

Study plan and Module Manual

Master's degree programme in Architecture

Master of Science in Architecture – MSc Arch 2019
18th of September 2019

The Study concept was developed by

The Institute of Architecture and Planning

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1 Study profile

1.1 Study objective and study content

Building on the fundamental teachings of the Bachelor's degree programme, the Master's degree programme in Architecture focuses on the differences in design and building in response to varying environmental, social and cultural contexts. It integrates the urgent pursuits of sustainable environmental, social and economic agendas through cultural engagement. The programme's curriculum reflects the diverse and complex challenges facing architecture as a responsible, globally connected yet locally enacted profession today – but also seeks to resolve these through a unified agenda in shaping the built environment.

Above all, students successfully completing the Master's degree programme in Architecture are enabled to:

- a) execute their future profession according to important and fresh insights gained from academic research and practice;
- b) assume leadership roles while committed to responsibility in action;
- c) think and act in a sustainable, holistic, global and interdisciplinary way;
- d) carry responsibility for our future and cultural heritage;
- e) independently conduct in-depth academic work that is required for admission to a doctoral degree programme.

The design studios give students the opportunity to engage with the broad field of architecture on a variety of scales applying a multitude of design and research methods, preparing them for the demands of the broad field of sustainable architecture and urban planning and seeking to shape not only the leaders of a design process, but an architectural culture itself that can lead our society forward. The necessary theoretical knowledge and tools to successfully implement culturally sustainable strategies in architecture and urban design are taught in the Advanced Studios and Master's Thesis. Together with a series of Essentials and Electives as well as Pro Bono Projects they enable students to develop and strengthen their personal fields of interests. The programme aims to nurture talented students who are committed to pushing the boundaries of their knowledge in the broad field of architectural design towards sustainability, social responsibility and critical thinking.

Small classes and one-to-one teaching in Advanced Studios provide a personal, creative and productive learning and research environment focussing on the cultivation of strong individual profiles. An optional exchange semester at one of the Institute's high-profile international partner-universities helps students to test their acquired knowledge in a different cultural and academic environment.

1.2 Learning outcomes

The Master of Science is awarded to students that have the ability to:

1. Knowledge and Understanding

- demonstrate knowledge that covers and integrates the main scientific fundamentals, features, boundaries, terminology and conventions of the discipline of architecture.
- prove a critical understanding of the intellectual and aesthetic content of selected buildings to substantiate architectural judgments.
- express coherently a critical approach to making architecture and an ability to pursue an independent line of enquiry.

- generate complex design proposals showing understanding of current architectural issues, originality in the application of subject knowledge and, where appropriate, to test new hypotheses and speculations.

2. Applying Knowledge and Understanding

- formulate architectural judgments that have been explored critically and brought to a conclusion.
- execute a complex project of sustained research, development or investigation and identify and implement relevant outcomes.
- integrate technical skills to support the qualitative and expressive content of the architecture exemplifying the architectural challenge of the self-directed design project.
- research and critically evaluate selected topics of art, science, architecture and urban design as well as social, economic, political and cultural factors that contribute to the development of the self-directed design project.
- evaluate and apply a comprehensive range of visual, oral and written media to test, analyse, critically appraise and explain design proposals.
- evaluate materials, processes and techniques that apply to complex architectural and urban / spatial designs and building construction, and to integrate these into practicable design proposals.

3. Making judgements

- apply critical analysis, evaluation, and synthesis to issues, which are at the forefront of architecture.
- deal with complex issues and make informed judgements in situations in the absence of complete or consistent information.
- develop a critical understanding of how knowledge is advanced through research to produce clear, logically argued and original written work relating to architectural culture, theory and design.

4. Communication skills

- communicate on an expert level in a variety of roles and contexts.
- use appropriate methods to communicate to a range of audiences with different levels of knowledge and expertise.
- understanding of the context of the architect and the construction industry, including the architect's role in the processes of procurement and building production, and under legislation; problem solving skills, professional judgement, and ability to take the initiative and make appropriate decisions in complex and unpredictable circumstances.

