practical training within the field of study supports and benefits theoretical studies. Additionally, the purpose of the practical training is to give an overview of the technical and economical organization of a construction site, as well as its administration and supervision. The training is usually carried out in the role of a regular construction worker, in order for the student to get a realistic contact with the work in practice, safety issues and the social character of the work place.

**Learning activities and teaching methods:**
The student finds the place of the traineeship him/herself. An illustrated journal of the practical training has to be submitted after the internship. The practical training at construction site can be replaced by a six months follow-up study of a construction site. The training is supervised within the teachings of architectural construction. The laboratory for architectural construction provides the instructions.

**Target group:**
Bachelor level students

**Grading:**
pass / fail

**Person responsible:**
Arch. Martti Tuomala

**Working life cooperation:**
yes

451516S: Project and Re-use Planning, 10 - 15 op

**Voimassaolo:** 01.08.2012 -
**Opiskelumuoto:** Advanced Studies
**Laji:** Course
**Vastuuysikkö:** Department of Architecture
**Arvostelu:** 1 - 5, pass, fail
**Opintokohteen kielet:** Finnish
ECTS Credits:
10-15

Language of instruction:
Finnish

Timing:
Autumn term, starting in 2013

Learning outcomes:
The aim of the course is to provide the student with basic skills required in the role of the architect as the project leader within large building projects of renovation.

Learning outcomes: After completing the course the student can name the tasks and legal responsibilities of the architect as the project leader in renovation projects.

Contents:
The exercise work is a preliminary concept level plan for the renovation of a large public building.

Mode of delivery:
Lectures, exercise work in design studio, exam

Learning activities and teaching methods:
Personal and/or group tutoring.

Target group:
2nd year master level students

Prerequisites and co-requisites:
Restoration course

Recommended or required reading:
List of readings will be handed out during the course.

Assessment methods and criteria:
Assessment is based on the exercise and exam.

Grading:
1 – 5

Person responsible:
Professor Jouni Koiso-Kanttila, professor N.N.

Other information:
not applicable

456502A: Renovation of Apartment Buildings, 5 op

Voimassaolo: 01.08.2005 -
Opiskelumuoto: Intermediate Studies
Laji: Course
Vastuuysikkö: Department of Architecture
Arvostelu: 1 - 5, pass, fail
Opettajat: Anu-Sisko Soikkeli
Opintokohteen kielet: Finnish

Language of instruction:
Finnish

Timing:
Spring term 1-2

Learning outcomes:
To introduce the student to the principles and characteristics of building renovation and the maintenance of wood frame building as well as a renovation planning process from the viewpoint of an architect. A good command of correct renovation principles and knowledge of damages and repair methods of wooden buildings.

Learning outcomes: After completing the course the student can explain the most common damage mechanisms in post-war wooden houses. The student can estimate how different methods of renovation will affect the functions and architecture of a wooden one-family house. The student can make technically safe choices between different ways of renovation, improving energy efficiency and functionality of the building. The student can explain the phases of a renovation design process. He/she can analyze the influences of the output level and the input level of the renovation on the design process. The student knows how to use the technical symbols of building renovation and prepare master plan drawings for the renovation of a one-family house.

Contents:
Completing a renovation plan for a wooden prefabricated dwelling house. Lectures deal especially with special features and post-war one-family houses and technical issues of renovating a wood-frame house. Visits are
designed to support the process of composing the plan. Exercise of making master plans of the renovation of a prefabricated wooden house is carried out as pair work.

**Mode of delivery:**
Contact teaching and independent studying. A written exam is part of the course.

**Learning activities and teaching methods:**
26 h lectures + 8 h contact teaching.

**Target group:**
3rd year Bachelor level students

**Recommended or required reading:**
Course literature will be announced separately.

**Assessment methods and criteria:**
Design project and exam.

**Person responsible:**
N.N.

456504S: Renovation of Apartment Buildings, 8 - 10 op

**Voimassaolo:** 01.08.2005 -
**Opiskelumuoto:** Advanced Studies

**Laji:** Course

**Vastuuysikkö:** Department of Architecture

**Arvostelu:** 1 - 5, pass, fail

**Opettajat:** Anu-Sisko Soikkeli

**Opintokohteen kielet:** Finnish

**Language of instruction:**
Finnish

**Timing:**
Autumn term 1-2

**Learning outcomes:**
The aim of the course is to provide skills for completing a renovation plan for a typical apartment house. Learning outcomes: After completing the course the student can explain the most common damage mechanisms in stone-built houses. The student can estimate how different methods of renovation will affect the functions and architecture of a building. The student can make choices between different ways of renovation based on their impact, and make a safe renovation plan, improving accessibility and energy efficiency of the building. The student can explain the phases of a renovation planning process of a housing corporation apartment building and estimate the interactive character of the process and the challenges caused by the ownership of the building. The student recognizes the debt of refurbishment of our stock of apartment buildings and the possibilities of improving the living environment of e.g. the aging through renovation of apartment houses.

**Contents:**
Specific issues concerning renovation of concrete and stone structure apartment houses. Forms of damages of various types of structures, methods of evaluating condition and usability, repair measures but also project managing and project documents, and the design process.

**Mode of delivery:**
Contact teaching and independent studying.

**Learning activities and teaching methods:**
Lectures, drawing a renovation plan for an apartment house, group work in pairs.

**Target group:**
1st year Master level students

**Recommended or required reading:**
Course literature will be announced separately.

**Assessment methods and criteria:**
Design project and exam.

**Person responsible:**
N.N.

451560S: Research and Theory of Architecture, 2 - 10 op

**Voimassaolo:** 01.08.2006 -
ECTS Credits:
ECTS credits 2-10

Language of instruction:
Finnish and English

Timing:
Autumn term I and 2

Learning outcomes:
The course initiates the students into the fundamentals of research and provides basic knowledge of the development of architectural theories and the current features of the research in the field of architecture. Learning outcomes: The aim of the course is to deepen one's skills in knowledge of architecture and to strengthen the foundation of research based studies in architecture. During the course the student learns to view architecture from the standpoint of architectural theories and to analyze ontological and historical starting points of theory and practice of architecture. After completing the course the student is familiar with the basic concepts of research and can illustrate fields and methods of architectural research.

