Opasraportti

TTK/Department of Architecture (2013 - 2014)

Tutkintorakenteet

Degree programme in Architecture, B.Sc.

Tutkintorakenteen tila: published

Lukuvuosi: 2013-14

Lukuvuoden alkamispäivämäärä: 01.08.2013

Basic and Subject Studies (vähintään 120 op)

A410120: Basic and Intermediate Studies, Architecture, 120 op

Compulsory courses

450510P: Orientation, 2 op
030005P: Information Skills, 1 op
450521P: Computer Aided Design I, 5 op
450516P: Portfolio, 2 op
451531P: History of Architecture I, lecture course, 5 op
451532P: History of Architecture I, studio course, 4 op
452521P: Contemporary Architecture I, elements, 5 op
452522P: Contemporary Architecture I, basic course, 7 op
453521P: Basics of Architectural Construction, lecture course, 3 op
453522P: Basics of Architectural Construction, studio course, 7 op
453531P: Structural Technology, basic course, 3 op
453532P: Wooden Structures, 2 op
453535P: Basics of Building Physics, 2 op
454521P: History of Urban Design, 5 op
455501P: Basics of Design, 5 op
455511P: Visual Arts I, 5 op
455512P: Visual Arts II, 3 op
450503A: Practical Training / Construction Site, 5 op
451533A: History of Architecture II, lecture course, 4 op
451534A: History of Architecture II, studio course, 3 op
452523A: Contemporary Architecture II, elements, 7 op
452524A: Contemporary Architecture II, basics, 7 op
456502A: Renovation of Apartment Buildings, 5 op
454501A: Urban Design, seminar course, 5 op
454523A: Neighborhood Design, 5 op

Select courses in the following, totaling 5 cr

450532P: Revit Architecture basics, 2 op
450533P: Archicad Basics, 2 op
450534P: 3D-studio MAX, So Operative Use with CAD, 1 op
450535P: Autocad Architecture Basics, 2 op
450536P: Artlantis basics, 1 op

Select second domestic language
Select courses in one foreign language, totaling 6 cr
902011P: Technical English 3, 6 op
903012P: Technical German 3, 6 op
904054P: Technical Russian 1, 7.5 op

Orientation Module, Architecture (vähintään 40 op)
A410121: Orientation Module, Architecture, 40 op
Compulsory courses
452506A: Housing Design, 8 op
453510A: Techniques of Plumbing, Heating and Ventilation, 3 op
453511A: Electrical Installation, 2 op
451504A: History of Architecture III, 3 op
452503A: Contemporary Architecture III, 8 op
453503A: Design of Apartment Blocks, 8 op
454503A: Town Planning, 8 op

Bachelor's Work and Related Studies (vähintään 10 op)
455990A: Bachelor's Thesis / Architecture, 8 op
450551A: Seminar, 2 op
450013A: The Maturity Test for Bachelor's Degree, 0 op

Optional Studies, Bachelor of Science (Architecture) (vähintään 10 op)
The optional studies may also include language studies (maximum extent 8 cr). If your basic and subject studies compulsory CAD courses exceed the required 10 cr, you may include the extra CAD courses in the optional studies.
A410171: Optional Studies, Bachelor of Science (Architecture), 10 op
Optional Studies
450543A: Archicad Advanced, 1 op
450544A: Rhinoceros and Grasshopper Basics, 1 op
450545A: Illustrator Basics, 1 op
450546A: Powerpoint and PDF (presentations and portfolios), 1 op
450547A: Indesign Basics, 1 op
450548A: Grasshopper-basics (Advancec Course in CAD), 1 op
455513A: Visual Arts III, 4 op
455514A: Visual Arts IV / Architectural Photography, 4 op
451505A: History of Architecture III practices, 5 op
451540A: History of Architecture and renovation, varying courses, 2 - 10 op
452540A: Varying Courses of Contemporary Architecture, 2 - 10 op
453540A: Varying Courses of Architectural Construction, 2 - 10 op
454540A: Varying Courses of Urban Design, 2 - 10 op

Degree programme in Architecture, Master's Degree in Architecture / MSc. (Arch)

Tutkintorakenteen tila: published
Lukuvuosi: 2013-14
Lukuvuoden alkamispäivämäärä: 01.08.2013

Planning and Urban Design (vähintään 30 op)
Compulsory in the Planning and Urban Design Orientation

A410271: Advanced Module, Planning and Urban Design, 30 op

**Compulsory courses**
- 454505S: Municipal Planning, 15 op
- 454560S: Extension Course / Urban Design, 5 - 10 op
- 451560S: Research and Theory of Architecture, 2 - 10 op
- 450502A: Excursion Abroad, 2 op

A410246: Complementary Module, Planning and Urban Design, 30 op

**Compulsory courses**
- 454526S: Interactive Urban Planning, 10 op
- 454540A: Varying Courses of Urban Design, 2 - 10 op
- 451511A: Historic Preservation, 10 op
- 450504A: Practical Training, 3 - 6 op

A410221: Module of the Option, Planning and Urban Design, 30 op
e1
- 454522S: Urban Space Design, 10 op
- 455521S: Urban Space Detailing, 10 op
- 455522S: Design in Urban Context, 10 op

Building Design (vähintään 30 op)

Compulsory in the Building Design Orientation

A410272: Advanced Module, Building Design, 30 op

**Compulsory courses**
- 451515S: Restoration, 15 op
- 451516S: Project and Re-use Planning, 10 - 15 op
- 451560S: Research and Theory of Architecture, 2 - 10 op
- 450502A: Excursion Abroad, 2 op

A410247: Complementary Module, Building Design, 30 op

**Compulsory courses**
- 452504A: Contemporary Architecture IV, 15 op
- 453533A: Large scale structures, 5 op
- 455517S: Architectural Lighting, 5 op
- 455517A: Interior Design, 5 - 10 op

A410222: Module of the Option, Building Design, 30 op

**Compulsory courses**
- 453506A: Energy Efficient Building, lecture course, 4 op
- 453505A: Architectural Construction, Professional Skills, 3 - 10 op
- 456504S: Renovation of Apartment Buildings, 8 - 10 op
- 450504A: Practical Training, 3 - 6 op

Select courses in the following list, totaling 5-10 cr
- 451550S: Varying Courses of History of Architecture and Renovation, 5 - 10 op
- 453550S: Varying Courses of Architectural Construction, 5 - 10 op

e (vähintään 30 op)

Compulsory in the Architectural Design Orientation

A410273: Advanced Module, Architectural Design, 30 op

**Compulsory courses**
- 452505S: International Studio, 15 op
- 455560S: Extension Course in Architectural Design, 10 op
- 451560S: Research and Theory of Architecture, 2 - 10 op
- 450502A: Excursion Abroad, 2 op
- 450504A: Practical Training, 3 - 6 op

A410248: Complementary Module, Architectural Design, 30 op

**Compulsory courses**
- 452504A: Contemporary Architecture IV, 15 op
- 453533A: Large scale structures, 5 op
- 455517S: Architectural Lighting, 5 op
455517A: Interior Design, 5 - 10 op
A410223: Module of the Option, Architectural Design, 30 op

**Compulsory courses**
- 454522S: Urban Space Design, 10 op
- 455521S: Urban Space Detailing, 10 op
- 455522S: Design in Urban Context, 10 op

**Optional Studies**
Courses in the architect's degree may be replaced by the following study units

A410296: Optional Studies, Master of Science (Architecture), 30 op

**Optional Studies**
- 456527S: Condition Assessment of Buildings, 5 op
- 451513S: History of Interior Design / Historical interiors, 5 op
- 451523S: Traditional Japanese Architecture and Garden Art, 5 op
- 451550S: Varying Courses of History of Architecture and Renovation, 5 - 10 op
- 452550S: Varying Courses of Contemporary Architecture, 2 - 10 op
- 453550S: Varying Courses of Architectural Construction, 5 - 10 op
- 454550S: Varying Courses of Urban Design, 2 - 10 op
- 300002M: Advanced Information Skills, 1 op

**Master's Thesis (vähintään 30 op)**

- 450099S: Master's Thesis, 30 op
- 450014S: The Maturity Test for Master's Degree, 0 op

**English Master's Programme in Architectural design**

Tutkintorakenteen tila: published
Lukuvuosi: 2013-14
Lukuvuoden alkamispäivämäärä: 01.08.2013

**Architectural Design (vähintään 30 op)**

Compulsory in the Architectural Design Orientation

A410273: Advanced Module, Architectural Design, 30 op

**Compulsory courses**
- 452505S: International Studio, 15 op
- 455560S: Extension Course in Architectural Design, 10 op
- 451560S: Research and Theory of Architecture, 2 - 10 op
- 450502A: Excursion Abroad, 2 op
- 450504A: Practical Training, 3 - 6 op

A410248: Complementary Module, Architectural Design, 30 op

**Compulsory courses**
- 452504A: Contemporary Architecture IV, 15 op
- 453533A: Large scale structures, 5 op
- 455517S: Architectural Lighting, 5 op
- 455517A: Interior Design, 5 - 10 op

A410223: Module of the Option, Architectural Design, 30 op

**Compulsory courses**
- 454522S: Urban Space Design, 10 op
- 455521S: Urban Space Detailing, 10 op
- 455522S: Design in Urban Context, 10 op
Optional Studies

Courses in the architect's degree may be replaced by the following study units

A410296: Optional Studies, Master of Science (Architecture), 30 op

**Optional Studies**

- 456527S: Condition Assessment of Buildings, 5 op
- 451513S: History of Interior Design / Historical interiors, 5 op
- 451523S: Traditional Japanese Architecture and Garden Art, 5 op
- 451550S: Varying Courses of History of Architecture and Renovation, 5 - 10 op
- 452550S: Varying Courses of Contemporary Architecture, 2 - 10 op
- 453550S: Varying Courses of Architectural Construction, 5 - 10 op
- 454550S: Varying Courses of Urban Design, 2 - 10 op
- 300002M: Advanced Information Skills, 1 op

**Master's Thesis (vähintään 30 op)**

- 450099S: Master's Thesis, 30 op
- 450014S: The Maturity Test for Master's Degree, 0 op

Tutkintorakenteisiin kuulumattomat opintokokonaisuudet ja -jaksot

- 456527A: Condition Assessment of Buildings, 5 op
- 450524A: Image Manipulation / Photoshop & Illustrator, 2 op
- 450541A: Photoshop, Advanced Photomanipulation, 2 op
- 450542A: Revit Architecture Advanced, 1 op
- 450525P: Techniques of Visual Presentation in Architecture, 2 op
- 455550S: Varying Courses of Design, 2 - 10 op
- 455540A: Varying Courses of Design, 2 - 10 op

Opintojaksojen kuvaukset

Tutkintorakenteisiin kuuluvien opintokohteiden kuvaukset

**A410120: Basic and Intermediate Studies, Architecture, 120 op**

Voimassaolo: 01.08.2005 -
Opiskelumuoto: Basic and Intermediate Studies
Laji: Study module
Arvostelu: 1 - 5, pass, fail
Opintokohteen kielet: Finnish

Ei opintojaksokuvauksia.

*Compulsory courses*
450510P: Orientation, 2 op

**Voimassaolo:** 01.08.2005 - 31.07.2015  
**Opiskelumuoto:** Basic Studies  
**Laji:** Course  
**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 initiate the student with working methods of studies in architecture. 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 day workshop.

**Mode of delivery:**
Face-to-face teaching

**Learning activities and teaching methods:**
The course is mainly organized by the Department of Architecture, The Faculty of Technology and the library. The Orientation is held during the first week of studies in September.

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

**Prerequisites and co-requisites:**
-

**Recommended optional programme components:**
-

**Recommended or required reading:**
-

**Assessment methods and criteria:**
Attendance at the presentations, instruction sessions and the workshop  
Read more about assessment criteria at the University of Oulu webpage.

**Grading:**
pass / fail

**Person responsible:**
n. n. (coordinator)

**Working life cooperation:**
-

**Other information:**
-

030005P: Information Skills, 1 op
Opiskelumuoto: Basic Studies
Laji: Course
Vastuuysikkö: Faculty of Technology
Arvostelu: 1 - 5, pass, fail
Opettajat: Sassali, Jani Henrik, Koivuniemi, Mirja-Liisa
Opintokohteen kielet: Finnish
Leikkaavuudet: 030004P Introduction to Information Retrieval 0.0 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:
Web learning material https://wiki.oulu.fi/display/030005P.

Assessment methods and criteria:
Passing the course requires participation in the training sessions and successful completion of the course assignments.
Read more about assessment criteria at the University of Oulu webpage.

Grading:
pass/fail

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

Working life cooperation:
-

Other information:
-
Voimassaolo: 01.08.2005 -
Opiskelumuoto: Basic Studies
Laji: Course
Arvostelu: 1 - 5, pass, fail
Opettajat: Asko Leinonen
Opintokohteen kielet: Finnish

ECTS Credits:
5

Language of instruction:
Finnish

Timing:
The autumn and spring terms

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

Prerequisites and co-requisites:
-

Recommended optional programme components:
-

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

Assessment methods and criteria:
The evaluation is based mainly on the exercises
Read more about assessment criteria at the University of Oulu webpage.

Grading:
1-5

Person responsible:
Architect Asko Leinonen

Working life cooperation:
No

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

450516P: Portfolio, 2 op

Voimassaolo: 01.08.2013 -
Opiskelumuoto: Basic Studies
Laji: Course
Arvostelu: 1 - 5, pass, fail
Opettajat: Asko Leinonen
Opintokohteen kielet: Finnish

ECTS Credits: 2

Language of instruction: Finnish

Timing: autumn term

Learning outcomes:
The student can make the sample portfolio based on his or her basic portfolio. The sample portfolio is a document intended to be published.