5. Learning skills

- exercise independence and initiative in carrying out the self-directed programme of study.
- demonstrate ability to manage time and physical resources as an individual and a group member and to collaborate with peers and others in sharing knowledge and research.
- establish teamwork and cooperation in joint and/or interdisciplinary projects
- deal with complex ethical and professional issues and make judgements on issues not addressed by current professional ethical codes and practices.
- identify individual learning needs and understand the personal responsibility required to prepare for qualification as an architect.

1.3 Professional image and sphere of activity

Graduates will have at their disposal in-depth, up-to-date knowledge and critical command of core areas, theories and concepts of contemporary architecture and urban design. The programme specifically develops progressive design approaches and integrative thinking as well as teamwork capacity, analytical, social and communication skills among its students. The Advanced Studios challenge and prepare students for the global demands of the broad field of architecture and urban development.

The Master's degree programme in Architecture is highly international, a result of the international student body, the team of instructors with international experience in practice, research and education,

the continued collaboration with international academic partner institutions as well as international guest reviewers for mid-term and final reviews. Furthermore, intercultural exchange is promoted by excursion projects and design seminars conducted by internationally renowned experts.

Graduates of the Master's degree programme in Architecture are well prepared for a career in architecture and its associated fields, and thanks to the sound academic education, promising perspectives may also arise in various research fields and academia. Upon successful completion of the programme, the University of Liechtenstein grants the academic degree of: Master of Science in Architecture (MSc Arch). The degree is a prerequisite to enter a doctoral programme.

The programme focuses on the following three main themes:

Craft: *Craft* spans from material to design and to construction in scale 1 to 1.

Expertise in building technology as well as a holistic approach to architecture deepen the understanding of the art of joinery. Analogue tools meet digital productions. Traditional and innovative methods are being applied with an emphasis on material and construction. Cooperations with local experts foster the implementation of projects close to praxis, which provide added value for the society.

Landscape: *Landscape* means an area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors¹. *Landscape* is both, expression and imprint of culture. *Landscape* is public good and resource, which we carefully use and design, in order to improve qualities of life.

Upcycling: The essence of *Upcycling* consists of the recording, evaluation and qualitative development and upgrading of existing architecture and urban structures.

The history of building has always been the history of recycling and renewal. In times of structural changes material legacies can be found everywhere within areas of settlement. The use, rediscovery and qualitative development of the existing is no longer a question of ideology, but of resources, economy, spatial and constructive qualities of architecture and urban planning.

2 Programme structure and regular study plan

The Master's degree programme in Architecture and Planning presented in the table below represents a recommendation and describes the study plan in a regular curriculum of four semesters. Due to the modular structure of the programme, the study plan can be individually designed. This allows a variety of transitions between more or less intensive semesters.

The general study plan of the programme is structured into four semesters. The programme can be commenced both in the winter- and the summer semester. In semester 1 and 2 the Advanced Studios take place. An optional exchange semester is possible in semester 2. Semesters 3 and 4 are primarily dedicated to the Preliminary Study and the Master's Thesis. Essential and elective courses, as well as Pro Bono Projects are to be completed over the course of four semesters.

The structure of the semester consists of the Advanced Studio creating the opportunity to optimally incorporate the individual integrations into the accompanying project-design. In this way the implementation of different didactic formats which best match the project is possible. It enables students to develop an in-depth understanding of specific theoretical topics and to apply them directly in the main project-design. A one-week seminar or excursion week as well as the midterm review of the project work are integral parts of the didactic structure of the semester.

The semester concludes with the one-week final review and a subsequent mentoring week in which mentors meet with the students to advise them on the continuation of their studies.