Contents:
Visiting experts will give lectures on research and theory of architecture within a yearly varying topic. During the seminar the students are examining the topic of the course through lectures and analyses. The exercise is a written survey, applying methods of scientific research. The surveys are analyzed and evaluated during the seminar.

Mode of delivery:
Active participation and writing a scientific article are required for accomplishing the course.

Learning activities and teaching methods:
Active participation and writing a scientific article are required for accomplishing the course.

Target group:
The course is primarily intended for post-graduate students, but also master's students are welcome to attend. The course is included in all the three orientations of the master's level as an optional study unit.

Prerequisites and co-requisites:
The course is primarily intended for post-graduate students, but also master's students are welcome to attend. The course is included in all the three orientations of the master's level as an optional study unit.

Recommended optional programme components:
The course is recommended particularly for students who intend to do their master's thesis in the field of history of architecture. For accomplishing the course, an active participation is required. Instead of an exam student writes a journal based on the course.

Recommended or required reading:
Separate list of literature will be handed out.

Assessment methods and criteria:
The student participates in the lectures and writing workshops and he/she writes an article during the course. Students are recommended to participate in the National Architectural Research Seminar. The course requires attendance and writing of a scientific article.

Grading:
1-5

Person responsible:
Professor(act) Anna-Maija Ylimaula, University teacher N.N.
Language of instruction: Finnish and English

Timing:
Autumn term I and 2

Learning outcomes:
The aim of the course is to introduce the students both the scientific and practical basics of restoration and to enable the student to combine the historical value assessment into comprehensive architectural planning in restoration projects which also have an emphasis on building conservation of modern heritage.

Learning outcomes: After completing the course the student is able to tell what are the historical and theoretical foundations of restoration and the most important philosophical approaches/schools of restoration. The student is able to analyze the historical values of a building and can make a restoration plan based on the assessment. The student is also able to tell the reasons and principles for the new use of an old building and can apply that information in restoration planning.

Contents:
The course content is an entity in which the lectures and the exercise are connected.

The lectures are dealing with the historical, philosophical and theoretical criteria of the restoration of the architectural heritage, the contemporary restoration practices and technical solutions. Visits to restoration sites and to successfully restored buildings as well as lectures by the visiting experts are included in the course. The exercise is about the use of the built cultural heritage and the problems faced when a new purpose for use is needed. The emphasis is on planning and organizing a restoration project.

Mode of delivery:
Lectures and contact teaching in design studio.

Learning activities and teaching methods:
Lectures 36 h and 132 h contact teaching in design studio and seminars. Design task is done partially as group work. Field trips.

Target group:
Elective course for 5th year Master's level students.

Prerequisites and co-requisites:
The student has passed courses 1-III of history of architecture or has substituting study credits.

Recommended optional programme components:
This course is a part of the advanced module "Building project and restoration". The course is carried out during the autumn term of the 5th year studies. It is recommended that the student has taken the Historic preservation course (451511A) prior to this course.

Recommended or required reading:
See separate list of literature and the provided material on the database of the course.

Assessment methods and criteria:
The student participates in the lectures and writes a learning diary and does the exercises demanded during the course.

Grading:
The evaluation is based on the quality of the learning diary and the delivered exercises.

Person responsible:
Professor (act) Anna-Maija Ylimaula, University teacher N.N.
Language of instruction:
Finnish
Timing:
flexible
Learning outcomes:
Objective: Introduction to effective Building Information Modelling in Revit Architecture Environment.
Learning outcomes: Students are able to produce complex building components and detail models into the Building Information Model and schedules from the information gathered.
Contents:
Self-made objects, complex forms, schedules and legends.
Mode of delivery:
Teaching in the classroom (computer lab)
Prerequisites and co-requisites:
3rd+ year architecture students
Recommended optional programme components:
R1
Recommended or required reading:
Software help files and handouts
Assessment methods and criteria:
Based on a project work (the presentation material of a design course at the Department of Architecture or an equivalent work).
Person responsible:
parttime teacher Emma Hulaud
Working life cooperation:
No

450532P: Revit Architecture basics, 2 op

Voimassaolo: 01.08.2011 -
Opiskelumuoto: Basic Studies
Laji: Course
Vastuuysikkö: Department of Architecture
Arvostelu: 1 - 5, pass, fail
Opettajat: Emma Hulaud
Opintokohteen kielet: Finnish

ECTS Credits:
2 op
Language of instruction:
Finnish
Timing:
flexible
Learning outcomes:
Objective: Introduction to conventional Building Information Modelling in Revit Architecture Environment.
Learning outcomes: Students are able to produce presentation drawings based on the information model using basic tools and know the essential to produce building permit drawings.
Contents:
Project management, detailing tools, section, facade and perspective views.
Mode of delivery:
Teaching in the classroom (computer lab)
Learning activities and teaching methods:
Lectures and practical work.
Target group:
2nd year bachelor level students
Recommended or required reading:
Software help files and handouts.
Assessment methods and criteria:
Based on a project work (the presentation material of a design course at the Department of Architecture or an equivalent work).
Person responsible:
part-time teacher Emma Hulaud
Other information:
The course is intended for the students of the Department of Architecture only

450544A: Rhinoceros and Grasshopper Basics, 1 op

Voimassaolo: 01.08.2011 -
Opiskelumuoto: Intermediate Studies
Laji: Course
Vastuuysikkö: Department of Architecture
Arvostelu: 1 - 5, pass, fail
Opintokohteen kielet: Finnish