Contents:
The portfolio is an instrument for improving the student's own activity. With the help of the portfolio the student records the progression of his or her learning. During the course the student receives tools to design and create a portfolio of sample projects and artworks. The focus of teaching is to take advantage of graphic and visualization resources, using the desktop publishing.

Mode of delivery:
Face-to-face teaching

Learning activities and teaching methods:
The course is based on lectures (20 h), an exercise (25) and contact teaching (10 h). The student makes the exercise work, presenting his or her all-around activities.

Target group:
Bachelor level students

Prerequisites and co-requisites:
The course is a compulsory study unit in the bachelor's study programme.

Recommended optional programme components:
-

Recommended or required reading:
The bibliography will be stated during lessons.

Assessment methods and criteria:
The aim of the lectures is to prepare the students to make an exercise, in which a sample folder of student's artworks is presented. The assessment is based on above-mentioned exercise, where basic mastery of taught matters and visual skills are focused.
Read more about assessment criteria at the University of Oulu webpage.

Grading:
1–5

Person responsible:
Architect Asko Leinonen

Working life cooperation:
-

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

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

ECTS Credits:
5
Language of instruction:
Finnish
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:
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

Prerequisites and co-requisites:
-

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. Read more about assessment criteria at the University of Oulu webpage.

Grading:
1-5 in two written examinations.

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

Working life cooperation:
None

Other information:
-

451532P: History of Architecture I, studio course, 4 op
Opiskelumuoto: Basic Studies
Laji: Course
Arvostelu: 1 - 5, pass, fail
Opettajat: Anna-Maija Ylimaula, Özlem Özer-Kemppainen
Opintokohteen kielet: Finnish

ECTS Credits: 4
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 techniques 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

Prerequisites and co-requisites:
-

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

Read more about assessment criteria at the University of Oulu webpage.

Grading:
1-5

Person responsible:
Professor Anna-Maija Ylimaula, University teacher Özlem Özer-Kemppainen.

Working life cooperation:
No

Other information:
-

452521P: Contemporary Architecture I, elements, 5 op
Voimassaolo: 01.08.2012 - 
Opiskelumuoto: Basic Studies 
Laji: Course 
Arvostelu: 1 - 5, pass, fail 
Opettajat: Matti Sanaksenaho 
Opintokohteen kielet: Finnish 

ECTS Credits: 
5 

Language of instruction: 
Finnish 

Timing: 
Autumn term 1-2 

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, 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 18h + contact teaching 77 hours. 

Target group: 
1.st year students. 

Prerequisites and co-requisites: 
- 

Recommended optional programme components: 
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 
Read more about assessment criteria at the University of Oulu webpage.

Grading: 
Numerical grading scale 1-5.

Person responsible: 
Prof. Matti Sanaksenaho.

Working life cooperation: 
No 

Other information: 
To provide an understanding of architecture and guide to creative design work.
Voimassaolo: 01.08.2012 -
Opiskelumuoto: Basic Studies
Laji: Course
Arvostelu: 1 - 5, pass, fail
Opettajat: Matti Sanaksenaho
Opintokohteen kielet: Finnish

ECTS Credits:
7

Language of instruction:
Finnish

Timing:
Spring term 1-2

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, 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 18h+ contact teaching 117 hours

Target group:
1.st year students.

Prerequisites and co-requisites:

Recommended optional programme components:
CAD I

Recommended or required reading:

Assessment methods and criteria:
Based on examination and exercises. Read more about assessment criteria at the University of Oulu webpage.

Grading:
Numerical grading scale 1-5.

Person responsible:
Prof. Matti Sanaksenaho

Working life cooperation:
No

Other information:
To provide an understanding of architecture and guide to creative design work.

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

- **Voimassaolo:** 01.08.2012 -
- **Opiskelumuoto:** Basic Studies
- **Laji:** Course
- **Arvostelu:** 1 - 5, pass, fail
- **Opettajat:** Jari Heikkilä, Jouni Koiso-Kanttila
- **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:**
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. To give the student general data on architectural construction and on the functional requirements set for building parts.

**Mode of delivery:**
Face-to-face teaching.

**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:**
-

**Recommended optional programme components:**
not applicable
The courses of the basics of Building Physics, Structural Technology (basic course) and Wooden Structures are recommended to take at the same time.

**Assessment methods and criteria:**
The evaluation is based on the exam. Read more about assessment criteria at the University of Oulu webpage.

**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
**Arvostelu:** 1 - 5, pass, fail
**Opettajat:** Jouni Koiso-Kanttila
**Opintokohteen kielet:** Finnish

**ECTS Credits:**
7

**Language of instruction:**
Finnish

**Timing:**
autumn terms

**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. To familiarize the student in detail with constructions and design of wood-framed one-family houses.

**Mode of delivery:**
Independent working.

**Learning activities and teaching methods:**
Project work in studio.

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

**Prerequisites and co-requisites:**
Contemporary Architecture -course.

**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.
Read more about [assessment criteria](#) at the University of Oulu webpage.

**Grading:**
1-5

**Person responsible:**
Professor Jouni Koiso-Kanttila, university teacher Petri Aarnio

**Working life cooperation:**
No

**Other information:**

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453531P: Structural Technology, basic course, 3 op

**Voimassaolo:** 01.08.2005 -
**Opiskelumuoto:** Basic Studies
ECTS Credits:
3

Language of instruction:
Finnish

Timing:
Spring term 1-2

Learning outcomes:
Upon completion of 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:
1.st year Bachelor level students.

Prerequisites and co-requisites:
-

Recommended optional programme components:
-

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. Read more about assessment criteria at the University of Oulu webpage.

Grading:
1-5

Person responsible:
University teacher Jussi Tervaoja.

Working life cooperation:
No

Other information:
-

453532P: Wooden Structures, 2 op

Voimassaolo: 01.08.2005 -
Opiskelumuoto: Basic Studies
Laji: Course
Arvostelu: 1 - 5, pass, fail
Opintokohteen kielet: Finnish
Leikkaavuudet:
ay453532P  Wooden Structures (OPEN UNI)  2.0 op

ECTS Credits:
2

Language of instruction:
Finnish

Timing:
Autumn term 2

Learning outcomes:
Upon completion of 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:
2.nd year Bachelor level students.

Prerequisites and co-requisites:
-

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

Assessment methods and criteria:
Design project and exam. The evaluation is based on the exam. Read more about assessment criteria at the University of Oulu webpage.

Grading:
1-5

Person responsible:
University teacher Jussi Tervaoja.

Working life cooperation:
No

Other information:
-

453535P: Basics of Building Physics, 2 op

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

ECTS Credits:
2

Language of instruction:
Finnish
**Timing:**
Spring term 1-2

**Learning outcomes:**
Upon completion of the course the student identifies and understand basic building physic terms like heat, moisture, air permeability in the structures and is able to determine most typical key ratios for structures. Student is able to understand most common building materials and the affect on the air of buildings. Student is able to understand the basics of low energy constructions.

**Contents:**
Living and structures before and now, thermal conductivity in structures, typical key ratios of structures, vapour and air permeability in structures, sources of moisture, air quality in buildings and low energy building.

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

**Learning activities and teaching methods:**
Lectures and contact teaching.
Target group: 1st year bachelor level students.

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

**Prerequisites and co-requisites:**
-

**Recommended or required reading:**
Material given and shown in the lectures. Course literature will be announced separately.

**Assessment methods and criteria:**
The evaluation is based mainly on the exam.
Read more about assessment criteria at the University of Oulu webpage.

**Grading:**
1-5

**Person responsible:**
Civil Engineer Seppo Mäkinen

**Working life cooperation:**
No
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 the 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:
1st year Bachelor level students

Prerequisites and co-requisites:
-

Recommended optional programme components:
-

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).
Read more about assessment criteria at the University of Oulu webpage.

Grading:
1-5

Person responsible:
Prof. Helka-Liisa Hentilä

Working life cooperation:
No

Other information:
-

455501P: Basics of Design, 5 op

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

ECTS Credits:
5

Language of instruction:
Finnish

Timing:
Spring term 1 & 2

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:
The objective of the course is to guide the student to understanding the basics of design and detailing closely connected to architecture. 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.

Prerequisites and co-requisites:
-

Recommended optional programme components:
-

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. Read more about assessment criteria at the University of Oulu webpage.

Grading:
1-5

Person responsible:
University Lecturer Aulikki Herneoja

Working life cooperation:
No

Other information:
-

455511P: Visual Arts I, 5 op

Voimassaolo: 01.08.2005 -
Opiskelumuoto: Basic Studies
Laji: Course
Arvostelu: 1 - 5, pass, fail
Opettajat: Moosa Mylykangas
Opintokohteen kielet: Finnish
Leikkaavuudet:

ECTS Credits:
5

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

**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:**
Kurssilla perehdytään harjoitustöiden välityksellä esine- ja tilapiirustukseen, klassiseen mallipiiirustukseen sekä sommitteluun ja muovailuun.

**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 group teaching 92 hours.

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

**Prerequisites and co-requisites:**
-

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

**Assessment methods and criteria:**
Based on exercises.
Read more about [assessment criteria](http://example.com) at the University of Oulu webpage.

**Grading:**
Numerical grading scale 1-5

**Person responsible:**
Prof. Matti Sanaksenaho

**Working life cooperation:**
No

**Other information:**
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.

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455512P: Visual Arts II, 3 op

**Voimassaolo:** 01.08.2005 -
**Opiskelumuoto:** Basic Studies

**Laji:** Course

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

**Opettajat:** Moosa Myllykangas

**Opintokohteen kielet:** Finnish

**Leikkaavuudet:**
ay455512P  Visual Arts II (OPEN UNI)  3.0 op

**ECTS Credits:**
3

**Language of instruction:**
Finnish

**Timing:**
Spring term 2
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 6 hours and contact teaching and/or group teaching 92 hours.

Target group:
2nd year students.

Prerequisites and co-requisites:
-

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

Assessment methods and criteria:
Based on exercises.
Read more about assessment criteria at the University of Oulu webpage.

Grading:
Numerical grading scale 1-5

Person responsible:
Prof. Matti Sanaksenaho

Working life cooperation:
No

Other information:
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.

450503A: Practical Training / Construction Site, 5 op

Voimassaolo: 01.08.2005 -
Opiskelumuoto: Intermediate Studies
Laji: Practical training
Arvostelu: 1 - 5, pass, fail
Opettajat: Petri Aarnio
Opintokohteen kielet: Finnish

ECTS Credits:
5

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.

**Mode of delivery:**

- 

**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

**Prerequisites and co-requisites:**

- 

**Recommended optional programme components:**

- 

**Recommended or required reading:**

The laboratory for architectural construction provides the instructions for practical training.

**Assessment methods and criteria:**

The report of the practical training period submitted to the supervising laboratory. Read more about assessment criteria at the University of Oulu webpage.

**Grading:**

pass / fail

**Person responsible:**

University Teacher Petri Aarnio

**Working life cooperation:**

Yes. The student has the responsibility of finding the work placement him / herself.

**Other information:**

- 

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

**Voimassaolo:** 01.08.2012 -

**Opiskelumuoto:** Intermediate Studies

**Laji:** Course

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

**Opettajat:** Anna-Maija Ylimaula

**Opintokohteen kielet:** Finnish

**ECTS Credits:**

4

**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. Read more about [assessment criteria](#) at the University of Oulu webpage.

**Grading:**
1-5 in two written examinations

**Person responsible:**
Professor Anna-Maija Ylimaula, University lecturer N.N.

**Working life cooperation:**
None

**Other information:**

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

**Voimassaolo:** 01.08.2012 -
**Opiskelumuoto:** Intermediate Studies
**Laji:** Course
**Arvostelu:** 1 - 5, pass, fail
**Opettajat:** Anna-Maija Ylimaula, Özlem Özer-Kemppainen
**Opintokohteen kielet:** Finnish

**ECTS Credits:**
3

**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.

Prerequisites and co-requisites:

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.
Read more about assessment criteria at the University of Oulu webpage.

Grading:
1-5. The evaluation is based on the quality of the inventory project.

Person responsible:
Professor Anna-Maija Ylimaula, University teacher Özlem Özer-Kemppainen

Working life cooperation:

Other information:

452523A: Contemporary Architecture II, elements, 7 op

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

ECTS Credits:
7

Language of instruction:
Finnish

Timing:
Autumn term 1-2

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 18h + contact teaching 92 hours.

Target group:
2nd year students.

Prerequisites and co-requisites:
452521P and 452522P Contemporary Architecture I

Recommended optional programme components:
CAD I

Recommended or required reading:

Assessment methods and criteria:
Based on examination and exercises. Read more about assessment criteria at the University of Oulu webpage.

Grading:
Numerical grading scale 1-5

Person responsible:
Prof. Matti Sanaksenaho

Working life cooperation:
No

Other information:
To provide an understanding of architecture and guide to creative design work

452524A: Contemporary Architecture II, basics, 7 op

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

ECTS Credits:
7

Language of instruction:
Finnish

Timing:
Spring term 1-2

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 18h+ contact teaching 132 hours

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

**Prerequisites and co-requisites:**

**Recommended optional programme components:**
CAD I

**Recommended or required reading:**

**Assessment methods and criteria:**
Based on examination and exercises.
Read more about [assessment criteria](#) at the University of Oulu webpage.

**Grading:**
Numerical grading scale 1-5

**Person responsible:**
Prof. Matti Sanaksenaho

**Working life cooperation:**
No

**Other information:**
To provide an understanding of architecture and guide to creative design work

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**456502A: Renovation of Apartment Buildings, 5 op**

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

**ECTS Credits:**
5

**Language of instruction:**
Finnish

**Timing:**
Spring term 1-2
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. 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.

