

# Opasraportti

## OSA - Architecture (2017 - 2018)

### Tutkintorakenteet

#### Degree programme in Architecture, B.Sc.

Tutkintorakenteen tila: published

Lukuvuosi: 2017-18

Lukuvuoden alkamispäivämäärä: 01.08.2017

#### Degree programme in Architecture, B.Sc.

#### Basic and Subject Studies (vähintään 120 op)

A410120: Basic and Intermediate Studies, Architecture, 120 op

##### *Compulsory courses*

- 450511P: Orientation, 1 op
- 450521P: Computer Aided Design I, 5 op
- 450550P: R1 Revit basics, 2 op
- 450551P: A1 ArchiCAD basics, 2 op
- 450552P: A3Autocad basics, 1 op
- 451535P: History of Architecture I, lecture course, 4 op
- 451536P: History of Architecture I, studio course, 6 op
- 452525P: Contemporary Architecture I, elements, 7 op
- 452526P: Contemporary Architecture I, basic course, 8 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
- 451537A: History of Architecture II, lecture course, 3 op
- 451538A: History of Architecture II, studio course, 5 op
- 452523A: Contemporary Architecture II, elements, 7 op
- 452528A: Contemporary Architecture II, basics, 8 op
- 456502A: Renovation of Apartment Buildings, 5 op
- 454501A: Urban Design, seminar course, 5 op
- 454523A: Neighborhood Design, 5 op
- 451504A: History of Architecture III, 3 op

##### *Select second domestic language*

- 901046Y: Second Official Language (Swedish), Written Skills, 1 op
- 901047Y: Second Official Language (Swedish), Oral Skills, 1 op

900081Y: Second Official Language (Finnish), Written Skills, 1 - 2 op

900082Y: Second Official Language (Finnish), Oral Skills, 1 - 3 op

*Select courses in one foreign language, totaling 6 cr*

903012P: Technical German 3, 6 op

904054P: Technical Russian 1, 7,5 op

902151Y: English for Architecture (ArkTK), 2 - 3 op

902152Y: English for Urban Design & Planning, 2 - 3 op

## **Orientation Module, Architecture (vähintään 40 op)**

A410121: Orientation Module, Architecture, 40 op

*Compulsory courses*

454504A: Town Planning, 10 op

452507A: Housing Design, 10 op

452529A: Contemporary Architecture III, 10 op

453504A: Design of Apartment Blocks, 10 op

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

453511A: Electrical Installation, 2 op

## **Bachelor's Work and Related Studies (vähintään 10 op)**

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

030005P: Information Skills, 1 op

450522A: Seminar, 1 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*

450541A: Photoshop, Advanced Photomanipulation, 2 op

450517A: Revit Architecture Advanced, 2 op

450540A: Archicad Advanced, 2 op

450545A: Illustrator Basics, 1 op

450547A: Indesign Basics, 1 op

450553P: 3ds Max basics, 1 op

450554P: art Arlantis basics, 1 op

450549A: Rhinoceros and Grasshopper basics, 2 op

450516P: Portfolio, 2 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

450503A: Practical Training / Construction Site, 5 op

450505A: Practical Training, 5 op

450000P: Activities in positions of responsibility and student associations, 1 - 10 op

## **Master's Degree Programme in Architectural Design**

Tutkintorakenteen tila: published

Lukuvuosi: 2017-18

Lukuvuoden alkamispäivämäärä: 01.08.2017

## Master`s Degree Programme in Architectural Design 120 ECTS

### Basic Module (vähintään 30 op)

A410224: Design-led Urban Renewal, 30 op

*Compulsory courses*

454522S: Urban Space Design, 10 op

455521S: Urban Space Detailing, 10 op

455522S: Design in Urban Context, 10 op

### Complementary modules (vähintään 30 op)

A410249: Design of Public Buildings 1, 15 op

*Compulsory courses*

452504A: Contemporary Architecture IV, 15 op

A410250: Design of Public Buildings 2, 15 op

*Compulsory courses*

453533A: Large scale structures, 5 op

455517S: Architectural Lighting, 5 op

455517A: Interior Design, 5 - 10 op

### Advanced module (vähintään 30 op)

A410276: Advanced Architectural Design, 30 op

*Compulsory courses*

452505S: International Studio, 15 op

455561S: Advanced Studies in Architectural Design, 2 - 10 op

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

450506A: Practical Training in Architect's Office, 5 op

450502A: Excursion Abroad, 2 op

### Master's Thesis (vähintään 30 op)

450099S: Master's Thesis, 30 op

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

### Elective studies

List of optional courses which may be included in the architect's degree when available within the year plan of the school

900020Y: Finnish for Advanced Students, 4 op

900019Y: Finnish for Foreigners (beginners), 2 op

900021Y: Finnish for Foreigners, Beginners 3, 6 op

900022Y: Finnish for Foreigners, Intermediate 1, 2 op

900016Y: Intermediate Finnish Course 2, 5 op

451515S: Restoration, 15 op

900023Y: Structures of the Finnish Language, 4 op

900017Y: Survival Finnish, 2 op

900018Y: Survival Finnish (extended), 4 op

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

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

453551S: Varying courses in Architectural Construction, 2 - 10 op

451551S: Varying courses in History of Architecture and Renovation, 2 - 10 op

## Master's Degree in Architecture / MSc. (Arch) (copy)

Tutkintorakenteen tila: published

Lukuvuosi: 2017-18

Lukuvuoden alkamispäivämäärä: 01.08.2017

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

### Basic Modules (vähintään 30 op)

#### Design-led Urban Renewal

A410224: Design-led Urban Renewal, 30 op

*Compulsory courses*

454522S: Urban Space Design, 10 op

455521S: Urban Space Detailing, 10 op

455522S: Design in Urban Context, 10 op

#### Sustainable Built Environment 1

A410225: Sustainable Built Environment 1, 30 op

*Compulsory*

453508A: Energy Efficient Building, lecture course, 5 op

456527S: Condition Assessment of Buildings, 5 op

456507S: Renovation of Apartment Buildings, 10 op

451511A: Historic Preservation, 10 op

### Complementary modules (vähintään 30 op)

#### Design of Public Buildings 1

A410249: Design of Public Buildings 1, 15 op

*Compulsory courses*

452504A: Contemporary Architecture IV, 15 op

#### Design of Public Buildings 2

A410250: Design of Public Buildings 2, 15 op

*Compulsory courses*

453533A: Large scale structures, 5 op

455517S: Architectural Lighting, 5 op

455517A: Interior Design, 5 - 10 op

#### Sustainable Built Environment 2

A410251: Sustainable Built Environment 2, 15 op

*Compulsory*

453512A: Architectural Construction, Professional Skills, 10 op

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

453513S: Energy Efficient Building, studio course, 5 op

#### Restoration

A410252: Restoration, 15 op

*Compulsory*

451515S: Restoration, 15 op

## Advanced modules (vähintään 30 op)

### Strategic Urban Planning

A410275: Strategic Urban Planning, 30 op

#### *Compulsory*

- 454505S: Municipal Planning, 15 op
- 454560S: Extension Course / Urban Design, 5 - 10 op
- 451560S: Research and Theory of Architecture, 2 - 10 op
- 450506A: Practical Training in Architect's Office, 5 op
- 450502A: Excursion Abroad, 2 op

### Advanced Architectural Design

A410276: Advanced Architectural Design, 30 op

#### *Compulsory courses*

- 452505S: International Studio, 15 op
- 455561S: Advanced Studies in Architectural Design, 2 - 10 op
- 451560S: Research and Theory of Architecture, 2 - 10 op
- 450506A: Practical Training in Architect's Office, 5 op
- 450502A: Excursion Abroad, 2 op

## Master's Thesis (vähintään 30 op)

450099S: Master's Thesis, 30 op

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

## Optional Studies

- 450000P: Activities in positions of responsibility and student associations, 1 - 10 op
- 300002M: Advanced Information Skills, 1 op
- 451540A: History of Architecture and renovation, varying courses, 2 - 10 op
- 453540A: Varying Courses of Architectural Construction, 2 - 10 op
- 452550S: Varying Courses of Contemporary Architecture, 2 - 10 op
- 452540A: Varying Courses of Contemporary Architecture, 2 - 10 op
- 454550S: Varying Courses of Urban Design, 2 - 10 op
- 454540A: Varying Courses of Urban Design, 2 - 10 op
- 453551S: Varying courses in Architectural Construction, 2 - 10 op
- 451551S: Varying courses in History of Architecture and Renovation, 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

**Vastuuyksikkö:** Oulu School of Architecture

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

**Opintokohteen kielet:** Finnish

Ei opintojaksokuvauksia.

*Compulsory courses*

**450511P: Orientation, 1 op**

**Voimassaolo:** 01.08.2015 -

**Opiskelumuoto:** Basic Studies

**Laji:** Course

**Vastuuyksikkö:** Oulu School of Architecture

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

**Opintokohteen kielet:** Finnish

**ECTS Credits:**

1 ECTS

**Language of instruction:**

Finnish

**Timing:**

1<sup>st</sup> half of the autumn semester, 1<sup>st</sup> week of the academic year

**Learning outcomes:**

Having attended the orientation the student is able to apply to the key persons of the study program for essential information concerning the studies in architecture, and to recognize the study environment, student tutors, tutor teachers and other staff of the school. Additionally, the student is able to describe working methods and study culture of the architecture program.

**Contents:**

The aim of the orientation is to initiate the student into the study program, and to familiarize with the facilities (the library included), the staff responsible, as well as with working methods of studies in architecture. The orientation program includes attendance in workshops.

**Mode of delivery:**

Face-to-face teaching and group work during the workshop.

**Learning activities and teaching methods:**

20 hours of guided learning

**Target group:**

1st year bachelor students

**Prerequisites and co-requisites:**

-

**Recommended optional programme components:**

The course is an independent study unit and does not require any parallel studies.

**Recommended or required reading:**

-

**Assessment methods and criteria:**

Participation in the presentation, the guidance and the workshops.

**Grading:**

Pass

**Person responsible:**

Matti Sanaksenaho Dean (education), tutor teachers, student counselor, student tutors

**Working life cooperation:**

The orientation includes a lecture on the architect's professional profile and the 'Future Factory' workshop, during which students will learn about various working life skills for the future, working methods for problem solving and about team work.

**Other information:**

-

**450521P: Computer Aided Design I, 5 op**

**Voimassaolo:** 01.08.2005 -

**Opiskelumuoto:** Basic Studies

**Laji:** Course

**Vastuuyksikkö:** Oulu School of Architecture

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

**Opettajat:** Asko Leinonen

**Opintokohteen kielet:** Finnish

**ECTS Credits:**

5

**Language of instruction:**

Finnish

**Timing:**

autumn and spring semester

**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:**

-

**Target group:**

1st year bachelor 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.

**Grading:**

1-5

**Person responsible:**

Asko Leinonen

**Working life cooperation:**

The course includes learning the basics of computer programs used in architect's work. Students will get basic skills to work in assisting duties such as clean drawing and making draft models.

**Other information:**

The course is intended for registered students of the Oulu School of Architecture only.

**450550P: R1 Revit basics, 2 op**

**Voimassaolo:** 01.08.2017 -

**Opiskelumuoto:** Basic Studies

**Laji:** Course

**Vastuuyksikkö:** Oulu School of Architecture

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

**Opintokohteen kielet:** Finnish

**ECTS Credits:**

2

**Language of instruction:**

Finnish

**Timing:**

autumn semester

**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:**

Lectures and course work.

**Target group:**

2nd year bachelor 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).

**Grading:**

1-5

**Person responsible:**

n.n.

**Working life cooperation:**

Students will learn to use the basics of Revit software and apply those skills in hands-on work.

**Other information:**



Introduction to conventional Building Information Modelling in Revit Architecture Environment. The course is intended for registered students of the Oulu School of Architecture only.

#### **450551P: A1 ArchiCAD basics, 2 op**

**Voimassaolo:** 01.08.2017 -

**Opiskelumuoto:** Basic Studies

**Laji:** Course

**Vastuuyksikkö:** Oulu School of Architecture

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

**Opintokohteen kielet:** Finnish

**ECTS Credits:**

2

**Language of instruction:**

Finnish

**Timing:**

autumn and spring semester

**Learning outcomes:**

Students are able to produce basic presentation drawings based on the information model using basic tools and know the essentials to producing building permit drawings.

**Contents:**

Project management, detailing tools, section, facade and perspective views.

**Mode of delivery:**

Lectures and course work.

**Target group:**

2nd year bachelor 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 Oulu School of Architecture or an equivalent work).

**Grading:**

1-5

**Person responsible:**

n.n.

**Working life cooperation:**

Students will learn to use the basics of Archicad software and apply those skills in hands-on work.

**Other information:**

Introduction to conventional Building Information Modelling in Archicad.

The course is intended for registered students of the Oulu School of Architecture only.

#### **450552P: A3Autocad basics, 1 op**

**Voimassaolo:** 01.08.2017 -

**Opiskelumuoto:** Basic Studies

**Laji:** Course

**Vastuuyksikkö:** Oulu School of Architecture

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

**Opintokohteen kielet:** Finnish

**ECTS Credits:**

1

**Language of instruction:**

Finnish

**Timing:**

autumn semester

**Learning outcomes:**

Students are able to produce basic presentation drawings based on the information model using basic tools and know the essentials to producing building permit drawings.

**Contents:**

Project management, detailing tools, section, facade and perspective views.

**Mode of delivery:**

Lectures and practice work.

**Learning activities and teaching methods:**

-

**Target group:**

2nd year bachelor 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 School of Architecture or an equivalent work).

**Grading:**

1-5

**Person responsible:**

n.n.

**Working life cooperation:**

Students will learn to use the basics of Archicad software and apply those skills in hands-on work.

**Other information:**

Introduction to conventional Building Information Modelling in AutoCAD Architecture Environment. The course is intended for registered students of the Oulu School of Architecture only.

#### **451535P: History of Architecture I, lecture course, 4 op**

**Voimassaolo:** 01.08.2015 -

**Opiskelumuoto:** Basic Studies

**Laji:** Course

**Vastuuyksikkö:** Oulu School of Architecture

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

**Opettajat:** Anna-Maija Ylimaula

**Opintokohteen kielet:** Finnish

**Leikkaavuudet:**

ay451535P History of Architecture I, lecture course (OPEN UNI) 4.0 op

**ECTS Credits:**

4 ECTS

**Language of instruction:**

Finnish

**Timing:**

Autumn term I and 2

**Learning outcomes:**

After completing the course the student can evaluate the interaction between style periods of European architectural history, technical development and social changes. The student can classify the different eras and recognize their most significant buildings and architects. After the course the student can interpret the classical language of architecture the classical grammar of architecture, as well as recognize the historical layers of built environment.

**Contents:**

Lectures discuss the general history of architecture and discipline of styles from prehistory until the end of 18<sup>th</sup> 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 56 hrs

**Target group:**

1<sup>st</sup> year Bachelor level students

**Prerequisites and co-requisites:**

-

**Recommended optional programme components:**

Course is combined to exercises (451536P)

**Recommended or required reading:**

Handouts, digital slides. A literature list will be delivered during the course.

**Assessment methods and criteria:**

Assessment is based on attendance, learning diary or written examination.

**Grading:**

1-5

**Person responsible:**

Professor Anna-Maija Ylimaula, University lecturer N.N.

**Working life cooperation:**

-

**Other information:**

-

**451536P: History of Architecture I, studio course, 6 op**

**Voimassaolo:** 01.08.2015 -

**Opiskelumuoto:** Basic Studies

**Laji:** Course

**Vastuuyksikkö:** Oulu School of Architecture

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

**Opettajat:** Anna-Maija Ylimaula

**Opintokohteen kielet:** Finnish

**ECTS Credits:**

6

**Language of instruction:**

Finnish (literature partly in English)

**Timing:**

Autumn term periods 1 and 2

**Learning outcomes:**

Having completed the course the student is able to observe the built environment and is able to identify and to describe different historical styles and layers of architecture. The student is also able to present these observations by using different drawing technics and writing and the student knows how to observe the built environment.

**Contents:**

Exercises consist of three separate tasks. The exercises are designed to train the students to observe the built environment and to use the vocabulary of architectural styles and history of architecture. The aim is to learn the terminology of classical architecture and to be able to express the classical language by drawing and writing. The aim is also to enhance the student's own ability to sense and observe the special qualities of the built environment.

**Mode of delivery:**

Contact teaching and independent studying

**Learning activities and teaching methods:**

40h 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 (451535P)

**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

**Grading:**

1-5

**Person responsible:**

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

**Working life cooperation:**

-

**Other information:**

-

**452525P: Contemporary Architecture I, elements, 7 op****Voimassaolo:** 01.08.2015 -**Opiskelumuoto:** Basic Studies**Laji:** Course**Vastuuyksikkö:** Oulu School of Architecture**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 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:**

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

**Assessment methods and criteria:**

Based on examination and exercises.

**Grading:**

1-5

**Person responsible:**

Prof. Matti Sanaksenaho

**Working life cooperation:**

The course includes a series of guest lectures, within which professionals tell about their experiences of practising the architect's profession.

**Other information:**

The objective is to provide the student with an understanding of architecture and guide to creative design work.

**452526P: Contemporary Architecture I, basic course, 8 op**

**Voimassaolo:** 01.08.2015 -

**Opiskelumuoto:** Basic Studies

**Laji:** Course

**Vastuuyksikkö:** Oulu School of Architecture

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

**Opettajat:** Matti Sanaksenaho

**Opintokohteen kielet:** Finnish

**ECTS Credits:**

8

**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:**

450521P CAD 1

**Recommended or required reading:**

William J.R. Curtis: Modern architecture since 1900.

Richard Weston: Materials, form and architecture

Jari & Sirkkaliisa Jetsonen: Finnish summer houses

**Assessment methods and criteria:**

Based on examination and exercises.

**Grading:**

1-5

**Person responsible:**

Prof. Matti Sanaksenaho

**Working life cooperation:**

The course includes a series of guest lectures, within which professionals tell about their experiences of practising the architect's profession.

**Other information:**

The objective is to provide the student with 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**Vastuuyksikkö:** Oulu School of Architecture**Arvostelu:** 1 - 5, pass, fail**Opettajat:** Jari Heikkilä**Opintokohteen kielet:** Finnish**Leikkaavuudet:**

ay453521P Basics of Architectural Construction, lecture course (OPEN UNI) 3.0 op

**ECTS Credits:**

3 ECTS

**Language of instruction:**

Finnish

**Timing:**

spring 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. Students are given general data on architectural construction and on the functional requirements set for building parts.

**Mode of delivery:**

Face-to-face teaching, independent working.

**Learning activities and teaching methods:**

34 hours of lectures, 47 hours of independent working.

**Target group:**1<sup>st</sup> year bachelor students**Prerequisites and co-requisites:**

-

**Recommended optional programme components:**

The courses of the basics of Building Physics and Structural Technology (basic course) 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 exam.

**Grading:**

1-5

**Person responsible:**

Docent Jari Heikkilä

**Working life cooperation:**

The course includes a lecture concerning the professional practice of architects, which is given to the students in the beginning of the studies.

T

**Other information:**

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

**Voimassaolo:** 01.08.2012 -

**Opiskelumuoto:** Basic Studies

**Laji:** Course

**Vastuuyksikkö:** Oulu School of Architecture

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

**Opettajat:** Janne Pihlajaniemi

**Opintokohteen kielet:** Finnish

**ECTS Credits:**

7 ECTS

**Language of instruction:**

Finnish

**Timing:**

spring 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. The aim of the course is to familiarize the student in detail with constructions and design of wood-framed one-family houses.