¹ European Convention (2000/2004): European Landscape Convention. Florence.
Curriculum Master of Science in Architecture 2019



Master's degree programme in Architecture (MSc Arch)

Module categories	Modules	1. Semester	2. Semester*	3. Semester	4. Semester	Total ECTS
		Advanced	Advanced	Preliminary study	Master's thesis	
ADVANCED STUDIO	Advanced Studio	21	21			42
PRELIMINARY STUDY	Preliminary Study			21		21
MASTER'S THESIS	Master's Thesis				21	21
ESSENTIALS	Historical & Theoretical Studies	2 x 3				18
	Technical Studies	2 x 3				
	Communication Design & Research Design	3				
	Project Management & Entrepreneurship	3				
ELECTIVES	Cross-faculty Electives	4 x 3				12
PRO BONO PROJECT	Pro Bono Project	6				6
ECTS		30	30	30	30	120

*Exchange Semester optional

The Master's degree programme in Architecture consists of following module categories:

- Advanced Studios
- Essentials
- Electives
- Pro Bono Project
- Preliminary Study
- Master's Thesis
- Exchange Semester (optional)

2.1 Advanced Studios

The Advanced Studios give students the opportunity to engage with architecture as a socially responsible practice on a variety of scales applying a multitude of design- and research methods, preparing them for the demands of the broad field of architecture and planning. The interdisciplinary Advanced Studio is the primary force of education with intensive one-to-one instruction in small groups. Architectural and urban design is practiced in the context of projects of varying complexity, ranging from constructive building details and structures, to planning entire settlements and habitats. Advanced Studios focus on the three main themes: Craft, Landscape and Upcycling.

Instruction methods build upon intrinsic motivation and promote self-study. The project-design is represented in drawings, models, images, and by using all other available media. Teamwork is conducted with particular attention to the internal organization and workings of the teams. The instructors specify scope, characteristics,

and requirements of the projects. They are responsible for team formation, structuring and organization of the advanced studio as well as for inviting external experts.

2.2 Essentials

Essentials combine relevant theoretical topics, knowledge and skills in order to support practical professional work. They provide a basis in historical, theoretical and technical studies as well as specific tools to successfully design, manage and communicate projects as well as set up business plans and strategies.

Two Essentials in historical and theoretical studies and two in technical studies form the basis for the Master's Thesis. These studies allow the student to develop his/her own architectural agenda comprising literature reviews, case studies, material experiments and extensive research and consultation.

2.3 Electives

Electives allow students to deepen their knowledge in areas addressed in the Advanced Studio. They combine relevant topics, knowledge and skills in order to support theoretical and practical professional work in architecture and planning as well as in other fields. The goal is the creation of orientation and contextual knowledge, holistic thinking, questioning and critical reflection as well as the embedding of the study in social, political, philosophical and historical contexts.

Electives (total 9-12 ECTS) consist primarily of cross-faculty courses. 3 ECTS can be achieved by attending one of the workshops related to architecture and planning on offer.

Electives consist of a variety of modules from a list published at the beginning of each academic year (courses are taught during winter- and summer semester).

2.4 Pro Bono Project

The Pro Bono Project intended to foster the sense of responsibility towards society. It allows students to strengthen their independence through praxis-relevant/ hands-on work which can be self- initiated or predefined by the Institute of Architecture and Planning.

A Pro Bono project is designed, planned and set up by the students, always under the guidance of one or more mentors. A collaboration between Bachelor- and Master-Students is possible. The Pro Bono Project brings value to Liechtenstein and the region. International Pro Bono projects are possible.

2.5 Preliminary Study

In semester 3 the student will prepare the Master's Thesis through a Preliminary Study (21 ECTS).

The goal of the Preliminary Study is that the student outlines the research design and defines the research interests. The scope and specific topic of the thesis are determined in an elaborate disposition and in close supervision with 1-3 thesis supervisor(s). The Preliminary Study has to be successfully completed to advance to the Master's thesis. In the Preliminary Study the supervision consists of directing the preparation of the thesis proposal and the research design as well as the development of the student's clear conceptual position.