Mode of delivery:
Face-to-face teaching

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

Target group:
3rd year Bachelor level students

Prerequisites and co-requisites:
Basics of Architectural Construction, studio course and lecture course

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

Assessment methods and criteria:
Design project and exam.
Read more about assessment criteria at the University of Oulu webpage.

Grading:
1-5

Person responsible:
Senior lecturer Anu Soikkeli

Working life cooperation:
No

Other information:

454501A: Urban Design, seminar course, 5 op

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

ECTS Credits:
5

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

Timing:
Autumn term 1-2

Learning outcomes:
Having completed the course a student is familiar with seminar practices and identifies the most significant books on urban design theory. The student is also able to 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 of 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.

Prerequisites and co-requisites:
-

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 discussions (25%).
Read more about assessment criteria at the University of Oulu webpage.

Grading:
1-5

Person responsible:
Prof. Hennu Kjisik

Working life cooperation:
No

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

454523A: Neighborhood Design, 5 op

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

ECTS Credits:
5

Language of instruction:
Finnish.

Timing:
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.

Mode of delivery:
Contact teaching plus independent studying.

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 optional programme components: -

Recommended or required reading:

Assessment methods and criteria:
Exercise (design project) 2/3 of grade, exam 1/3 of grade.
Read more about assessment criteria at the University of Oulu webpage.

Grading:
1-5

Person responsible:
Prof. Hennu Kjisik

Working life cooperation:
No

Other information:
-

Select courses in the following, totaling 5 cr

450532P: Revit Architecture basics, 2 op

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

ECTS Credits:
2

Language of instruction:
Finnish

Timing:
-
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

Prerequisites and co-requisites:
-

Recommended optional programme components:
-

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).
Read more about assessment criteria at the University of Oulu webpage.

Grading:
1-5

Person responsible:
part-time teacher Emma Hulaud

Working life cooperation:
No

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

450533P: Archicad Basics, 2 op

Voimassaolo: 01.08.2011 -
Opiskelumuoto: Basic Studies
Laji: Course
Arvostelu: 1 - 5, pass, fail
Opintokohteen kielet: Finnish

ECTS Credits:
2

Language of instruction:
Finnish

Timing:
autumn term

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

Prerequisites and co-requisites:
-

Recommended optional programme components:
-

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).
Read more about assessment criteria at the University of Oulu webpage.

Grading:
1-5

Person responsible:
Tuominen Pekka

Working life cooperation:
No

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

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

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

ECTS Credits:
1

Language of instruction:
Finnish

Timing:
flexible

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

Prerequisites and co-requisites:
-

Recommended optional programme components:
-

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).
Read more about assessment criteria at the University of Oulu webpage.

Grading:
1-5

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.

450535P: Autocad Architecture Basics, 2 op

Voimassaolo: 01.08.2011 -
Opiskelumuoto: Basic Studies
Laji: Course
Arvostelu: 1 - 5, pass, fail
Opintokohteen kielet: Finnish

ECTS Credits:
2

Language of instruction:
Finnish

Timing:
1st half of the autumn term

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

Prerequisites and co-requisites:
-

Recommended optional programme components:
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).
Read more about assessment criteria at the University of Oulu webpage.

Grading:
1-5

Person responsible:
Pekka Tuominen

Working life cooperation:

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

450536P: Artlantis basics, 1 op

Voimassaolo: 01.08.2011 -
Opiskelumuoto: Basic Studies
Laji: Course
Arvostelu: 1 - 5, pass, fail
Opintokohteen kielet: Finnish

ECTS Credits:
1

Language of instruction:
Finnish

Timing:
flexible

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

Prerequisites and co-requisites:
-

Recommended optional programme components:
-

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).
Read more about assessment criteria at the University of Oulu webpage.

Grading:
1-5

Person responsible:
Tuominen pekka

Working life cooperation:
No

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

Select second domestic language

901008P: Second Official Language (Swedish), 2 op

Voimassaolo: 01.08.1995 -
Opiskelumuoto: Basic Studies
Laji: Course
Vastuuyskärö: Language Centre
Opintokohteen kielet: Swedish
Leikkaavuudet:
ay901008P Second Official Language (Swedish) (OPEN UNI) 2.0 op

Proficiency level:
B1/B2/C1 (Common European Framework of Reference)

Status:
This course is compulsory to all students except those who have at least 60 ECTS credits of Swedish studies in their degrees. The language proficiency provided by the course unit is equivalent to the language proficiency required of a state official with an academic degree working in a bilingual municipality area (Act 424/03 and Decree 481/03).
According to the requirements of the law, the student must be able to use Swedish both orally and in writing in various professional situations. Achieving this kind of proficiency during a course unit that lasts for only one semester requires that the student has already achieved the necessary starting proficiency level prior to taking the course.

Required proficiency level:
The required starting proficiency level for students of all faculties is a grade of 7 or higher from the Swedish studies at secondary school (B-syllabus) or equivalent knowledge AND a passing grade from the proficiency test held at the beginning of the course unit. Based on this proficiency test the students are directed to brush up on their language skills if it is deemed necessary; mastering basic vocabulary and grammar is a prerequisite to achieving the necessary language proficiency for the various communication situations one faces in professional life.
If a student has not completed Swedish studies (B-language) at secondary school with a grade of 7 or higher, or his/her language skills are otherwise lacking, he/she must achieve the required proficiency level BEFORE taking this compulsory Swedish course.

ECTS Credits:
2 ECTS credits

Language of instruction:
Swedish

Timing:
Students of Architecture: autumn semester of the first year of studies.
Students of Electrical Engineering and Computer Science and Engineering: autumn or spring semester of the first year of studies.
Students of Industrial Engineering and Management and Environmental Engineering: autumn semester of
the 2nd year of studies
Students of Process Engineering and Mechanical Engineering: autumn or spring semester of the third year of studies.

Learning outcomes:
Upon completion of the course unit the student should be able to read and understand texts from his/her academic field and make conclusions based on them. The student should be able to write typical professional emails and short reports. He/she should be able to carry himself/herself according to Swedish etiquette when acting as host or guest. The student should also be able to discuss current events and special field-specific matters, use the vocabulary of education and plan and give short oral presentations relating to his/her own field.

Contents:
Communicative oral and written exercises, which aim to develop the student's Swedish proficiency in areas relevant to his/her academic field and future professional tasks. The student practises oral presentation and pronunciation. Situational exercises done individually and in pairs and groups. Discussions in small groups. Current texts about the student's special field. Written exercises relating to the student's professional field. Practising presentation skills.

Mode of delivery:
Contact teaching

Learning activities and teaching methods:
1 x 90 minutes of contact teaching per week and self-directed study, 52 hours per course.

Target group:
See Timing

Prerequisites and co-requisites:
See Required Proficiency Level

Recommended optional programme components:
-

Recommended or required reading:
Study material subject to a charge will be provided by the teacher.

Assessment methods and criteria:
The course unit focuses on improving both oral and written language skills and requires active attendance and participation in exercises, which also require preparation time. 100% attendance is required. The course unit tests both oral and written language skills.

Read more about assessment criteria at the University of Oulu webpage.

Grading:
Oral and written language proficiencies are tested separately and assessed using the so called KORU-criteria (publication of HAMK University of Applied Sciences, 2006). Separate grades will be awarded for the successful completions of both oral and written portions of the course unit: the possible passing grades are satisfactory skills and good skills (see language decree 481/03). The grades are based on continuous assessment and testing.

Person responsible:
See contact teachers on the Language and Communication home page www.oulu.fi/kielikoulutus

Working life cooperation:
-

Other information:
Students sign up for teaching in WebOodi. A student can only sign up for one teaching group. When signing up, it is imperative that the student fills in his/her university email address (paju.oulu.fi), major subject and Swedish grades attained during secondary education in the Further Information field. Information in sign-up periods and course unit timetables can be found in WebOodi.

Select courses in one foreign language, totaling 6 cr

902011P: Technical English 3, 6 op
Voimassaolo: 01.08.1995 -
Opiskelumuoto: Basic Studies
Laji: Course
Vastuuysikkö: Language Centre
Arvostelu: 1 - 5, pass, fail
Opintokohteen kielet: English

Proficiency level: CEFR B2 - C1

Status:
This course is compulsory for the students who have chosen English as their foreign language. (See the foreign language requirements for your own degree programme.)

Required proficiency level:
English must have been the A1 or A2 language at school or equivalent English skills acquired otherwise. If you need to take English, but lack this background, please get in touch with the Languages and Communication contact teacher for your department to discuss individual solutions.

ECTS Credits:
6 ECTS credits (The workload is 160 hours.)

STUDENTS OF ENGINEERING: The course consists of 3 x 2-ECTS modules.
STUDENTS OF ARCHITECTURE: The course consists of 2 x 3-ECTS modules.

Language of instruction: English

Timing:
STUDENTS OF ENGINEERING:
PYO, KO, TuTa: 1st & 2nd years of studies, beginning 1st year autumn.
SO & CSE: 2nd & 3rd years of studies, beginning 2nd year autumn.

STUDENTS OF ARCHITECTURE:
1st & 2nd years of studies, beginning 1st year spring and continuing 2nd year autumn.

Learning outcomes:
By the end of the course, you will be able to
- demonstrate efficient strategies and methods for developing and maintaining your English proficiency
- communicate using the core vocabulary required for professional language use in your field
- apply language skills, intercultural awareness and presentation techniques necessary for working in a multicultural environment
- use language, culture and communication skills at a B2-C1 CEFR level in accordance with your own professional needs.

Contents:
In this course, you will focus on developing oral and written English language skills which enable you to follow developments in your own professional field and manage successfully in an international, intercultural working environment.

STUDENTS OF ENGINEERING:
The course consists of three modules:
1. first, Professional English for Technology (PET, 2 ECTS credits),
2. then two modules (2 ECTS credits each) from a free-choice module menu, in which each module has its own content. These modules allow you to develop further skills in specific core areas. Read the module descriptions with care so that you choose modules which match your own needs, interests and level.

TuTa students, however, take ONE module from the free-choice menu and then, in second year autumn, the Business Plan module, which is integrated with a course in their own department (555222A Tuotantotutkimuksen harjoitustyö).

STUDENTS OF ARCHITECTURE:
The course consists of two modules:
See the course description of each module (902011P-38 module A and 902011P-39 module B for a detailed explanation of the course content.

**Mode of delivery:**
STUDENTS OF ENGINEERING: The mode of delivery varies according to the modules you take. See the course descriptions for the individual modules.
STUDENTS OF ARCHITECTURE: face-to-face teaching in the premises of your own department and independent study

**Learning activities and teaching methods:**
STUDENTS OF ENGINEERING: The teaching methods and learning activities depend on which free-choice modules you choose. See the course descriptions for the individual modules.
STUDENTS OF ARCHITECTURE: The classroom teaching comprises about 50% of the total student workload for the course and includes mini-lectures, group and teamwork, student presentations. The independent work component comprises online work and independent study in preparation for classroom activities.

**Target group:**
Students of the Faculty of Technology
- all Engineering Departments
- the Department of Architecture

**Prerequisites and co-requisites:**
-

**Recommended optional programme components:**
-

**Recommended or required reading:**
Materials will be provided by the teacher and a copy fee will be charged where applicable.

**Assessment methods and criteria:**
Assessment methods vary according to the individual modules taken. The assessment criteria are based on the learning outcomes of the module.
Read more about assessment criteria at the University of Oulu webpage.

**Grading:**
pass / fail.

**Person responsible:**
Each department in the Technical Faculty has its own Languages and Communication contact teacher for questions about English studies.

**Working life cooperation:**
-

**Other information:**
See the Languages and Communication Study Guide, English, TTK.

903012P: Technical German 3, 6 op

Voimassaolo: 01.08.1995 -
Opiskelumuoto: Basic Studies
Laji: Course
Vastuuysikkö: Language Centre
Arvostelu: 1 - 5, pass, fail
Opintokohteen kielet: German

Ei opintojaksokuvauksia.

904054P: Technical Russian 1, 7,5 op

Voimassaolo: 01.08.1995 -
Opiskelumuoto: Basic Studies
**Laji:** Course  
**Vastuuysikkö:** Language Centre  
**Arvostelu:** 1 - 5, pass, fail  
**Opintokohteen kielet:** Russian

**Proficiency level:**  
A2/B1 on the CEFR scale.

**Status:**  
See the study guide of your degree programme.

**Required proficiency level:**  
A2

**ECTS Credits:**  
6 ECTS credits

**Language of instruction:**  
Russian and Finnish

**Timing:**  
Students who wish to participate in this course are asked to contact the course's teacher at the beginning of September.

**Learning outcomes:**  
The course aims to give the student the means to manage in common communication situations and understand spoken and written Russian in professional contexts and discuss questions related to his/her special field.

**Contents:**  
Various modes of studying: handouts, discussion exercises and language lab sessions.

**Mode of delivery:**  
Multimodal teaching

**Learning activities and teaching methods:**  
Self-study and group work. The course consists of an oral section (900461Y Conversational Skills in Russian, 4 ECTS credits) and a written section (904052Y Russian 3, 4 ECTS credits).

**Target group:**  
Students of the Faculty of Technology.

**Prerequisites and co-requisites:**  
Elementary and intermediate courses in Russian or equivalent knowledge.

**Recommended optional programme components:**  
-

**Recommended or required reading:**  
Material provided by the teacher.

**Assessment methods and criteria:**  
Regular and active participation. Completion of the given assignments.  
Read more about [assessment criteria](#) at the University of Oulu webpage.