**Mode of delivery:**

Face-to-face teaching, Independent working.

**Learning activities and teaching methods:**

10 hours lectures, 82 hours face-to-face teaching in the studio, an excursion to the realized projects, 97 hours of independent working.

**Target group:**

2<sup>nd</sup> year bachelor level students

**Prerequisites and co-requisites:**

Contemporary Architecture I –course, Basics of Architectural Construction, lecture course, Basics of Building Physics and Basics of Structural Technology .

**Recommended optional programme components:**

Wooden Structures –course is recommended to take at the same time.

**Recommended or required reading:**

List of readings will be handed out during the course.

**Assessment methods and criteria:**

The evaluation is based on the outcome of the exercise work. No exam is included in the course.

**Grading:**

1-5

**Person responsible:**

professor Janne Pihlajaniemi, university teacher Petri Aarnio (coordinator)

**Working life cooperation:**

A visit to the construction site of the wooden frame building. The guidance of the exercise is partly based on tutelage given by architects working in the design profession.

**Other information:**

-

**453531P: Structural Technology, basic course, 3 op**



**Voimassaolo:** 01.08.2005 -

**Opiskelumuoto:** Basic Studies

**Laji:** Course

**Vastuuyksikkö:** Oulu School of Architecture

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

**Opettajat:** Mikko Malaska

**Opintokohteen kielet:** Finnish

**ECTS Credits:**

3 ECTS

**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:**

16 hours of lectures, 14 hours of tutored exercises +51 hours of independent working.

**Target group:**

1st year bachelor level students.

**Prerequisites and co-requisites:**

-

**Recommended optional programme components:**

The course is recommended to be taken before the Basics of Architectural Construction, studio course

**Recommended or required reading:**

Study compendium. Course literature will be announced separately.

**Assessment methods and criteria:**

Design project and exam. Evaluation is based on exam.

**Grading:**

1-5

**Person responsible:**

NN

**Working life cooperation:**

-

**Other information:**

-

#### **453532P: Wooden Structures, 2 op**

**Voimassaolo:** 01.08.2005 -

**Opiskelumuoto:** Basic Studies

**Laji:** Course

**Vastuuyksikkö:** Oulu School of Architecture

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

**Opintokohteen kielet:** Finnish

**Leikkaavuudet:**

ay453532P Wooden Structures (OPEN UNI) 2.0 op

**ECTS Credits:**

2 ECTS

**Language of instruction:**

Finnish

**Timing:**

Autumn term 1

**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 +6 h contact teaching, 34 h independent working

**Target group:**

2nd year bachelor level students.

**Prerequisites and co-requisites:**

Basics of Building Physics and Structural Technology, Basic Course

**Recommended optional programme components:**

The course is recommended to take together with the Basics of Architectural Construction, studio course.

**Recommended or required reading:**

Lecture material and the related literature

**Assessment methods and criteria:**

Lectures, design project and learning diary. The final grading will be calculated as a mean of the learning diary and project grades

**Grading:**

1-5

**Person responsible:**

professor Janne Pihlajaniemi

**Working life cooperation:**

A visit to the construction site of the wooden frame building.

**Other information:**

-

#### **453535P: Basics of Building Physics, 2 op**

**Voimassaolo:** 01.08.2005 -

**Opiskelumuoto:** Basic Studies

**Laji:** Course

**Vastuuyksikkö:** Oulu School of Architecture

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

**Opettajat:** Pirkola, Heikki Juhani

**Opintokohteen kielet:** Finnish

**ECTS Credits:**

2 ECTS

**Language of instruction:**

Finnish

**Timing:**

Spring term

**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 their effect on the indoor 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:**

16 hours of lectures, 38 hours of independent working

**Target group:**

1st year bachelor level students.

**Prerequisites and co-requisites:**

-

**Recommended optional programme components:**

The course is recommended to be taken before the Basics of Architectural Construction, studio course

**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.

**Grading:**

1-5

**Person responsible:**

NN

**Working life cooperation:**

-

**Other information:**

-

#### **454521P: History of Urban Design, 5 op**

**Voimassaolo:** 01.08.2005 -

**Opiskelumuoto:** Basic Studies

**Laji:** Course

**Vastuuyksikkö:** Oulu School of Architecture

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

**Opettajat:** Leena Soudunsaari

**Opintokohteen kielet:** Finnish

**ECTS Credits:**

5

**Language of instruction:**

Finnish

**Timing:**

Autumn term 1-2.

**Learning outcomes:**

Having completed the study unit the student able to describe different historical phases of urban design. The student is also able to identify and describe the 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. The student is able to recognize the main elements of urban space and style.

**Contents:**

Lectures comprise main 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:**

24 h lectures + 52 h contact teaching in design studio + 59 h independent studying.

**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).

**Grading:**

1-5

**Person responsible:**

University Lecturer Kari Nykänen.

**Working life cooperation:**

-

**Other information:**

This study unit is taught entirely in Finnish and intended for registered bachelor level students of the Oulu School of Architecture only.

**455501P: Basics of Design, 5 op**

**Voimassaolo:** 01.08.2005 -

**Opiskelumuoto:** Basic Studies

**Laji:** Course

**Vastuuyksikkö:** Oulu School of Architecture

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

**Opettajat:** Aulikki Herneoja

**Opintokohteen kielet:** Finnish

**ECTS Credits:**

5

**Language of instruction:**

Finnish

**Timing:**

Spring term 1 &amp; 2.

**Learning outcomes:**

After completing the course the student can carry out a design exercise, applying the basics of design and detailing closely related to architecture. The exercise 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 of the basics of design and detailing closely connected to architecture. Lectures deal with basics of design related to architecture, taking into account a perspective of sustainability. The focus of the exercise is on basics of detailing and jointing, the examination of relationship between material, colour and light, introduction of fixed furnishing and designing of

**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:**The exercise is integrated with the 2<sup>nd</sup> year spring semester exercise of Contemporary Architecture II.**Recommended or required reading:**

List of readings 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. The course does not include an exam.

**Grading:**

1-5, pass/fail

**Person responsible:**

University Lecturer Aulikki Herneoja

**Working life cooperation:**

The project work trains the student's design skills needed in the architect's profession.

**Other information:**

-

**455511P: Visual Arts I, 5 op****Voimassaolo:** 01.08.2005 -**Opiskelumuoto:** Basic Studies**Laji:** Course**Vastuuyksikkö:** Oulu School of Architecture**Arvostelu:** 1 - 5, pass, fail**Opintokohteen kielet:** Finnish**Leikkaavuudet:**

ay455511P Visual Arts I (OPEN UNI) 5.0 op

**ECTS Credits:**

5

**Language of instruction:**

Finnish

**Timing:**

Autumn term 1-2

**Learning outcomes:**

To deal with different aspects of visual expression, to expand general knowledge relative to the various fields of art and to develop independent creative expression.

After completing the course the student is able to comprehend various sides of visual expression and can implement these skills in exercise work.

**Contents:**

Object and spatial drawing, classical model drawing, designing and modelling.

**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 guidance 92hours.

**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.

**Grading:**

1-5

**Person responsible:**

Prof. Matti Sanaksenaho.

**Working life cooperation:**

Students are initiated in the artist's work through guidance of a professional artist.

**455512P: Visual Arts II, 3 op**

**Voimassaolo:** 01.08.2005 -

**Opiskelumuoto:** Basic Studies

**Laji:** Course

**Vastuuyksikkö:** Oulu School of Architecture

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

**Opintokohteen kielet:** Finnish

**Leikkaavuudet:**

ay455512P Visual Arts II (OPEN UNI) 3.0 op

**ECTS Credits:**

3

**Language of instruction:**

Finnish

**Timing:**

Spring term 1-2

**Learning outcomes:**

To deal with different aspects of visual expression, to expand general knowledge relative to the various fields of art and to develop independent creative expression.

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 hours and contact teaching and/ or group guidance 92 hours

**Target group:**

2.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.

**Grading:**

1-5

**Person responsible:**

Prof. Matti Sanaksenaho.

**Working life cooperation:**

Students are initiated in the artist's work through guidance of a professional artist.

**451537A: History of Architecture II, lecture course, 3 op**

**Voimassaolo:** 01.08.2015 -

**Opiskelumuoto:** Intermediate Studies

**Laji:** Course

**Vastuuyksikkö:** Oulu School of Architecture

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

**Opettajat:** Anna-Maija Ylimaula

**Opintokohteen kielet:** Finnish

**Leikkaavuudet:**

ay451537A History of Architecture II, lecture course (OPEN UNI) 3.0 op

**ECTS Credits:**

3

**Language of instruction:**

Finnish (literature partly in English)

**Timing:**

Spring term I and 2

**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:**

1st year Bachelor's level students

**Prerequisites and co-requisites:**

History of architecture I, lecture course (451535P)

**Recommended optional programme components:**

Course is combined to practices (451538A)

**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 attendance, learning diary or written examination

**Grading:**

1-5

**Person responsible:**

Professor Anna-Maija Ylimaula, University lecturer N.N.

**Working life cooperation:**

-

**Other information:**

-

**451538A: History of Architecture II, studio course, 5 op**

**Voimassaolo:** 01.08.2015 -

**Opiskelumuoto:** Intermediate Studies

**Laji:** Course

**Vastuuyksikkö:** Oulu School of Architecture

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

**Opettajat:** Anna-Maija Ylimaula

**Opintokohteen kielet:** Finnish

**ECTS Credits:**

5

**Language of instruction:**

Finnish

**Timing:**

Autumn term 1 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. 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:**

2<sup>nd</sup> year Bachelor level students.

**Prerequisites and co-requisites:**

-

**Recommended optional programme components:**

The course is related to the History of Architecture 2, lecture course (451537A)

**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. The evaluation is based on the quality of the inventory project.

**Grading:**

1-5

**Person responsible:**

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

**Working life cooperation:**

The project consists of historical building groups and the inventories made during the course are used during the process of regional planning.

**Other information:**

-

**452523A: Contemporary Architecture II, elements, 7 op**

**Voimassaolo:** 01.08.2012 -

**Opiskelumuoto:** Intermediate Studies

**Laji:** Course

**Vastuuyksikkö:** Oulu School of Architecture

**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:**

2.nd year students.

**Prerequisites and co-requisites:**

452521P and 452522P Contemporary Architecture I.

**Recommended optional programme components:**

CAD I

**Recommended or required reading:**

William J.R. Curtis: Modern architecture since 1900.

Philip Jodidio: Architecture Now

Henry Plummer: The architecture of natural light

**Assessment methods and criteria:**

Based on examination and exercises.

**Grading:**

1-5

**Person responsible:**

Prof. Matti Sanaksenaho.

**Working life cooperation:**

The course includes a series of guest lectures, within which professionals tell about their experiences of practising the architect's profession.

**Other information:**

The objective is to provide the student with an understanding of architecture and guide to creative design work.

**452528A: Contemporary Architecture II, basics, 8 op**

**Voimassaolo:** 01.08.2015 -

**Opiskelumuoto:** Intermediate Studies

**Laji:** Course

**Vastuuyksikkö:** Oulu School of Architecture

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

**Opettajat:** Matti Sanaksenaho

**Opintokohteen kielet:** Finnish

**ECTS Credits:**

8

**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:**

2.nd year students.

**Prerequisites and co-requisites:**

452521P and 452522P Contemporary Architecture I, 452523A Contemporary Architecture II elements.

**Recommended optional programme components:**

CAD 1

**Recommended or required reading:**

William J.R. Curtis: Modern architecture since 1900.

Philip Jodidio: Architecture Now

Henry Plummer: The architecture of natural light

**Assessment methods and criteria:**

Based on examination and exercises.

**Grading:**

1-5

**Person responsible:**

Prof. Matti Sanaksenaho

**Working life cooperation:**

The course includes a series of guest lectures, within which professionals tell about their experiences of practising the architect's profession.

**Other information:**

The objective is to provide the student with an understanding of architecture and guide to creative design work.

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

**Voimassaolo:** 01.08.2005 -

**Opiskelumuoto:** Intermediate Studies

**Laji:** Course

**Vastuuyksikkö:** Oulu School of Architecture

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

**Opettajat:** Anu-Sisko Soikkeli

**Opintokohteen kielet:** Finnish

**ECTS Credits:**

5

**Language of instruction:**

Finnish

**Timing:**

Spring semester 1-2

**Learning outcomes:**

To introduce the student to the principles and characteristics of building renovation and the maintenance of wood frame buildings 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.

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.

**Contents:**

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

**Mode of delivery:**

Contact teaching and independent studying. A written exam is part of the course.

**Learning activities and teaching methods:**

26 h lectures + 8 h contact teaching.

**Target group:**

2nd year Bachelor level students.

**Prerequisites and co-requisites:**

Basics of Architectural Construction -course.

**Recommended optional programme components:**

-

**Recommended or required reading:**

Course literature will be announced separately.

**Assessment methods and criteria:**

Design project and exam.

**Grading:**

1-5

**Person responsible:**

Senior lecturer Anu Soikkeli

**Working life cooperation:**

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.

**Other information:**

The course is intended for the registered students of the Oulu School of Architecture only.

**454501A: Urban Design, seminar course, 5 op**

**Voimassaolo:** 01.08.2005 -

**Opiskelumuoto:** Intermediate Studies

**Laji:** Course

**Vastuuyksikkö:** Oulu School of Architecture

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

**Opettajat:** Leena Soudunsaari  
**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 study unit 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 study unit 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 and independent studying.

**Learning activities and teaching methods:**

12 h lectures (including seminars) + 18 h tutoring + 105 h independent studying.

**Target group:**

2nd year Bachelor level students.

**Prerequisites and co-requisites:**

-

**Recommended optional programme components:**

Implementation in collaboration with English for Urban Design and Planning 902152Y study unit.

**Recommended or required reading:**

Classic books on urban design theory.

**Assessment methods and criteria:**

The student participates in all seminars 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 %).

**Grading:**

1-5

**Person responsible:**

Postdoctoral Researcher Leena Soudunsaari

**Working life cooperation:**

-

**Other information:**

This study unit is taught both in Finnish and English but intended for registered bachelor level students of the Oulu School of Architecture only. When implemented in collaboration with English for Urban Design and Planning 902152Y, the exercise will be written in English.

**454523A: Neighborhood Design, 5 op**

**Voimassaolo:** 01.08.2005 -

**Opiskelumuoto:** Intermediate Studies

**Laji:** Course

**Vastuuyksikkö:** Oulu School of Architecture

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

**Opintokohteen kielet:** Finnish

**ECTS Credits:**

5

**Language of instruction:**

Finnish

**Timing:**

Spring term 1

**Learning outcomes:**

After completion of this study unit the student will be able to describe the basic factors that affect the interdependence between spatial design and functional planning as well as recognize the principles of interaction between the human being, nature and the built environment. The student is able to formulate and define objectives of urban design. 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 main elements of urban structure and form for the built environment and residential functions will be explained. In addition, residential areas are examined as perceived living environments and the factors conducive to health promotion in urban environments are dealt with. The exercise consists of designing a plan on the level of a general town plan.

**Mode of delivery:**

Contact teaching and independent studying.

**Learning activities and teaching methods:**

12 h lectures + 58 h contact teaching in design studio + 65 h independent studying.

**Target group:**

2nd year Bachelor level students.

**Prerequisites and co-requisites:**

History of Urban Design (454521P)

**Recommended optional programme components:**

-

**Recommended or required reading:**

Lecture notes and *Asuinalue suunnittelu*, Jalkanen, R., Kajaste, T. et al., Rakennustieto, Helsinki, ISBN 951-682-438-2.

**Assessment methods and criteria:**

Exercise (design project) 2/3 of grade, exam 1/3 of grade

**Grading:**

1-5

**Person responsible:**

University Lecturer Kari Nykänen

**Working life cooperation:**

-

**Other information:**

This study unit is taught entirely in Finnish and intended for registered bachelor level students of the Oulu School of Architecture only.

#### **451504A: History of Architecture III, 3 op**

**Voimassaolo:** 01.08.2011 -

**Opiskelumuoto:** Intermediate Studies

**Laji:** Course

**Vastuuyksikkö:** Oulu School of Architecture

**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:**

Autumn term 2 and spring term I

**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.

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 evolution 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 36 h

**Target group:**

3rd year Bachelor level students.

**Prerequisites and co-requisites:**

History of architecture I and II, lecture courses ( 451535P and 451537A )

**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 learning diary or written examination.

**Grading:**

1-5

**Person responsible:**

Professor Anna-Maija Ylimaula, University lecturer N.N.

**Working life cooperation:**

-

**Other information:**

-

*Select second domestic language*

**901046Y: Second Official Language (Swedish), Written Skills, 1 op**

**Voimassaolo:** 01.08.2014 -  
**Opiskelumuoto:** Language and Communication Studies  
**Laji:** Course  
**Vastuuyksikkö:** Languages and Communication  
**Opintokohteen kielet:** Swedish

**901047Y: Second Official Language (Swedish), Oral Skills, 1 op**

**Voimassaolo:** 01.08.2014 -  
**Opiskelumuoto:** Language and Communication Studies  
**Laji:** Course  
**Vastuuyksikkö:** Languages and Communication  
**Opintokohteen kielet:** Swedish

**900081Y: Second Official Language (Finnish), Written Skills, 1 - 2 op**

**Voimassaolo:** 01.01.2015 -  
**Opiskelumuoto:** Language and Communication Studies  
**Laji:** Course  
**Vastuuyksikkö:** Languages and Communication  
**Opintokohteen kielet:** Finnish

**900082Y: Second Official Language (Finnish), Oral Skills, 1 - 3 op**

**Voimassaolo:** 01.01.2015 -  
**Opiskelumuoto:** Language and Communication Studies  
**Laji:** Course  
**Vastuuyksikkö:** Languages and Communication  
**Opintokohteen kielet:** Finnish

*Select courses in one foreign language, totaling 6 cr*

**903012P: Technical German 3, 6 op**

**Voimassaolo:** 01.08.1995 -  
**Opiskelumuoto:** Basic Studies  
**Laji:** Course  
**Vastuuyksikkö:** Languages and Communication  
**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  
**Vastuuyksikkö:** Languages and Communication



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

**Opintokohteen kielet:** Russian

Ei opintojaksokuvauksia.

### 902151Y: English for Architecture (ArkTK), 2 - 3 op

**Voimassaolo:** 01.08.2014 -

**Opiskelumuoto:** Language and Communication Studies

**Laji:** Course

**Vastuuyksikkö:** Languages and Communication

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

**Opintokohteen kielet:** English

**Voidaan suorittaa useasti:** Kyllä

**Proficiency level:**

CEFR B2 - C1

**Status:**

See the compulsory foreign language requirements for your own degree programme.

**Required proficiency level:**

You should have taken English as an "A" or "B" language at school, or have reached an equivalent level of skills. If you need to take English, but lack this background, please get in touch with the Languages and Communication contact teacher (Eva Braidwood) to discuss individual solutions.

**ECTS Credits:**

3 ECTS credits

**Language of instruction:**

English

**Timing:**

In the School of Architecture, your English studies take place in the spring term of your first year and continue in the autumn of the second year. This course is organized in the spring. The course is offered in two versions, one for 2 op and one for 3 op (54 hrs work and 80 hrs work). Students with the matriculation exam grade *laudatur* or *eximia cum laude approbatur* take the 2 op course and others take the 3 op course.

**Learning outcomes:**

By the end of the course, students will be able to

- demonstrate appropriate use of professional vocabulary
- develop efficient strategies and methods for maintaining their English proficiency
- use the core vocabulary and discourse patterns required for professional description and critique of architectural design
- demonstrate oral and written skills and presentation techniques necessary for working in a multicultural environment

**Contents:**

In this course, you will focus on developing oral and written English language skills which enable you to follow developments in your own field of architecture and get along in an international, intercultural environment with a sufficient level of proficiency.