The Preliminary Study needs to be completed at the University of Liechtenstein and is reviewed before a public panel of experts.

2.6 Master's Thesis

After a successful completion of the Preliminary Study the student starts the in-depth elaboration of the Master's Thesis (21 ECTS). The goal of the Master's Thesis is that the student deepens the acquired knowledge,

strengthens an independent way of working by developing the ability to an integrative thinking as well as to a creative editing of major architectural tasks.

At the centre of the freely chosen topic are the independent elaboration, the in-depth research and discussion as well as the conceptual design of the project. The work may not be related to current or past competition work.

The students' work is overseen by 2-3 supervisors, being at least one of them a member of the Institute of Architecture and Planning.

The Master's Thesis needs to be completed at the University of Liechtenstein and is reviewed before a public panel of experts.

2.7 Exchange Semester

In semester 2 an optional exchange semester at one of our partner universities across the globe is possible. 3 ECTS can be gained through the MILSA programme, a complementary module to the exchange semester and which is offered at the University of Liechtenstein.

3 Mentoring

Parallel to the official reviews/ exams at the end of each semester a regular mentoring procedure takes place throughout the Master's degree programme. The goal is to support and advise the student in forming a coherent study plan. On the basis of a portfolio review, the mentors formulate recommendations which are part of the overall assessment.

The goal of mentoring the students in the beginning of semester 3 is to analyse their performance and evaluate if the continuation to the Master's Thesis is recommendable. The mentoring consists of an assessment of the portfolio, reports of the project studio supervisors and a critical self-reflection by the student.

4 Formal aspects

The curriculum conforms to international standards. The programme corresponds to Qualification Level 2 of the Bologna Programme and to Qualification Level 7 of the "European Qualifications Framework for Lifelong Learning" developed by the European Union.

Duration and Workload:

4 semesters

120 ECTS credits / 3,600 hours (Contact time: self-study = 28%: 72 %)

Language:

Courses are taught in English and the entire programme can be completed in English. Some courses can also be taken in German, in which case a German language certificate level C1 is required

Credits

Courses are assigned a certain number of hours in class and a number of hours for individual coursework; the sum of both yields the actual workload. 30 work hours are equivalent to 1 ECTS credit point. Each semester is assigned 15 course weeks. 30 ECTS credit points correspond to the average coursework of a semester at the University of Liechtenstein.

Academic Degree:

Master of Science in Architecture

Abbreviation:

MSc Arch

Admission Requirements:

Admission requirements are specified in the Admission Guidelines for the Master's degree programme in Architecture.

Further Educational Options:

The degree signifies eligibility for a doctoral degree programme.

5 Module descriptions

<i>Module Categories</i>	<i>ECTS</i>	<i>Modules</i>	<i>ECTS</i>
ADVANCED STUDIO	42	Advanced Studio Craft/Handwerk	21
		Advanced Studio Landscape/Landschaft	
		Advanced Studio Upcycling	

ESSENTIALS	18	Historical and Theoretical Studies: Building Cultures	3
		Historical and Theoretical Studies: Theoretical Report	3
		Technical Studies: Sustainable Construction Processes	3
		Technical Studies: Technical Report	3
		Communication & Research Design	3
		Project Management and Entrepreneurship	3
ELECTIVES	12	Workshop	0-3
		Cross-Faculty electives	9-12
PRO BONO	6	Pro Bono Project	6
PRELIMINARY STUDY	21	Preliminary Study	21
MASTER'S THESIS	21	Master's Thesis	21

5.1 Advanced Studios

5.1.1 Advanced Studio Craft/Handwerk

Module Category	Advanced Studio
Module Description	Advanced Studio Craft/Handwerk

Learning outcomes:

Professional competence

- Execute complex defined and self-defined projects of research, development or investigation and identify and implement relevant outcomes.
- Develop an architectural idea into a sustainable proposal, carefully taking into consideration the project's historical, theoretical, environmental (ecological), cultural, economic and social context.
- Communicate and articulate ideas and information fluently in English language and work comprehensively in visual, oral and written forms.
- Make formal presentations about specialist topics to informed and general/ community audiences.
- Exercise autonomy and initiative in carrying out set project briefs and self-directed programmes of study.
- Demonstrate ability to manage time and physical resources in relation to set project briefs and self-directed programmes of study as an individual and a group member.
- Deal with complex ethical and professional issues.
- Show confidence in analysing case studies and the ability to infer principles and motivations.