**Grading:**  
Pass / fail

**Person responsible:**  
Ari Hepo-aho

**Working life cooperation:**  
-

**Other information:**  
-
A410121: Orientation Module, Architecture, 40 op

Voimassaolo: 01.08.2005 -
Opiskelumuoto: Module Preparing for the Option
Laji: Study module
Arvostelu: 1 - 5, pass, fail
Opintokohteen kielet: Finnish

Ei opintojaksokuvauksia.

Compulsory courses

452506A: Housing Design, 8 op

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

ECTS Credits:
8

Language of instruction:
Finnish

Timing:
autumn term 1-2

Learning outcomes:
The objective of the course is to initiate the students through lectures and exercises into the bases of the housing design. After completing the course the student understands the characteristics of different housing and dwelling typologies, the measures of the dwellings, basic technical facts as well as main points of the history of the Finnish Housing. After completing the course the student is able to present a sketch design of a simple block of flats.

Contents:
The course consists of lectures, design task and participation to the critique-sessions organized together with the Laboratory of Building Sciences.

Mode of delivery:
Lectures and face-to-face teaching. The design task will be tutored mainly 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.

Target group:
3rd year bachelor students

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 optional programme components:
see before

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. Read more about assessment criteria at the University of Oulu webpage.

**Grading:**
1-5, fail

**Person responsible:**
Professor Rainer Mahlamäki

**Working life cooperation:**
-

**Other information:**
-

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**453510A: Techniques of Plumbing, Heating and Ventilation, 3 op**

**Voimassaolo:** 01.08.2005 -
**Opiskelumuoto:** Intermediate Studies
**Laji:** Course
**Arvostelu:** 1 - 5, pass, fail
**Opettajat:** Pentti Kuurola
**Opintokohteen kielet:** Finnish

**Leikkaavuudet:**
485506A Heating, Ventilation and Air Conditioning Technology 3.0 op

**ECTS Credits:**
3

**Language of instruction:**
Finnish

**Timing:**
autumn term 2, spring term 1

**Learning outcomes:**
After completing the course the student recognizes the technical symbols of plumbing, heating and ventilation, 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 influence of heating, plumbing and ventilation systems on the energy efficiency, interior climate and pleasantness of buildings.

**Contents:**
Lectures on official regulations, technical drawings and space reservations for various installation systems and methods. Design exercises: necessary provisions in designs for spaces, ducts and piping routes. The course gives the student a general idea of heating, plumbing and air-conditioning technology. One aim of the course is to introduce the student to the requirements of such technology as part of designing and building, including demands of indoor climate, energy efficiency, spatial needs and dimensioning of technical installations, maintenance and detecting of damage.

**Mode of delivery:**
Face-to-face teaching.

**Learning activities and teaching methods:**
The course includes lectures, exercises and an exam.

**Target group:**
3rd year bachelor students.

**Prerequisites and co-requisites:**
-

**Recommended optional programme components:**
Exercises are based on the design exercise of the course 453503A Design of Apartment Blocks.

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

**Assessment methods and criteria:**
Lectures, exercises and written exam. The evaluation is based on the exam. Read more about [assessment criteria](#) at the University of Oulu webpage.

**Grading:**
1-5

**Person responsible:**
Pentti Kuurola

**Working life cooperation:**
No

**Other information:**
-

**453511A: Electrical Installation, 2 op**

- **Voimassaolo:** 01.08.2005 -
- **Opiskelumuoto:** Intermediate Studies
- **Laji:** Course
- **Arvostelu:** 1 - 5, pass, fail
- **Opintokohteen kielet:** Finnish

**ECTS Credits:**
2

**Language of instruction:**
Finnish

**Timing:**
spring term

**Learning outcomes:**
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.

**Mode of delivery:**
Face-to-face teaching.

**Learning activities and teaching methods:**
The course includes lectures and exercises.

**Target group:**
3rd year bachelor students.

**Prerequisites and co-requisites:**
-

**Recommended optional programme components:**
Exercises are based on the design exercise of the course 453503A Design of Apartment Blocks.

**Recommended or required reading:**
List of readings will be handed out during the course.
Assessment methods and criteria:
Lectures and exercises. The evaluation is based on the exercise. Read more about assessment criteria at the University of Oulu webpage.

Grading:
1-5

Person responsible:
Rauno Hääl

Working life cooperation:
No

Other information:
-

451504A: History of Architecture III, 3 op

Voimassaolo: 01.08.2011 -
Opiskelumuoto: Intermediate Studies
Laji: Course
Arvostelu: 1 - 5, pass, fail
Opettajat: Anna-Maija Ylimaula
Opintokohteen kielet: Finnish
Leikkaavuudet:
ay451504A History of Architecture III (OPEN UNI) 3.0 op

ECTS Credits:
3

Language of instruction:
Finnish (literature in English and Swedish)

Timing:
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. Read more about [assessment criteria](#) at the University of Oulu webpage.

**Grading:**
1-5 in written examinations

**Person responsible:**
Professor Anna-Maija Ylimaula, University lecturer N.N

**Working life cooperation:**
None

**Other information:**

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**452503A: Contemporary Architecture III, 8 op**

**Voimassaolo:** 01.08.2006 -

**Opiskelumuoto:** Intermediate Studies

**Laj:** Course

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

**Opettajat:** Mahlamäki Rainer

**Opintokohteen kielet:** Finnish

**ECTS Credits:**
8

**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. Learning outcomes: After completing the course the student understands bases for the designing of public buildings, such as functionality, site-specification and general architectural solution. After completing the course the student is able to present a design of a small public building with the help of drawings and a scale model.

**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.

**Mode of delivery:**
Lectures and face-to-face teaching

**Learning activities and teaching methods:**
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.

**Target group:**
3rd year bachelor students

**Prerequisites and co-requisites:**
Contemporary architecture I-II

**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. 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. Read more about assessment criteria at the University of Oulu webpage.

**Grading:**
1 - 5, fail

**Person responsible:**
Professor Rainer Mahlamäki

**Working life cooperation:**
-

**Other information:**
-

453503A: Design of Apartment Blocks, 8 op

**Opiskelumuoto:** Intermediate Studies  
**Laji:** Course  
**Arvostelu:** 1 - 5, pass, fail  
**Opettajat:** Jouni Koiso-Kanttila  
**Opintokohteen kielet:** Finnish

**ECTS Credits:**
8

**Language of instruction:**
Finnish

**Timing:**
Spring term

**Learning outcomes:**
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 fulfills 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. To introduce students to the essential issues within architectural construction and to provide the student with skills to work within the architectural design of energy efficient apartment houses according to the principles of sustainability.

**Mode of delivery:**
Face-to-face teaching.

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

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

**Prerequisites and co-requisites:**
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 optional programme components:**
Techniques of Plumbing, Heating and Ventilation -course and Electrical Installations -course.

**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. Read more about assessment criteria at the University of Oulu webpage.

**Grading:**
1-5

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

**Working life cooperation:**
no

**Other information:**
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454503A: Town Planning, 8 op

**Voimassaolo:** 01.08.2005 -

**Opiskelumuoto:** Intermediate Studies

**Laji:** Course

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

**Opettajat:** Hentilä, Helka-Liisa

**Opintokohteen kielet:** Finnish

**ECTS Credits:**
8

**Language of instruction:**
Finnish

**Timing:**
Autumn term 1.

**Learning outcomes:**
After completing the course the student can name the main principles of the 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 is able to apply the learning outcome to a town plan level design exercise and produce documents, corresponding to an official town plan.

**Contents:**
Lectures deal with the Finnish land use planning system, planning process and regulations. The course deals also with the planning of residential areas, traffic and urban landscapes. Also the interface between town planning and building design will be discussed. The 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. Read more about assessment criteria at the University of Oulu webpage.

Grading:
1-5

Person responsible:
prof. Helka-Liisa Hentilä

Working life cooperation:
No

Other information:
The town planning course offers one option for a Bachelor's thesis. Separate instruction will be available.

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

Voimassaolo: 01.08.2007 -
Opiskelumuoto: Intermediate Studies
Laji: Course
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:
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:
The student develops further one of the compulsory design exercises of the 3rd year of bachelor level studies completed for the respective laboratory (contemporary architecture III, town planning, housing design, design of apartment blocks or history of architecture III studio course).

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

Learning activities and teaching methods:
The bachelor's thesis work completes the bachelor level studies. 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:
The materials of the compulsory study unit, including the project work that the student has selected for the basis of his / her bachelor's work

**Assessment methods and criteria:**
The student follows the bachelor work instructions of the supervising laboratory and the Department of Architecture. A printed and bound A3 copy of the illustrated bachelor's work is required. Read more about [assessment criteria](#) at the University of Oulu webpage.

**Grading:**
pass / fail

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

**Working life cooperation:**
No

**Other information:**
Separate detailed bachelor's work instructions are published on the web pages of the Department of Architecture.

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**450551A: Seminar, 2 op**

**Voimassaolo:** 01.08.2005 - 31.07.2015

**Opiskelumuoto:** Intermediate Studies

**Laji:** Course

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

**Opintokohteen kielet:** Finnish

**ECTS Credits:**
2

**Language of instruction:**
Finnish

**Timing:**
Spring term 2

**Learning outcomes:**
The student is able to express 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 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:**
3 rd year bachelor students

**Prerequisites and co-requisites:**
Bachelor's work.

**Recommended optional programme components:**
The seminar is part of the he bachelor's thesis work.

**Recommended or required reading:**
-

**Assessment methods and criteria:**
Participation in the seminar

Read more about [assessment criteria](#) at the University of Oulu webpage.

**Grading:**
pass / fail

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

**Working life cooperation:**
No

**Other information:**
Separate detailed bachelor's work instructions are published on the web pages of the Department of Architecture.
450013A: The Maturity Test for Bachelor's Degree, 0 op

Opiskelumuoto: Intermediate Studies  
Laji: Course  
Arvostelu: 1 - 5, pass, fail  
Opintokohteen kielet: Finnish

ECTS Credits: 0  
Language of instruction: Finnish / Swedish  
Timing: Spring term 2  
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. The maturity test is a part of the bachelor's dissertation.  
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: The recommended extent of the essay is 3 pages. Read more about [assessment criteria](#) at the University of Oulu webpage.  
Grading: pass / fail  
Person responsible: Professor n.n. in the supervising laboratory  
Working life cooperation: No  
Other information: -

A410171: Optional Studies, Bachelor of Science (Architecture), 10 op

Voimassaolo: 01.08.2005 -  
Opiskelumuoto: Optional Studies  
Laji: Study module  
Arvostelu: 1 - 5, pass, fail  
Opintokohteen kielet: Finnish

Ei opintojaksokuvauksia.

Optional Studies

450543A: Archicad Advanced, 1 op

Voimassaolo: 01.08.2011 -  
Opiskelumuoto: Intermediate Studies  
Laji: Course
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 optional programme components:
-

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).
Read more about assessment criteria at the University of Oulu webpage.

Grading:
1-5

Person responsible:
Tuomainen Pekka

Working life cooperation:
No

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
Arvostelu: 1 - 5, pass, fail
Opintokohteen kielet: Finnish

ECTS Credits:
1

Language of instruction:
Timing: autumn term

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:
-

Prerequisites and co-requisites:
-

Recommended optional programme components:
-

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).
Read more about assessment criteria at the University of Oulu webpage.

Grading:
1-5

Person responsible:
n. n.

Working life cooperation:
No

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

450545A: Illustrator Basics, 1 op

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

ECTS Credits:
1

Language of instruction:
Finnish

Timing:
-

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

Prerequisites and co-requisites:
-

Recommended optional programme components:
-

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).
Read more about assessment criteria at the University of Oulu webpage.

Grading:
1-5

Person responsible:
n. n.

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

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

ECTS Credits:
1

Language of instruction:
Finnish

Timing: 
-

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

Prerequisites and co-requisites:
-

Recommended optional programme components:
-

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).
Read more about assessment criteria at the University of Oulu webpage.

Grading:
1-5

Person responsible:
n. n.

Working life cooperation:
No

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

450547A: Indesign Basics, 1 op

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

ECTS Credits:
1

Language of instruction:
Finnish

Timing:
-

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:
- 
**Target group:**
architecture students, bachelor level

**Prerequisites and co-requisites:**
-

**Recommended optional programme components:**
-

**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).
Read more about [assessment criteria](#) at the University of Oulu webpage.

**Grading:**
1-5

**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.

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**450548A: Grasshopper-basics (Advancec Course in CAD), 1 op**

**Opiskelumuoto:** Intermediate Studies  
**Laji:** Course  
**Arvostelu:** 1 - 5, pass, fail  
**Opettajat:** Tuulikki Tanska  
**Opintokohteen kielet:** Finnish

**ECTS Credits:**
1

**Language of instruction:**
Finnish

**Timing:**
autumn period

**Learning outcomes:**
Basics of algorithmic/parametric modelling.

**Contents:**
UI, basics of the toolset.

**Mode of delivery:**
Lectures and course work.

**Learning activities and teaching methods:**
-

**Target group:**
-

**Prerequisites and co-requisites:**
-
Recommended optional programme components:
-
Recommended or required reading:
Software help files and handouts.

Assessment methods and criteria:
Practice work assigned in the course.
Read more about [assessment criteria](#) at the University of Oulu webpage.

Grading:
1-5

Person responsible:
Tuulikki Tanska

Working life cooperation:
No

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

455513A: Visual Arts III, 4 op

Opiskelumuoto: Intermediate Studies
Laji: Course
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:
autumn or spring term

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:
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 6 hours and contact teaching and/or group teaching 74 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
Read more about assessment criteria at the University of Oulu webpage.

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
Arvostelu: 1 - 5, pass, fail
Opintokohteen kielet: Finnish
Voidaan suoritaa useasti: Kyllä

ECTS Credits:
4

Language of instruction:
Finnish

Timing:
Spring term

Learning outcomes:
To initiate the students into the basics of photography and digital raw working methods. 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 information of digital cameras, lenses, focusing, depth of field, aperture, exposure, shutter speed and lights. Also digital raw pictures will be retouched with Adobe Bridge and Photoshop applications.