The course provides students with the opportunity to develop professional and academic communication and field-related competences. Students will participate in simulated professional events including a project presentation, building/design presentation, discussion and critiquing of architectural solutions and case studies.

**Mode of delivery:**

This teaching is offered in the School of Architecture in the form of contact teaching and independent study.

**Learning activities and teaching methods:**

-

**Target group:**

Students of Architecture

**Prerequisites and co-requisites:**

See Required Proficiency Level

**Recommended optional programme components:**

See Status

**Recommended or required reading:**

The course is based on a selection of special language learning materials and field-related literature, and audio and visual material. The course material will be provided by the teacher. Lesson handouts and supplementary material are available during the course in Optima.

**Assessment methods and criteria:**

You are required to participate regularly in all contact teaching provided. Assessment will be based on the satisfactory completion of the course tasks and achievement of the learning outcomes.

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

**Grading:**

pass/fail.

**Person responsible:**

Eva Braidwood

**Working life cooperation:**

-

**Other information:**

Students with the matriculation exam grade *laudatur* or *eximia cum laude approbatur*, or who have graduated from an IB -program will be exempted from one part of the course (1 op) and will be required to complete a 2 op version of the course.

**902152Y: English for Urban Design & Planning, 2 - 3 op**

**Voimassaolo:** 01.08.2014 -

**Opiskelumuoto:** Language and Communication Studies

**Laji:** Course

**Vastuuyksikkö:** Languages and Communication

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

**Opintokohteen kielet:** English

**Voidaan suorittaa useasti:** Kyllä

**Proficiency level:**

CEFR B2 - C1

**Status:**

Compulsory

**Required proficiency level:**

You should have taken English as an "A" or "B" language at school, or have reached an equivalent level of skills. If you need to take English, but lack this background, please get in touch with the Languages and Communication contact teacher to discuss individual solutions.

**ECTS Credits:**

2/3 op (ECTS credits) (54 / 80 hrs work)

**Language of instruction:**

English

**Timing:**

In the School of Architecture, your English studies take place in the spring term of your first year and continue in the autumn of the second year. This course is offered for 2<sup>nd</sup> year students of architecture in the autumn semester.

**Learning outcomes:**

By the end of the course, students will be able to

- demonstrate appropriate use of field-specific vocabulary required for professional communication in English,
- use English in field-specific academic writing and oral presentations,
- follow the conventions in critiquing the built environment, urban design and planning projects and reviewing field-related literature,
- work efficiently in cooperation and contribute effectively to urban design-related projects.

**Contents:**

In this course, you will focus on developing oral and written English language skills which enable you to follow developments in your own field of architecture and urban design and planning.

This course is integrated with your subject course in urban design and planning (454501A Kaupunkisuunnittelun seminaarikurssi). In the first part of the course you will study professional criteria for critiquing residential districts and leading examples of urban development, and then present your own case study of a Finnish residential district (12/20 hrs). In the second part, you will write an argumentative essay / book review, which will be based on a compulsory text to be read in the Course for Urban Design and Planning (kaupunkisuunnittelu seminaari). The essay will follow the conventions of academic and scientific writing, which you will practice in this course of English for Urban Design and Planning (42/60 hrs).

**Mode of delivery:**

This teaching is offered in the School of Architecture in the form of contact teaching and independent study using Optima, our online learning environment.

**Learning activities and teaching methods:**

Reading professional material, journal articles, books; discussion in workshops; presentation of case study; writing an academic essay.

**Target group:**

Students of Architecture

**Prerequisites and co-requisites:**

See Required Proficiency Level

**Recommended optional programme components:**

902151Y English for Architecture 2/3 ECTS credits

**Recommended or required reading:**

The course is based on a selection of special language learning materials and field-related literature, and audio and visual material. The course material will be provided by the teacher and will be available in Optima during the course.

**Assessment methods and criteria:**

This course is compulsory for all students of architecture. You are required to participate regularly in all contact teaching provided. Assessment will be based on the satisfactory completion of the course tasks and achievement of the learning outcomes. Detailed assessment criteria will be provided by the teacher. Read more about [assessment criteria](#) at the University of Oulu webpage.

**Grading:**

pass/fail.

**Person responsible:**

Eva Braidwood

**Working life cooperation:**

-

**Other information:**

Students with the matriculation exam grade *laudatur* or *eximia cum laude approbatur*, or who have graduated from an IB -programme will be exempted from one part of the course (1 ECTS credits) and will be required to complete a 2 ECTS credits version of the course.

**A410121: Orientation Module, Architecture, 40 op**

Voimassaolo: 01.08.2005 -

**Opiskelumuoto:** Module Preparing for the Option

**Laji:** Study module

**Vastuuyksikkö:** Oulu School of Architecture

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

**Opintokohteen kielet:** Finnish

Ei opintojaksokuvauksia.

*Compulsory courses*

**454504A: Town Planning, 10 op**

**Voimassaolo:** 01.08.2015 -

**Opiskelumuoto:** Intermediate Studies

**Laji:** Course

**Vastuuyksikkö:** Oulu School of Architecture

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

**Opintokohteen kielet:** Finnish

**ECTS Credits:**

10

**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 is able to define the objectives of planning and the appearance of a town plan document. The student is able to describe and recognize 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. The student can also describe main principles of sustainable planning.

**Contents:**

Lectures deal with different aspects of sustainable urban planning, the Finnish land use planning system, planning process and regulations. The course deals also with the planning of residential areas, traffic and urban landscapes. The town planning exercise will be completed using a special CAD program for town planning.

**Mode of delivery:**

Contact teaching plus independent studying.

**Learning activities and teaching methods:**

24 h lectures + 86 h contact teaching in design studio + 160 h independent studying.

**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 (452507A) and Design of Apartment Blocks (453504A).

**Recommended or required reading:**

Study compendium. Recommended 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.

**Grading:**

1-5

**Person responsible:**

University Lecturer Kari Nykänen.

**Working life cooperation:**

An introduction to the different planning professions of town planning project will be given during the course. The planning exercise can deal with a real design project or be organized as a student competition.

**Other information:**

The town planning course offers one option for a Bachelor's thesis. Separate instruction will be available. This study unit is taught entirely in Finnish and intended for registered bachelor level students of the Oulu School of Architecture only.

**452507A: Housing Design, 10 op****Voimassaolo:** 01.08.2015 -**Opiskelumuoto:** Intermediate Studies**Laji:** Course**Vastuuyksikkö:** Oulu School of Architecture**Arvostelu:** 1 - 5, pass, fail**Opettajat:** Mahlamäki Rainer**Opintokohteen kielet:** Finnish**ECTS Credits:**

10

**Language of instruction:**

Finnish

**Timing:**

Autumn semester / spring semester

**Learning outcomes:**

The objective of the course is to initiate the students through lectures and exercises into the bases of the housing design. Learning outcomes: 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 teaching unit of Building Science.

**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:**

Contemporary architecture I-II.

**Recommended optional programme components:**

Design project is connected with courses Town Planning and Design of Apartment Blocks. The teaching unit of Contemporary Architecture offers lectures in first half and tutoring for the exercise mainly in second half of the autumn term.

**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.

**Grading:**

1 - 5, pass / fail

**Person responsible:**

Professor Rainer Mahlamäki

**Working life cooperation:**

The project work trains the student's design skills needed in the architect's profession.

**Other information:**

This studio course is intended for registered bachelor level students of the Oulu School of Architecture.

**452529A: Contemporary Architecture III, 10 op**

**Voimassaolo:** 01.08.2015 -

**Opiskelumuoto:** Intermediate Studies

**Laji:** Course

**Vastuuyksikkö:** Oulu School of Architecture

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

**Opettajat:** Mahlamäki Rainer

**Opintokohteen kielet:** Finnish

**ECTS Credits:**

10

**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 is 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 teachings offered within the Contemporary Architecture I-II courses, but in this case focusing on the design of a public building. Contemporary Architecture III course offers one option for a Bachelors' thesis. Separate instructions are provided during the course.

**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

**Grading:**

1-5

**Person responsible:**

Professor Rainer Mahlamäki

**Working life cooperation:**

The project work trains the student's design skills needed in the architect's profession.

**Other information:**

This studio course is intended for registered bachelor level students of the Oulu School of Architecture.

**453504A: Design of Apartment Blocks, 10 op**

**Voimassaolo:** 01.08.2015 -

**Opiskelumuoto:** Intermediate Studies

**Laji:** Course

**Vastuuyksikkö:** Oulu School of Architecture

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

**Opintokohteen kielet:** Finnish

**ECTS Credits:**

10 ECTS

**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 fulfils the building regulations and to produce its working and detail drawings.

**Contents:**

The content of the course is defined in connection with the assignment of the exercise project. 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, independent working.

**Learning activities and teaching methods:**

34 hours of lectures, 90 hours face-to-face teaching in the studio, 146 hours of independent working

**Target group:**

3<sup>rd</sup> 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 learning diary.

**Grading:**

1-5

**Person responsible:**

Professor Janne Pihlajaniemi, university teacher Petri Aarnio

**Working life cooperation:**

The guidance of the exercise is partly based on tutelage given by architects working in the design profession.

**Other information:**

-

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

**Voimassaolo:** 01.08.2005 -

**Opiskelumuoto:** Intermediate Studies

**Laji:** Course

**Vastuuyksikkö:** Oulu School of Architecture

**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 ECTS

**Language of instruction:**

Finnish

**Timing:**

autumn and spring terms

**Learning outcomes:**

After completing the course the student recognizes the essential PHV-technical drawing symbols, can read the drawings and define the space requirements for the PHV-technical systems. Furthermore he/she can present how the assembly, maintenance and observability of the damages has to be taken care in the design and realization of the systems. The student can also explain the impact of the PHV-systems to the energy efficiency, indoor air quality and comfort of the buildings.

**Mode of delivery:**

Face-to-face teaching, independent working.

**Learning activities and teaching methods:**

20 hours of lectures, 25 hours of tutoring, 36 hours of independent working.

**Target group:**

3<sup>rd</sup> year bachelor level students

**Prerequisites and co-requisites:**

-



**Recommended optional programme components:**

The project assignment will be done together with the Design of Apartment Blocks –course assignment.

**Recommended or required reading:**

List of readings will be handed out during the course.

**Assessment methods and criteria:**

Lectures, exercises and a possible exam.

**Grading:**

1-5

**Person responsible:**

Engineer Pentti Kuurola

**Working life cooperation:**

The teacher in charge works in the field of HVAC planning.

**Other information:**

-

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

**Voimassaolo:** 01.08.2005 -

**Opiskelumuoto:** Intermediate Studies

**Laji:** Course

**Vastuuyksikkö:** Oulu School of Architecture

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

**Opettajat:** Jorma Korkalo

**Opintokohteen kielet:** Finnish

**ECTS Credits:**

2 ECTS

**Language of instruction:**

Finnish

**Timing:**

spring terms

**Learning outcomes:**

After completing the course the student recognizes the essential electrical drawing symbols, can read the drawings and define the space requirements for the electrical systems. Furthermore he/she can present how the assembly and maintenance has to be taken care in the design. The student can also explain the essential criteria for the artificial lighting.

**Mode of delivery:**

Face-to-face teaching

**Learning activities and teaching methods:**

18 hours of lectures, 6 hours of tutoring, 30 hours of independent working.

**Target group:**

3rd year bachelor level students

**Prerequisites and co-requisites:**

-

**Recommended optional programme components:**

The project assignment will be done together with the Design of Apartment Blocks –course assignment.

**Recommended or required reading:**

List of readings will be handed out during the course.

**Assessment methods and criteria:**

Lectures, exercises. The evaluation is based on the exercise.

**Grading:**

1-5

**Person responsible:**

Engineer Jorma Korkalo

**Working life cooperation:**

The teacher in charge works in the field of electrical installations consulting.

**Other information:**

-

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

**Voimassaolo:** 01.08.2007 -

**Opiskelumuoto:** Intermediate Studies

**Laji:** Course

**Vastuuyksikkö:** Oulu School of Architecture

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

**Opintokohteen kielet:** Finnish

**ECTS Credits:**

8 ECTS

**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 practical design work. The student is able to solve design problems and visualize solutions in different scales, and implement various possibilities of visual expression in independent creative work.

**Contents:**

The student elaborates one of the compulsory design exercises of the 3rd year bachelor's courses completed for the respective teaching unit (Contemporary Architecture III, Town Planning, Housing Design, Design of Apartment Blocks or History of Architecture III Studio Course) according to the Bachelor's thesis instructions provided by the school.

**Mode of delivery:**

Individual project work and contact teaching in studio and computer lab.

**Learning activities and teaching methods:**

The bachelor's thesis completes the bachelor level studies. The bachelor's thesis is a design project supervised by the teaching unit whose exercise has been selected as the basis for the bachelor's project. The final outcome is presented in the common bachelor's seminar in May.

**Target group:**

3<sup>rd</sup> year bachelor students

**Prerequisites and co-requisites:**

Compulsory basic and intermediate studies and the 3rd year studio exercise which has been selected by the student as the basis for the bachelor's thesis project.

**Recommended optional programme components:**

study units included in the preparatory module

**Recommended or required reading:**

The materials of the course which includes the studio project that the student has selected for the basis of his/her bachelor's thesis

**Assessment methods and criteria:**

The student follows the guidelines given by the supervising teaching unit and the general bachelor's thesis instructions of the Oulu School of Architecture. The thesis project is presented as a slide show (pdf or ppt) by the student in the Bachelor's seminar at the end of the study year. The student submits the finalized thesis electronically into the Laturi system of the University Library for reviewing and publication.

**Grading:**

pass / fail

**Person responsible:**

Professor of the supervising teaching unit

**Working life cooperation:**

The bachelor's thesis is based on the integrated common studio project of the 3rd year study program. The project is carried out as a typical real working-life design project, proceeding from an areal town plan and urban visualization to outlining a group of multi-story apartment buildings, and further on to detailed working drawings of an apartment block. The selected starting point for the integrated studio generally is an urban development project of current interest. External experts, such as city planning officers and representatives of local building companies, may be involved. A major part of the teachers are operating also as practicing architects outside the university.

**Other information:**

Detailed bachelor's thesis instructions are published on the school's web pages.

## 030005P: Information Skills, 1 op

**Opiskelumuoto:** Basic Studies

**Laji:** Course

**Vastuuyksikkö:** Faculty of Technology

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

**Opettajat:** Ursula Heinikoski

**Opintokohteen kielet:** Finnish

**Leikkaavuudet:**

030004P Introduction to Information Retrieval 0.0 op

**ECTS Credits:**

1 ECTS credits

**Language of instruction:**

Finnish

**Timing:**

Architecture 3. spring semester, period I; biochemistry 3. autumn semester; biology 3. autumn semester, period I; chemistry 3. autumn semester, period II; computer science and engineering 2. spring semester, period IV; electrical engineering 3. spring semester, period III; geosciences 2. spring semester, period IV; geography 1. and 3. spring semester, *period III*; industrial engineering and management 3. year; information processing sciences 1. year; mathematics and physics 1. spring semester; mechanical engineering 3. year; mining engineering and mineral processing 3. year; process and environmental engineering 1. year, period I. Master's degree students in Industrial Engineering and Management 1st year.

**Learning outcomes:**

Upon completion of the course, the students:

- can search scientific information,
- can use the most important databases of their discipline,
- know how to evaluate search results and information sources,
- can use the reference management tool

**Contents:**

Scientific information retrieval process, the most important databases and publication channels of the discipline, evaluation of the reliability of information sources and RefWorks reference management tool.

**Mode of delivery:**

Blended teaching: classroom training, web-based learning material and exercises, a group assignment.

**Learning activities and teaching methods:**

Training sessions 8 h, group working 7 h, self-study 12 h

**Target group:**

Compulsory for all bachelor degree students of Faculty of information technology and electrical engineering, Faculty of Technology, Oulu mining school, Oulu School of architecture and Faculty of science. Optional for students of biochemistry. Compulsory also for the Master's degree students in Industrial Engineering and Management who have not earlier studies in information skills.

**Prerequisites and co-requisites:**

-

**Recommended optional programme components:**

-

**Recommended or required reading:**

Web learning material Tieteellisen tiedonhankinnan opas <http://libguides oulu.fi/tieteellinentiedonhankinta>

**Assessment methods and criteria:**

Passing the course requires participation in the training sessions and successful completion of the course assignments.

**Grading:**

pass/fail

**Person responsible:**

Ursula Heinikoski

**Working life cooperation:**

-

**Other information:**

-

## 450522A: Seminar, 1 op

**Voimassaolo:** 01.08.2015 -

**Opiskelumuoto:** Intermediate Studies

**Laji:** Course

**Vastuuyksikkö:** Oulu School of Architecture

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

**Opintokohteen kielet:** Finnish

**ECTS Credits:**

1

**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 to communicate and transmit visual information

**Contents:**

The student presents his 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 teaching unit.

**Target group:**

3<sup>rd</sup> 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

**Grading:**

pass / fail

**Person responsible:**

Professor of the supervising teaching unit

**Working life cooperation:**

The seminar trains and develops the students' skills in communication and presentation for working life.

**Other information:**

Separate detailed bachelor's work instructions are published on the web pages of the School of Architecture.

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

**Opiskelumuoto:** Intermediate Studies

**Laji:** Course

**Vastuuyksikkö:** Oulu School of Architecture

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

**Opintokohteen kielet:** Finnish

**ECTS Credits:**

8 ECTS

**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:**

3<sup>rd</sup> year bachelor students

**Prerequisites and co-requisites:**

Bachelor's work.

**Recommended optional programme components:**

The maturity test is linked with the bachelor's work.

**Recommended or required reading:**

-

**Assessment methods and criteria:**

The recommended extent of the essay is 3 pages.

**Grading:**

pass / fail

**Person responsible:**

Professor of the supervising teaching unit

**Working life cooperation:**

-

**Other information:**

-

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

**Voimassaolo:** 01.08.2005 -

**Opiskelumuoto:** Optional Studies

**Laji:** Study module

**Vastuuyksikkö:** Oulu School of Architecture

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

**Opintokohteen kielet:** Finnish

Ei opintojaksokuvauksia.

### *Optional Studies*

#### **450541A: Photoshop, Advanced Photomanipulation, 2 op**

**Voimassaolo:** 01.08.2011 -

**Opiskelumuoto:** Intermediate Studies

**Laji:** Course

**Vastuuyksikkö:** Oulu School of Architecture

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

**Opettajat:** Asko Leinonen

**Opintokohteen kielet:** Finnish

**Leikkaavuudet:**

ay450541A Photoshop, Advanced Photomanipulation (OPEN UNI) 2.0 op

**ECTS Credits:**

2

**Language of instruction:**

Finnish

**Timing:**

varying

**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:**

Lectures and course work.

**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 Oulu School of Architecture or an equivalent work).

**Grading:**

1-5

**Person responsible:**

N.N.

**Working life cooperation:**

Students will learn to use the advanced skills of Adobe Photoshop software and apply those skills in hands-on work such as finishing conceptual drawing renderings.

**Other information:**

Adding a finishing touch in Photoshop to images produced with other rendering software. The course is intended for the students of the Oulu School of Architecture only

**450517A: Revit Architecture Advanced, 2 op**

**Voimassaolo:** 01.08.2015 -

**Opiskelumuoto:** Intermediate Studies

**Laji:** Course

**Vastuuyksikkö:** Oulu School of Architecture

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

**Opintokohteen kielet:** Finnish

**ECTS Credits:**

2

**Language of instruction:**

Finnish

**Timing:**

varying

**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:**

Lectures and course work.