Language of instruction:
Finnish
Timing:
flexible
Learning outcomes:
Objective: Introduction to conventional 3D Modeling, using the Rhinoceros program. Learning outcomes: Students are able to produce complex and accurate 3d models, using the basic tools as well as line drawings. In addition, students are able to transfer models between the program and other CAD and image processing software.
Contents:
Surfaces, objects, technical drawing symbols, page layout
Mode of delivery:
Lectures and project work in the classroom (computer lab)
Learning activities and teaching methods:
Lectures 12 hours, contact teaching and practical work 12 hours in computer lab.
Target group:
Bachelor level students
Recommended or required reading:
Software help files and handouts
Other information:
The course is intended for the students of the Department of Architecture only

450551A: Seminar, 2 op

Voimassaolo: 01.08.2005 - 31.07.2015
Opiskelumuoto: Intermediate Studies
Laji: Course
Vastuuysikkö: Department of Architecture
Arvostelu: 1 - 5, pass, fail
Opintokohteen kielet: Finnish

ECTS Credits:
2
Language of instruction:
Finnish
Timing:
Spring term 2
Learning outcomes:
Objective: The seminar is part of the he bachelor's thesis work.
Learning outcomes: The student is able to express her / himself both linguistically and in writing as well as communicate and transmit visual information
Contents:
The student presents his / her bachelor's thesis work in the seminar. The teachers participating in the seminar give oral feed-back on the project.
Mode of delivery:
The two days seminar is takes place in a lecture room and the exhibition space.
Learning activities and teaching methods:
The student present his / her bachelor's work in the seminar as a pdf or ppt presentation, using the data projector. For the exhibition of the bachelor's works the student prints A3 size prints of each panel of the bachelor's project according to the detailed instructions given by the respective laboratory.

Target group:
3rd year bachelor students

Prerequisites and co-requisites:
Bachelor's work.

Recommended optional programme components:

Recommended or required reading:

Assessment methods and criteria:
Participation in the seminar

Person responsible:
Professor n.n. in the supervising laboratory

Working life cooperation:
No

453531P: Structural Technology, basic course, 3 op

Voimassaolo: 01.08.2005 -
Opiskelumuoto: Basic Studies
Laji: Course
Vastuuyksikkö: Department of Architecture
Arvostelu: 1 - 5, pass, fail
Opettajat: Tervaoja, Jussi Matti
Opintokohteen kielet: Finnish

Language of instruction:
Finnish

Timing:
Spring term 1-2

Learning outcomes:
The objective of the course is to introduce student to the basics of structural technology and to give background to future studies in structures.

Learning outcomes: Having completed the course the student identifies and is able to describe frametypes and structural systems. The student also understands the balance of the object. Student is able to tell the origin of soil and soil types and knows their use as structural material and as object of soil construction and knows the principles of founding.

Contents:
Lectures comprise elements of tree subjects: the frame systems of the buildings, statics and soil constructions in Finnish circumstances. The design studio comprises of small structural design projects.

Mode of delivery:
Contact teaching and independent studying

Learning activities and teaching methods:
26 h lectures + 8 h contact teaching.

Target group:
1st year Bachelor level students.

Recommended or required reading:
Study compendium. Course literature will be announced separately.

Assessment methods and criteria:
Design project and exam. The evaluation is based mainly on the exam.

Person responsible:
University teacher Jussi Tervaoja.

453510A: Techniques of Plumbing, Heating and Ventilation, 3 op
450525P: Techniques of Visual Presentation in Architecture, 2 op

Voimassaolo: 01.08.2005 -
Opiskelumuoto: Basic Studies
Laji: Course
Vastuuysikkö: Department of Architecture
Arvostelu: 1 - 5, pass, fail
Opettajat: Asko Leinonen, Laurila, Jukka Pekka
Opintokohteen kielet: Finnish
Voidaan suorittaa useasti: Kyllä

Language of instruction:
Finnish
Timing:
Spring term 2
Learning outcomes:
To provide students with skills to present plans three-dimensionally using both traditional techniques and digital image processing and to familiarise them with the techniques and instruments of model building and layout design of Architectural presentation.
Learning outcomes: In computer work the student is able to import various objects (drawings, photographs etc.) to image processing programs. The student can manipulate images, taking into account the differences between bitmap and vector based images. The student can apply the basic functions of the programs, fix images and make simple lay-outs.
Contents:
Perspective, geometry, vertical and axonometric projections. The exercise is carried out by drawing, with the help of an image manipulation program and as a combination of the both.

**Mode of delivery:**
Contact teaching and independent studying.

**Learning activities and teaching methods:**
The course is integrated with the exercise of Contemporary Architecture I.

**Target group:**
1.st year students.

**Prerequisites and co-requisites:**
Contemporary Architecture I and CAD I. Bachelor level study.

**Recommended or required reading:**
Study compendium. Course literature will be announced separately.

**Person responsible:**
Prof. Matti Sanaksenaho

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**450013A: The Maturity Test for Bachelor's Degree, 0 op**

**Opiskelumuoto:** Intermediate Studies  
**Laji:** Course  
**Vastuuysikkö:** Department of Architecture  
**Arvostelu:** 1 - 5, pass, fail  
**Opintokohteen kiele:** Finnish

**ECTS Credits:**
0  
**Language of instruction:**  
Finnish / Swedish  
**Timing:**  
Spring term 2  
**Learning outcomes:**
Objective: The maturity test is a part of the bachelor’s dissertation.  
Learning outcomes: The student is able to communicate in Finnish or in Swedish and is able to express himself both linguistically and in writing.  
**Contents:**  
Written essay.  
**Mode of delivery:**  
The essay is written in exam-like conditions on a given subject.  
**Learning activities and teaching methods:**  
Written essay.  
**Target group:**  
3rd year bachelor students  
**Recommended optional programme components:**  
-  
**Recommended or required reading:**  
-  
**Assessment methods and criteria:**
The recommended extent of the essay is 3 pages.  
**Grading:**
pass / fail  
**Person responsible:**
Professor n.n. in the supervising laboratory  
**Working life cooperation:**
No