Mode of delivery:
Lectures, contact teaching and independent studying.

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

Target group:
The course is an optional study unit in the bachelor’s study programme.

Prerequisites and co-requisites:
-

Recommended optional programme components:
-

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

Assessment methods and criteria:
Based on exercises
Read more about assessment criteria at the University of Oulu webpage.

Grading:
1-5

Person responsible:
Architect Asko Leinonen.
451505A: History of Architecture III practices, 5 op

Voimassaolo: 01.08.2011 -
Opiskelumuoto: Intermediate Studies
Laji: Course
Arvostelu: 1 - 5, pass, fail
Opettajat: Özlem Özer-Kemppainen, Anna-Maija Ylimaula
Opintokohteen kielet: Finnish

ECTS Credits:
5

Language of instruction:
Finnish

Timing:
Spring term I and 2

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.

Mode of delivery:
Lectures, additionally independent studies.

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.

Prerequisites and co-requisites:
-

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. Read more about assessment criteria at the University of Oulu webpage.

Grading:
1-5

Person responsible:
Professor Anna-Maija Ylimaula, University teacher Özlem Özer-Kemppainen

**Working life cooperation:**
none

**Other information:**
-

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

- **Voimassaalo:** 01.08.2005 -
- **Opiskelumuoto:** Intermediate Studies
- **Laji:** Course
- **Arvostelu:** 1 - 5, pass, fail
- **Opettajat:** Anna-Maija Ylimaula
- **Opintokohteen kielet:** Finnish
- **Voidaan suorittaa useasti:** Kyllä

**ECTS Credits:**
2-10

**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. Read more about [assessment criteria](#) at the University of Oulu webpage.

**Grading:**
1-5

**Person responsible:**
Professor Anna-Maija Ylimaula

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

- **Voimassaalo:** 01.08.2005 -
- **Opiskelumuoto:** Intermediate Studies
- **Laji:** Course
- **Arvostelu:** 1 - 5, pass, fail
- **Opettajat:** Matti Sanaksenaho
- **Opintokohteen kielet:** Finnish
- **Voidaan suorittaa useasti:** Kyllä
ECTS Credits:
2-10

Language of instruction:
Finnish/English

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

Learning outcomes:
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.

Learning activities and teaching methods:
The design exercise and studio classes. Completed works are presented in an open critique session.

Target group:
-

Prerequisites and co-requisites:
-

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

Assessment methods and criteria:
Based on exercises.
Read more about assessment criteria at the University of Oulu webpage.

Grading:
Numerical grading scale 1-5

Person responsible:
Prof. Matti Sanaksenaho

Working life cooperation:
No

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

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

Voimassaolo: 01.08.2005 -
Opiskelumuoto: Intermediate Studies
Laji: Course
Arvostelu: 1 - 5, pass, fail
Opettajat: Jouni Koiso-Kanttila
Opintokohteen kielet: Finnish
Voidaan suorittaa useasti: Kyllä

ECTS Credits:
2-10

Language of instruction:
Finnish
Timing:
varying

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

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

Prerequisites and co-requisites:
-

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.
Read more about assessment criteria at the University of Oulu webpage.

Grading:
1 – 5

Person responsible:
Professor Jouni Koiso-Kanttila

Working life cooperation:
No

Other information:
not applicable

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

Opiskelumuoto: Intermediate Studies
Laji: Course
Arvostelu: 1 - 5, pass, fail
Opettajat: Hennu Kjisik, Hentilä, Helka-Liisa
Opintokohteen kielet: Finnish
Voidaan suorittaa useasti: Kyllä

ECTS Credits:
2-10
Language of instruction:
Finnish or English.

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

Learning outcomes:
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 a 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.

Prerequisites and co-requisites:
-

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.
Read more about assessment criteria at the University of Oulu webpage.

Grading:
1-5

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

Working life cooperation:
No

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

A410271: Advanced Module, Planning and Urban Design, 30 op

Voimassaolo: 01.08.2005 -
Opiskelumuoto: Advanced Module
Laji: Study module
Arvostelu: 1 - 5, pass, fail
Opintokohteen kielet: Finnish

Ei opintojaksojakohtuvuksia.

Compulsory courses

454505S: Municipal Planning, 15 op

Voimassaolo: 01.08.2005 -
Opiskelumuoto: Advanced Studies
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 is also able to 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 towards 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.

Prerequisites and co-requisites:

Recommended optional programme components:
The course is part of the 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).

Grading:
1-5

Person responsible:
Prof. Helka-Liisa Hentilä

Working life cooperation:
No

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

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

ECTS Credits:
5-10

Language of instruction:
Finnish

Timing:
Autumn term 1-2.

Learning outcomes:
After completing the course the student is able to describe different methods of producing and ways of implementing background material, inquiries and research results as part of planning process. The student is also able to 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.

Prerequisites and co-requisites:
-

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.
Read more about assessment criteria at the University of Oulu webpage.

Grading:
1-5

Person responsible:
Prof. Helka-Liisa Hentilä

Working life cooperation:
No

Other information:
-

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

Voimassaolo: 01.08.2006 -
Opiskelumuoto: Advanced Studies
Laji: Course
Arvostelu: 1 - 5, pass, fail
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:
-

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. Read more about assessment criteria at the University of Oulu webpage.

Grading:
1-5

Person responsible:
Professor Anna-Maija Ylimaula, Doctoral student, architect Janne Pihlajaniemi

Working life cooperation:
None

Other information:
-
Excursion Abroad, 2 op

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

ECTS Credits:
2
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. 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.

Mode of delivery:
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 students have to cover their own expenses of the excursion.

Learning activities and teaching methods:
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.

Target group:
1st and 2nd year master level students

Prerequisites and co-requisites:
-

Recommended optional programme components:
The study trip is a compulsory study unit in the master's degree.

Recommended or required reading:
The excursion program should reflect the contents of the given lecture courses, covering examples of history, contemporary architecture and town planning.

Assessment methods and criteria:
Attending the study trip and preparing the excursion program and guide. Read more about assessment criteria at the University of Oulu webpage.

Grading:
pass

Person responsible:
Professor Rainer Mahlamäki

Working life cooperation:
A410246: Complementary Module, Planning and Urban Design, 30 op

Voimassaolo: 01.08.2005 -
Opiskelumuoto: Supplementary Module
Laji: Study module
Arvostelu: 1 - 5, pass, fail
Opintokohteen kielet: Finnish

Ei opintojaksokuvauksia.

Compulsory courses

454526S: Interactive Urban Planning, 10 op

Voimassaolo: 01.08.2012 -
Opiskelumuoto: Advanced Studies
Laji: Course
Arvostelu: 1 - 5, pass, fail
Opettajat: Hentilä, Helka-Liisa
Opintokohteen kielet: Finnish

ECTS Credits:
10

Language of instruction:
Finnish.

Timing:
Spring 1-2

Learning outcomes:
After completing the course the student is able to 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 the adequacy of the surveys and argue their adequacy in the context of sustainable planning. The student is also able to produce surveys of the planning area by using different methods, analyse them and make conclusions. The student is also able to implement the analysis results in the design phase.

Contents:
Lectures focus on different aspects of sustainable and integrative urban planning and urban development. Seminars focus on basic surveys and practices related to integrative planning. The exercise consists of an analysis phase, case studies and a 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.

Prerequisites and co-requisites:
-

Recommended optional programme components:
Course is part of the module "Sustainable Urban Development". Design project is connected with the 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. Read more about assessment criteria at the University of Oulu webpage.

Grading:
1-5

Person responsible:
Prof. Helka-Liisa Hentilä.

Working life cooperation:
No

Other information:

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

Opiskelumuoto: Intermediate Studies
Laji: Course
Arvostelu: 1 - 5, pass, fail
Opettajat: Hennu Kjisik, Hentilä, Helka-Liisa
Opintokohteen kielet: Finnish
Voidaan suorittaa useasti: Kyllä

ECTS Credits:
2-10

Language of instruction:
Finnish or English.

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

Learning outcomes:
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 a 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.

Prerequisites and co-requisites:
-

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.
Read more about assessment criteria at the University of Oulu webpage.

**Grading:**
1-5

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

**Working life cooperation:**
No

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

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**451511A: Historic Preservation, 10 op**

**Voimassaolo:** 01.08.2005 -

**Opiskelumuoto:** Intermediate Studies

**Laji:** Course

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

**Opettajat:** Anna-Maija Ylimaula

**Opintokohteen kielet:** Finnish

**ECTS Credits:**
10

**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 or 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 I-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.
Read more about assessment criteria at the University of Oulu webpage.

Grading:
1-5. The evaluation is based on the quality of the learning diary and the delivered exercises.

Person responsible:
Professor Anna-Maija Ylimaula, University teacher Özlem Özer-Kemppainen

Working life cooperation:
-

Other information:
-

450504A: Practical Training, 3 - 6 op

Voimassaolo: 01.08.2005 -
Opiskelumuoto: Intermediate Studies
Laji: Course
Arvostelu: 1 - 5, pass, fail
Opettajat: Petri Aarnio
Opintokohteen kielet: Finnish

ECTS Credits:
3-6

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:
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.

Contents:
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.

Mode of delivery:
The student finds the placement for practical training by her- / himself.

Learning activities and teaching methods:
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.

Target group:
1st and 2nd year master level students
Prerequisites and co-requisites:
-
Recommended optional programme components:
-
Recommended or required reading:
-
Assessment methods and criteria:
The report of the practical training period submitted to the supervising laboratory. Read more about assessment criteria at the University of Oulu webpage.
Grading:
pass / fail
Person responsible:
University Teacher Petri Aarnio
Working life cooperation:
Yes. The student has the responsibility of finding the work placement him / herself
Other information:
-

A410221: Module of the Option, Planning and Urban Design, 30 op

Voimassaolo: 01.08.2005 -
Opiskelumuoto: Module of the Option
Laji: Study module
Arvostelu: 1 - 5, pass, fail
Opintokohteen kielet: Finnish

Ei opintojaksokuvauksia.

454522S: Urban Space Design, 10 op

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

ECTS Credits:
10
Language of instruction:
English
Timing:
Autumn term 1-2.
Learning outcomes:
After completing the course the student is able to recognize features of current interest within the design of public urban space, and to identify interaction between the built environment, society, culture, technology and nature. The student is able to demonstrate various programs, plans (including strategic projects) and aims for the development of the 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 urban 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.

Prerequisites and co-requisites:
-

Recommended optional programme components:
The Course is part of the module “Design-Led Urban Renewal”. The 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.
Read more about assessment criteria at the University of Oulu webpage.

Grading:
1-5

Person responsible:
Prof. Hennu Kjisik

Working life cooperation:
No

Other information:
-

455521S: Urban Space Detailing, 10 op

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

ECTS Credits:
10

Language of instruction:
English

Timing:
Autumn term 1 & 2

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:
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. 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).

Prerequisites and co-requisites:
-

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. Read more about assessment criteria at the University of Oulu webpage.

Grading:
1-5

Person responsible:
University Lecturer Aulikki Herneoja.

Working life cooperation:
No

Other information:
-

455522S: Design in Urban Context, 10 op

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

ECTS Credits:
10

Language of instruction:
English

Timing:
Autumn term 1 & 2

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:
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. 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 and/or group tutoring

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

Prerequisites and co-requisites:
-

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. Read more about assessment criteria at the University of Oulu webpage.

Grading:
1-5

Person responsible:
University Lecturer Aulikki Herneoja

Working life cooperation:
No

Other information:
-

A410272: Advanced Module, Building Design, 30 op

Voimassaolo: 01.08.2005 - 
Opiskelumuoto: Advanced Module
Laji: Study module
Arvostelu: 1 - 5, pass, fail
Opintokohteen kielet: Finnish

Ei opintojaksokuvauksia.

Compulsory courses

451515S: Restoration, 15 op

Opiskelumuoto: Advanced Studies
Laji: Course
Arvostelu: 1 - 5, pass, fail
ECTS Credits:
15

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. Read more about assessment criteria at the University of Oulu webpage.

Grading:
1-5. The evaluation is based on the quality of the learning diary and the delivered exercises.

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

Working life cooperation:
-

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

Voimassaolo: 01.08.2012 -
Opiskelumuoto: Advanced Studies
Laji: Course
Arvostelu: 1 - 5, pass, fail
Opettajat: Anna-Maija Ylimaula
Opintokohteen kielet: Finnish

ECTS Credits:
10-15

Language of instruction:
Finnish

Timing:
Autumn term

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

Mode of delivery:
Face-to-face teaching and independent studying.

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

Target group:
2nd year master level students

Prerequisites and co-requisites:
Renovation of Housing Blocks course

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

Assessment methods and criteria:
Design project and exam.
Read more about assessment criteria at the University of Oulu webpage.

Grading:
1 – 5

Person responsible:
Professor Anna-Maija Ylimaula, N.N.

Working life cooperation:
None

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

Voimassaolo: 01.08.2006 -
Opiskelumuoto: Advanced Studies
Laji: Course
Arvostelu: 1 - 5, pass, fail
Opettajat: Janne Pihlajaniemi, Anna-Maija Ylimaula
Opintokohteen kielet: Finnish

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:

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. Read more about assessment criteria at the University of Oulu webpage.

Grading:
1-5

Person responsible:
Professor Anna-Maija Ylimaula, Doctoral student, architect Janne Pihlajaniemi

Working life cooperation:
None

Other information:
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. 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.

Mode of delivery:
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 students have to cover their own expenses of the excursion.

Learning activities and teaching methods:
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.