**Prerequisites and co-requisites:**

450550P RI Revit basics

**Recommended or required reading:**

Software help files and handouts.

**Assessment methods and criteria:**

Based on a project work (the presentation material of a design course at the Oulu School of Architecture or an equivalent work).

**Grading:**

1-5

**Person responsible:**

N.N.

**Working life cooperation:**

Students will learn to use the advanced skills of Revit software and apply those skills in hands-on work.

**Other information:**

Introduction to effective Building Information Modelling in Revit Architecture Environment.  
The course is intended for registered students of the Oulu School of Architecture only.

**450540A: Archicad Advanced, 2 op**

**Voimassaolo:** 01.08.2015 -

**Opiskelumuoto:** Intermediate Studies

**Laji:** Course

**Vastuuyksikkö:** Oulu School of Architecture

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

**Opintokohteen kielet:** Finnish

**ECTS Credits:**

2

**Language of instruction:**

Finnish

**Timing:**

varying

**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:**

Lectures and course work.

**Prerequisites and co-requisites:**

450551P A1 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 Oulu School of Architecture or an equivalent work).

**Grading:**

1-5

**Person responsible:**

n.n.

**Working life cooperation:**

Students will learn to use the advanced skills of ArchiCAD software and apply those skills in hands-on work.

**Other information:**

Introduction to advanced Building Information Modelling in Archicad.

The course is intended for registered students of the Oulu School of Architecture only.

**450545A: Illustrator Basics, 1 op**

**Voimassaolo:** 01.08.2011 -

**Opiskelumuoto:** Intermediate Studies

**Laji:** Course

**Vastuuyksikkö:** Oulu School of Architecture

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

**Opintokohteen kielet:** Finnish

**ECTS Credits:**

1

**Language of instruction:**

Finnish

**Timing:**

varying

**Learning outcomes:**

The student is familiar with the basics of the vector graphics tools and has an overall understanding of the software. The student is able to produce publishable layouts that combine graphic and text material from different sources.

**Contents:**

Vector drawing, importing graphics, layout and PDF-export.

**Mode of delivery:**

Lectures and course work.

**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 Oulu School of Architecture or an equivalent work).

**Grading:**

1-5

**Person responsible:**



N.N.

**Working life cooperation:**

Students will learn to use the advanced skills of Adobe Illustrator software and apply those skills in hands-on work.

**Other information:**

Basics of Illustrator for page layout and vector graphics.

The course is intended for registered students of the Oulu School of Architecture only.

**450547A: Indesign Basics, 1 op**

**Voimassaolo:** 01.08.2011 -

**Opiskelumuoto:** Intermediate Studies

**Laji:** Course

**Vastuuyksikkö:** Oulu School of Architecture

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

**Opettajat:** Asko Leinonen

**Opintokohteen kielet:** Finnish

**Leikkaavuudet:**

ay450547A Indesign Basics (OPEN UNI) 1.0 op

**ECTS Credits:**

1

**Language of instruction:**

Finnish

**Timing:**

varying

**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:**

Lectures and course work.

**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 Oulu School of Architecture or an equivalent work).

**Grading:**

1-5

**Person responsible:**

n.n.

**Working life cooperation:**

Students will learn to use the basic skills of Adobe InDesign publishing software and apply those skills in hands-on work. Students can use style settings in InDesign to make well controlled text and graphic layouts.

**Other information:**

Basic features of page layout in Indesign.

The course is intended for registered students of the Oulu School of Architecture only.

**450553P: 3ds Max basics, 1 op**

**Voimassaolo:** 01.08.2017 -

**Opiskelumuoto:** Basic Studies

**Laji:** Course

**Vastuuyksikkö:** Oulu School of Architecture

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

**Opintokohteen kielet:** Finnish

**ECTS Credits:**

1

**Language of instruction:**

Finnish

**Timing:**

varying

**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:**

Lectures and course work.

**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 School of Architecture or an equivalent work).

**Grading:**

1-5

**Person responsible:**

n.n.

**Working life cooperation:**

Students will learn to use the modeling and rendering basics of 3ds Max software and apply those skills in hands-on work such as conceptual drawing renderings.

**Other information:**

Introduction to 3Ds MAX modelling and illustration rendering in conjunction with other CAD software. The course is intended for registered students of the Oulu School of Architecture only.

**450554P: art Artlantis basics, 1 op**

**Voimassaolo:** 01.08.2017 -

**Opiskelumuoto:** Basic Studies

**Laji:** Course

**Vastuuyksikkö:** Oulu School of Architecture

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

**Opintokohteen kielet:** Finnish

**ECTS Credits:**

1

**Language of instruction:**

Finnish

**Timing:**

varying

**Learning outcomes:**

The student can import a 3D-model and combine it with other models. On the basis of this model, the student can set the material, lighting and camera properties for a satisfactory end result in the rendering.

**Contents:**

Basics of the software.

**Mode of delivery:**

Lectures and course work.

**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 School of Architecture or an equivalent work).

**Grading:**

1-5

**Person responsible:**

n.n.

**Working life cooperation:**

Students will learn to use the basics of Artlantis software and apply those skills in hands-on work.

**Other information:**

Use of Artlantis. The course is intended for registered students of the Oulu School of Architecture only.

#### **450549A: Rhinoceros and Grasshopper basics, 2 op**

**Voimassaolo:** 01.08.2015 -

**Opiskelumuoto:** Basic Studies

**Laji:** Course

**Vastuuyksikkö:** Oulu School of Architecture

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

**Opintokohteen kielet:** Finnish

**ECTS Credits:**

2 ECTS

**Language of instruction:**

Finnish

**Timing:**

flexible

**Learning outcomes:**

The student is able to apply the basic toolset of the software for modelling precise freeform 3D-models and line drawings. In addition the student can transfer model data between other software.

**Contents:**

Surfaces, solids, annotation, layout.

**Mode of delivery:**

Lectures and course work.

**Recommended optional programme components:**

The courses is an optional study unit

**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 Oulu School of Architecture or an equivalent work).

**Grading:**

1-5

**Person responsible:**

NN

**Working life cooperation:**

-

**Other information:**

Introduction to simple modelling in Rhinoceros. The course is intended for the registered students of the Oulu School of Architecture only.

**450516P: Portfolio, 2 op**

**Voimassaolo:** 01.08.2013 -

**Opiskelumuoto:** Basic Studies

**Laji:** Course

**Vastuuyksikkö:** Oulu School of Architecture

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

**Opettajat:** Asko Leinonen

**Opintokohteen kielet:** Finnish

**ECTS Credits:**

2

**Language of instruction:**

Finnish

**Timing:**

1<sup>st</sup> half of spring semester

**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:**

-

**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.

**Grading:**

1-5

**Person responsible:**

Architect Asko Leinonen

**Working life cooperation:**

The students compile a design portfolio of their own project work. The purpose is to complete the portfolio with the student's later projects and use it to present one's skills when applying for a job.

**Other information:**

-

**455513A: Visual Arts III, 4 op**

**Opiskelumuoto:** Intermediate Studies

**Laji:** Course

**Vastuuyksikkö:** Oulu School of Architecture

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

**Opettajat:** Matti Sanaksenaho

**Opintokohteen kielet:** Finnish

**Leikkaavuudet:**

ay455513A Visual Arts III (OPEN UNI) 4.0 op

**Voidaan suorittaa useasti:** Kyllä

**ECTS Credits:**

4

**Language of instruction:**

Finnish

**Timing:**

Autumn semester

**Learning outcomes:**

After completing the course the student has learned to select methods of visual presentation and can implement these skills in the exercise work.

**Contents:**

Introduction to various illustration techniques: graphics, painting, serigraphy or modelling.

**Mode of delivery:**

Face-to-face teaching and individual work

**Learning activities and teaching methods:**

guided learning and individual work

**Target group:**

bachelor level students

**Prerequisites and co-requisites:**

-

**Recommended optional programme components:**

The course is optional study unit within the bachelor's degree studies.

**Recommended or required reading:**

List of readings will be given during the course.

**Assessment methods and criteria:**

The course is evaluated on the outcome of the exercise work

**Grading:**

1-5

**Person responsible:**

Professor Matti Sanaksenaho

**Working life cooperation:**

-

**Other information:**

The course is realized in cooperation with the open university.

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

**Opiskelumuoto:** Intermediate Studies

**Laji:** Course

**Vastuuyksikkö:** Oulu School of Architecture

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

**Opintokohteen kielet:** Finnish

**Voidaan suorittaa useasti:** Kyllä

**ECTS Credits:**

4

**Language of instruction:**

Finnish

**Timing:**

Second half of spring semester

**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

**Grading:**

1-5

**Person responsible:**

Architect Asko Leinonen

**Working life cooperation:**

-

**Other information:**

-

**451505A: History of Architecture III practices, 5 op**

**Voimassaolo:** 01.08.2011 -

**Opiskelumuoto:** Intermediate Studies

**Laji:** Course

**Vastuuyksikkö:** Oulu School of Architecture

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

**Opettajat:** Anna-Maija Ylimaula

**Opintokohteen kielet:** Finnish

**ECTS Credits:**

5

**Language of instruction:**

Finnish (literature partly in English)

**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. 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:**

Contact teaching, additionally independent studies.

**Learning activities and teaching methods:**

50 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 network drive of the faculty. 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. The evaluation is based on the quality of the restoration project.

**Grading:**

1-5

**Person responsible:**

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

**Working life cooperation:**

The restoration project is done in cooperation with the owner of the real estate.

**Other information:**

-

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

**Voimassaolo:** 01.08.2005 -

**Opiskelumuoto:** Intermediate Studies

**Laji:** Course

**Vastuuyksikkö:** Oulu School of Architecture

**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:**

Flexible, autumn and spring terms

**Contents:**

The content of the course is defined separately.

**Mode of delivery:**

Varies

**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.

**Grading:**

1-5, pass /fail

**Person responsible:**

Professor Anna-Maija Ylimaula.

**Working life cooperation:**

: Depending on the content of the course the designing office or the property owner may offer a work placement.

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

**Voimassaolo:** 01.08.2005 -

**Opiskelumuoto:** Intermediate Studies

**Laji:** Course

**Vastuuyksikkö:** Oulu School of Architecture

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

**Opettajat:** Matti Sanaksenaho

**Opintokohteen kielet:** Finnish

**Voidaan suorittaa useasti:** Kyllä

**ECTS Credits:**

2-10

**Language of instruction:**

Finnish

**Timing:**

Autumn term 1-2 and Spring term 1-2

**Learning outcomes:**

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

**Contents:**

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

**Mode of delivery:**

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

**Learning activities and teaching methods:**

Lectures and exercise.

**Prerequisites and co-requisites:****Recommended optional programme components:**

Freebased and recommended to those, who are going to make a graduation in contemporary architecture or architectural construction.

**Recommended or required reading:**

Supplemental reading list will be supplied during the course.

**Assessment methods and criteria:**

Based on exercises.

**Grading:**

1-5

**Person responsible:**

Prof. Matti Sanaksenaho

**Working life cooperation:**

Students train the real process of designing from sketches to main drawings and to working drawings. In the workshop real building work is practised.

**453540A: Varying Courses of Architectural Construction, 2 - 10 op****Voimassaolo:** 01.08.2005 -**Opiskelumuoto:** Intermediate Studies**Laji:** Course**Vastuuyksikkö:** Oulu School of Architecture**Arvostelu:** 1 - 5, pass, fail**Opintokohteen kielet:** Finnish**Voidaan suorittaa useasti:** Kyllä**ECTS Credits:**

2-10 ECTS

**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:**

Face-to-face teaching, independent working.

**Learning activities and teaching methods:**

54 – 270 hours of independent working and personal and / or group tutoring

**Target group:**

bachelor 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.

**Grading:**

1-5

**Person responsible:**

professor Janne Pihlajaniemi, university teacher Petri Aarnio

**Working life cooperation:**

It is possible to complete the course as a part of the independent working life performances

**Other information:**

-

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

**Opiskelumuoto:** Intermediate Studies

**Laji:** Course

**Vastuuyksikkö:** Oulu School of Architecture

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

**Opintokohteen kielet:** Finnish

**Voidaan suorittaa useasti:** Kyllä

**ECTS Credits:**

2-10 ECTS

**Language of instruction:**

Finnish or English

**Timing:**

Autumn term 1-2 / Spring term 1-2

**Learning outcomes:**

After completing the study unit 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 + 46-206 h independent studying.

**Target group:**

Bachelor level students.

**Prerequisites and co-requisites:**

-

**Recommended optional programme components:**

-

**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.

**Grading:**

1-5

**Person responsible:**

Postdoctoral Researcher Leena Soudunsaari.

**Working life cooperation:**

The course trains skills needed in the architect's profession within urban design and planning.

**Other information:**

This study unit is intended for registered master level students of the Oulu School of Architecture, including the international students. The student can include the study unit into her / his optional studies.

**450503A: Practical Training / Construction Site, 5 op****Voimassaolo:** 01.08.2005 -**Opiskelumuoto:** Intermediate Studies**Laji:** Practical training**Vastuuyksikkö:** Oulu School of Architecture**Arvostelu:** 1 - 5, pass, fail**Opettajat:** Petri Aarnio**Opintokohteen kielet:** Finnish**ECTS Credits:**

5

**Language of instruction:**

Finnish

**Timing:**Flexible, the best timing for construction site practical training is the summer after the 1<sup>st</sup> or 2<sup>nd</sup> year of bachelor level.**Learning outcomes:**

After the construction site practical training the student can describe one possible building site of a building designed by him / her in the future and its working environment looked from the point of view of his / her study. The student can name problems in the working environment and can make improvement proposals to them. The student finds point of contacts between working life and the studies.

**Contents:**

The objective of the practical training is to acquaint the student with the working life on the building site. The practical training supports and promotes theoretical studying. Furthermore, the practical training gives the general idea about the technical and economic organizing, administration and management of the building site. The practical training is usually performed in the ordinary worker's position.

**Mode of delivery:**

The student finds the placement for construction site practical training by her- / himself. The construction site practical training can be replaced with weekly visits on the site during half a year.

**Learning activities and teaching methods:**

The student writes an illustrated report, which describes the events of the site and present a testimonial of the training. In a seminar organized after the practical training students describe and compare their experiences of training.

**Target group:**1<sup>st</sup> and 2<sup>nd</sup> year bachelor students**Prerequisites and co-requisites:**

-

**Recommended optional programme components:**

-

**Recommended or required reading:**

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

**Assessment methods and criteria:**

Training at the construction site, writing the training report, participation in the seminar.

**Grading:**

pass / fail

**Person responsible:**

university teacher Petri Aarnio

**Working life cooperation:**

The student is employed by a construction company and carry out the tasks given to him / her as an employee or explore the construction site under the guidance of the construction company staff.

**Other information:**

-

**450505A: Practical Training, 5 op**

**Voimassaolo:** 01.08.2015 -

**Opiskelumuoto:** Intermediate Studies

**Laji:** Practical training

**Vastuuyksikkö:** Oulu School of Architecture

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

**Opettajat:** Petri Aarnio

**Opintokohteen kielet:** Finnish

**ECTS Credits:**

5 ECTS

**Language of instruction:**

Finnish

**Timing:**

The best timing for practical training in architect's office is the summers during bachelor level.

**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:**

The student writes a report and presents a testimonial of the training. In a seminar organized after the training students describe and compare their experiences of training. The practical training is supervised by the laboratory of architectural construction.

**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:**

Practical training in architect's office, writing a training report, participation in the seminar

**Grading:**

pass / fail

**Person responsible:**

University teacher Petri Aarnio

**Working life cooperation:**

The student is employed by an architect's office and carry out the tasks given to him / her as an employee.

**450000P: Activities in positions of responsibility and student associations, 1 - 10 op**

**Voimassaolo:** 01.08.2017 -

**Opiskelumuoto:** Basic Studies

**Laji:** Course

**Vastuuyksikkö:** Oulu School of Architecture

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

**Opettajat:** Matti Sanaksenaho

**Opintokohteen kielet:** Finnish

**A410224: Design-led Urban Renewal, 30 op**

**Voimassaolo:** 01.08.2015 -

**Opiskelumuoto:** Module of the Option

**Laji:** Study module

**Vastuuyksikkö:** Oulu School of Architecture

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

**Opintokohteen kielet:** English

Ei opintojaksokuvauksia.

*Compulsory courses*

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

**Voimassaolo:** 01.08.2005 -

**Opiskelumuoto:** Advanced Studies

**Laji:** Course

**Vastuuyksikkö:** Oulu School of Architecture

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

**Opettajat:** Sari Hirvonen-Kantola

**Opintokohteen kielet:** English

**ECTS Credits:**

10 ECTS

**Language of instruction:**

English

**Timing:**

Autumn term 1-2

**Learning outcomes:**

After completing the study unit the student is able to recognize features of contemporary and future interests within the design of public urban space, and to identify interaction between the built environment, society, business and innovations, culture, technology, and nature. The student is able to demonstrate various programmes, plans, and aims for development of the functional and physical environment. The student is able to carry out a thematic analysis, set design goals, and to produce multifunctional development plans for urban spaces and areas.

**Contents:**

The lectures deal with the design of public urban spaces, and procedures of integrative urban design, planning and development. Operational models and practices for enhancing competitiveness and vitality of urban areas are introduced. The exercise work focuses on thematic urban design and development of the functional and physical environment in the urban context.

**Mode of delivery:**

Contact teaching and independent studying.

**Learning activities and teaching methods:**

16 h lectures + 80 h contact teaching in design studio (including workshop) + 174 h independent studying.

**Target group:**

1<sup>st</sup> year master level students.

**Prerequisites and co-requisites:**

-

**Recommended optional programme components:**

The study unit 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. Exercise (design project). Grading is based on the exercise.

**Grading:**

1-5

**Person responsible:**

Postdoctoral Researcher Sari Hirvonen-Kantola

**Working life cooperation:**

As the planning project may be commissioned by a city or another party, the student will work on future development prospects in the area. Then, the collaboration simulates the procedures of public-private-partnerships in urban development.

**Other information:**

This studio course is intended for registered master level students of the Oulu School of Architecture, including the international students.

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

**Voimassaolo:** 01.08.2005 -

**Opiskelumuoto:** Advanced Studies

**Laji:** Course

**Vastuuyksikkö:** Oulu School of Architecture

**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 + maximum 80 h contact teaching

**Target group:**

1st year master students

**Prerequisites and co-requisites:**

-

**Recommended optional programme components:**

The course is part of the Design-Led Urban Renewal study module. The design project included is connected with the Urban Space Design -course.

**Recommended or required reading:**

Course literature will be announced separately during the course.

**Assessment methods and criteria:**

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

**Grading:**

1-5

**Person responsible:**

University Lecturer Aulikki Herneoja

**Working life cooperation:**

Urban space detailing is a sector of urban space design practices. The contents of Urban Space Detailing course belong to the work scope of a practicing architect focusing on designing urban environments.

**Other information:**

This course unit is intended for registered master level students of the Oulu School of Architecture, including the international students of the school.

**45522S: Design in Urban Context, 10 op**

**Voimassaolo:** 01.08.2012 -

**Opiskelumuoto:** Advanced Studies

**Laji:** Course

**Vastuuyksikkö:** Oulu School of Architecture

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

**Opettajat:** Aulikki Herneoja

**Opintokohteen kielet:** English



**ECTS Credits:**

10

**Language of instruction:**

English

**Timing:**

Autumn term 1 &amp; 2

**Learning outcomes:**

After completing the course the student is able to recognize an industrially designed product and to analyze its design related substance, and is able to make a commentary literary synopsis. The student can carry out an exercise work of designing an object related with urban context, making use of 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, with emphasis on urban context. Research skills are on display, when the 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 the design exercise work, which is a design task object related to the Urban Space Detailing course.