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**450014S: The Maturity Test for Master's Degree, 0 op**

**Opiskelumuoto:** Advanced Studies  
**Laji:** Course  
**Vastuuysikkö:** Department of Architecture
ECTS Credits: 0
Language of instruction: Finnish / Swedish / English
Timing: flexible
Learning outcomes:
Objective: The maturity test is a part of the master's dissertation. Learning outcomes: The student is able to communicate in the language of the diploma thesis work and is able to present intimate knowledge in the field of his / her diploma thesis work.
Contents:
Written essay.
Mode of delivery:
The essay is written on the subject of the thesis work.
Learning activities and teaching methods:
Written essay.
Target group:
master level students
Prerequisites and co-requisites:
Diploma thesis work
Recommended optional programme components:
-
Recommended or required reading:
-
Assessment methods and criteria:
The recommended extent of the essay corresponds to the abstract of the written part of the diploma thesis work.
Grading:
pass / fail
Person responsible:
Professor n.n. in the supervising laboratory
Working life cooperation:
-
Other information:
-

454503A: Town Planning, 8 op

Voimassaolo: 01.08.2005 -
Opiskelumuoto: Intermediate Studies
Laji: Course
Vastuuysikkö: Department of Architecture
Arvostelu: 1 - 5, pass, fail
Opettajat: Hentilä, Helka-Liisa
Opintokohteen kielet: Finnish

Language of instruction:
Finnish
Timing:
Autumn term 1.
Learning outcomes:
To provide basic knowledge of the Finnish planning system with emphasis on detailed town planning.
Learning outcomes: After completing the course the student can name the main principles of Finnish planning system and the process of town planning. The student comprehends and recognizes the various technical symbols and regulations in planning. Furthermore, the student can apply the learning outcome to a town plan level design exercise and can produce documents, corresponding to an official town plan.

Contents:
Lectures deal with Finnish land use planning system, planning process and regulations. The course deals also with planning of residential areas, traffic and urban landscapes. Also interface between town planning and building design will be discussed. Town planning exercise will be completed using a special CAD programme for town planning.

**Mode of delivery:**
Contact teaching plus independent studying.

**Learning activities and teaching methods:**
12 h lectures + 64 h contact teaching in design studio.

**Target group:**
3rd year Bachelor level students.

**Prerequisites and co-requisites:**
Neighbourhood Design (454523A).

**Recommended optional programme components:**
Design project is connected with courses Housing Design (A452506A) and Design of Apartment Blocks (453503A).

**Recommended or required reading:**
Study compendium and literature (will be announced separately).

**Assessment methods and criteria:**
Exercise (design project, workshop and exam). Exercise (design project) 2/3 of grade, exam 1/3 of grade.

**Person responsible:**
prof. Helka-Liisa Hentilä

**Other information:**
Town planning course offers one option for a Bachelors' thesis. Separate instruction will be delivered.

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**451523S: Traditional Japanese Architecture and Garden Art, 5 op**

**Opiskelumuoto:** Advanced Studies

**Laji:** Course

**Vastuuyksikkö:** Department of Architecture

**Arvostelu:** 1 - 5, pass, fail

**Opintokohteen kielet:** Finnish

**Leikkaavuudet:**

ay451523S  Traditional Japanese Architecture and Garden Art (OPEN UNI)  5.0 op

**Voidaan suorittaa useasti:** Kyllä

**Language of instruction:**
Finnish

**Timing:**
The course is arranged according to the program of the Open University

**Learning outcomes:**
The aim of the course is to introduce the basics of Japanese architecture and garden art as well as the literature of the field.

Learning outcomes: After completing the course the student is able to describe the historical eras of Japanese architecture. He / she can evaluate the tradition of Japanese architecture and garden art as a whole and recognize the most essential examples of existing building tradition, as well as the traditional values of Japanese culture and their reflections in the built environment.

**Contents:**
Lectures on Japanese traditional architecture and garden art. The content of the course varies yearly.

**Mode of delivery:**
Lectures

**Learning activities and teaching methods:**
Lectures 24h

**Target group:**
Elective course, arranged as an intensive course

**Prerequisites and co-requisites:**
The course is organized by the Open University

**Recommended or required reading:**
Separate list of literature will be delivered during the course

**Assessment methods and criteria:**
Essay
454501A: Urban Design, seminar course, 5 op

Voimassaolo: 01.08.2005 -
Opiskelumuoto: Intermediate Studies
Laji: Course
Vastuuyksikkö: Department of Architecture
Arvostelu: 1 - 5, pass, fail
Opettajat: Hennu Kjisik
Opintokohteen kielet: Finnish

Language of instruction:
Finnish (study materials mainly in English).

Timing:
Autumn term 1-2

Learning outcomes:
The objective of the course is to introduce student to seminar practices and give a trajectory of urban design theory. The aim of the course is also to train writing skills, and to endow skills to give a summary of, analyse and interpret literature on urban design.
Learning outcomes: Having completed the course a student knows seminar practices and identifies the most remarkable books of urban design theory. The student can also write an interpretative summary on literature from a given perspective.

Contents:
The course comprises of seminars (book presentations, discussions, and group tutoring) and of writing an interpretative summary on a book on urban design theory. The perspective for interpretation changes annually.

Mode of delivery:
Contact teaching plus independent studying.

Learning activities and teaching methods:
12 h lectures (including seminars) + 18 h tutoring.

Target group:
2nd year Bachelor level students.

Recommended optional programme components:
Within the range of possibility, implementation in collaboration with the course Tekniikan englanti (902011P).

Recommended or required reading:
Classic books on urban design theory.

Assessment methods and criteria:
The student participates in all seminars (or passes an optional exam) and delivers an exercise, which is conducted in pairs. The evaluation is based on the outcome of the exercise (75%) and active participation in seminar discussion (25%).