Methodological competence

- Apply a variety of design- and research methods and visualisation techniques
- Have knowledge of scientific or artistic methods within an interdisciplinary context

Social competence

- Explain competently, discuss and critique own work through oral presentations, writing or visual communication
- Understand how to work with confidence in the complex organisational and community settings within which the applied methods and design processes are typically deployed.
- Demonstrate the ability to work with other students for assignments, exercises, experiments, presentations etc.

Personal competence

- Assess own work and put it into a historical, theoretical and social context.
- Gain confidence in own role and the persuasive and accountable manner in which it is expected to be performed.

Learning contents:

- Development of constructive design related to the theme *Craft*.
- The Integration of topics are dealt with in the design task by being directly accompanied by specialist lecturers from the subject field.
- Process-oriented approach in the analysis of the task and the development of innovative concepts.
- Examination of specific questions from the field.
- In-depth knowledge of the construction and building technology.
- The deepening of the learning content dealt with in the project studio will be developed through a link to regional and global practice.
- Based on case studies, the learning content should be reviewed, critically reflected, deepened and further developed.

Craft spans from material to design and to construction in scale 1 to 1.

Expertise in building technology as well as a holistic approach to architecture deepen the understanding of the art of joinery. Analogue tools meet digital productions. Traditional and innovative methods are being applied with an emphasis on material and construction. Cooperation with local experts foster the implementation of projects close to praxis, which provide added value for the society.

Module status	–optional compulsory module
ECTS	21
Min. enrolment	min. 10 per Studio
Assessment	mid-term and final reviews, participation, integration and portfolio minimum 75% mandatory presence, continuous assessment
Module course	Advanced Studio Craft/Handwerk
Knowledge prerequisites	if taught in German, a German language certificate level C1 needs to be provided
Learning forms	design studio, design seminar, exercises, experiment, research, writing, visualising, modelling, presenting, case study
Contact time per semester (Lectures/ Hours)	242/181.5
Frequency	every semester
Language	English or German
Recommended literature	Literature lists are issued and updated each semester

5.1.2 Advanced Studio Landscape/Landschaft

Module Category	Advanced Studio
Module Description	Advanced Studio Landscape/Landschaft

Learning outcomes:

Professional competence

- Execute complex defined and self-defined projects of research, development or investigation and identify and implement relevant outcomes.
- Develop an architectural idea into a sustainable proposal, carefully taking into consideration the project's historical, theoretical, environmental (ecological), cultural, economic and social context.
- Communicate and articulate ideas and information fluently in English language and work comprehensively in visual, oral and written forms.
- Make formal presentations about specialist topics to informed and general/ community audiences.
- Exercise autonomy and initiative in carrying out set project briefs and self-directed programmes of study.
- Demonstrate ability to manage time and physical resources in relation to set project briefs and self-directed programmes of study as an individual and a group member.
- Deal with complex ethical and professional issues.
- Show confidence in analysing case studies and the ability to infer principles and motivations.

Methodological competence

- Apply a variety of design- and research methods and visualisation techniques
- Have knowledge of scientific or artistic methods within an interdisciplinary context

Social competence

- Explain competently, discuss and critique own work through oral presentations, writing or visual communication
- Understand how to work with confidence in the complex organisational and community settings within which the applied methods and design processes are typically deployed.
- Demonstrate the ability to work with other students for assignments, exercises, experiments, presentations etc.