**Mode of delivery:**

Contact teaching and independent study.

**Learning activities and teaching methods:**

16h lectures and/or contact teaching and maximum 80 h personal or/and group tutoring

**Target group:**

1st year master students

**Prerequisites and co-requisites:**

-

**Recommended optional programme components:**

The course is part of the Design-Led Urban Renewal study module. The design project is connected with the Urban Space Detailing course.

**Recommended or required reading:**

Course literature will be announced separately during the course.

**Assessment methods and criteria:**

The student participates in lectures, makes a lecture diary, a commentary synopsis, and submits a design exercise made according to given instructions. The evaluation is based on the outcome of the design project (2/3) and the lecture diary, and the commentary synopsis altogether (1/3). No exam is included in the course.

**Grading:**

1-5

**Person responsible:**

University Lecturer Aulikki Herneoja

**Working life cooperation:**

The Design in Urban Context course is design-oriented of its nature, but the course has also background and research oriented contents. The exercise assignment of the Design in Urban Context course, dealing with object design in urban environment, is simulating one of the tasks practicing architect faces in her/his career.

**Other information:**

This study unit is intended for registered master level students of the Oulu School of Architecture, including international students of the school.

**Voimassaolo:** 01.08.2015 -

**Opiskelumuoto:** Supplementary Module

**Laji:** Study module

**Vastuuyksikkö:** Oulu School of Architecture

**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

**Vastuuyksikkö:** Oulu School of Architecture

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

**Opettajat:** Mahlamäki Rainer

**Opintokohteen kielet:** Finnish

**ECTS Credits:**

15

**Language of instruction:**

English / Finnish

**Timing:**

spring term

**Learning outcomes:**

The objective of the course is to initiate the students through lectures and exercises into the architecture and design of public buildings.

After completing the course the student has the skills to sketch a medium- size (approx. 1000–8000 m<sup>2</sup>) 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 course is a studio course with emphasis on the design exercise. The lectures deal with current features of 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 an integral part of the course program.

**Mode of delivery:**

Lectures and face-to-face teaching

**Learning activities and teaching methods:**

The course comprises a design exercise and lectures. 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.

**Target group:**

1<sup>st</sup> 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

**Grading:**

1 - 5, pass / fail

**Person responsible:**

Professor Rainer Mahlamäki

**Working life cooperation:**

The project work trains the student's design skills needed in the architect's profession.

**Other information:**

This studio course is intended for registered master level students of the Oulu School of Architecture, including the international students.

## **A410250: Design of Public Buildings 2, 15 op**

**Voimassaolo:** 01.08.2015 -

**Opiskelumuoto:** Supplementary Module

**Laji:** Study module

**Vastuuyksikkö:** Oulu School of Architecture

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

**Opintokohteen kielet:** Finnish

Ei opintojaksokuvauksia.

### *Compulsory courses*

#### **453533A: Large scale structures, 5 op**

**Voimassaolo:** 01.08.2011 -

**Opiskelumuoto:** Intermediate Studies

**Laji:** Course

**Vastuuyksikkö:** Oulu School of Architecture

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

**Opettajat:** Janne Pihlajaniemi

**Opintokohteen kielet:** Finnish

**ECTS Credits:**

5 ECTS

**Language of instruction:**

Finnish / English

**Timing:**

Spring term

**Learning outcomes:**

Upon completion of the course the student identifies the qualities of concrete, steel and wood 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 wood 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:**

The course is based mainly on independent studies.

**Learning activities and teaching methods:**

Lectures and demonstrations 24 h, independent working 111 h.

**Target group:**

1st year master students.

**Prerequisites and co-requisites:**

Bachelor level courses in structures and building sciences.

**Recommended optional programme components:**

Design work is linked to the Contemporary architecture IV-assignment.

**Recommended or required reading:**

Study compendiums. Other course literature will be announced separately.

**Assessment methods and criteria:**

Lectures and design project. The course is based mainly on independent studies. In the project assignment students work together with the students of construction engineering. The evaluation is based on the design project.

**Grading:**

1-5

**Person responsible:**

professor Janne Pihlajaniemi, NN

**Working life cooperation:**

-

**Other information:**

This studio course is intended for registered master level students of the Oulu School of Architecture

**455517S: Architectural Lighting, 5 op**

**Voimassaolo:** 01.08.2005 -

**Opiskelumuoto:** Advanced Studies

**Laji:** Course

**Vastuuyksikkö:** Oulu School of Architecture

**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 in relation to selection of light sources and designing controllable lighting 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:**

1st year master students

**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.

**Grading:**

1-5

**Person responsible:**

University Teacher Henrika Pihlajaniemi

**Working life cooperation:**

The design of buildings from the perspectives of daylighting and energy-efficiency belongs to the tasks of an architect. Additionally, the tasks include designing the principles and realization of artificial lighting in a way that it supports the functions, use and architectural character of the building. There is a wide demand for expertise of lighting design in the field of architectural design. The teachers of the course have experience as practicing architects and design professionals and they have direct relation to the professional working life.

**Other information:**

This course unit is intended for registered master level students of the Oulu School of Architecture, including the international students of the school.

**455517A: Interior Design, 5 - 10 op**

**Voimassaolo:** 01.08.2012 -

**Opiskelumuoto:** Intermediate Studies

**Laji:** Course

**Vastuuyksikkö:** Oulu School of Architecture

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

**Opettajat:** Aulikki Herneojja

**Opintokohteen kielet:** Finnish

**Leikkaavuudet:**

ay455517A Interior Design (OPEN UNI) 5.0 op

**ECTS Credits:**

5-10

**Language of instruction:**

English

**Timing:**

Spring term 1 &amp; 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 ECTS credits, after completing the course the student can prepare working drawings and identify quality factors, displaying his / her command of the basics of designing of 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 ECTS credits 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, including 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 ECTS credits 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 ECTS credits additional lectures and/or contact teaching and personal and/or group tutoring altogether maximum 50 h is included.

**Target group:**

1st year master students

**Prerequisites and co-requisites:**

-

**Recommended optional programme components:**

The course is part of Design of Public Buildings study module. Interior Design is suggested to proceed together with the course in Architectural Lighting.

**Recommended or required reading:**

Course literature will be announced separately 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 the outcome of the exercise work. No exam is included in the course.

**Grading:**

1-5

**Person responsible:**

University Lecturer Aulikki Herneoja

**Working life cooperation:**

Interior design in general and designing fixed furniture belong to the tasks of an architect practicing in the field of building design.

**Other information:**

This course is intended for registered master level students of the Oulu School of Architecture, including the international students of the school.

## **A410276: Advanced Architectural Design, 30 op**

**Voimassaolo:** 01.08.2015 -

**Opiskelumuoto:** Advanced Module

**Laji:** Study module

**Vastuuyksikkö:** Oulu School of Architecture

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

**Opintokohteen kielet:** English

Ei opintojaksokuvauksia.

### *Compulsory courses*

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

**Opiskelumuoto:** Advanced Studies

**Laji:** Course

**Vastuuyksikkö:** Oulu School of Architecture

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

#### **Contents:**

The course is a studio course with emphasis on the design exercise. 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 with the help of the teachers. The exercise can comprise a design project complemented by a written survey.

#### **Mode of delivery:**

Lectures and face-to-face teaching, studio sessions and lectures

#### **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:**

2<sup>nd</sup> 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.

**Grading:**

1-5, pass / fail

**Person responsible:**

Professor Rainer Mahlamäki

**Working life cooperation:**

The project work trains the student's design skills needed in the architect's profession.

**Other information:**

This studio course is intended for registered master level students of the Oulu School of Architecture, including the international students.

**455561S: Advanced Studies in Architectural Design, 2 - 10 op**

**Voimassaolo:** 01.08.2015 -

**Opiskelumuoto:** Advanced Studies

**Laji:** Course

**Vastuuyksikkö:** Oulu School of Architecture

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

**Opettajat:** Aulikki Herneoja

**Opintokohteen kielet:** Finnish

**ECTS Credits:**

2-10

**Language of instruction:**

English

**Timing:**

Autumn term 1-2

**Learning outcomes:**

After completing the course the student is able to fairly independently carry out a project work related to architectural design. The student is able to implement the previously learned knowledge through particular issues defined individually together 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 advance his/her knowledge of a special issue of design through a literary and /or a visual thesis and in design exercise according to his / her own choice. The chosen design issue should be attached to the theme of Contemporary Architecture V 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.

**Mode of delivery:**

Contact teaching and independent studying.

**Learning activities and teaching methods:**

Personal or / and group tutoring maximum 20-80 hours.

**Target group:**

2nd year master students

**Prerequisites and co-requisites:**

-

**Recommended optional programme components:**



The course belongs to the Advanced Architectural Design study module. The Advanced Studies in Architectural Design course is suggested to proceed together with course Contemporary Architecture V.

**Recommended or required reading:**

Course literature will be selected according to the chosen issue of design.

**Assessment methods and criteria:**

The student completes a design exercise according to given 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:**

Concentrating on design contents of architecture in written and / or in visual form belong to demanding architectural design tasks in work life context..

**Other information:**

This course is intended for registered master level students of the Oulu School of Architecture, including the international students of the school.

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

**Voimassaolo:** 01.08.2006 -

**Opiskelumuoto:** Advanced Studies

**Laji:** Course

**Vastuuyksikkö:** Oulu School of Architecture

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

**Opettajat:** Anna-Maija Ylimaula

**Opintokohteen kielet:** Finnish

**ECTS Credits:**

2-10 ECTS

**Language of instruction:**

Finnish and English

**Timing:**

Autumn term 1 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. 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 by outside experts.

**Mode of delivery:**

Active participation and writing a scientific article are required for accomplishing the course

**Learning activities and teaching methods:**

Lectures and seminars 15 h and workshop 6 h. 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:**

Bachelor's degree in architecture. Genuine interest in reading and reflecting the triangle of research, theory and practice.

**Recommended optional programme components:**

The course is recommended particularly for students who intend to do their master's thesis or doctoral thesis in the field of architecture. For accomplishing the course, an active participation is required. Instead of an exam the 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 Seminars. The course requires attendance and writing of a scientific article.

**Grading:**

1-5, pass, fail

**Person responsible:**

Professor Anna-Maija Ylimaula, Professor Janne Pihlajaniemi

**Working life cooperation:**

The course provides a good basis for doctoral studies for those who wish to combine theory and practice or become researchers of architecture.

**Other information:**

The course is intended for registered domestic and international master level students of the Oulu School of Architecture only.

**450506A: Practical Training in Architect's Office, 5 op**

**Voimassaolo:** 01.08.2015 -

**Opiskelumuoto:** Intermediate Studies

**Laji:** Practical training

**Vastuuyksikkö:** Oulu School of Architecture

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

**Opettajat:** Petri Aarnio

**Opintokohteen kielet:** Finnish

**ECTS Credits:**

5 ECTS

**Language of instruction:**

Finnish / English

**Timing:**

The best timing for practical training in architect's office is the summers during master level.

**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:**

The architect's degree consists at least two months practical training in architect's office. The student writes a report and presents a testimonial of the training. In a seminar organized after the training students describe and compare their experiences of training. The practical training is supervised by the laboratory of architectural construction.

**Target group:**

Master 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:**

Practical training in architect's office, writing a training report, participation in the seminar.

**Grading:**

Pass / Fail

**Person responsible:**

University teacher Petri Aarnio

**Working life cooperation:**

The student is employed by an architect's office and carry out the tasks given to him / her as an employee.

**450502A: Excursion Abroad, 2 op**

**Voimassaolo:** 01.08.2005 -

**Opiskelumuoto:** Intermediate Studies

**Laji:** Course

**Vastuuyksikkö:** Oulu School of Architecture

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

**Opettajat:** Mahlamäki Rainer

**Opintokohteen kielet:** Finnish

**ECTS Credits:**

2 ECTS

**Language of instruction:**

Finnish / English

**Timing:**

turn of the 1st and 2nd half of the autumn term

**Learning outcomes:**

The purpose of the study trip is to complement the student's ability to identify architectural sights known from the theoretical courses in architecture, their three-dimensional and empirical character as well as relation to place and history. After attending the study trip the student has a better understanding of the features of internationally significant architecture.

**Contents:**

The excursion program includes visits to top-quality architectural sights in the target city or country. The excursion program may include individual buildings, housing estates or urban spaces and surroundings. Visits to local architecture schools may also be included in the program. The course includes preparing a detailed excursion program together with the excursion leader, as well as all the practical arrangements for the trip in the spring semester of the 1<sup>st</sup> year of the master' program.

**Mode of delivery:**

Contact teaching and individual study. The study trip is organized at the end of the first half /at the beginning of the second half of the autumn semester in the second year of the master's level (duration of the trip including travel is max. 14 days). The excursion leader is selected and the destination as well as the schedule for the excursion program are outlined by the end of the preceding year. The excursion program is approved by the education committee of the school. The detailed program and travel arrangements will be completed during the spring semester of the 1<sup>st</sup> year of the master level together with the excursion leader, who is one of the full-time teachers of the School. The students have to cover their own expenses of the excursion.

**Learning activities and teaching methods:**

2 h lectures and 56 h additional contact teaching

**Target group:**

1st and 2nd year master level students

**Prerequisites and co-requisites:**

-

**Recommended or required reading:**

The excursion program including detailed information on the destinations.

**Assessment methods and criteria:**

Attending the study trip and preparing the excursion program and guide, including travel arrangements.

**Grading:**

Pass

**Person responsible:**

Professor Rainer Mahlamäki

**Working life cooperation:**

Cooperation with building industry and local companies (fundraising)

**Other information:**

-

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

**Opiskelumuoto:** Advanced Studies

**Laji:** Diploma thesis

**Vastuuyksikkö:** Oulu School of Architecture

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

**Opintokohteen kielet:** Finnish

**ECTS Credits:**

30 ECTS

**Language of instruction:**

Finnish / English

**Timing:**

Recommended timing the spring term of the 2<sup>nd</sup> year of the master level.

**Learning outcomes:**

The student is able to set objectives to the given design task, and through processes of creative work he is able to develop varying 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 visualization of design work. The student is capable of taking the responsibility of his own professional progress and specialization.

**Contents:**

The student defines the contents of his / her work, consulting the supervisor of the diploma thesis. The education board of the school approves the contents, subject and the topic of the thesis work.

**Mode of delivery:**

Individual work. The diploma thesis completes the master's degree studies.

**Learning activities and teaching methods:**

The diploma thesis work is supervised by a teaching staff member of the School. The work is presented and evaluated in the common diploma seminar.

**Target group:**

2<sup>nd</sup> 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 thesis 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. The thesis work is to be saved digitally according to specific egradu instructions in the LATURI system of the university library for reviewing and evaluation two weeks before its final presentation in the common diploma seminar. One week before the final presentation the student pins up the panels of the diploma work for display at the university.

**Grading:**

1-5

**Person responsible:**

Supervisor of the thesis

**Working life cooperation:**

In specific cases the student may present a design or a research project, or a realized project made at the student's own or his / her employer's practice as diploma thesis work at the School of Architecture. In such cases the student has to be able to clearly indicate his/her own personal output in the respective project. The work may also be based on an open architectural competition proposal made by the student, which through supervision will be developed further to the student's final thesis according to the master's thesis instructions of the School of Architecture. The thesis work may also be part of a project financed by external stakeholders.

**Other information:**

Separate detailed diploma thesis instructions are published on the web pages of the school

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

**Opiskelumuoto:** Advanced Studies

**Laji:** Course

**Vastuuyksikkö:** Oulu School of Architecture

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

**Opintokohteen kielet:** Finnish

**ECTS Credits:**

0 ECTS

**Language of instruction:**

Finnish / Swedish / English

**Timing:**

flexible

**Learning outcomes:**

The student is able to communicate in the language of the thesis and is able to show intimate knowledge of the field of the thesis.

**Contents:**

The essay is written on the subject of the thesis.

**Mode of delivery:**

The maturity test is a part of the master's dissertation.

**Learning activities and teaching methods:**

Written essay.

**Target group:**

master level students

**Prerequisites and co-requisites:**

Master's thesis

**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 master's thesis.

**Grading:**

pass / fail

**Person responsible:**

The thesis supervisor

**Working life cooperation:**

-

**Other information:**

-

**900020Y: Finnish for Advanced Students, 4 op**

**Voimassaolo:** 01.08.1995 -

**Opiskelumuoto:** Language and Communication Studies

**Laji:** Course

**Vastuuyksikkö:** Languages and Communication

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

**Opintokohteen kielet:** Finnish

**Leikkaavuudet:**

ay900020Y Finnish for Advanced Students (OPEN UNI) 4.0 op

**Proficiency level:**

B1, according to the Common European Framework

**Status:**

-

**Required proficiency level:**

A2.2 Completion of the Intermediate Finnish course 2 (900016Y) or the equivalent language skills.

**ECTS Credits:**

4 ECTS credits

**Language of instruction:**

Finnish

**Timing:**

-

**Learning outcomes:**

By the end of the course the student can deal with most situations in Finnish. S/he can understand clear standard input on familiar matters regularly encountered in work, school and leisure and also the main points of messages and conversations in colloquial Finnish. The student is able to produce simple coherent and logical text on different topics. S/he can describe experiences and events, dreams, hopes and ambitions, and also explain and justify her/his opinions better than before.

**Contents:**

During the course students acquire the knowledge and skills for communicating also in more formal situations and learn to understand formal and official texts. In the course students develop their Finnish skills for everyday living, study and work purposes. In addition, they also study in more detail the differences between spoken and written language.

The topics and communicative situations covered in the course are: the social welfare and political system in Finland (e.g. family life, working life, culture, history, environmental matters) giving a presentation on a topic within one's own field or of personal interest.

The structures studied are: more about conditional (perfect tense of conditional), more about passive (past, perfect and pluperfect of passive), the imperative, the essive and translative cases, more about comparison of adjectives, more case government.

**Mode of delivery:**

Multi-modal teaching (Contact teaching, on-line teaching and independent work)

**Learning activities and teaching methods:**

Lessons once a week (40 h), guided study in the Optima learning environment (40 h) and self study (20 h)

**Target group:**

International degree and post-graduate degree students, exchange students of the University and the staff of the university

**Prerequisites and co-requisites:**

Completion of the Intermediate Finnish course 2 or equivalent skills in Finnish

**Recommended optional programme components:**

-

**Recommended or required reading:**

Gehring, S., Heinzmann, S., Päivärinne, S. & Udd, T. (2013): Suomen mestari 3 (chapters 1–6) and material in the Optima learning environment

**Assessment methods and criteria:**

Regular and active participation in the weekly lessons (once a week), self study tasks, other homework assignments and written exam at the end of the course will be observed in assessment.

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

**Grading:**

Grading scale is 1-5.

**Person responsible:**

Anne Koskela

**Working life cooperation:**

-

**Other information:**

Sign-up in WebOodi. The lessons will be held once a week during a 13-week period.

**900019Y: Finnish for Foreigners (beginners), 2 op**

**Voimassaolo:** 01.08.1995 - 31.07.2005

**Opiskelumuoto:** Language and Communication Studies

**Laji:** Course

**Vastuuyksikkö:** Languages and Communication

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

**Opintokohteen kielet:** Finnish

Ei opintojaksokuvauksia.

**900021Y: Finnish for Foreigners, Beginners 3, 6 op**

**Voimassaolo:** 01.08.1995 - 31.07.2005

**Opiskelumuoto:** Language and Communication Studies

**Laji:** Course

**Vastuuyksikkö:** Languages and Communication

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

**Opintokohteen kielet:** Finnish

Ei opintojaksokuvauksia.