Person responsible:
Prof. Hennu Kjisik

Other information:
When implemented in collaboration with Tekniikan englanti 3 (902011P), the exercise will be written in English.

454522S: Urban Space Design, 10 op

Voimassaolo: 01.08.2005 -
Opiskelumuoto: Advanced Studies
Laji: Course
Vastuuyksikkö: Department of Architecture
Arvostelu: 1 - 5, pass, fail
Opettajat: Hennu Kjisik
Opintokohteen kielet: English

Language of instruction:
English

Timing:
Learning outcomes:
The objective of the course is to go deeply into thematic improvement and development of urban spaces and especially public outdoor spaces. Learning outcomes: After completing the course the student is able to recognize features of current interest within design of public urban space, and to identify interaction between built environment, society, culture, technology and nature. The student can demonstrate various programs, plans (including strategic projects) and aims for development of functional and physical environment. The student is able to carry out a thematic analysis, set design goals, and to produce a multi-functional development plan for urban spaces, including a concept design of public spaces.

Contents:
The lectures deal especially with the design of public urban spaces, objectives and programs intended for developing the design management of such areas. The exercise work focuses on thematic design and development of the functional and physical environment within an urban context.

Mode of delivery:
Contact teaching plus independent studying.

Learning activities and teaching methods:
16 h lectures + 80 h contact teaching in design studio (including workshop).

Target group:
4th year Master level students.

Recommended optional programme components:
Course is part of module Design-Led Urban Renewal. Design project is connected with Urban Space Detailing (455521S).

Recommended or required reading:
Literature will be announced separately.

Assessment methods and criteria:
Exercise (design project). Grading is based on the exercise.

Person responsible:
Prof. Hennu Kjisik

455521S: Urban Space Detailing, 10 op

Voimassaolo: 01.08.2005 -
Opiskelumuoto: Advanced Studies
Laji: Course
Vastuuysikkö: Department of Architecture
Arvostelu: 1 - 5, pass, fail
Opettajat: Aulikki Herneoja
Opintokohteen kielet: English

Language of instruction:
English

Timing:
Autumn term 1 & 2

Learning outcomes:
The aim of the course is to go deeply into issues of detailing of urban space with focus on over-all concept. The purpose is to initiate the students to utilize outdoor furniture, accessories and lighting in outdoor design and to acquaint the students with materials and requirements of designing green areas. Learning outcomes: After completing the course the student can make a detailed plan for an urban space, taking into account various sectors and approaches of urban space detailing, including material alternatives and different lighting options. In the project work the student can apply the use of large variations of scale to an instrument of urban space detailing. Student is able to take into account sustainable development aspects when choosing materials and making the design solutions.

Contents:
Lectures, exercise work and visits to the site. The students make a detailed design for the site studied as an exercise work within the Urban Space Design course.

Mode of delivery:
Contact teaching and independent studying.

Learning activities and teaching methods:
16h lectures + 80 h contact teaching

Target group:
4th year of studies (1st year of master level).

**Recommended optional programme components:**
Course is part of module Design-Led Urban Renewal. Design project is connected with Urban Space Design.

**Recommended or required reading:**
Literature is giving during the course.

**Assessment methods and criteria:**
The student attends the lectures and completes a design exercise according to instructions. The evaluation is made based on outcome of the exercise work. No exam is included in the course.

**Person responsible:**
University Lecturer Aulikki Herneoja.

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**450550S: Varying Courses in CAD, 1 - 5 op**

**Voimassaolo:** 01.08.2011 -

**Opiskelumuoto:** Advanced Studies

**Laji:** Course

**Vastuuyksikkö:** Department of Architecture

**Arvostelu:** 1 - 5, pass, fail

**Opintokohteen kielet:** Finnish

Ei opintojaksokuvauksia.

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**453550S: Varying Courses of Architectural Construction, 5 - 10 op**

**Opiskelumuoto:** Advanced Studies

**Laji:** Course

**Vastuuyksikkö:** Department of Architecture

**Arvostelu:** 1 - 5, pass, fail

**Opettajat:** Jouni Koiso-Kanttila

**Opintokohteen kielet:** Finnish

**Voidaan suorittaa useasti:** Kyllä

**ECTS Credits:**

5-10

**Language of instruction:**

Finnish

**Timing:**

varying

**Learning outcomes:**

The aim of the course is to deepen one's skills within the field of architectural construction.

Learning outcomes: After completing the course the student has independently gone deeply into a specific field within architectural construction in order to be able to implement his / her skills in producing drawings of demanding building parts and details independently and to present the functional justifications of the selected solutions.

Alternatively the student can independently write a survey, dealing with a specific field within architectural construction according to his / her own choice. In the survey the student can analyze, explain and estimate the issues of architectural construction in question.

**Contents:**

The content of the course varies. The exercise work can alternatively be a design project, including a sufficient extent of working and detail drawings, or a written study on an individually defined topic. The course is elective.

**Mode of delivery:**

Contact teaching and independent studying in design studio.

**Learning activities and teaching methods:**

Personal and / or group tutoring.

**Target group:**

master level students

**Recommended optional programme components:**

not applicable
**Recommended or required reading:**  
List of readings will be handed out during the course.

**Assessment methods and criteria:**  
The evaluation is made based on outcome of the individual exercise work completed independently. No exam is included in the course.

**Grading:**  
1 – 5

**Person responsible:**  
Professor Jouni Koiso-Kanttila

**Other information:**  
not applicable

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**453540A: Varying Courses of Architectural Construction, 2 - 10 op**

**Voimassaolo:** 01.08.2005 -

**Opiskelumuoto:** Intermediate Studies

**Laji:** Course

**Vastuuysikkö:** Department of Architecture

**Arvostelu:** 1 - 5, pass, fail

**Opettajat:** Jouni Koiso-Kanttila

**Opintokohteen kielet:** Finnish

**Voidaan suorittaa useasti:** Kyllä

**ECTS Credits:**  
5-10

**Language of instruction:**  
Finnish

**Timing:**  
varying

**Learning outcomes:**  
The aim of the course is to deepen one’s skills within the field of architectural construction.

Learning outcomes: After completing the course the student has independently gone deeply into a specific field within architectural construction in order to be able to implement his / her skills in producing drawings of demanding building parts and details independently and to present the functional justifications of the selected solutions.