Target group:
1st and 2nd year master level students

Prerequisites and co-requisites:
- 

Recommended optional programme components:
The study trip is a compulsory study unit in the master's degree.

Recommended or required reading:
The excursion program should reflect the contents of the given lecture courses, covering examples of history, contemporary architecture and town planning.

Assessment methods and criteria:
Attending the study trip and preparing the excursion program and guide.
Read more about assessment criteria at the University of Oulu webpage.

Grading:
pass

Person responsible:
Professor Rainer Mahlamäki

Working life cooperation:
- 

Other information:
A410247: Complementary Module, Building Design, 30 op

Voimassaolo: 01.08.2005 -
Opiskelumuoto: Supplementary Module
Laji: Study module
Arvostelu: 1 - 5, pass, fail
Opintokohteen kielet: Finnish

Ei opintojaksokuvauksia.

Compulsory courses

452504A: Contemporary Architecture IV, 15 op

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

ECTS Credits:
15

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. After completing the course the student has the skills to sketch a medium-size (approx. 1000 -8000 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.

Mode of delivery:
Lectures and face-to-face teaching

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.

Target group:
4th year master students. The course is intended for students in the Architectural Design and Building Design orientations.

Prerequisites and co-requisites:
Contemporary architecture III or bachelor's degree.

Recommended optional programme components:
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.

**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. Read more about [assessment criteria](#) at the University of Oulu webpage.

**Grading:**
1 - 5, fail

**Person responsible:**
Professor Rainer Mahlamäki

**Working life cooperation:**
-

**Other information:**
-

453533A: Large scale structures, 5 op

**Voimassaolo:** 01.08.2011 -
**Opiskelumuoto:** Intermediate Studies
**Laji:** Course
**Arvostelu:** 1 - 5, pass, fail
**Opintokohteen kielet:** Finnish

**ECTS Credits:**
5

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

**Timing:**
Autumn term 2

**Learning outcomes:**
Upon completion of 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 mainly on independent studies. Some contact teaching is given.

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

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

**Prerequisites and co-requisites:**
Bachelor level courses in structures and building sciences

**Recommended optional programme components:**
Design work is linked to modern architecture IV.

**Recommended or required reading:**
Study compendiums. Other course literature will be announced separately.
Assessment methods and criteria:
Design project and exam. Evaluation is based on exam. Read more about assessment criteria at the University of Oulu webpage.

Grading:
1-5

Person responsible:
University teacher Jussi Tervaoja.

Working life cooperation:
No

Other information:
-

455517S: Architectural Lighting, 5 op

Voimassaolo: 01.08.2005 -
Opiskelumuoto: Advanced Studies
Laji: Course
Arvostelu: 1 - 5, pass, fail
Opettajat: Henrika Pihlajaniemi
Opintokohteen kielet: English

ECTS Credits:
5

Language of instruction:
English

Timing:
Spring term 1 & 2

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 objective of the course is to study the relationship between architecture and light. The studies cover both natural and artificial light. 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).

Prerequisites and co-requisites:
-
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. Read more about assessment criteria at the University of Oulu webpage.

Grading:
1-5

Person responsible:
University Teacher Henrika Pihlajaniemi

Working life cooperation:
No

Other information:
-

455517A: Interior Design, 5 - 10 op
Voimassaolo: 01.08.2012 -
Opiskelumuoto: Intermediate Studies
Laji: Course
Arvostelu: 1 - 5, pass, fail
Opettaja: Aulikki Herneoja
Opintokohteen kielet: Finnish
Leikkaavuudet:
    ay455517A  Interior Design (OPEN UNI) 5.0 op

ECTS Credits:
5-10

Language of instruction:
English

Timing:
Spring term 1 & 2

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:
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. 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.
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).

**Prerequisites and co-requisites:**
-

**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.

Read more about [assessment criteria](https://www.oulu.fi/) at the University of Oulu webpage.

**Grading:**
1-5

**Person responsible:**
University Lecturer Aulikki Herneoja

**Working life cooperation:**
No

### A410222: Module of the Option, Building Design, 30 op

- **Voimassaolo:** 01.08.2005 -
- **Opiskelumuoto:** Module of the Option
- **Laji:** Study module
- **Arvostelu:** 1 - 5, pass, fail
- **Opintokohteen kielet:** Finnish

Ei opintojaksokuvauksia.

**Compulsory courses**

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

- **Voimassaolo:** 01.08.2013 -
- **Opiskelumuoto:** Intermediate Studies
- **Laji:** Course
- **Arvostelu:** 1 - 5, pass, fail
- **Opettajat:** Jouni Koiso-Kanttila
- **Opintokohteen kielet:** Finnish

**ECTS Credits:**
4
Language of instruction:
Finnish

Timing:
Autumn term

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. 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.

Mode of delivery:
lectures, energy calculation exercises and exam

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

Target group:
1st year master level students

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

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
Read more about assessment criteria at the University of Oulu webpage.

Grading:
1-5

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

Working life cooperation:
No

Other information:
not applicable

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

Voimassaolo: 01.08.2005 - 31.07.2017
Opiskelumuoto: Intermediate Studies
Laji: Course
Arvostelu: 1 - 5, pass, fail
Opettajat: Jouni Koiso-Kanttila
Opintokohteen kielet: Finnish

ECTS Credits:
3-10

Language of instruction:
Finnish

Timing:
autumn terms
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. To introduce students to the essential issues within architectural construction and energy efficiency of buildings.

Mode of delivery:
Project work in studio

Learning activities and teaching methods:
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. Read more about assessment criteria at the University of Oulu webpage.

Grading:
1 – 5

Person responsible:
Professor Jouni Koiso-Kanttila

Working life cooperation:
No

Other information:
not applicable

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

Voimassaolo: 01.08.2005 -
Opiskelumuoto: Advanced Studies
Laij: Course
Arvostelu: 1 - 5, pass, fail
Opettajat: Anu-Sisko Soikkeli
Opintokohteen kielet: Finnish

ECTS Credits:
8-10

Language of instruction:
Finnish

Timing:
Autumn term 1-2

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. The aim of the course is to provide skills for completing a renovation plan for a typical apartment house.

Mode of delivery:
Face-to-face teaching.

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

Prerequisites and co-requisites:
Design of Apartment Blocks –course.

Recommended optional programme components:
Energy Efficient Buildings course

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

Assessment methods and criteria:
Design project and exam.
Read more about assessment criteria at the University of Oulu webpage.

Grading:
1-5

Person responsible:
Senior lecturer Anu Soikkeli

Working life cooperation:
No

Other information:
-
The best timing for practical training in architect’s office is the summer after the 3rd or 4th year.

**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.

**Contents:**
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.

**Mode of delivery:**
The student finds the placement for practical training by her- / himself.

**Learning activities and teaching methods:**
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.

**Target group:**
1st and 2nd year master level students

**Prerequisites and co-requisites:**
-

**Recommended optional programme components:**
-

**Recommended or required reading:**
-

**Assessment methods and criteria:**
The report of the practical training period submitted to the supervising laboratory. Read more about [assessment criteria](#) at the University of Oulu webpage.

**Grading:**
pass / fail

**Person responsible:**
University Teacher Petri Aarnio

**Working life cooperation:**
Yes. The student has the responsibility of finding the work placement him / herself

**Other information:**
-

*Select courses in the following list, totaling 5-10 cr*

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

- **Voimassaolo:** 01.08.2005 -
- **Opiskelumuoto:** Advanced Studies
- **Laji:** Course
- **Arvostelu:** 1 - 5, pass, fail
- **Opettajat:** Anna-Maija Ylimaula
- **Opintokohteen kielet:** Finnish
- **Voidaan suorittaa useasti:** Kyllä

**ECTS Credits:**
2-10
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

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. Read more about assessment criteria at the University of Oulu webpage.

Grading:
1-5

Person responsible:
Professor Anna-Maija Ylimaula

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

Opiskelumuoto: Advanced Studies
Laji: Course
Arvostelu: 1 - 5, pass, fail
Opettajat: Jouni Koiso-Kanttila
Opintokohteen kielet: Finnish
Voidaan suorittaa useasti: Kyllä

ECTS Credits:
2-10

Language of instruction:
Finnish

Timing:
varying

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

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

**Prerequisites and co-requisites:**
-

**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.
Read more about [assessment criteria](#) at the University of Oulu webpage.

**Grading:**
1 – 5

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

**Working life cooperation:**
No

**Other information:**
not applicable

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**A410273: Advanced Module, Architectural Design, 30 op**

**Voimassaolo:** 01.08.2005 -

**Opiskelumuoto:** Advanced Module

**Laji:** Study module

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

**Opintokohteen kielet:** Finnish

Ei opintojaksokuvauksia.

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**Compulsory courses**

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

**Opiskelumuoto:** Advanced Studies

**Laji:** Course

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

**Opettajat:** Mahlamäki Rainer

**Opintokohteen kielet:** Finnish

**ECTS Credits:**
15

**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. 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.

Mode of delivery:
Lectures and face-to-face teaching

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.

Target group:
5th year master students

Prerequisites and co-requisites:
Contemporary architecture IV or equivalent course.

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

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

Assessment methods and criteria:
The grading is based on evaluation of the achieved goals of the task, quality of the exercise. Read more about assessment criteria at the University of Oulu webpage.

Grading:
1 - 5, fail

Person responsible:
Professor Rainer Mahlamäki

Working life cooperation:
-

Other information:
-

455560S: Extension Course in Architectural Design, 10 op

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

ECTS Credits:
2-10

Language of instruction:
Finnish or English

Timing:
Flexible

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. The student is able to apply the principles of sustainability. Student is able to apply research skills in his / her exercise (for example research by design).

Contents:
The aim of the course is to offer the student the possibility to go deeply into a special issue of design in a literary and/or a visual thesis and in design exercise according to his/her own choice. Chosen design issue should be attached to the theme of Contemporary Architecture V-course exercise. The content of the course is defined individually in co-operation with the teacher. The student completes a literary and/or a visual thesis and 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).

**Prerequisites and co-requisites:**
-

**Recommended optional programme components:**
Belongs to master level Advanced Architectural Design-module. Extension Course in Architectural Design-course is suggested to proceed together with course Contemporary Architecture V.

**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. Read more about assessment criteria at the University of Oulu webpage.

**Grading:**
1-5

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

**Working life cooperation:**
No

**Other information:**
-

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

Voimassaolo: 01.08.2006 -
Opiskelumuoto: Advanced Studies
Laji: Course
Arvostelu: 1 - 5, pass, fail
Opettajat: Janne Pihlajaniemi, Anna-Maija Ylimaula
Opintokohteen kielet: Finnish

**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:

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. Read more about assessment criteria at the University of Oulu webpage.

Grading:
1-5

Person responsible:
Professor Anna-Maija Ylimaula, Doctoral student, architect Janne Pihlajaniemi

Working life cooperation:
None

Other information:

450502A: Excursion Abroad, 2 op

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

ECTS Credits:
2
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. 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.

Mode of delivery:
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 students have to cover their own expenses of the excursion.

Learning activities and teaching methods:
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.

Target group:
1st and 2nd year master level students

Prerequisites and co-requisites:
-

Recommended optional programme components:
The study trip is a compulsory study unit in the master's degree.

Recommended or required reading:
The excursion program should reflect the contents of the given lecture courses, covering examples of history, contemporary architecture and town planning.

Assessment methods and criteria:
Attending the study trip and preparing the excursion program and guide.
Read more about assessment criteria at the University of Oulu webpage.

Grading:
pass

Person responsible:
Professor Rainer Mahlamäki

Working life cooperation:
-

Other information:
-

450504A: Practical Training, 3 - 6 op

Voimassaolo: 01.08.2005 -
Opiskelumuoto: Intermediate Studies
Laji: Course
Arvostelu: 1 - 5, pass, fail
Opettajat: Petri Aarnio
Opintokohteen kielet: Finnish
ECTS Credits:
3-6

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:
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.

Contents:
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.

Mode of delivery:
The student finds the placement for practical training by her- / himself.

Learning activities and teaching methods:
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.

Target group:
1st and 2nd year master level students

Prerequisites and co-requisites:
-

Recommended optional programme components:
-

Recommended or required reading:
-

Assessment methods and criteria:
The report of the practical training period submitted to the supervising laboratory. Read more about assessment criteria at the University of Oulu webpage.

Grading:
pass / fail

Person responsible:
University Teacher Petri Aarnio

Working life cooperation:
Yes. The student has the responsibility of finding the work placement him / herself

Other information:
-

A410248: Complementary Module, Architectural Design, 30 op

Voimassaolo: 01.08.2005 -
Opiskelumuoto: Supplementary Module
Laji: Study module
Arvostelu: 1 - 5, pass, fail
Opintokohteen kielet: Finnish

Ei opintojaksokuvauksia.
Compulsory courses

452504A: Contemporary Architecture IV, 15 op

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

ECTS Credits:
15

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. After completing the course the student has the skills to sketch a medium- size (approx. 1000 -8000 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 as 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.

Mode of delivery:
Lectures and face-to-face teaching

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.

Target group:
4th year master students. The course is intended for students in the Architectural Design and Building Design orientations.

Prerequisites and co-requisites:
Contemporary architecture III or bachelor's degree.

Recommended optional programme components:
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.

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. Read more about assessment criteria at the University of Oulu webpage.

Grading:
1 - 5, fail

Person responsible:
Learning outcomes:
Upon completion of 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 mainly on independent studies. Some contact teaching is given.

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

Target group:
1st year master level students.

Prerequisites and co-requisites:
Bachelor level courses in structures and building sciences

Recommended optional programme components:
Design work is linked to modern architecture IV.

Recommended or required reading:
Study compendiums. Other course literature will be announced separately.

