Program Syllabus

Master's Programme in Digital Architecture and Emergent Futures

- Programme code: TAAEF
- Scope: 120 credits
- Cycle: Second
- Approved by: Programme Board A
- Validity: 2024/2025
- Date of approval: 13 February 2024

1 Aim and outcomes

1.1 Aim

Architecture deals with the quality of the space people create for their lives, and how this space affects communities and the ecosystem. The central focus area is how these environments can be designed and developed now and in the future using emerging digital technologies.

The education aims to provide the student with:

- Artistic and technical high-quality knowledge of computational and spatial design, with the physical constructed reality as intention,
- Ability and insights concerning innovation and emerging digital technologies,
- Insights into the architect's different work areas and their relationship to society and how this is changing based on technological and societal progress,
- An empirical and scientific basis for creative and critical approach to the profession, architecture and society.

The programme combines an experimental, innovation-focused approach with practise-oriented design skills.

1.2 Outcomes for a Degree of Master of Science (120 credits)

(Higher Education Ordinance 1993:100)

Knowledge and understanding

For a Degree of Master of Science (120 credits) the student shall

- demonstrate knowledge and understanding in the main field of study, including both broad knowledge of the field and a considerable degree of specialised knowledge in certain areas of the field as well as insight into current research and development work, and
- demonstrate specialised methodological knowledge in the main field of study.

Competence and skills

For a Degree of Master of Science (120 credits) the student shall

- demonstrate the ability to critically and systematically integrate knowledge and analyse, assess and deal with complex phenomena, issues and situations even with limited information,
- demonstrate the ability to identify and formulate issues critically, autonomously and creatively as well as to plan and, using appropriate methods, undertake advanced tasks within predetermined time frames and so contribute to the formation of knowledge as well as the ability to evaluate this work,
- demonstrate the ability in speech and writing both nationally and internationally to report clearly and discuss his or her conclusions and the knowledge and arguments on which they are based in dialogue with different audiences, and
- demonstrate the skills required for participation in research and development work or autonomous employment in some other qualified capacity.

Judgement and approach

For a Degree of Master of Science (120 credits) the student shall

- demonstrate the ability to make assessments in the main field of study informed by relevant disciplinary, social and ethical issues and also to demonstrate awareness of ethical aspects of research and development work,
- demonstrate insight into the possibilities and limitations of research, its role in society and the responsibility of the individual for how it is used, and
- demonstrate the ability to identify the personal need for further knowledge and take responsibility for his or her ongoing learning.

1.3 Specific outcomes for a Degree of Master of Science in Architecture (120 credits) in Digital Architecture and Emergent Futures

In combination with an approved bachelor's degree in architecture, the Master's Programme shall provide skills and abilities that are necessary for practising architectural design. Therefore, the education shall contain a balance between the theoretical and practical aspects of architectural design and assure the following skills:

- capacity for architectural design based on artistic, social, ecological, and technical perspectives,
- understanding of the interaction between humans and buildings and between buildings and their context, as well as the necessity to relate buildings and spatial organisation to human needs and scales,
- understanding of the relationship between buildings and their surrounding ecosystems, at a local and global level, and how the architectural design process can affect this relationship,
- understanding of the architectural profession and the role of architects in society,
- understanding of investigative methods and preparatory work for design tasks, which always include social, ecological, and cultural implications,
- knowledge in the history and theory of the main filed of study,
- understanding of building constructions and technology,

- sufficient knowledge of the physical conditions and the technology which affects the building's technical design, comfort, and ecological sustainability,
- sufficient design ability to meet the users' needs within the frames given by budget and regulation, and
- sufficient knowledge of the building processes, organisations, regulations, and methods which affect the delivery of the architectural project and its inclusion in the overall planning.

For the programme with a main field of study in Digital Architecture and Emergent Futures, the students shall be able to relate the above outcomes to digital design and fabrication processes and be able to use computational tools to achieve the relevant objectives.

1.4 Further studies

On completion of the second-cycle degree, students have basic eligibility for third-cycle studies.

2 Programme structure

The Master's Programme is composed from a series of design studio projects (15 credits per semester) which are complemented by one associated theory course (7.5 credits) and one tool-oriented course (7.5 credits) each semester. The final semester is entirely dedicated to a degree project.

2.1 Courses

The courses included in the programme are indicated in the timetable.

3 Specific admission requirements

A Bachelor's degree in architecture or equivalent. A digital portfolio of the applicant's own work in the field that clearly proves that the applicant has good potential to benefit from the programme.

English 6.

4 Degree

4.1 Degree requirements

For a Degree of Master of Science (120 credits) students must successfully complete courses comprising 120 credits, including a degree project worth 30 credits. 90 credits must be second-cycle credits and 60 credits of those must be in the main field of study, including the degree project.

4.1.1 Degree project

For a Degree of Master of Science (120 credits) students must complete an independent project (degree project) of no less than 30 credits as part of the course requirements. The degree project included in the programme is listed in the timetable.

The student may commence work on the degree project when at least 76 credits of courses can be included in the degree.

4.2 Degree and degree certificate

When students have completed all the degree requirements, they are entitled to apply for a Degree of Master of Science (120 credits) in Architecture. Main Field of Study: Digital Architecture and Emergent Futures.

5 Special regulations

5.1 Semester structure

The Master's programme in Digital Architecture and Emergent Futures is not divided into study periods. This means that teaching is scheduled throughout the semesters.

5.2 Field exercises

The teaching includes study trips, inventories, surveying, environmental studies etc. as an integral part of the training.

5.3 Portfolio

The students are to collect their blueprints and other materials in a portfolio dedicated to the purpose that is to be available for assessment.