Personal competence

- Assess own work and put it into a historical, theoretical and social context.
- Gain confidence in own role and the persuasive and accountable manner in which it is expected to be performed.

Learning contents:

- Architectural design with specific task related to the theme *Landscape* in the context of the relevant parameters for the implementation of the task.
- The Integration of topics are dealt with in the design task by being directly accompanied by specialist lecturers from the subject field.
- In-depth knowledge of interactions between people and their environment.
- In-depth knowledge of planning and urban design.
- Process-oriented approach in the analysis of the task and the development of innovative concepts.
- Examination of specific questions from the field.

Landscape means an area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors². *Landscape* is both, expression and imprint of culture. *Landscape* is public good and resource, which we carefully use and design, in order to improve qualities of life.

² European Convention (2000/2004): European Landscape Convention. Florence.
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Module status	–optional compulsory module
ECTS	21
Min. enrolment	min. 10 per Studio
Assessment	mid-term and final reviews, participation, integration and portfolio minimum 75% mandatory presence, continuous assessment
Module course	Advanced Studio Landscape/Landschaft
Knowledge prerequisites	if taught in German, a German language certificate level C1 needs to be provided
Learning forms	design studio, design seminar, exercises, experiment, research, writing, visualising, modelling, presenting, case study
Contact time per semester (Lectures/ Hours)	242/181.5
Frequency	every semester
Language	English or German
Recommended literature	Literature lists are issued and updated each semester

5.1.3 Advanced Studio Upcycling

Module Category	Advanced Studio
Module Description	Advanced Studio Upcycling

Learning outcomes:

Professional competence

- Execute complex defined and self-defined projects of research, development or investigation and identify and implement relevant outcomes.
- Develop an architectural idea into a sustainable proposal, carefully taking into consideration the project's historical, theoretical, environmental (ecological), cultural, economic and social context.
- Communicate and articulate ideas and information fluently in English language and work comprehensively in visual, oral and written forms.
- Make formal presentations about specialist topics to informed and general/ community audiences.
- Exercise autonomy and initiative in carrying out set project briefs and self-directed programmes of study.
- Demonstrate ability to manage time and physical resources in relation to set project briefs and self-directed programmes of study as an individual and a group member.
- Deal with complex ethical and professional issues.
- Show confidence in analysing case studies and the ability to infer principles and motivations.

Methodological competence

- Apply a variety of design- and research methods and visualisation techniques
- Have knowledge of scientific or artistic methods within an interdisciplinary context

Social competence

- Explain competently, discuss and critique own work through oral presentations, writing or visual communication
- Understand how to work with confidence in the complex organisational and community settings within which the applied methods and design processes are typically deployed.
- Demonstrate the ability to work with other students for assignments, exercises, experiments, presentations etc.

Personal competence

- Assess own work and put it into a historical, theoretical and social context.
- Gain confidence in own role and the persuasive and accountable manner in which it is expected to be performed.

Learning contents:

- Architectural design with specific task related to the theme *Upcycling* in the context of the relevant parameters for the implementation of the task.
- The Integration of topics are dealt with in the design task by being directly accompanied by specialist lecturers from the subject field.
- Process-oriented approach in the analysis of the task and the development of innovative concepts.
- Examination of current questions from the field.
- Advanced knowledge of structural, technological and sociocultural challenges related to reuse and upcycling.
- Advanced knowledge of building regulations and economic parameters.

The essence of *Upcycling* consists of the recording, evaluation and qualitative development and upgrading of existing architecture and urban structures.

The history of building has always been the history of recycling and renewal. In times of structural changes material legacies can be found everywhere within areas of settlement. The use, rediscovery and qualitative development of the existing is no longer a question of ideology, but of resources, economy, spatial and constructive qualities of architecture and urban planning.