Assessment methods and criteria:
Design project and exam. Evaluation is based on exam.
Read more about assessment criteria at the University of Oulu webpage.

Grading:
1-5

Person responsible:
University teacher Jussi Tervaoja.

Working life cooperation:
No

Other information:
-
455517S: Architectural Lighting, 5 op

Voimassaolo: 01.08.2005 -
Opiskelumuoto: Advanced Studies
Laji: Course
Arvostelu: 1 - 5, pass, fail
Opettajat: Henrika Pihlajaniemi
Opintokohteen kielet: English

ECTS Credits: 5
Language of instruction: English
Timing: Spring term 1 & 2

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 objective of the course is to study the relationship between architecture and light. The studies cover both natural and artificial light. 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).

Prerequisites and co-requisites:
-

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.
Read more about assessment criteria at the University of Oulu webpage.

Grading: 1-5

Person responsible:
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:
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. 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).

Prerequisites and co-requisites:
-
**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. Read more about assessment criteria at the University of Oulu webpage.

**Grading:**
1-5

**Person responsible:**
University Lecturer Aulikki Herneoja

**Working life cooperation:**
No

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**A410223: Module of the Option, Architectural Design, 30 op**

**Voimassaolo:** 01.08.2005 -
**Opiskelumuoto:** Module of the Option
**Laji:** Study module
**Arvostelu:** 1 - 5, pass, fail
**Opintokohteen kielet:** Finnish

Ei opintojaksokuvauksia.

**Compulsory courses**

**454522S: Urban Space Design, 10 op**

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

**ECTS Credits:**
10

**Language of instruction:**
English

**Timing:**
Autumn term 1-2.

**Learning outcomes:**
After completing the course the student is able to recognize features of current interest within the design of public urban space, and to identify interaction between the built environment, society, culture, technology and nature. The student is able to demonstrate various programs, plans (including strategic projects) and aims for the development of the 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 urban 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.

**Prerequisites and co-requisites:**
-

**Recommended optional programme components:**
The Course is part of the module “Design-Led Urban Renewal”. The 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. Read more about [assessment criteria](#) at the University of Oulu webpage.

**Grading:**
1-5

**Person responsible:**
Prof. Hennu Kjisik

**Working life cooperation:**
No

**Other information:**
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**455521S: Urban Space Detailing, 10 op**

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

**ECTS Credits:**
10

**Language of instruction:**
English

**Timing:**
Autumn term 1 & 2

**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:**
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. 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).

**Prerequisites and co-requisites:**
-

**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.

Read more about [assessment criteria](#) at the University of Oulu webpage.

**Grading:**
1-5

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

**Working life cooperation:**
No

**Other information:**
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**455522S: Design in Urban Context, 10 op**

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

**ECTS Credits:**
10

**Language of instruction:**
English

**Timing:**
Autumn term 1 & 2

**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:
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. 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).

Prerequisites and co-requisites:
-

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. Read more about assessment criteria at the University of Oulu webpage.

Grading:
1-5

Person responsible:
University Lecturer Aulikki Herneoja

Working life cooperation:
No

Other information:
-

A410296: Optional Studies, Master of Science (Architecture), 30 op

Voimassaolo: 01.08.2005 -
Opiskelumuoto: Optional Studies
Laji: Study module
Arvostelu: 1 - 5, pass, fail
Opintokohteen kielet: Finnish

Ei opintojaksokuvauksia.

Optional Studies

456527S: Condition Assessment of Buildings, 5 op

Voimassaolo: 01.08.2013 -
Opiskelumuoto: Advanced Studies
Laji: Course
Arvostelu: 1 - 5, pass, fail
451551S: History of Interior Design / Historical interiors, 5 op

Opiskelumuoto: Advanced Studies
Laji: Course
Arvostelu: 1 - 5, pass, fail
Opettajat: Anu-Sisko Soikkeli
Opintokohteen kielet: Finnish

Leikkaavuudet:
ay451551S  History of Interior Design and Historical interiors (OPEN UNI)  5.0 op

Voidaan suorittaa useasti: Kyllä

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

Opiskelumuoto: Advanced Studies
Laji: Course
Arvostelu: 1 - 5, pass, fail
Opettajat: Virpi Harju
Opintokohteen kielet: Finnish

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

Voidaan suorittaa useasti: Kyllä

ECTS Credits:
5

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

Recommended optional programme components:
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
Read more about assessment criteria at the University of Oulu webpage.

Grading:
1-5

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

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

ECTS Credits:
2-10

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

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. Read more about assessment criteria at the University of Oulu webpage.

Grading:
1-5

Person responsible:
Professor Anna-Maija Ylimaula

452550S: Varying Courses of Contemporary Architecture, 2 - 10 op

Voimassaolo: 01.08.2005 -
Opiskelumuoto: Advanced Studies
Laji: Course
Arvostelu: 1 - 5, pass, fail
Opettajat: Mahlamäki Rainer
Opintokohteen kielet: Finnish
Voidaan suorittaa useasti: Kyllä
ECTS Credits:  
2-10  
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. 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.  
Mode of delivery:  
Face-to-face teaching, workshops.  
Learning activities and teaching methods:  
The completed works are presented in an open critique. Evaluation is based on the processing of the exercise.  
Target group:  
master level students  
Prerequisites and co-requisites:  
bachelor´s degree  
Recommended or required reading:  
List of articles on contemporary architecture and projects (will be announced at the beginning of the course).  
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. Read more about assessment criteria at the University of Oulu webpage.  
Grading:  
1-5, fail  
Person responsible:  
Professor Rainer Mahlamäki  
Working life cooperation:  
-  
Other information:  
-  
453550S: Varying Courses of Architectural Construction, 5 - 10 op  
Opiskelumuoto: Advanced Studies  
Laji: Course  
Arvostelu: 1 - 5, pass, fail  
Opettajat: Jouni Koiso-Kanttila  
Opintokohteen kielet: Finnish
ECTS Credits:
2-10

Language of instruction:
Finnish

Timing:
varying

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

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

Prerequisites and co-requisites:
-

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. Read more about assessment criteria at the University of Oulu webpage.

Grading:
1 – 5

Person responsible:
Professor Jouni Koiso-Kanttila

Working life cooperation:
No

Other information:
not applicable

454550S: Varying Courses of Urban Design, 2 - 10 op

Voimassaolo: 01.08.2005 -
Opiskelumuoto: Advanced Studies
Laji: Course
Arvostelu: 1 - 5, pass, fail
Opettajat: Hennu Kjisik, Hentilä, Helka-Liisa
Opintokohteen kielet: Finnish
Voidaan suorittaa useasti: Kyllä

ECTS Credits:
2-10

Language of instruction:
Finnish or English.

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

Learning outcomes:
After completing the course the student is able to 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 a 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.

Prerequisites and co-requisites:
-

Recommended optional programme components:
The course is part of the 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 a thematic design studio. The assessment is based on the design project. Grading is based on the exercise.
Read more about assessment criteria at the University of Oulu webpage.

Grading:
1-5

Person responsible:

Working life cooperation:
No

Other information:
The student can also include the course into her/his optional studies if not included in the module "Sustainable Urban Development".

300002M: Advanced Information Skills, 1 op

Voi massaalo: 01.08.2009 -
Opiskelumuoto: Other Studies
Laji: Course
Vastuuyksikkö: Faculty of Science
Arvostelu: 1 - 5, pass, fail
Opettajat: Sassali, Jani Henrik
Opintokohteen kielet: Finnish

ECTS Credits:
1 ECTS credit

Language of instruction:
Finnish

Timing:
Intended for degree students working on their diploma/master’s thesis. The course unit is held once in the autumn and once in the spring semester.

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

Contents:
Scientific information retrieval, evaluation of search results and information sources, information search on subject areas of diploma/master’s thesis.

Mode of delivery:
Blended teaching: lectures, web-based learning material and exercises in Optima environment, personal guidance

Learning activities and teaching methods:
Lectures 6-12h, self-study 20h, personal guidance 1h

Target group:
The course is optional for students of the Faculty of Science and the Faculty of Technology.

Prerequisites and co-requisites:
No

Recommended optional programme components:
No

Recommended or required reading:
Parts from the following chapters of the Toolbox of Research:
https://wiki.oulu.fi/display/jotut/1.1+Tieteellinen+tiedonhankinta
https://wiki.oulu.fi/display/jotut/1.3.1+Tieteellisiin+julkaisuihin+pohjautuva+arviointi

Assessment methods and criteria:
Passing the course requires participation in the lectures (6h) and personal guidance and successful completion of the course assignments. Read more about assessment criteria at the University of Oulu webpage.

Grading:
pass/fail

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

Working life cooperation:
No

450099S: Master's Thesis, 30 op

Opiskelumuoto: Advanced Studies
Laji: Diploma thesis
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 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. Read more about assessment criteria at the University of Oulu webpage.  
**Grading:** 1 - 5  
**Person responsible:** Professor n.n. in the supervising laboratory  
**Working life cooperation:** Yes  
**Other information:** separate detailed diploma theisis instructions are published on the web pages of the Department of Architecture.

450014S: The Maturity Test for Master's Degree, 0 op  
**Opiskelumuoto:** Advanced Studies  
**Laji:** Course  
**Arvostelu:** 1 - 5, pass, fail  
**Opintokohteen kielet:** Finnish  

**ECTS Credits:** 0  
**Language of instruction:** Finnish / Swedish / English  
**Timing:** flexible  
**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:** The essay is written on the subject of the thesis work.
**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. Read more about assessment criteria at the University of Oulu webpage.

**Grading:**
pass / fail

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

**Working life cooperation:**
-

**Other information:**
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**A410273: Advanced Module, Architectural Design, 30 op**

**Voimassaolo:** 01.08.2005 -

**Opiskelumuoto:** Advanced Module

**Laji:** Study module

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

**Opintokohteen kielet:** Finnish

Ei opintojaksokuvauksia.

*Compulsory courses*

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

**Opiskelumuoto:** Advanced Studies

**Laji:** Course

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

**Opettajat:** Mahlamäki Rainer

**Opintokohteen kielet:** Finnish

**ECTS Credits:**
15

**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. 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.

**Mode of delivery:**
Lectures and face-to-face teaching

**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.

**Target group:**
5th year master students

**Prerequisites and co-requisites:**
Contemporary architecture IV or equivalent course.

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

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

**Assessment methods and criteria:**
The grading is based on evaluation of the achieved goals of the task, quality of the exercise.
Read more about [assessment criteria](https://www.oulu.fi/) at the University of Oulu webpage.

**Grading:**
1 - 5, fail

**Person responsible:**
Professor Rainer Mahlamäki

**Working life cooperation:**
-

**Other information:**
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455560S: Extension Course in Architectural Design, 10 op

**Opiskelumuoto:** Advanced Studies

**Laji:** Course

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

**Opettajat:** Aulikki Herneoja

**Opintokohteen kielet:** English

**ECTS Credits:**
2-10

**Language of instruction:**
Finnish or English

**Timing:**
Flexible

**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. The student is able to apply the principles of sustainability. Student is able to apply research skills in his / her exercise (for example research by design).

**Contents:**
The aim of the course is to offer the student the possibility to go deeply into a special issue of design in a literary and /or a visual thesis and in design exercise according to his / her own choice. Chosen design
issue should be attached to the theme of Contemporary Architecture V-course exercise. The content of the course is defined individually in co-operation with the teacher. The student completes a literary and/or a visual thesis and 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).

**Prerequisites and co-requisites:**
-

**Recommended optional programme components:**
Belongs to master level Advanced Architectural Design -module. Extension Course in Architectural Design -course is suggested to proceed together with course Contemporary Architecture V.

**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.

Read more about assessment criteria at the University of Oulu webpage.

**Grading:**
1-5

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

**Working life cooperation:**
No

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

**Voimassaolo:** 01.08.2006 -
**Opiskelumuoto:** Advanced Studies
**Laji:** Course
**Arvostelu:** 1 - 5, pass, fail
**Opettajat:** Janne Pihlajaniemi, Anna-Maija Ylimaula
**Opintokohteen kielet:** Finnish

**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:
-

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 Anna-Maija Ylimaula, Doctoral student, architect Janne Pihlajaniemi

Working life cooperation:
None

Other information:
-

450502A: Excursion Abroad, 2 op

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

ECTS Credits:
2

Language of instruction:
Finnish/English

Timing:
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. 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.

Mode of delivery:
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 students have to cover their own expenses of the excursion.

Learning activities and teaching methods:
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.

Target group:
1st and 2nd year master level students

Prerequisites and co-requisites:
-

Recommended optional programme components:
The study trip is a compulsory study unit in the master's degree.

Recommended or required reading:
The excursion program should reflect the contents of the given lecture courses, covering examples of history, contemporary architecture and town planning.

Assessment methods and criteria:
Attending the study trip and preparing the excursion program and guide. Read more about assessment criteria at the University of Oulu webpage.

Grading:
pass

Person responsible:
Professor Rainer Mahlamäki

Working life cooperation:
-

Other information:
-

450504A: Practical Training, 3 - 6 op

Voimassaolo: 01.08.2005 -
Opiskelumuoto: Intermediate Studies
Laji: Course
Arvostelu: 1 - 5, pass, fail
Opettajat: Petri Aarnio
Opintokohteen kielet: Finnish

ECTS Credits:
3-6

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

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.

Contents:
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.

Mode of delivery:
The student finds the placement for practical training by her- / himself.

Learning activities and teaching methods:
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.

Target group:
1st and 2nd year master level students

Prerequisites and co-requisites:
-

Recommended optional programme components:
-

Recommended or required reading:
-

Assessment methods and criteria:
The report of the practical training period submitted to the supervising laboratory. Read more about assessment criteria at the University of Oulu webpage.

