



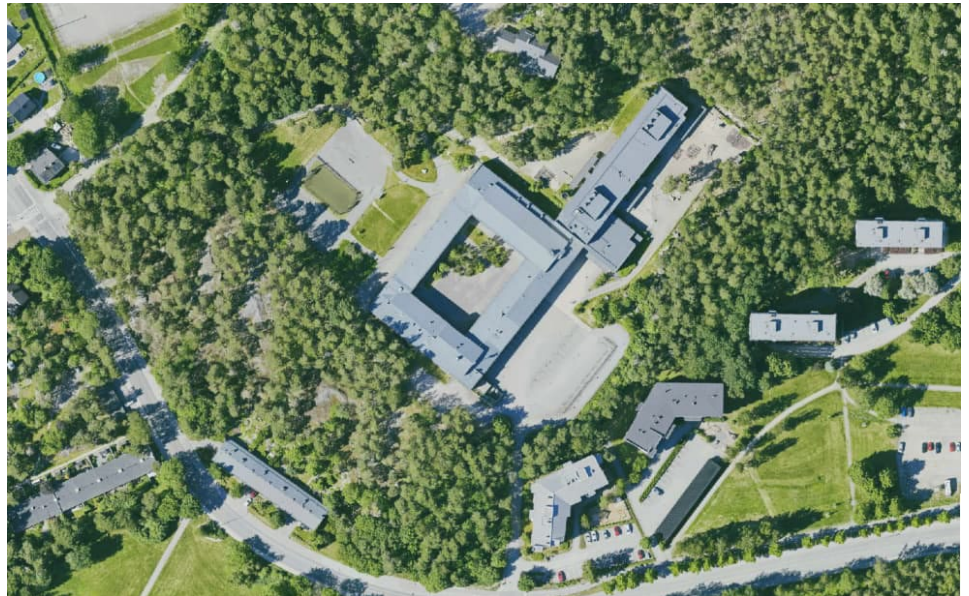
Aalto University  
School of Arts, Design and Architecture  
Department of Architecture  
Building Design  
ARK-E1020 Building Design Studio (12 cr)

1 (6)

Autumn 2023, September 12th – December 12th

# Building Design Studio 2023

## Course Overview



The 2023 Building Design Studio calls for designs for a new elementary school and preschool in Luolavuori district in Turku, Finland. The brief, including the building site and room schedule, is based on a realistic scenario. The course is organized in collaboration with the City of Turku and Parmaco.

The studio will begin with an analysis of the building site and program, and end with the submission and review of comprehensive design proposals. The coursework will be submitted individually.

Tutoring takes place weekly on Tuesdays at 13:15–16:00 at the Undergraduate Centre (Kandidaattikeskus) room A122a. The course begins on Tuesday, September 12th, and ends on Tuesday, December 12th, 2023.

The studio runs in parallel with a lecture course ARK-E2020. The lecture course is a mandatory requirement for participation in the studio.



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## Design Brief

### Site

The project site is located at the Luolavuori district in Turku, Finland. The street address is Luolavuorentie 36, 20810 Turku.

Base map is attached.

### Existing buildings

The site is currently occupied by the Luolavuori elementary school (Luolavuoren koulu in Finnish), designed by architect Veijo Kahra, and built in 1964.

A feasibility study conducted in 2023 recommended the demolition of all existing structures on the site in favor of new construction. The brief is based on this scenario. However, design concepts based on the preservation and renovation (partial or full) of the Luolavuori elementary school will be considered. The project goals must be satisfied in all scenarios.

Drawings of the Luolavuori elementary school are attached.

### Program

The project (new construction or partial or full renovation) comprises premises for an elementary school and preschool with a total floor area of approximately 9 700 sqm GFA (gross floor area). The school will accommodate a substantial number of students with special education needs.

A detailed room schedule is attached.

### Modular construction

Modular construction is a complementary topic in this year's course. The benefits and limitations of modular construction will be discussed and addressed. The design concepts should be based at least partially on modular construction.

Course materials are available at the MyCourses website:

<https://mycourses.aalto.fi/course/view.php?id=40197>



## Course Objectives

### Approach

Our approach to teaching is centered around the notion of the architect as a generalist. The three attributes of architecture articulated by Vitruvius – strength, utility, and beauty – form the foundation for our work.

We will do our best to provide our students with a relevant skillset and the practical knowledge necessary for designing buildings in a contemporary setting. The environmental impact of construction, economic framework, and the social responsibility associated with the profession will be addressed with an appropriate emphasis.

### Scope

In this master's level course, you will learn to develop a design concept for a large public building. We focus primarily on concept design with some elements of technical design included.

In this studio you will learn to:

- Plan site use and logistics.
- Compose building volumes and façades.
- Control proportions, scale, and rhythm in architecture.
- Solve a building program.
- Design economical, sustainable, and resilient systems.
- Draft a construction detail.
- Draw floor plans, sections, and elevations.
- Work with scale models.
- Produce visualizations.
- Prepare presentations.
- Communicate clearly and precisely.
- Manage schedules.
- Evaluate progress.

### The UN SDG's

Aalto University is committed to advancing the UN Sustainable Development Goals as part of its teaching. Relevant targets from SDG7 (Affordable and Clean Energy) and SDG12 (Responsible Consumption and Production) will be addressed in this studio. Specifically, you will gain understanding of the use of renewable energy sources, energy efficiency, and resource efficiency in construction.



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## **Submission**

### **Weekly tutoring**

- Printed copies of drawings (in scale).
- A volumetric scale model.

### **Midterm reviews**

- Digital presentation sheets submitted online.
- A volumetric scale model.

### **Final review**

- Digital presentation sheets (based on a template) submitted online.
- A volumetric scale model (model base according to specification).

Please note that the presentation sheets will be submitted in advance for the final review (see course schedule for more information). Physical copies of presentation sheets may be required for the final review.



## Submission

	Concept review	Midterm review	Final review (template)
Site plan Roof plan. Hard landscaping and green areas, vegetation, elevation marks, entrances, vehicle traffic and delivery, parking, bicycle, and pedestrian routes.	schematic	1/500	1/500
Floor plans Room tags according to space list. Load-bearing structure should be clearly indicated.	–	1/250	1/250
Elevations and sections Elevations and sections necessary for the understanding of the design concept.	optional	1/250	1/250
Detail Partial section and elevation of the façade. Schematic representation of relevant building systems.	–	1/20	1/20
Visualizations One exterior and one interior view from eye level without perspective distortion.	schematic	schematic	finished
Project description Technical summary of the design concept, including a brief description of the structural system, building materials, and other relevant information regarding construction.	–	–	max. 3000 char. incl. spaces
Volumetric scale model 1/500 (template)	schematic	schematic	finished
Self-evaluation	–	–	evaluation matrix in xlsx format

All submitted material, including visualizations, must be original and produced by the author(s).



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## Evaluation

Final submission will be evaluated on scale 1–5 (0=failed).

- Only complete submissions will be evaluated.
- Late submissions will be graded with a deduction of - ½ or -1, respective to the date submitted.

Evaluation matrix is attached.

## Instructors

Pirjo Sanaksenaho  
Architect, Professor

Esa Ruskeepää  
Architect, Lecturer

Claudia Auer  
Architect

Henrik Ilvesmäki  
Architect