Module status	–optional compulsory module
ECTS	21
Min. enrolment	min. 10 per Studio
Assessment	mid-term and final reviews, participation, integration and portfolio minimum 75% mandatory presence, continuous assessment
Module course	Advanced Studio Upcycling
Knowledge prerequisites	if taught in German, a German language certificate level C1 needs to be provided
Learning forms	design studio, design seminar, exercises, experiment, research, writing, visualising, modelling, presenting, case study
Contact time per semester (Lectures/ Hours)	242/181.5
Frequency	every semester
Language	English or German
Recommended literature	Literature lists are issued and updated each semester

5.2 Essentials

5.2.1 Historical & Theoretical Studies: Building Cultures

Module Category	Essential
Module Description	Historical & Theoretical Studies: Building Cultures

Learning outcomes:

Professional competence

- Develop the comprehensive understanding of major historical and contemporary theories of architecture, planning and the philosophical world-views from which they derive.
- Acquire the ability to deal analytically with architectural theories and built environment.
- Be able to place positions in architectural theory in the wider intellectual context from which they originate.
- Communicate and articulate ideas and information fluently in English language and work comprehensively in visual, oral and written forms.
- Show confidence in analysing case studies in their historical and theoretical context.

Methodological competence

- Learn how information can be found, and about the use of references.
- Analyse and critically evaluate architectural ideas, theoretical positions, argumentational strategies, texts and works of architecture
- Develop writing and research skills as well as the capacity to use professional, academic and research resources in relation to their project.

Social competence

- Explain competently, discuss and critique own work through oral presentations, writing or visual communication

Personal competence

- Assess own work and put it into a historical, theoretical and social context.
- Gain confidence in own role and the persuasive and accountable manner in which it is expected to be performed.

Learning contents:

This module provides an overview and a comparative analysis of specific building cultures. It defines parameters forming a building culture, provides a historical overview and identifies definitions of building cultures and their role in contributing to the formation of identities. Building cultures are not only assessed according to their architectural output, but also analysed and understood within their social, economic and environmental context. Different Architecture languages must be experienced as part of a general cultural discourse. The course will encourage students to actively investigate the specificities of different cultures, positions and tools as necessary components for a conscious architectural attitude. Beside lectures and excursions the students will be actively participate to the shaping of the module through short presentations and essays.

Module status	C - Compulsory
ECTS	3
Max. enrolment	none
Assessment	Paper, Portfolio, exercises, minimum 70% mandatory presence, continuous assessment
Knowledge prerequisites	none
Module Course	Historical & Theoretical Studies: Building Cultures
Learning forms	exercises, research, writing, case study
Contact time per semester (Lectures/ Hours)	28/21

Frequency	once a year
Language	English
Recommended literature	Literature lists are issued and updated each semester

5.2.2 Historical & Theoretical Studies: Theoretical Report

Module Category	Essential
Module Description	Historical & Theoretical Studies: Theoretical Report

Learning outcomes:

Professional competence

- Develop the comprehensive understanding of major historical and contemporary theories of architecture, planning and the philosophical world-views from which they derive.
- Acquire the ability to deal analytically with architectural theories and built environment.
- Be able to place positions in architectural theory in the wider intellectual context from which they originate.
- Communicate and articulate ideas and information fluently in English language and work comprehensively in visual, oral and written forms.
- Show confidence in analysing case studies in their historical and theoretical context.

Methodological competence

- Learn how information can be found, and about the use of references.
- Analyse and critically evaluate architectural ideas, theoretical positions, argumentational strategies, texts and works of architecture
- Develop writing and research skills as well as the capacity to use professional, academic and research resources in relation to their project.

Social competence

- Explain competently, discuss and critique own work through oral presentations, writing or visual communication

Personal competence

- Assess own work and put it into a historical, theoretical and social context.
- Gain confidence in own role and the persuasive and accountable manner in which it is expected to be performed.

Learning contents:

To support the holistic educational aim of artistic and technically skilled graduates, this report unites technical disciplines embedded in the curriculum into a compulsory document/ report.