Alternatively the student can independently write a survey, dealing with a specific field within architectural construction according to his / her own choice. In the survey the student can analyze, explain and estimate the issues of architectural construction in question.

**Contents:**  
The content of the course varies. The exercise work can alternatively be a design project, including a sufficient extent of working and detail drawings, or a written study on an individually defined topic. The course is elective.

**Mode of delivery:**  
Contact teaching and independent studying in design studio.

**Learning activities and teaching methods:**  
Personal and / or group tutoring.

**Target group:**  
master level students

**Recommended optional programme components:**  
not applicable

**Recommended or required reading:**  
List of readings will be handed out during the course.

**Assessment methods and criteria:**  
The evaluation is made based on outcome of the individual exercise work completed independently. No exam is included in the course.

**Grading:**  
1 – 5

**Person responsible:**  
Professor Jouni Koiso-Kanttila

**Other information:**  
not applicable
**452550S: Varying Courses of Contemporary Architecture, 2 - 10 op**

**Voimassaolo:** 01.08.2005 -
**Opiskelumuoto:** Advanced Studies

**Laji:** Course

**Vastuuysikkö:** Department of Architecture

**Arvostelu:** 1 - 5, pass, fail

**Opettajat:** Mahlamäki Rainer

**Opintokohteen kielet:** Finnish

**Voidaan suorittaa useasti:** Kyllä

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**Language of instruction:**
Finnish/English

**Timing:**
not specified

**Learning outcomes:**
The objective of the course is to initiate the student into contemporary tendencies in architecture, to new ways and methods of building and new building types, both in domestic and international architecture. During the course one can learn how to make a proposal for an architectural competition, or attend a workshop. The workshops train students in combining the phases of designing and building, and constructing in particular.

Learning outcomes: After completing the course the student is able to deal with the specific topic of his / her work either through writing or designing. The student has adequate skills for making a proposal for an architectural competition. After completing a workshop the student distinguishes the connection between design and construction and can at least assist in construction work.

**Contents:**
The course comprises short lectures and case studies dealing with the respective topic. The project is a design exercise for a public building selected by the student. The exercise may also be participation in an open architectural competition or an architectural workshop.

**Learning activities and teaching methods:**
The completed works are presented in an open critique. Evaluation is based on the processing of the exercise.

**Recommended optional programme components:**
Contemporary Architecture IV

**Recommended or required reading:**
List of articles on contemporary architecture and projects (will be announced at the beginning of the course).

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**452540A: Varying Courses of Contemporary Architecture, 2 - 10 op**

**Voimassaolo:** 01.08.2005 -
**Opiskelumuoto:** Intermediate Studies

**Laji:** Course

**Vastuuysikkö:** Department of Architecture

**Arvostelu:** 1 - 5, pass, fail

**Opettajat:** Matti Sanaksenaho

**Opintokohteen kielet:** Finnish

**Voidaan suorittaa useasti:** Kyllä

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**Language of instruction:**
Finnish

**Timing:**
Autumn term 1-2 and Spring term 1-2

**Learning outcomes:**
To initiate students to recent tendencies in architecture, the methods of build buildings, new types of buildings in domestic and international architecture through exercises.

Learning outcomes: After completing the course the student knows the design principles of public buildings and features of contemporary architecture. The student is familiar with fresh architectural tendencies and has
developed a personal view on architecture. He/she has the facility for making schematic plans for a demanding public building with a personal touch. He/she understands the influence of design to building and is able to do helping construction work.

Contents:
Varies yearly. The course contains one design exercise of a public building. Participation in an open competition or architecture workshop is possible.

Mode of delivery:
The design exercise and studio classes. Completed works are presented in an open critique session.

Learning activities and teaching methods:
Lectures and exercise.

Target group:
2nd year students.

Prerequisites and co-requisites:
Freebased and recommended to those, who are going to make a graduation in contemporary architecture or architectural construction.

Recommended optional programme components:
Contemporary Architecture IV

Recommended or required reading:
Supplemental reading list will be supplied during the course.

Assessment methods and criteria:
Based on exercises.

Person responsible:
Prof. Matti Sanaksenaho

455550S: Varying Courses of Design, 2 - 10 op

Opiskelumuoto: Advanced Studies
Laji: Course
Vastuuyksikkö: Department of Architecture
Arvostelu: 1 - 5, pass, fail
Opettajat: Aulikki Herneoja
Opintokohteen kielet: English

Language of instruction:
Finnish/English

Timing:
Flexible

Learning outcomes:
The aim of the course is to offer the student the possibility to go deeply into a special issue of design according to his/her own choice.

Learning outcomes: After completing the course the student is able to fairly independently carry out a project work related to design. In the work he/she can implement the previously learned knowledge through particular issues, which will be defined individually with the teacher. Alternatively the student can deepen into the selected topic through project work.

Contents:
The content of the course is defined individually in co-operation with the teacher. The student completes a design exercise according to an agreed program. The course may also include 3D cad teaching, initiating the student into programs allowing free dimensional modeling or algorithmic design. The course includes visits to sites closely related with the topic of the exercise work.

Mode of delivery:
Contact teaching and independent studying.

Learning activities and teaching methods:
Personal or/and group tutoring 80 hours.

Target group:
5th year of studies (2nd year of master level).

Recommended optional programme components:
Belongs to master level Elective Studies module

Recommended or required reading:
Course literature will be according to the chosen issue of design.

Assessment methods and criteria:
The student completes a design exercise according to instructions. The evaluation is made based on outcome of the exercise work. No exam is included in the course.

Person responsible: University Lecturer Aulikki Herneoja.