**900022Y: Finnish for Foreigners, Intermediate 1, 2 op**

**Voimassaolo:** 01.08.1995 - 31.07.2007

**Opiskelumuoto:** Language and Communication Studies

**Laji:** Course

**Vastuuyksikkö:** Languages and Communication

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

**Opintokohteen kielet:** Finnish

Ei opintojaksokuvauksia.

**900016Y: Intermediate Finnish Course 2, 5 op**

**Voimassaolo:** 01.08.1995 -

**Opiskelumuoto:** Language and Communication Studies

**Laji:** Course

**Vastuuyksikkö:** Languages and Communication

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

**Opintokohteen kielet:** Finnish

**Proficiency level:**

A2.2

**Status:**

The course is intended for the international students in every faculty of University of Oulu.

**Required proficiency level:**

A2.1, Completion of the Intermediate Finnish course 1 (900015Y) or the equivalent language skills.

**ECTS Credits:**

5 ECTS credits

**Language of instruction:**

Finnish

**Timing:**

-

**Learning outcomes:**

By the end of the course the student can communicate in various informal situations in Finnish. The student understands the main points of messages and talk around her/him. S/he can produce simple connected text on topics which are familiar or of personal interest and describe experiences and also report heard content to others.

**Contents:**

The course is an upper intermediate course. During the course students learn the necessary written and oral skills to be able to cope in informal situations arising during everyday life, work and study. In the course, students practise understanding more Finnish talk and newspaper articles, and finding information and talking about it to other people. Part of the course consists of guided self study tasks. In the classes the main stress is on oral exercises and group work.

The topics and communicative situations covered in the course are: transactions e.g. in clothes shops, at the doctor's and on the phone, Finnish small talk, reacting in different situations, planning a trip and booking e.g. a flight, information and facts about Finland and its history, telling about one's home country and home town, features of colloquial/spoken language.

The structures studied are: the perfect and pluperfect, revision of all the verb tenses, comparison of adjectives, conditional, more about the plural declension of nouns (particularly the plural partitive case), more about object and predicative cases, the passive imperfect.

**Mode of delivery:**

Contact teaching and guided self study

**Learning activities and teaching methods:**

Lessons once a week (40 h) and guided self study (85 h)

**Target group:**

International degree and post-graduate degree students, exchange students and the staff members of the University

**Prerequisites and co-requisites:**

Completion of the Intermediate Finnish Course 1

**Recommended optional programme components:**

-

**Recommended or required reading:**

Gehring, S. & Heinzmann, S.: **Suomen mestari 2 (chapters 6 - 9)**

**Assessment methods and criteria:**

Regular and active participation in the weekly lessons (twice a week), homework assignments and written exam at the end of the course will be observed in assessment.

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

**Grading:**

Grading scale is 1-5.

**Person responsible:**

Anne Koskela

**Working life cooperation:**

-

**Other information:**

Sign-up in WebOodi. The lessons will be held **once a week** during a 13-week period.



## 451515S: Restoration, 15 op

**Opiskelumuoto:** Advanced Studies

**Laji:** Course

**Vastuuyksikkö:** Oulu School of Architecture

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

**Opettajat:** Anna-Maija Ylimaula

**Opintokohteen kielet:** Finnish

**Voidaan suorittaa useasti:** Kyllä

**ECTS Credits:**

15 ECTS

**Language of instruction:**

Finnish and English

**Timing:**

Spring term 1 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 design work in restoration projects which also have an emphasis on building conservation of modern heritage. 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.

**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 30 h and 120 h contact teaching in design studio and seminars. Design task is done partially as group work. Field trips.

**Target group:**

Elective course spring term 1<sup>st</sup> year Master level students.

**Prerequisites and co-requisites:**

The student has passed courses I-III of history of architecture or has substituting study credits.

The course is carried out during the spring term of the 2<sup>nd</sup> year of master level 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.

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

**Grading:**

1-5

**Person responsible:**

Professor Anna-Maija Ylimaula, restoration architect Helena Hirviniemi, University lecturer N.N., University teacher Özlem Özer-Kemppainen

**Working life cooperation:**

Completing the restoration course increases the student's possibilities to find employment, since most practicing offices work both on new designs and restorations or extensions to older buildings which need to be restored.

**Other information:**

The course is intended for registered domestic and international master level students of the Oulu School of Architecture only.

## 900023Y: Structures of the Finnish Language, 4 op

**Voimassaolo:** 01.08.1995 -

**Opiskelumuoto:** Language and Communication Studies

**Laji:** Course

**Vastuuyksikkö:** Languages and Communication

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

**Opintokohteen kielet:** Finnish

**Proficiency level:**

B2, according to the Common European Framework

**Status:**

The course is intended for the international students in every faculty of University of Oulu.

**Required proficiency level:**

Completion of the Finnish for advanced students or the equivalent language skills.

**ECTS Credits:**

4 ECTS credits

**Language of instruction:**

Finnish

**Timing:**

-

**Learning outcomes:**

By the end of the course the student has a general overview of the structures of the Finnish language. S/he has gained a deeper understanding of the special nature and features of the Finnish language and can apply structures in her/his own communication.

**Contents:**

During the course, students will extend their knowledge of Finnish grammar and improve their skills by practising a variety of structures until they become second nature. The course consists of sections on phonology, morphology and syntax. Each of these sections includes a theoretical component and exercises. The course consists of sections on phonology, morphology and syntax. Each of these sections includes a theoretical component and exercises.

**Mode of delivery:**

The course will be held online using an Optima environment.

**Learning activities and teaching methods:**

One contact lesson and after that guided independent studying using online.

**Target group:**

International degree and post-graduate degree students, exchange students and the staff members of the University

**Prerequisites and co-requisites:**

Completion of the Finnish for advanced students or the equivalent language skills.

**Recommended optional programme components:**

-

**Recommended or required reading:**

Web based material

**Assessment methods and criteria:**

To pass the course, the students must complete all the required assignments.

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

**Grading:**

Grading is on a pass/fail basis.

**Person responsible:**

Anne Koskela

**Working life cooperation:**

-

**Other information:**

Sign-up in WebOodi.

## 900017Y: Survival Finnish, 2 op

**Voimassaolo:** 01.08.1995 -

**Opiskelumuoto:** Language and Communication Studies

**Laji:** Course

**Vastuuyksikkö:** Languages and Communication

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

**Opintokohteen kielet:** Finnish

**Leikkaavuudet:**

ay900017Y Survival Finnish Course (OPEN UNI) 2.0 op

**Proficiency level:**

A1.1

**Status:**

The course is intended for the international students in every faculty of Oulu University.

**Required proficiency level:**

No previous Finnish studies.

**ECTS Credits:**

2 ECTS credits

**Language of instruction:**

Finnish and English

**Timing:**

-

**Learning outcomes:**

By the end of the course the student can understand and use some very common everyday expressions and phrases, and s/he can locate informational content in simple texts and messages. The student also knows the basic characteristics of Finnish language and Finnish communication styles.

**Contents:**

This is an introductory course which aims to help students to cope with the most common everyday situations in Finnish. During the course, students learn some useful everyday phrases, some general features of the vocabulary and grammar, and the main principles of pronunciation.

The topics and communicative situations covered in the course are: general information about the Finnish language, some politeness phrases (how to greet people, thank and apologize), introducing oneself, giving and asking for basic personal information, numbers, some time expressions (how to tell and ask the time, days of the week, time of day), food, drink and asking about prices.

The structures studied are: personal pronouns and their possessive forms, forming affirmative, negative and interrogative sentences, the conjugation of some verbs, the basics of the partitive singular and some local cases for answering the 'where'-question.

**Mode of delivery:**

Multi-modal teaching (Contact teaching, on-line teaching and independent work)

**Learning activities and teaching methods:**

Lessons 1–2 times a week (12–14 h) and guided self study (36 h)

**Target group:**

International degree and post-graduate degree students and exchange students of the University

**Prerequisites and co-requisites:**

-

**Recommended optional programme components:**

-

**Recommended or required reading:**

Will be provided during the course.

**Assessment methods and criteria:**

Regular and active participation in the weekly lessons (twice a week), homework assignments and written exam at the end of the course will be observed in assessment.

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

**Grading:**

Grading scale is 1-5.

**Person responsible:**

Anne Koskela

**Working life cooperation:**

-

**Other information:**

Sign-up in WebOodi.

**900018Y: Survival finnish (extended), 4 op**

**Voimassaolo:** 01.08.1995 - 31.07.2007

**Opiskelumuoto:** Language and Communication Studies

**Laji:** Course

**Vastuuyksikkö:** Languages and Communication

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

**Opintokohteen kielet:** Finnish

Ei opintojaksokuvauksia.

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

**Voimassaolo:** 01.08.2005 -

**Opiskelumuoto:** Advanced Studies

**Laji:** Course

**Vastuuyksikkö:** Oulu School of Architecture

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

**Contents:**

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

**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 optional programme components:**

-

**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.

**Grading:**

1 - 5, fail or pass / fail

**Person responsible:**

Professor Rainer Mahlamäki

**Working life cooperation:**

The project work trains the student's design skills needed in the architect's profession.

**Other information:**

This studio course is intended for registered master level students of the Oulu School of Architecture.

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

**Voimassaolo:** 01.08.2005 -

**Opiskelumuoto:** Advanced Studies

**Laji:** Course

**Vastuuyksikkö:** Oulu School of Architecture

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

**Opintokohteen kielet:** Finnish

**Voidaan suorittaa useasti:** Kyllä

**ECTS Credits:**

2-10 ECTS

**Language of instruction:**

Finnish or English

**Timing:**

Autumn term 1-2 / Spring term 1-2

**Learning outcomes:**

After completing the study unit 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. In case the student writes a treatise, the student has basic competence in scientific writing after completing the study unit.

**Contents:**

Current features of planning, urban design, and urban development, such as urban planning in developing countries and/or in a northern context, and sustainable planning.

**Mode of delivery:**

Mostly independent studying + contact teaching.

**Learning activities and teaching methods:**

8-64 h contact teaching in design studio + 46-206 h independent studying.

**Target group:**

4th year Master's level students.

**Prerequisites and co-requisites:**

-

**Recommended optional programme components:**

The study unit 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. The mode of delivery can also be a scientific treatise, which is agreed on separately.

**Grading:**

1-5, pass / fail

**Person responsible:**

Postdoctoral Researcher Emilia Rönkkö

**Working life cooperation:**

-

**Other information:**

This study unit is intended for registered master level students of the Oulu School of Architecture, including the international students. The student can also include the study unit into her / his optional studies if not included in the module "Sustainable Urban Development". Students of the Master's Programme in geography can complete the study unit by writing a scientific essay.

**453551S: Varying courses in Architectural Construction, 2 - 10 op**

**Voimassaolo:** 01.08.2015 -

**Opiskelumuoto:** Advanced Studies

**Laji:** Course

**Vastuuyksikkö:** Oulu School of Architecture

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

**Opettajat:** Janne Pihlajaniemi

**Opintokohteen kielet:** Finnish

**Language of instruction:**

Finnish / English

**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:**

Face-to-face teaching, independent working.

**Learning activities and teaching methods:**

54 – 270 hours of independent working and 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.

**Grading:**

1-5

**Person responsible:**

professor Janne Pihlajaniemi, university teacher Petri Aarnio

**Working life cooperation:**

It is possible to complete the course as a part of the independent working life performances.

**Other information:**

-

## **451551S: Varying courses in History of Architecture and Renovation, 2 - 10 op**

**Voimassaolo:** 01.08.2015 -

**Opiskelumuoto:** Advanced Studies

**Laji:** Course

**Vastuuyksikkö:** Oulu School of Architecture

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

**Opettajat:** Anna-Maija Ylimaula

**Opintokohteen kielet:** Finnish

**ECTS Credits:**

2-10 ECTS

**Language of instruction:**

Finnish / English

**Timing:**

Flexible, autumn and spring terms

**Contents:**

The content of the course is defined separately.

**Learning activities and teaching methods:**

Varies

**Target group:**

Master's level students

**Recommended or required reading:**

Defined separately

**Assessment methods and criteria:**

The course does not include any lectures or examinations. Assessment depends on the assignment.

**Grading:**

1-5, pass, fail

**Person responsible:**

Professor Anna-Maija Ylimaula

**Working life cooperation:**

Depending on the content of the course the designing office or the property owner may offer a work placement.

**Other information:**

-

## **A410224: Design-led Urban Renewal, 30 op**

**Voimassaolo:** 01.08.2015 -

**Opiskelumuoto:** Module of the Option

**Laji:** Study module

**Vastuuyksikkö:** Oulu School of Architecture

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

**Opintokohteen kielet:** English

Ei opintojaksokuvauksia.

### *Compulsory courses*

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

**Voimassaolo:** 01.08.2005 -

**Opiskelumuoto:** Advanced Studies

**Laji:** Course

**Vastuuyksikkö:** Oulu School of Architecture

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

**Opettajat:** Sari Hirvonen-Kantola

**Opintokohteen kielet:** English

**ECTS Credits:**

10 ECTS

**Language of instruction:**

English

**Timing:**

Autumn term 1-2

**Learning outcomes:**

After completing the study unit the student is able to recognize features of contemporary and future interests within the design of public urban space, and to identify interaction between the built environment, society, business and innovations, culture, technology, and nature. The student is able to demonstrate various programmes, plans, and aims for development of the functional and physical environment. The student is able to carry out a thematic analysis, set design goals, and to produce multifunctional development plans for urban spaces and areas.

**Contents:**

The lectures deal with the design of public urban spaces, and procedures of integrative urban design, planning and development. Operational models and practices for enhancing competitiveness and vitality of urban areas are introduced. The exercise work focuses on thematic urban design and development of the functional and physical environment in the urban context.

**Mode of delivery:**

Contact teaching and independent studying.

**Learning activities and teaching methods:**

16 h lectures + 80 h contact teaching in design studio (including workshop) + 174 h independent studying.

**Target group:**

1<sup>st</sup> year master level students.

**Prerequisites and co-requisites:**

-

**Recommended optional programme components:**

The study unit 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. Exercise (design project). Grading is based on the exercise.

**Grading:**

1-5

**Person responsible:**

Postdoctoral Researcher Sari Hirvonen-Kantola

**Working life cooperation:**

As the planning project may be commissioned by a city or another party, the student will work on future development prospects in the area. Then, the collaboration simulates the procedures of public-private-partnerships in urban development.

**Other information:**

This studio course is intended for registered master level students of the Oulu School of Architecture, including the international students.

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

**Voimassaolo:** 01.08.2005 -

**Opiskelumuoto:** Advanced Studies

**Laji:** Course

**Vastuuyksikkö:** Oulu School of Architecture

**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 + maximum 80 h contact teaching

**Target group:**

1st year master students

**Prerequisites and co-requisites:**

-

**Recommended optional programme components:**

The course is part of the Design-Led Urban Renewal study module. The design project included is connected with the Urban Space Design -course.

**Recommended or required reading:**

Course literature will be announced separately during the course.

**Assessment methods and criteria:**

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

**Grading:**

1-5

**Person responsible:**

University Lecturer Aulikki Herneoja

**Working life cooperation:**

Urban space detailing is a sector of urban space design practices. The contents of Urban Space Detailing course belong to the work scope of a practicing architect focusing on designing urban environments.

**Other information:**

This course unit is intended for registered master level students of the Oulu School of Architecture, including the international students of the school.

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

**Voimassaolo:** 01.08.2012 -

**Opiskelumuoto:** Advanced Studies

**Laji:** Course

**Vastuuyksikkö:** Oulu School of Architecture

**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 to analyze its design related substance, and is able to make a commentary literary synopsis. The student can carry out an exercise work of designing an object related with urban context, making use of 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, with emphasis on urban context. Research skills are on display, when the 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 the design exercise work, which is a design task object related to the Urban Space Detailing course.

**Mode of delivery:**

Contact teaching and independent study.

**Learning activities and teaching methods:**

16h lectures and/or contact teaching and maximum 80 h personal or/and group tutoring

**Target group:**

1st year master students

**Prerequisites and co-requisites:**

-

**Recommended optional programme components:**

The course is part of the Design-Led Urban Renewal study module. The design project is connected with the Urban Space Detailing course.

**Recommended or required reading:**

Course literature will be announced separately during the course.

**Assessment methods and criteria:**

The student participates in lectures, makes a lecture diary, a commentary synopsis, and submits a design exercise made according to given instructions. The evaluation is based on the outcome of the design project (2/3) and the lecture diary, and the commentary synopsis altogether (1/3). No exam is included in the course.

**Grading:**

1-5

**Person responsible:**

University Lecturer Aulikki Herneoja

**Working life cooperation:**

The Design in Urban Context course is design-oriented of its nature, but the course has also background and research oriented contents. The exercise assignment of the Design in Urban Context course, dealing with object design in urban environment, is simulating one of the tasks practicing architect faces in her/his career.

**Other information:**

This study unit is intended for registered master level students of the Oulu School of Architecture, including international students of the school.

**A410225: Sustainable Built Environment 1, 30 op**

**Voimassaolo:** 01.08.2015 -

**Opiskelumuoto:** Module of the Option

**Laji:** Study module

**Vastuuyksikkö:** Oulu School of Architecture

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

**Opintokohteen kielet:** Finnish

Ei opintojaksokuvauksia.

*Compulsory*

**453508A: Energy Efficient Building, lecture course, 5 op**

**Voimassaolo:** 01.08.2015 -

**Opiskelumuoto:** Intermediate Studies

**Laji:** Course

**Vastuuyksikkö:** Oulu School of Architecture

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

**Opintokohteen kielet:** Finnish

**ECTS Credits:**

5 ECTS

**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:**

face-to-face teaching, independent working

**Learning activities and teaching methods:**

26 hours of lectures, 109 hours of independent working

**Target group:**

1st year master level students

**Prerequisites and co-requisites:**

Completion of BSc in architecture.

**Recommended optional programme components:**

The course works as a lecture course for the Renovation of the block of flats - course and Varying Courses of Architectural Construction

**Recommended or required reading:**

List of readings will be handed out during the course.

**Assessment methods and criteria:**

Assessment is based on energy calculation exercise and exam

**Grading:**

1-5

**Person responsible:**

Professor Janne Pihlajaniemi, arkkitehti Pertti Hartikainen

**Working life cooperation:**

The lectures given by architects working in the design profession.

**Other information:**

-

**456527S: Condition Assessment of Buildings, 5 op****Voimassaolo:** 01.08.2013 -**Opiskelumuoto:** Advanced Studies**Laji:** Course**Vastuuyksikkö:** Oulu School of Architecture**Arvostelu:** 1 - 5, pass, fail**Opettajat:** Anu-Sisko Soikkeli**Opintokohteen kielet:** Finnish**ECTS Credits:**

5

**Language of instruction:**

Finnish

**Timing:**

Autumn semester 1 or 2

**Learning outcomes:**

The course provides the student with facilities for making a condition assessment even in a demanding renovation project.

After completing the course the student can draw conclusions from the condition and the requirements for renovation of a building. The student can classify the forms of condition assessment, carry out the assessment and prepare a report.

**Contents:**

Common methods and all phases of condition assessment. As an exercise a condition assessment is made a situ and in laboratory circumstances.

**Mode of delivery:**

Contact teaching and independent studying.

**Learning activities and teaching methods:**

Lectures, laboratory exercises, group work, examination.

**Target group:**

Master level students.

**Recommended optional programme components:**

-

**Recommended or required reading:**

Study compendium. Course literature will be announced separately.