Grading:
pass / fail

Person responsible:
University Teacher Petri Aarnio

Working life cooperation:
Yes. The student has the responsibility of finding the work placement him / herself

Other information:
-

A410248: Complementary Module, Architectural Design, 30 op

Voimassaolo: 01.08.2005 -
Opiskelumuoto: Supplementary Module
Laji: Study module
Arvostelu: 1 - 5, pass, fail
Opintokohteen kielet: Finnish

Ei opintojaksookuvauksia.

Compulsory courses

452504A: Contemporary Architecture IV, 15 op
Learning outcomes:
The objective of the course is to initiate the students through lectures and exercises into the architecture and designing of public buildings. After completing the course the student has the skills to sketch a medium-size (approx. 1000 -8000 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.

Mode of delivery:
Lectures and face-to-face teaching

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.

Target group:
4th year master students. The course is intended for students in the Architectural Design and Building Design orientations.

Prerequisites and co-requisites:
Contemporary architecture III or bachelor's degree.

Recommended optional programme components:
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.

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. Read more about assessment criteria at the University of Oulu webpage.

Grading:
1 - 5, fail

Person responsible:
Professor Rainer Mahlamäki
453533A: Large scale structures, 5 op

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

ECTS Credits:
5

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

Timing:
Autumn term 2

Learning outcomes:
Upon completion of 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 mainly on independent studies. Some contact teaching is given.

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

Target group:
1st year master level students.

Prerequisites and co-requisites:
Bachelor level courses in structures and building sciencies

Recommended optional programme components:
Design work is linked to modern architecture IV.

Recommended or required reading:
Study compendiums. Other course literature will be announced separately.

Assessment methods and criteria:
Design project and exam. Evaluation is based on exam.
Read more about assessment criteria at the University of Oulu webpage.

Grading:
1-5

Person responsible:
University teacher Jussi Tervaoja.

Working life cooperation:
No

Other information:
-
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 objective of the course is to study the relationship between architecture and light. The studies cover both natural and artificial light. 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/group tutoring.

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

Prerequisites and co-requisites:

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. Read more about assessment criteria at the University of Oulu webpage.

Grading:
1-5

Person responsible:
University Teacher Henrika Pihlajaniemi

Working life cooperation:
455517A: Interior Design, 5 - 10 op

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

ECTS Credits:
5-10

Language of instruction:
English

Timing:
Spring term 1 & 2

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:
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. 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).

Prerequisites and co-requisites:
-

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. Read more about assessment criteria at the University of Oulu webpage.

**Grading:**
1-5

**Person responsible:**
University Lecturer Aulikki Herneoja

**Working life cooperation:**
No

### A410223: Module of the Option, Architectural Design, 30 op

**Voimassaolo:** 01.08.2005 -
**Opiskelumuoto:** Module of the Option
**Laji:** Study module
**Arvostelu:** 1 - 5, pass, fail
**Opintokohteen kielet:** Finnish

Ei opintojaksokuvauksia.

**Compulsory courses**

### 454522S: Urban Space Design, 10 op

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

**ECTS Credits:**
10

**Language of instruction:**
English

**Timing:**
Autumn term 1-2.

**Learning outcomes:**
After completing the course the student is able to recognize features of current interest within the design of public urban space, and to identify interaction between the built environment, society, culture, technology and nature. The student is able to demonstrate various programs, plans (including strategic projects) and aims for the development of the 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 urban 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.

**Prerequisites and co-requisites:**
-

**Recommended optional programme components:**
The Course is part of the module “Design-Led Urban Renewal”. The 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.  
Read more about assessment criteria at the University of Oulu webpage.

**Grading:**  
1-5

**Person responsible:**  
Prof. Hennu Kjisik

**Working life cooperation:**  
No

**Other information:**
-

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**455521S: Urban Space Detailing, 10 op**

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

**Laji:** Course

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

**Opettajat:** Aulikki Herneoja

**Opintokohteen kielet:** English

**ECTS Credits:**
10

**Language of instruction:**
English

**Timing:**
Autumn term 1 & 2

**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:**
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. 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).

**Prerequisites and co-requisites:**
-

**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.
Read more about [assessment criteria](#) at the University of Oulu webpage.

**Grading:**
1-5

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

**Working life cooperation:**
No

**Other information:**
-

**455522S: Design in Urban Context, 10 op**

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

**ECTS Credits:**
10

**Language of instruction:**
English

**Timing:**
Autumn term 1 & 2

**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:**
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. 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).

Prerequisites and co-requisites:

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. Read more about assessment criteria at the University of Oulu webpage.

Grading:
1-5

Person responsible:
University Lecturer Aulikki Herneoja

Working life cooperation:
No

Other information:

A410296: Optional Studies, Master of Science (Architecture), 30 op

Voimassaolo: 01.08.2005 -
Opiskelumuoto: Optional Studies
Laji: Study module
Arvostelu: 1 - 5, pass, fail
Opintokohteen kielet: Finnish

Ei opintojaksokuvauksia.

Optional Studies

456527S: Condition Assessment of Buildings, 5 op

Voimassaolo: 01.08.2013 -
Opiskelumuoto: Advanced Studies
Laji: Course
Arvostelu: 1 - 5, pass, fail
Opettajat: Anu-Sisko Soikkeli
Opintokhothen kielet: Finnish

Ei opintojaksokuvauksia.

451513S: History of Interior Design / Historical interiors, 5 op

Opiskelumuoto: Advanced Studies
Laji: Course
Arvostelu: 1 - 5, pass, fail
Opettajat: Virpi Harju
Opintokhothen kielet: Finnish
Leikkaavuudet:
  ay451513S  History of Interior Design and Historical interiors (OPEN UNI)  5.0 op
Voidaan suorittaa useasti: Kyllä

Ei opintojaksokuvauksia.

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

Opiskelumuoto: Advanced Studies
Laji: Course
Arvostelu: 1 - 5, pass, fail
Opintokhothen kielet: Finnish
Leikkaavuudet:
  ay451523S  Traditional Japanese Architecture and Garden Art (OPEN UNI)  5.0 op
Voidaan suorittaa useasti: Kyllä

ECTS Credits:
5
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
Recommended optional programme components:
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
Read more about assessment criteria at the University of Oulu webpage.

Grading:
1-5

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

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

ECTS Credits:
2-10

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

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. Read more about assessment criteria at the University of Oulu webpage.

Grading:
1-5

Person responsible:
Professor Anna-Maija Ylimaula

452550S: Varying Courses of Contemporary Architecture, 2 - 10 op

Voimassaolo: 01.08.2005 -
Opiskelumuoto: Advanced Studies
Laji: Course
Arvostelu: 1 - 5, pass, fail
Opettajat: Mahlamäki Rainer
Opintokohteen kielet: Finnish
Voidaan suorittaa useasti: Kyllä

ECTS Credits:
2-10
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. 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.

Mode of delivery:
Face-to-face teaching, workshops.

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

Target group:
master level students

Prerequisites and co-requisites:
bachelor’s degree

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

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.

Grading:
1-5, fail

Person responsible:
Professor Rainer Mahlamäki

Working life cooperation:
-

Other information:
-

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

Opiskelumuoto: Advanced Studies
Laji: Course
Arvostelu: 1 - 5, pass, fail
Opettajat: Jouni Koiso-Kanttila
Opintokohteen kielet: Finnish
Voidaan suorittaa useasti: Kyllä
ECTS Credits:
2-10

Language of instruction:
Finnish

Timing:
varying

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

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

Prerequisites and co-requisites:
-

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.
Read more about assessment criteria at the University of Oulu webpage.

Grading:
1 – 5

Person responsible:
Professor Jouni Koiso-Kanttila

Working life cooperation:
No

Other information:
not applicable

454550S: Varying Courses of Urban Design, 2 - 10 op

Voimassaolo: 01.08.2005 -
Opiskelumuoto: Advanced Studies
Laji: Course
Arvostelu: 1 - 5, pass, fail
Opettajat: Hennu Kjisik, Hentilä, Helka-Liisa
Opintokohteen kielet: Finnish
Voidaan suorittaa useasti: Kyllä

ECTS Credits:
2-10

Language of instruction:
Finnish or English.

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

Learning outcomes:
After completing the course the student is able to 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 a 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.

Prerequisites and co-requisites:
-

Recommended optional programme components:
The course is part of the 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 a thematic design studio. The assessment is based on the design project. Grading is based on the exercise.
Read more about assessment criteria at the University of Oulu webpage.

Grading:
1-5

Person responsible:

Working life cooperation:
No

Other information:
The student can also include the course into her/his optional studies if not included in the module "Sustainable Urban Development".

300002M: Advanced Information Skills, 1 op

Voimassaolo: 01.08.2009 -
Opiskelumuoto: Other Studies
Laji: Course
Vastuuyksikkö: Faculty of Science
Arvostelu: 1 - 5, pass, fail
Opettajat: Sassali, Jani Henrik
Opintokohteen kielet: Finnish

ECTS Credits:
1 ECTS credit

Language of instruction:
Finnish

Timing:
Intended for degree students working on their diploma/master's thesis. The course unit is held once in the autumn and once in the spring semester.

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

Contents:
Scientific information retrieval, evaluation of search results and information sources, information search on subject areas of diploma/master's thesis.

Mode of delivery:
Blended teaching: lectures, web-based learning material and exercises in Optima environment, personal guidance

Learning activities and teaching methods:
Lectures 6-12h, self-study 20h, personal guidance 1h

Target group:
The course is optional for students of the Faculty of Science and the Faculty of Technology.

Prerequisites and co-requisites:
No

Recommended optional programme components:
No

Recommended or required reading:
Parts from the following chapters of the Toolbox of Research:
https://wiki.oulu.fi/display/jotut/1.1+Tieteellinen+tiedonhankinta
https://wiki.oulu.fi/display/jotut/1.3.1+Tieteellisiin+julkaisuihin+pohjautuva+arviointi

Assessment methods and criteria:
Passing the course requires participation in the lectures (6h) and personal guidance and successful completion of the course assignments.

Grading:
pass/fail

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

Working life cooperation:
No
Language of instruction: Finnish/English

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

Learning outcomes:
Objective: The diploma 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.
Read more about assessment criteria at the University of Oulu webpage.

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.

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

Opiskelumuoto: Advanced Studies
Laji: Course
Arvostelu: 1 - 5, pass, fail
Opintokohteen kielet: Finnish

ECTS Credits:
0

Language of instruction:
Finnish / Swedish / English

Timing:
flexible

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:
The essay is written on the subject of the thesis work.

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. Read more about assessment criteria at the University of Oulu webpage.
Grading:
pass / fail
Person responsible:
Professor n.n. in the supervising laboratory
Working life cooperation:
- 
Other information:
- 

Tutkintorakenteisiin kuulumattomien opintokokonaisuuksien ja -jaksojen kuvaukset

456527A: Condition Assessment of Buildings, 5 op

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

ECTS Credits:
5
Language of instruction:
Finnish
Timing:
not specified, not every year
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 in situ and in laboratory circumstances. The course provides the student with facilities for making a condition assessment even in a demanding renovation project.
Mode of delivery:
Face-to-face teaching.
Learning activities and teaching methods:
Lectures, laboratory exercises, group work, examination.
Target group:
Master level students.
Prerequisites and co-requisites:
- 
Recommended optional programme components:
- 

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

Assessment methods and criteria:
Design project and exam.
Read more about assessment criteria at the University of Oulu webpage.

Grading:
1-5

Person responsible:
Senior lecturer Anu Soikkeli

Working life cooperation:
No

Other information:
-

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

Opiskelumuoto: Intermediate Studies
Laji: Course
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.

Assessment methods and criteria:
Read more about assessment criteria at the University of Oulu webpage.

450541A: Photoshop, Advanced Photomanipulation, 2 op

Voimassaolo: 01.08.2011 -
Opiskelumuoto: Intermediate Studies
Laji: Course
Arvostelu: 1 - 5, pass, fail
Opettajat: Asko Leinonen
Opintokohteen kielet: Finnish

Language of instruction:
Finnish

ECTS Credits:
2

Timing:
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

Prerequisites and co-requisites:

Recommended optional programme components:

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).
Read more about assessment criteria at the University of Oulu webpage.

Grading:
1-5

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.

450542A: Revit Architecture Advanced, 1 op

Voimassaolo: 01.08.2011 -
Opiskelumuoto: Intermediate Studies
Laji: Course
Arvostelu: 1 - 5, pass, fail
Opettajat: Emma Hulaud
Opintokohteen kielet: Finnish

ECTS Credits:
1

Language of instruction:
Finnish

Timing:
Flexible

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)

Learning activities and teaching methods:
Lectures and practical work.

Target group:

Prerequisites and co-requisites:
450532P

Recommended optional programme components:
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).
Read more about assessment criteria at the University of Oulu webpage.

Grading:
1-5

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.

450525P: Techniques of Visual Presentation in Architecture, 2 op

Voimassaolo: 01.08.2005 -
Opiskelumuoto: Basic Studies
Laji: Course
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

Assessment methods and criteria:
Read more about assessment criteria at the University of Oulu webpage.

Person responsible:
Prof. Matti Sanaksenaho

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

Opiskelumuoto: Advanced Studies
Laji: Course
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 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. 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).

Prerequisites and co-requisites:

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.

Grading:
1-5

Person responsible:
University Lecturer Aulikki Herneoja.

Working life cooperation:
No

Other information:

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

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

ECTS Credits:
2-10

Language of instruction:
Finnish/English

Timing:
Flexible
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 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. 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.

Prerequisites and co-requisites:
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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.
Read more about assessment criteria at the University of Oulu webpage.

Grading:
1-5

Person responsible:
University Lecturer Aulikki Herneoja.

Working life cooperation:
No

Other information:
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