455540A: Varying Courses of Design, 2 - 10 op

Voimassaolo: 01.08.2005 -
Opiskelumuoto: Intermediate Studies
Laji: Course
Vastuuysikkö: Department of Architecture
Arvostelu: 1 - 5, pass, fail
Opettajat: Aulikki Herneoja
Opintokohteen kielet: English

Language of instruction:
Finnish/English
Timing:
Flexible
Learning outcomes:
To go deeply into current features of design in architectural context.
Learning outcome: After completing the course the student is able to quite independently carry out a project work related to design. In the work he / she can implement the previously learned through particular issues, which will be defined individually with the teacher. Alternatively the student can deepen into the selected topic through project work.

Contents:
The content of the course is defined individually in co-operation with the teacher. The student completes a design exercise according to an agreed program. The course may also include 3D cad teaching, initiating the student into programs allowing free dimensional modeling or algorithmic design. The course includes visits to sites closely related with the topic of the exercise work.

Mode of delivery:
Contact teaching and independent studying.

Learning activities and teaching methods:
Personal or/and group tutoring 80 hours.

Target group:
From 1st to 3rd year Bachelor level students.

Recommended optional programme components:
Belongs to bachelor level Elective Studies module

Recommended or required reading:
Course literature will be according to the chosen issue of design.

Assessment methods and criteria:
The student completes a design exercise according to instructions. The evaluation is made based on outcome of the exercise work. No exam is included in the course.

Person responsible:
University Lecturer Aulikki Herneoja.

451550S: Varying Courses of History of Architecture and Renovation, 5 - 10 op

Voimassaolo: 01.08.2005 -
Opiskelumuoto: Advanced Studies
Laji: Course
Vastuuysikkö: Department of Architecture
Arvostelu: 1 - 5, pass, fail
Opettajat: Anna-Maija Ylimaula
Opintokohteen kielet: Finnish
Voidsan suorittaa useasti: Kyllä

ECTS Credits:
2-10 op

Language of instruction:
Finnish or English

Timing:
Flexible autumn and spring terms

Contents:
The content of the course is defined separately

Target group:
Bachelor level students

Recommended or required reading:
Defined separately

Assessment methods and criteria:
The course does not include any lectures or examinations. Assessment depends on the assignment.

Person responsible:
Professor (act) Anna-Maija Ylimaula

454540A: Varying Courses of Urban Design, 2 - 10 op

Opiskelumuoto: Intermediate Studies

Laji: Course

Vastuuyksikkö: Department of Architecture

Arvostelu: 1 - 5, pass, fail

Opettajat: Hentilä, Helka-Liisa, Hennu Kjisik

Opintokohteen kielet: Finnish

Voidaan suorittaa useasti: Kyllä

Language of instruction:
Finnish or English.

Timing:
Autumn term 1-2 / Spring term 1-2.

Learning outcomes:
To go deeply into current features of planning and urban design.

Learning outcome: After completing the course the student can identify current features in planning and urban design as well as describe their impacts to functional and spatial planning of human settlements. The student can implement learning outcomes in different planning and urban design tasks.

Contents:
Current features of planning, urban design and urban development, such as urban design in northern context.

Mode of delivery:
Mostly independent studying + contact teaching.

Learning activities and teaching methods:
8-64 h contact teaching in design studio.

Target group:
Bachelor level students.

Recommended or required reading:
Study material is announced separately.

Assessment methods and criteria:
Exercise (design project). Basic options are participation in a competition (student competition, open competition), summer school or thematic design studio. The assessment is based on the design project. Grading is based on the exercise

Person responsible:
Prof. Hennu Kjisik, prof. Helka-Liisa Hentilä

Other information:
The student can include the course into her / his optional studies.

454550S: Varying Courses of Urban Design, 2 - 10 op
Language of instruction: Finnish or English.
Learning outcomes: To go deeply into current features of planning and urban design. Learning outcome: After completing the course the student can identify current features in planning and urban design as well as describe their impacts to functional and spatial planning of human settlements. The student can critically implement learning outcomes in different planning and urban design tasks.

Contents: Current features of planning, urban design and urban development, such as urban planning in developing countries and/or in northern context, and responsible planning.
Mode of delivery: Mostly independent studying + contact teaching.
Learning activities and teaching methods: 8-64 h contact teaching in design studio.
Target group: 4th year Master level students.
Recommended optional programme components: Course is part of module Sustainable Urban Development.
Recommended or required reading: Study material will be announced separately.
Assessment methods and criteria: Exercise (design project). Basic options are participation in a competition (student competition, open competition) or thematic design studio. The assessment is based on the design project. Grading is based on the exercise.
Person responsible: Prof. Hennu Kjisik, prof. Helka-Liisa Hentilä
Other information: The student can also include the course into her / his optional studies if not included to module Sustainable Urban Development.

455511P: Visual Arts I, 5 op

Language of instruction: Finnish
Timing: Autumn term 1-2
Learning outcomes:
To deal with different aspects of visual expression, to expand general knowledge relative to the various fields of art and to develop independent creative expression.
Learning outcome : After completing the course the student is able to comprehend various sides of visual expression and can implement these skills in exercise work.

Contents:
Object and spatial drawing, classical model drawing, composition and modelling.

Mode of delivery:
Contact teaching and independent studying.

Learning activities and teaching methods:
lectures and/ or contact teaching 10 hours and contact teaching and/ or groupteaching 38 hours.

Target group:
1.nd year students.

Recommended or required reading:
Supplemental reading list will be supplied during the course.

Assessment methods and criteria:
Based on exercises.