**Assessment methods and criteria:**

Design project and exam.

**Grading:**

1-5

**Person responsible:**

Senior lecturer Anu Soikkeli

**Working life cooperation:**

The student knows how to prepare the condition assessment of a building and knows what the meaning of it is.

**Other information:**

The course is intended for the registered students of the Oulu School of Architecture only.

**456507S: Renovation of Apartment Buildings, 10 op****Voimassaolo:** 01.08.2015 -**Opiskelumuoto:** Advanced Studies**Laji:** Course**Vastuuyksikkö:** Oulu School of Architecture**Arvostelu:** 1 - 5, pass, fail**Opettajat:** Anu-Sisko Soikkeli**Opintokohteen kielet:** Finnish**ECTS Credits:**

8

**Language of instruction:**

Finnish

**Timing:**

Autumn semester 1-2

**Learning outcomes:**

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

**Contents:**

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

**Mode of delivery:**

Contact teaching and independent studying.

**Learning activities and teaching methods:**

Lectures, drawing a renovation plan for an apartment building, group work in pairs.

**Target group:**

1st year Master level students.

**Prerequisites and co-requisites:**

Design of Apartment Blocks -course.

**Recommended optional programme components:**

-

**Recommended or required reading:**

Course literature will be announced separately.

**Assessment methods and criteria:**

Design project and exam.

**Grading:**

1-5

**Person responsible:**

Senior lecturer Anu Soikkeli

**Working life cooperation:**

The student knows how to use the condition assessment in course of a planning process.

**Other information:**

The course is intended for the registered students of the Oulu School of Architecture only.

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

**Voimassaolo:** 01.08.2005 -

**Opiskelumuoto:** Intermediate Studies

**Laji:** Course

**Vastuuyksikkö:** Oulu School of Architecture

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

**Opettajat:** Anna-Maija Ylimaula

**Opintokohteen kielet:** Finnish

**ECTS Credits:**

10

**Language of instruction:**

Finnish and English

**Timing:**

Autumn 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 design practice.

During the course the student learns to analyse 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 design 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, the exercise and the field trips are connected.

**Mode of delivery:**

Lectures and contact teaching in design studio.

**Learning activities and teaching methods:**

Lectures 28 h and 70 h contact teaching in design studio. Design task is done partially as group work. Field trips.

**Target group:**

1<sup>st</sup> year Master level students, both Finnish and foreign students.

**Prerequisites and co-requisites:**

The student has passed courses 1-III of history of architecture or has substituting study credits.

**Recommended optional programme components:**

This course is part of the complementary module of the sustainable urban development. This course is recommended to be taken before the Restoration course (451515S)

**Recommended or required reading:**

See separate list of literature and the provided electronic 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.

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

**Grading:**

1-5

**Person responsible:**

Prof. Anna-Maija Ylimaula, University teacher Özlem Özer-Kemppainen.

**Working life cooperation:**

The planning of Historic preservation atlas for municipalities often provides employment for the students either for summer or even permanent job after graduation.

**Other information:**

-

**A410249: Design of Public Buildings 1, 15 op**

**Voimassaolo:** 01.08.2015 -

**Opiskelumuoto:** Supplementary Module

**Laji:** Study module

**Vastuuyksikkö:** Oulu School of Architecture

**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

**Vastuuyksikkö:** Oulu School of Architecture

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

**Opettajat:** Mahlamäki Rainer

**Opintokohteen kielet:** Finnish

**ECTS Credits:**

15

**Language of instruction:**

English / Finnish

**Timing:**

spring term

**Learning outcomes:**

The objective of the course is to initiate the students through lectures and exercises into the architecture and design of public buildings.

After completing the course the student has the skills to sketch a medium- size (approx. 1000–8000 m<sup>2</sup>) 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 course is a studio course with emphasis on the design exercise. The lectures deal with current features of 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 an integral part of the course program.

**Mode of delivery:**

Lectures and face-to-face teaching

**Learning activities and teaching methods:**

The course comprises a design exercise and lectures. 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.

**Target group:**

1<sup>st</sup> 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

**Grading:**

1 - 5, pass / fail

**Person responsible:**

Professor Rainer Mahlamäki

**Working life cooperation:**

The project work trains the student's design skills needed in the architect's profession.

**Other information:**

This studio course is intended for registered master level students of the Oulu School of Architecture, including the international students.

## **A410250: Design of Public Buildings 2, 15 op**

**Voimassaolo:** 01.08.2015 -

**Opiskelumuoto:** Supplementary Module

**Laji:** Study module

**Vastuuyksikkö:** Oulu School of Architecture

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

**Opintokohteen kielet:** Finnish

Ei opintojaksokuvauksia.

### *Compulsory courses*

#### **453533A: Large scale structures, 5 op**

**Voimassaolo:** 01.08.2011 -

**Opiskelumuoto:** Intermediate Studies

**Laji:** Course

**Vastuuyksikkö:** Oulu School of Architecture

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

**Opettajat:** Janne Pihlajaniemi

**Opintokohteen kielet:** Finnish

**ECTS Credits:**

5 ECTS



**Language of instruction:**

Finnish / English

**Timing:**

Spring term

**Learning outcomes:**

Upon completion of the course the student identifies the qualities of concrete, steel and wood 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 wood 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:**

The course is based mainly on independent studies.

**Learning activities and teaching methods:**

Lectures and demonstrations 24 h, independent working 111 h.

**Target group:**

1st year master students.

**Prerequisites and co-requisites:**

Bachelor level courses in structures and building sciences.

**Recommended optional programme components:**

Design work is linked to the Contemporary architecture IV-assignment.

**Recommended or required reading:**

Study compendiums. Other course literature will be announced separately.

**Assessment methods and criteria:**

Lectures and design project. The course is based mainly on independent studies. In the project assignment students work together with the students of construction engineering. The evaluation is based on the design project.

**Grading:**

1-5

**Person responsible:**

professor Janne Pihlajaniemi, NN

**Working life cooperation:**

-

**Other information:**

This studio course is intended for registered master level students of the Oulu School of Architecture

**455517S: Architectural Lighting, 5 op**

**Voimassaolo:** 01.08.2005 -

**Opiskelumuoto:** Advanced Studies

**Laji:** Course

**Vastuuyksikkö:** Oulu School of Architecture

**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 in relation to selection of light sources and designing controllable lighting 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:**

1st year master students

**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.

**Grading:**

1-5

**Person responsible:**

University Teacher Henrika Pihlajaniemi

**Working life cooperation:**

The design of buildings from the perspectives of daylighting and energy-efficiency belongs to the tasks of an architect. Additionally, the tasks include designing the principles and realization of artificial lighting in a way that it supports the functions, use and architectural character of the building. There is a wide demand for expertise of lighting design in the field of architectural design. The teachers of the course have experience as practicing architects and design professionals and they have direct relation to the professional working life.

**Other information:**

This course unit is intended for registered master level students of the Oulu School of Architecture, including the international students of the school.

**455517A: Interior Design, 5 - 10 op**

**Voimassaolo:** 01.08.2012 -

**Opiskelumuoto:** Intermediate Studies

**Laji:** Course

**Vastuuyksikkö:** Oulu School of Architecture

**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 ECTS credits, after completing the course the student can prepare working drawings and identify quality factors, displaying his / her command of the basics of designing of 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 ECTS credits 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, including 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 ECTS credits 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 ECTS credits additional lectures and/or contact teaching and personal and/or group tutoring altogether maximum 50 h is included.

**Target group:**

1st year master students

**Prerequisites and co-requisites:**

-

**Recommended optional programme components:**

The course is part of Design of Public Buildings study module. Interior Design is suggested to proceed together with the course in Architectural Lighting.

**Recommended or required reading:**

Course literature will be announced separately 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 the outcome of the exercise work. No exam is included in the course.

**Grading:**

1-5

**Person responsible:**

University Lecturer Aulikki Herneoja

**Working life cooperation:**

Interior design in general and designing fixed furniture belong to the tasks of an architect practicing in the field of building design.

**Other information:**

This course is intended for registered master level students of the Oulu School of Architecture, including the international students of the school.

**A410251: Sustainable Built Environment 2, 15 op****Voimassaolo:** 01.08.2015 -**Opiskelumuoto:** Supplementary Module**Laji:** Study module**Vastuuyksikkö:** Oulu School of Architecture**Arvostelu:** 1 - 5, pass, fail**Opintokohteen kielet:** Finnish

Ei opintojaksokuvauksia.

*Compulsory***453512A: Architectural Construction, Professional Skills, 10 op****Voimassaolo:** 01.08.2017 -**Opiskelumuoto:** Intermediate Studies**Laji:** Course**Vastuuyksikkö:** Oulu School of Architecture**Arvostelu:** 1 - 5, pass, fail**Opettajat:** Janne Pihlajaniemi**Opintokohteen kielet:** Finnish**ECTS Credits:**

10 ECTS

**Language of instruction:**

Finnish

**Timing:**

spring terms

**Learning outcomes:**

After completing the course the student understand how architecture and the profession of an architect is part of the society. The student has gained understanding of the architectural policy, architectural economics, the business related to architecture, contracts, the implementation of building projects and the organization of the design process. The student can apply the gained information with the project exercise related to building design.

**Contents:**

The content of the course is defined in connection with the assignment of the exercise project. The aim of the course is to familiarize students to the essential issues of professional practice in building design

**Mode of delivery:**

Face-to-face teaching, independent working.

**Learning activities and teaching methods:**

16 hours of lectures, 30 hours of face-to-face teaching in the studio, 224 hours of independent working.

**Target group:**

1<sup>st</sup> year master level students

**Prerequisites and co-requisites:**

Completion of BSc in architecture.

**Recommended optional programme components:**

-

**Recommended or required reading:**

The study material and the list of readings will be handed out during the course.

**Assessment methods and criteria:**

Lectures, the learning diary / the exam, exercise.

The evaluation is based on the outcome of the exercise work and the learning diary/exam.

**Grading:**

1-5

**Person responsible:**

professor Janne Pihlajaniemi

**Working life cooperation:**

The guidance of the exercise is partly based on tutelage given by architects working in the design profession.

**Other information:**

-

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

**Opiskelumuoto:** Intermediate Studies

**Laji:** Course

**Vastuuyksikkö:** Oulu School of Architecture

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

**Opintokohteen kielet:** Finnish

**Voidaan suorittaa useasti:** Kyllä

**ECTS Credits:**

2-10 ECTS

**Language of instruction:**

Finnish or English

**Timing:**

Autumn term 1-2 / Spring term 1-2

**Learning outcomes:**

After completing the study unit 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 + 46-206 h independent studying.

**Target group:**

Bachelor level students.

**Prerequisites and co-requisites:**

-

**Recommended optional programme components:**

-

**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.

**Grading:**

1-5

**Person responsible:**

Postdoctoral Researcher Leena Soudunsaari.

**Working life cooperation:**

The course trains skills needed in the architect's profession within urban design and planning.

**Other information:**

This study unit is intended for registered master level students of the Oulu School of Architecture, including the international students. The student can include the study unit into her / his optional studies.

**453513S: Energy Efficient Building, studio course, 5 op**

**Voimassaolo:** 01.08.2017 -

**Opiskelumuoto:** Advanced Studies

**Laji:** Course

**Vastuuyksikkö:** Oulu School of Architecture

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

**Opettajat:** Janne Pihlajaniemi

**Opintokohteen kielet:** Finnish

**ECTS Credits:**

5 ECTS

**Language of instruction:**

Finnish

**Timing:**

spring term

**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:**

Face-to-face teaching, independent working.

**Learning activities and teaching methods:**

240 hours of independent working, 30 hours of face-to-face teaching in the studio.

**Target group:**

1<sup>st</sup> year master level students

**Prerequisites and co-requisites:**

Completion of BSc in architecture.

**Recommended optional programme components:**

Energy Efficient Buildings course

**Recommended or required reading:**

List of readings will be handed out during the course.

**Assessment methods and criteria:**

The evaluation is made based on outcome of the individual exercise work completed independently.

**Grading:**

1-5

**Person responsible:**

professor Janne Pihlajaniemi, university teacher Petri Aarnio

**Working life cooperation:**

Visiting lectures

**Other information:**

-

## **A410252: Restoration, 15 op**

**Voimassaolo:** 01.08.2015 -

**Opiskelumuoto:** Supplementary Module

**Laji:** Study module

**Vastuuyksikkö:** Oulu School of Architecture

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

**Opintokohteen kielet:** Finnish

Ei opintojaksokuvauksia.

*Compulsory*

## **451515S: Restoration, 15 op**

**Opiskelumuoto:** Advanced Studies

**Laji:** Course

**Vastuuyksikkö:** Oulu School of Architecture

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

**Opettajat:** Anna-Maija Ylimaula

**Opintokohteen kielet:** Finnish

**Voidaan suorittaa useasti:** Kyllä

**ECTS Credits:**

15 ECTS

**Language of instruction:**

Finnish and English

**Timing:**

Spring term 1 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 design work in restoration projects which also have an emphasis on building conservation of modern heritage.

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.

**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 30 h and 120 h contact teaching in design studio and seminars. Design task is done partially as group work. Field trips.

**Target group:**

Elective course spring term 1<sup>st</sup> year Master level students.

**Prerequisites and co-requisites:**

The student has passed courses I-III of history of architecture or has substituting study credits. The course is carried out during the spring term of the 2<sup>nd</sup> year of master level 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.

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

**Grading:**

1-5

**Person responsible:**

Professor Anna-Maija Ylimaula, restoration architect Helena Hirviniemi, University lecturer N.N., University teacher Özlem Özer-Kemppainen

**Working life cooperation:**

Completing the restoration course increases the student's possibilities to find employment, since most practicing offices work both on new designs and restorations or extensions to older buildings which need to be restored.

**Other information:**

The course is intended for registered domestic and international master level students of the Oulu School of Architecture only.

## **A410275: Strategic Urban Planning, 30 op**

**Voimassaolo:** 01.08.2015 -

**Opiskelumuoto:** Advanced Module

**Laji:** Study module

**Vastuuyksikkö:** Oulu School of Architecture

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

**Opintokohteen kielet:** Finnish

Ei opintojaksokuvauksia.



*Compulsory***454505S: Municipal Planning, 15 op****Voimassaolo:** 01.08.2005 -**Opiskelumuoto:** Advanced Studies**Laji:** Course**Vastuuyksikkö:** Oulu School of Architecture**Arvostelu:** 1 - 5, pass, fail**Opettajat:** Emilia Rönkkö, Leena Soudunsaari**Opintokohteen kielet:** Finnish**ECTS Credits:**

15

**Language of instruction:**

Finnish

**Timing:**

Autumn term 1-2

**Learning outcomes:**

After completing the study unit the student can understand the main principles of strategic and participatory planning, identifies main phases and methods of contextual site analysis, general and regional planning and is able to use analysis reports and knowledge produced by stakeholders as part of the planning process. The student is able to understand inherent site opportunities and constraints, through mapping of physical and cultural attributes, and is able to set strategic goals and to comprise a holistic land use vision in co-operation with others. The student is also able to describe how a participatory planning process is managed.

**Contents:**

The study unit 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 study unit.

**Mode of delivery:**

Contact teaching and independent studying

**Learning activities and teaching methods:**

24 h lectures + 126 h other contact teaching (field trips, participatory planning seminars, contact teaching in design studio) + 255 h independent studying.

**Target group:**

Master's level students (5th year).

**Prerequisites and co-requisites:**

-

**Recommended optional programme components:**

The study unit is part of the module "Strategic Planning" and it is connected to Extension Course of Planning (454560S).

**Recommended or required reading:**

Study compendium. Required and recommended reading 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:**

Postdoctoral Researcher Emilia Rönkkö.

**Working life cooperation:**

As the planning project is commissioned by a municipality, the students will work on solutions to actual development challenges in the area. Municipal cooperation simulates the procedures in interactive land use planning. The group is in continuous interaction with local authorities, board members, entrepreneurs, associations, inhabitants and local media. The study unit includes quest lecturers from municipality and regional level organizations as well as from private consultant firms. Hence, they are able to give a versatile perspective on the different expertise required in working life.

**Other information:**

This study unit is taught entirely in Finnish and intended for registered master level students of the Oulu School of Architecture. In addition, every year three students of the Master's Programme in geography may attend the study unit.

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

**Opiskelumuoto:** Advanced Studies

**Laji:** Course

**Vastuuyksikkö:** Oulu School of Architecture

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

**Opettajat:** Leena Soudunsaari

**Opintokohteen kielet:** Finnish

**ECTS Credits:**

5-10 ECTS

**Language of instruction:**

Finnish

**Timing:**

Autumn term 1-2

**Learning outcomes:**

After completing the study unit the student is also 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. The student also understands the basics in scientific writing.

**Contents:**

The study unit concentrates on the borderline between theory and practice in strategic urban planning. Annually changing focus theme is related to a topical societal phenomenon, such as resource wise communities, healthy living environments, or the changing rural environment, connecting also to the scientific research conducted in the Faculty of Architecture.

**Mode of delivery:**

Contact teaching and independent studying.

**Learning activities and teaching methods:**

12-24 h contact teaching, including seminars + 123-246 h independent studying.

**Target group:**

Master level students (5th year).

**Prerequisites and co-requisites:**

-

**Recommended optional programme components:**

The study unit 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.

**Grading:**

1-5

**Person responsible:**

Postdoctoral Researcher Emilia Rönkkö.

**Working life cooperation:**

-

**Other information:**

This study unit is taught entirely in Finnish and intended for registered master level students of the Oulu School of Architecture, also students of the Master's Programme in geography can take the study unit.

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

**Voimassaolo:** 01.08.2006 -

**Opiskelumuoto:** Advanced Studies

**Laji:** Course

**Vastuuyksikkö:** Oulu School of Architecture

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

**Opettajat:** Anna-Maija Ylimaula

**Opintokohteen kielet:** Finnish

**ECTS Credits:**

2-10 ECTS

**Language of instruction:**

Finnish and English

**Timing:**

Autumn term 1 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. 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 by outside experts.

**Mode of delivery:**

Active participation and writing a scientific article are required for accomplishing the course

**Learning activities and teaching methods:**

Lectures and seminars 15 h and workshop 6 h. 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:**

Bachelor's degree in architecture. Genuine interest in reading and reflecting the triangle of research, theory and practice.

**Recommended optional programme components:**

The course is recommended particularly for students who intend to do their master's thesis or doctoral thesis in the field of architecture. For accomplishing the course, an active participation is required. Instead of an exam the 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 Seminars. The course requires attendance and writing of a scientific article.

**Grading:**

1-5, pass, fail

**Person responsible:**

Professor Anna-Maija Ylimaula, Professor Janne Pihlajaniemi

**Working life cooperation:**

The course provides a good basis for doctoral studies for those who wish to combine theory and practice or become researchers of architecture.

**Other information:**

The course is intended for registered domestic and international master level students of the Oulu School of Architecture only.

**450506A: Practical Training in Architect's Office, 5 op**

**Voimassaolo:** 01.08.2015 -

**Opiskelumuoto:** Intermediate Studies

**Laji:** Practical training

**Vastuuyksikkö:** Oulu School of Architecture

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

**Opettajat:** Petri Aarnio

**Opintokohteen kielet:** Finnish

**ECTS Credits:**

5 ECTS

**Language of instruction:**

Finnish / English

**Timing:**

The best timing for practical training in architect's office is the summers during master level.

**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:**

The architect's degree consists at least two months practical training in architect's office. The student writes a report and presents a testimonial of the training. In a seminar organized after the training students

describe and compare their experiences of training. The practical training is supervised by the laboratory of architectural construction.

**Target group:**

Master 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:**

Practical training in architect's office, writing a training report, participation in the seminar.

**Grading:**

Pass / Fail

**Person responsible:**

University teacher Petri Aarnio

**Working life cooperation:**

The student is employed by an architect's office and carry out the tasks given to him / her as an employee.

**450502A: Excursion Abroad, 2 op**

**Voimassaolo:** 01.08.2005 -

**Opiskelumuoto:** Intermediate Studies

**Laji:** Course

**Vastuuyksikkö:** Oulu School of Architecture

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

**Opettajat:** Mahlamäki Rainer

**Opintokohteen kielet:** Finnish

**ECTS Credits:**

2 ECTS

**Language of instruction:**

Finnish / English

**Timing:**

turn of the 1st and 2nd half of the autumn term

**Learning outcomes:**

The purpose of the study trip is to complement the student's ability to identify architectural sights known from the theoretical courses in architecture, their three-dimensional and empirical character as well as relation to place and history. After attending the study trip the student has a better understanding of the features of internationally significant architecture.

**Contents:**

The excursion program includes visits to top-quality architectural sights in the target city or country. The excursion program may include individual buildings, housing estates or urban spaces and surroundings. Visits to local architecture schools may also be included in the program. The course includes preparing a detailed excursion program together with the excursion leader, as well as all the practical arrangements for the trip in the spring semester of the 1<sup>st</sup> year of the master's program.

**Mode of delivery:**

Contact teaching and individual study. The study trip is organized at the end of the first half /at the beginning of the second half of the autumn semester in the second year of the master's level (duration of the trip including travel is max. 14 days). The excursion leader is selected and the destination as well as the schedule for the excursion program are outlined by the end of the preceding year. The excursion program is approved by the education committee of the school. The detailed program and travel

arrangements will be completed during the spring semester of the 1<sup>st</sup> year of the master level together with the excursion leader, who is one of the full-time teachers of the School. The students have to cover their own expenses of the excursion.

**Learning activities and teaching methods:**

2 h lectures and 56 h additional contact teaching

**Target group:**

1st and 2nd year master level students

**Prerequisites and co-requisites:**

-

**Recommended or required reading:**

The excursion program including detailed information on the destinations.

**Assessment methods and criteria:**

Attending the study trip and preparing the excursion program and guide, including travel arrangements.

**Grading:**

Pass

**Person responsible:**

Professor Rainer Mahlamäki

**Working life cooperation:**

Cooperation with building industry and local companies (fundraising)

**Other information:**

-

## **A410276: Advanced Architectural Design, 30 op**

**Voimassaolo:** 01.08.2015 -

**Opiskelumuoto:** Advanced Module

**Laji:** Study module

**Vastuuyksikkö:** Oulu School of Architecture

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

**Opintokohteen kielet:** English

Ei opintojaksokuvauksia.

### *Compulsory courses*

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

**Opiskelumuoto:** Advanced Studies

**Laji:** Course

**Vastuuyksikkö:** Oulu School of Architecture

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

**Contents:**

The course is a studio course with emphasis on the design exercise. 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 with the help of the teachers. The exercise can comprise a design project complemented by a written survey.

**Mode of delivery:**

Lectures and face-to-face teaching, studio sessions and lectures

**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:**

2<sup>nd</sup> 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.

**Grading:**

1-5, pass / fail

**Person responsible:**

Professor Rainer Mahlamäki

**Working life cooperation:**

The project work trains the student's design skills needed in the architect's profession.

**Other information:**

This studio course is intended for registered master level students of the Oulu School of Architecture, including the international students.

**455561S: Advanced Studies in Architectural Design, 2 - 10 op**

**Voimassaolo:** 01.08.2015 -

**Opiskelumuoto:** Advanced Studies

**Laji:** Course

**Vastuuyksikkö:** Oulu School of Architecture

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

**Opettajat:** Aulikki Herneoja

**Opintokohteen kielet:** Finnish

**ECTS Credits:**

2-10

**Language of instruction:**

English

**Timing:**

Autumn term 1-2

**Learning outcomes:**

After completing the course the student is able to fairly independently carry out a project work related to architectural design. The student is able to implement the previously learned knowledge through particular issues defined individually together 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 advance his/her knowledge of a special issue of design through a literary and /or a visual thesis and in design exercise according to his / her own choice. The chosen design issue should be attached to the theme of Contemporary Architecture V 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.

**Mode of delivery:**

Contact teaching and independent studying.

**Learning activities and teaching methods:**

Personal or / and group tutoring maximum 20-80 hours.

**Target group:**

2nd year master students

**Prerequisites and co-requisites:**

-

**Recommended optional programme components:**

The course belongs to the Advanced Architectural Design study module. The Advanced Studies in Architectural Design course is suggested to proceed together with course Contemporary Architecture V.

**Recommended or required reading:**

Course literature will be selected according to the chosen issue of design.

**Assessment methods and criteria:**

The student completes a design exercise according to given 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:**

Concentrating on design contents of architecture in written and / or in visual form belong to demanding architectural design tasks in work life context..

**Other information:**

This course is intended for registered master level students of the Oulu School of Architecture, including the international students of the school.

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

**Voimassaolo:** 01.08.2006 -

**Opiskelumuoto:** Advanced Studies

**Laji:** Course

**Vastuuyksikkö:** Oulu School of Architecture

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

**Opettajat:** Anna-Maija Ylimaula

**Opintokohteen kielet:** Finnish

**ECTS Credits:**

2-10 ECTS

**Language of instruction:**



Finnish and English

**Timing:**

Autumn term 1 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. 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 by outside experts.

**Mode of delivery:**

Active participation and writing a scientific article are required for accomplishing the course

**Learning activities and teaching methods:**

Lectures and seminars 15 h and workshop 6 h. 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:**

Bachelor's degree in architecture. Genuine interest in reading and reflecting the triangle of research, theory and practice.

**Recommended optional programme components:**

The course is recommended particularly for students who intend to do their master's thesis or doctoral thesis in the field of architecture. For accomplishing the course, an active participation is required. Instead of an exam the 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 Seminars. The course requires attendance and writing of a scientific article.

**Grading:**

1-5, pass, fail

**Person responsible:**

Professor Anna-Maija Ylimaula, Professor Janne Pihlajaniemi

**Working life cooperation:**

The course provides a good basis for doctoral studies for those who wish to combine theory and practice or become researchers of architecture.

**Other information:**

The course is intended for registered domestic and international master level students of the Oulu School of Architecture only.

**450506A: Practical Training in Architect's Office, 5 op**

**Voimassaolo:** 01.08.2015 -

**Opiskelumuoto:** Intermediate Studies

**Laji:** Practical training

**Vastuuyksikkö:** Oulu School of Architecture

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

**Opettajat:** Petri Aarnio

**Opintokohteen kielet:** Finnish

**ECTS Credits:**

5 ECTS

**Language of instruction:**

Finnish / English

**Timing:**

The best timing for practical training in architect's office is the summers during master level.

**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:**

The architect's degree consists at least two months practical training in architect's office. The student writes a report and presents a testimonial of the training. In a seminar organized after the training students describe and compare their experiences of training. The practical training is supervised by the laboratory of architectural construction.

**Target group:**

Master 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:**

Practical training in architect's office, writing a training report, participation in the seminar.

**Grading:**

Pass / Fail

**Person responsible:**

University teacher Petri Aarnio

**Working life cooperation:**

The student is employed by an architect's office and carry out the tasks given to him / her as an employee.

**450502A: Excursion Abroad, 2 op**

**Voimassaolo:** 01.08.2005 -

**Opiskelumuoto:** Intermediate Studies

**Laji:** Course

**Vastuuyksikkö:** Oulu School of Architecture

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

**Opettajat:** Mahlamäki Rainer

**Opintokohteen kielet:** Finnish

**ECTS Credits:**

2 ECTS

**Language of instruction:**

Finnish / English

**Timing:**

turn of the 1st and 2nd half of the autumn term

**Learning outcomes:**

The purpose of the study trip is to complement the student's ability to identify architectural sights known from the theoretical courses in architecture, their three-dimensional and empirical character as well as relation to place and history. After attending the study trip the student has a better understanding of the features of internationally significant architecture.

**Contents:**

The excursion program includes visits to top-quality architectural sights in the target city or country. The excursion program may include individual buildings, housing estates or urban spaces and surroundings. Visits to local architecture schools may also be included in the program. The course includes preparing a detailed excursion program together with the excursion leader, as well as all the practical arrangements for the trip in the spring semester of the 1<sup>st</sup> year of the master' program.

**Mode of delivery:**

Contact teaching and individual study. The study trip is organized at the end of the first half /at the beginning of the second half of the autumn semester in the second year of the master's level (duration of the trip including travel is max. 14 days). The excursion leader is selected and the destination as well as the schedule for the excursion program are outlined by the end of the preceding year. The excursion program is approved by the education committee of the school. The detailed program and travel arrangements will be completed during the spring semester of the 1<sup>st</sup> year of the master level together with the excursion leader, who is one of the full-time teachers of the School. The students have to cover their own expenses of the excursion.

**Learning activities and teaching methods:**

2 h lectures and 56 h additional contact teaching

**Target group:**

1st and 2nd year master level students

**Prerequisites and co-requisites:**

-

**Recommended or required reading:**

The excursion program including detailed information on the destinations.

**Assessment methods and criteria:**

Attending the study trip and preparing the excursion program and guide, including travel arrangements.

**Grading:**

Pass

**Person responsible:**

Professor Rainer Mahlamäki

**Working life cooperation:**

Cooperation with building industry and local companies (fundraising)

**Other information:**

-

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

**Opiskelumuoto:** Advanced Studies

**Laji:** Diploma thesis

**Vastuuyksikkö:** Oulu School of Architecture

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

**Opintokohteen kielet:** Finnish

**ECTS Credits:**

30 ECTS

**Language of instruction:**

Finnish / English

**Timing:**

Recommended timing the spring term of the 2<sup>nd</sup> year of the master level.

**Learning outcomes:**

The student is able to set objectives to the given design task, and through processes of creative work he is able to develop varying 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 visualization of design work. The student is capable of taking the responsibility of his own professional progress and specialization.

**Contents:**

The student defines the contents of his / her work, consulting the supervisor of the diploma thesis. The education board of the school approves the contents, subject and the topic of the thesis work.

**Mode of delivery:**

Individual work. The diploma thesis completes the master's degree studies.

**Learning activities and teaching methods:**

The diploma thesis work is supervised by a teaching staff member of the School. The work is presented and evaluated in the common diploma seminar.

**Target group:**

2<sup>nd</sup> 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 thesis 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. The thesis work is to be saved digitally according to specific egradu instructions in the LATURI system of the university library for reviewing and evaluation two weeks before its final presentation in the common diploma seminar. One week before the final presentation the student pins up the panels of the diploma work for display at the university.

**Grading:**

1-5

**Person responsible:**

Supervisor of the thesis

**Working life cooperation:**

In specific cases the student may present a design or a research project, or a realized project made at the student's own or his / her employer's practice as diploma thesis work at the School of Architecture. In such cases the student has to be able to clearly indicate his/her own personal output in the respective project. The work may also be based on an open architectural competition proposal made by the student, which through supervision will be developed further to the student's final thesis according to the master's thesis instructions of the School of Architecture. The thesis work may also be part of a project financed by external stakeholders.

**Other information:**

Separate detailed diploma thesis instructions are published on the web pages of the school

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

**Opiskelumuoto:** Advanced Studies

**Laji:** Course

**Vastuuyksikkö:** Oulu School of Architecture

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

**Opintokohteen kielet:** Finnish

**ECTS Credits:**

0 ECTS

**Language of instruction:**

Finnish / Swedish / English

**Timing:**

flexible

**Learning outcomes:**

The student is able to communicate in the language of the thesis and is able to show intimate knowledge of the field of the thesis.

**Contents:**

The essay is written on the subject of the thesis.

**Mode of delivery:**

The maturity test is a part of the master's dissertation.

**Learning activities and teaching methods:**

Written essay.

**Target group:**

master level students

**Prerequisites and co-requisites:**

Master's thesis

**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 master's thesis.

**Grading:**

pass / fail

**Person responsible:**

The thesis supervisor

**Working life cooperation:**

-

**Other information:**

-

**450000P: Activities in positions of responsibility and student associations, 1 - 10 op**

**Voimassaolo:** 01.08.2017 -

**Opiskelumuoto:** Basic Studies

**Laji:** Course

**Vastuuyksikkö:** Oulu School of Architecture

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

**Opettajat:** Matti Sanaksenaho

**Opintokohteen kielet:** Finnish

**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:** Ursula Heinikoski

**Opintokohteen kielet:** Finnish

Ei opintojaksokuvauksia.

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

**Voimassaolo:** 01.08.2005 -

**Opiskelumuoto:** Intermediate Studies

**Laji:** Course

**Vastuuyksikkö:** Oulu School of Architecture

**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:**

Flexible, autumn and spring terms

**Contents:**

The content of the course is defined separately.

**Mode of delivery:**

Varies

**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.

**Grading:**

1-5, pass /fail

**Person responsible:**

Professor Anna-Maija Ylimaula.

**Working life cooperation:**

: Depending on the content of the course the designing office or the property owner may offer a work placement.

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

**Voimassaolo:** 01.08.2005 -

**Opiskelumuoto:** Intermediate Studies

**Laji:** Course

**Vastuuyksikkö:** Oulu School of Architecture

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

**Opintokohteen kielet:** Finnish

**Voidaan suorittaa useasti:** Kyllä

**ECTS Credits:**

2-10 ECTS

**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:**

Face-to-face teaching, independent working.

**Learning activities and teaching methods:**

54 – 270 hours of independent working and personal and / or group tutoring

**Target group:**

bachelor 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.

**Grading:**

1-5

**Person responsible:**

professor Janne Pihlajaniemi, university teacher Petri Aarnio

**Working life cooperation:**

It is possible to complete the course as a part of the independent working life performances

**Other information:**

-

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

**Voimassaolo:** 01.08.2005 -

**Opiskelumuoto:** Advanced Studies

**Laji:** Course

**Vastuuyksikkö:** Oulu School of Architecture

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

**Contents:**

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

**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 optional programme components:**

-

**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.

**Grading:**

1 - 5, fail or pass / fail

**Person responsible:**

Professor Rainer Mahlamäki

**Working life cooperation:**

The project work trains the student's design skills needed in the architect's profession.

**Other information:**

This studio course is intended for registered master level students of the Oulu School of Architecture.

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

**Voimassaolo:** 01.08.2005 -

**Opiskelumuoto:** Intermediate Studies

**Laji:** Course

**Vastuuyksikkö:** Oulu School of Architecture

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

**Opettajat:** Matti Sanaksenaho

**Opintokohteen kielet:** Finnish

**Voidaan suorittaa useasti:** Kyllä

**ECTS Credits:**

2-10

**Language of instruction:**

Finnish

**Timing:**

Autumn term 1-2 and Spring term 1-2

**Learning outcomes:**

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

**Contents:**

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

**Mode of delivery:**

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

**Learning activities and teaching methods:**

Lectures and exercise.

**Prerequisites and co-requisites:****Recommended optional programme components:**

Freebased and recommended to those, who are going to make a graduation in contemporary architecture or architectural construction.

**Recommended or required reading:**

Supplemental reading list will be supplied during the course.

**Assessment methods and criteria:**

Based on exercises.

**Grading:**

1-5

**Person responsible:**



Prof. Matti Sanaksenaho

**Working life cooperation:**

Students train the real process of designing from sketches to main drawings and to working drawings. In the workshop real building work is practised.

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

**Voimassaolo:** 01.08.2005 -

**Opiskelumuoto:** Advanced Studies

**Laji:** Course

**Vastuuyksikkö:** Oulu School of Architecture

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

**Opintokohteen kielet:** Finnish

**Voidaan suorittaa useasti:** Kyllä

**ECTS Credits:**

2-10 ECTS

**Language of instruction:**

Finnish or English

**Timing:**

Autumn term 1-2 / Spring term 1-2

**Learning outcomes:**

After completing the study unit 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. In case the student writes a treatise, the student has basic competence in scientific writing after completing the study unit.

**Contents:**

Current features of planning, urban design, and urban development, such as urban planning in developing countries and/or in a northern context, and sustainable planning.

**Mode of delivery:**

Mostly independent studying + contact teaching.

**Learning activities and teaching methods:**

8-64 h contact teaching in design studio + 46-206 h independent studying.

**Target group:**

4th year Master's level students.

**Prerequisites and co-requisites:**

-

**Recommended optional programme components:**

The study unit 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. The mode of delivery can also be a scientific treatise, which is agreed on separately.

**Grading:**

1-5, pass / fail

**Person responsible:**

Postdoctoral Researcher Emilia Rönkkö

**Working life cooperation:**

-

**Other information:**

This study unit is intended for registered master level students of the Oulu School of Architecture, including the international students. The student can also include the study unit into her / his optional studies if not included in the module "Sustainable Urban Development". Students of the Master's Programme in geography can complete the study unit by writing a scientific essay.

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

**Opiskelumuoto:** Intermediate Studies

**Laji:** Course

**Vastuuyksikkö:** Oulu School of Architecture

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

**Opintokohteen kielet:** Finnish

**Voidaan suorittaa useasti:** Kyllä

**ECTS Credits:**

2-10 ECTS

**Language of instruction:**

Finnish or English

**Timing:**

Autumn term 1-2 / Spring term 1-2

**Learning outcomes:**

After completing the study unit 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 + 46-206 h independent studying.

**Target group:**

Bachelor level students.

**Prerequisites and co-requisites:**

-

**Recommended optional programme components:**

-

**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.

**Grading:**

1-5

**Person responsible:**

Postdoctoral Researcher Leena Soudunsaari.

**Working life cooperation:**

The course trains skills needed in the architect's profession within urban design and planning.

**Other information:**

This study unit is intended for registered master level students of the Oulu School of Architecture, including the international students. The student can include the study unit into her / his optional studies.

## **453551S: Varying courses in Architectural Construction, 2 - 10 op**

**Voimassaolo:** 01.08.2015 -

**Opiskelumuoto:** Advanced Studies

**Laji:** Course

**Vastuuyksikkö:** Oulu School of Architecture

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

**Opettajat:** Janne Pihlajaniemi

**Opintokohteen kielet:** Finnish

**Language of instruction:**

Finnish / English

**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:**

Face-to-face teaching, independent working.

**Learning activities and teaching methods:**

54 – 270 hours of independent working and 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.

**Grading:**

1-5

**Person responsible:**

professor Janne Pihlajaniemi, university teacher Petri Aarnio

**Working life cooperation:**

It is possible to complete the course as a part of the independent working life performances.

**Other information:**

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## **451551S: Varying courses in History of Architecture and Renovation, 2 - 10 op**

**Voimassaolo:** 01.08.2015 -

**Opiskelumuoto:** Advanced Studies

**Laji:** Course

**Vastuuyksikkö:** Oulu School of Architecture

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

**Opettajat:** Anna-Maija Ylimaula

**Opintokohteen kielet:** Finnish

**ECTS Credits:**

2-10 ECTS

**Language of instruction:**

Finnish / English

**Timing:**

Flexible, autumn and spring terms

**Contents:**

The content of the course is defined separately.

**Learning activities and teaching methods:**

Varies

**Target group:**

Master's level students

**Recommended or required reading:**

Defined separately

**Assessment methods and criteria:**

The course does not include any lectures or examinations. Assessment depends on the assignment.

**Grading:**

1-5, pass, fail

**Person responsible:**

Professor Anna-Maija Ylimaula

**Working life cooperation:**

Depending on the content of the course the designing office or the property owner may offer a work placement.

**Other information:**

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