Working life cooperation:
Yes

455512P: Visual Arts II, 3 op

Voimassaolo: 01.08.2005 -
Opiskelumuoto: Basic Studies
Laji: Course
Vastuuysikkö: Department of Architecture
Arvostelu: 1 - 5, pass, fail
Opettajat: Moosa Myllykangas
Opintokohteen kielet: Finnish
Leikkaavuudet:
ay455512P Visual Arts II (OPEN UNI) 3.0 op

Language of instruction:
Finnish

Timing:
Spring term 2

Learning outcomes:
To deal with different aspects of visual expression, to expand general knowledge relative to the various fields of art and to develop independent creative expression.
Learning outcomes: After completing the course the student is able to comprehend various sides of visual expression and can implement these skills in exercise work.

Contents:
Classical model drawing and various applications of composition and colour theory. The relationship between architecture and colour as well as art and space is studied during the course.

Mode of delivery:
Contact teaching and independent studying.

Learning activities and teaching methods:
lectures and/ or contact teaching 8 hours and contact teaching and/ or groupteaching 48 hours.

Target group:
2.nd year students.

Recommended or required reading:
Supplemental reading list will be supplied during the course.

Assessment methods and criteria:
Based on exercises.

455513A: Visual Arts III, 4 op
Opiskelumuoto: Intermediate Studies
Laji: Course
Vastuuyksikkö: Department of Architecture
Arvostelu: 1 - 5, pass, fail
Opettajat: Matti Sanaksenaho
Opintokohteen kielet: Finnish
Leikkaavuudet:
ay455513A Visual Arts III (OPEN UNI) 4.0 op
Voidaan suorittaa useasti: Kyllä

ECTS Credits: 4
Language of instruction: Finnish
Timing: spring term
Learning outcomes:
Objectives: To deal with different aspects of visual expression, to expand general knowledge relative to the various fields of art and to develop independent creative expression.
Learning outcomes: After completing the course the student is able to comprehend various sides of visual expression and can implement these skills in exercise work.
Contents:
The course options are graphics and ceramics.
Mode of delivery:
Contact teaching and independent studying in art studio
Learning activities and teaching methods:
Lectures and/ or contact teaching 10 hours and contact teaching and/ or group teaching 38 hours
Target group:
Bachelor level students
Recommended or required reading:
Supplemental reading list will be supplied during the course
Assessment methods and criteria:
Based on exercises
Grading:
1-5
Person responsible:
Prof. Matti Sanaksenaho
Working life cooperation:
No

455514A: Visual Arts IV / Architectural Photography, 4 op

Opiskelumuoto: Intermediate Studies
Laji: Course
Vastuuyksikkö: Department of Architecture
Arvostelu: 1 - 5, pass, fail
Opettajat: Asko Leinonen
Opintokohteen kielet: Finnish
Voidaan suorittaa useasti: Kyllä

ECTS Credits: 4
Language of instruction: Finnish
Timing: autumn term
Learning outcomes:
Objectives: To initiate the students into the basics of photography and digital raw working methods.
Learning outcomes: After completing the course the student is able to use photography equipment in order to produce digital material for illustrating architecture.

Contents:
The course includes

Mode of delivery:
Lectures 20 h and contact teaching and independent studying 20 h. The exercise work (65 h) is made independently or in a small group.

Learning activities and teaching methods:
lectures, contact teaching and independent studying.

Target group:
Bachelor level students

Prerequisites and co-requisites:

Recommended optional programme components:
The course is an optional study unit in the bachelor’s study programme.

Recommended or required reading:
Supplemental reading list will be supplied during the course.

Assessment methods and criteria:
Based on exercises
Grading:
1-5

Person responsible:
Architect Asko Leinonen.

453533A: Wide-span Structures, 5 op

Voimassaolo: 01.08.2011 -
Opiskelumuoto: Intermediate Studies

Laji: Course
Vastuuysikkö: Department of Architecture
Arvostelu: 1 - 5, pass, fail

Opettajat: Tervaoja, Jussi Matti

Opintokohteen kielet: Finnish

Language of instruction:
Finnish (part of literature in English)

Timing:
Autumn term 2

Learning outcomes:
The objective of the course is to introduce students the material qualities of concrete, steel and different bricks and large scale structures made of these materials and wood.

Learning outcomes: Having completed the course the student identifies the qualities of concrete and steel as structural material and is able to use these materials to design the frame of a public building.

Contents:
Lectures comprise the qualities of concrete, steel and various bricks including their strength properties, products and structural detailing with them. The design studio comprises structural design project of a large scale building.

Mode of delivery:
Course is based on independent studies. Also some contact teaching is given.

Learning activities and teaching methods:
36 h lectures +32 h contact teaching

Target group:
4.nd year Master level students.

Prerequisites and co-requisites:
Basic courses in structures and wooden structures.

Recommended or required reading:
Study compendium. Course literature will be announced separately.

Assessment methods and criteria:
Design project and exam. The evaluation is based mainly on the exam.

Person responsible:
University teacher Jussi Tervaoja.
453532P: Wooden Structures, 2 op

Voimassaolo: 01.08.2005 -
Opiskelumuoto: Basic Studies
Laji: Course
Vastuuysikkö: Department of Architecture
Arvostelu: 1 - 5, pass, fail
Opettajat: Tervaoja, Jussi Matti
Opintokohteen kielet: Finnish
Leikkaavuudet:
  ay453532P  Wooden Structures (OPEN UNI)  2.0 op

Language of instruction:
Finnish (part of literature in English)

Timing:
Autumn term 1

Learning outcomes:
The objective of the course is to introduce the use of wood as structural material, wooden products and structural behavior of simple wooden structures.
Learning outcomes: Having completed the course the student identifies the qualities of wood as structural material and is able to use wooden products to design the frame of a small long term building.

Contents:
Lectures comprise the qualities of wood including its strength properties, wooden products and structural detailing. The design studio comprises structural design project of a family house.

Mode of delivery:
Contact teaching and independent studying.

Learning activities and teaching methods:
14 h lectures + 12 h contact teaching

Target group:
2nd year Bachelor level students.

Recommended or required reading:
Course literature will be announced separately.

Assessment methods and criteria:
Design project and exam. The evaluation is based on the exam.

Person responsible:
University teacher Jussi Tervaoja.