It is coordinated with the lecturers of the theoretical subjects that are supporting it by iterative consultations.

Module status	C - Compulsory
ECTS	3
Max. enrolment	none
Assessment	Paper, Portfolio, exercises, minimum 70% mandatory presence, continuous assessment
Knowledge prerequisites	none
Module Course	Historical & Theoretical Studies: Theoretical Report
Learning forms	exercises, research, writing, case study
Contact time per semester (Lectures/ Hours)	28/21
Frequency	every Semester
Language	English
Recommended literature	Literature lists are issued and updated each semester

5.2.3 Technical Studies: Sustainable Construction Processes

Module Category	Essential
Module Description	Technical Studies: Sustainable Construction Processes

Learning outcomes:

Professional competence

- Identify the potential of emerging technologies
- Critically assess their impact on architectural design, manufacturing and construction
- Understand their interdependence and sequencing
- Develop a substantial knowledge base through critical case studies of contemporary fabrication processes, constructed artefacts and buildings.
- Involve high levels of critical reflection through case studies, material experiments and extensive research and consultation.
- Communicate and articulate ideas and information fluently in English language and work comprehensively in visual, oral and written forms.
- Make formal presentations about specialist topics to informed and general/ community audiences.
- Show confidence in analysing case studies and the ability to infer principles and motivations.

Methodological competence

- Apply a variety of design- and research methods and visualisation techniques
- Have knowledge of scientific or artistic methods within an interdisciplinary context

Social competence

- Explain competently, discuss and critique own work through oral presentations, writing or visual communication
- Demonstrate the ability to work with other students for assignments, exercises, experiments, presentations etc.

Personal competence

- Explain competently, discuss and critique own design production and the theoretical context.
- Assess own work and put it into a historical, theoretical and social context.
- Gain confidence in own role and the persuasive and accountable manner in which it is expected to be performed.

Learning contents:

The module identifies key parameters to guarantee sustainable construction. Sourcing, manufacturing, logistics, assembly and recycling are put into relation with contemporary architectural practice. A critical approach to current design paradigms and consequent positions in design are developed.

Module status	C - Compulsory
ECTS	3
Max. enrolment	none
Assessment	Paper, Portfolio, exercises, minimum 70% mandatory presence, continuous assessment
Knowledge prerequisites	none
Module course	Technical Studies: Sustainable Construction Processes
Learning forms	exercises, research, writing, case study
Contact time per semester (Lectures/ Hours)	28/21
Frequency	once a year
Language	English
Recommended literature	Literature lists are issued and updated each semester

5.2.4 Technical Studies: Technical Report

Module Category	Essential
Module Description	Technical Studies: Technical Report

Learning outcomes:

Professional competence

- Identify the potential of emerging technologies
- Critically assess their impact on architectural design, manufacturing and construction
- Understand their interdependence and sequencing
- Develop a substantial knowledge base through critical case studies of contemporary fabrication processes, constructed artefacts and buildings.
- Involve high levels of critical reflection through case studies, material experiments and extensive research and consultation.
- Communicate and articulate ideas and information fluently in English language and work comprehensively in visual, oral and written forms.
- Make formal presentations about specialist topics to informed and general/ community audiences.
- Show confidence in analysing case studies and the ability to infer principles and motivations.

Methodological competence

- Apply a variety of design- and research methods and visualisation techniques
- Have knowledge of scientific or artistic methods within an interdisciplinary context

Social competence

- Explain competently, discuss and critique own work through oral presentations, writing or visual communication
- Demonstrate the ability to work with other students for assignments, exercises, experiments, presentations etc.

Personal competence

- Explain competently, discuss and critique own design production and the theoretical context.
- Assess own work and put it into a historical, theoretical and social context.
- Gain confidence in own role and the persuasive and accountable manner in which it is expected to be performed.

Learning contents:

To support the holistic educational aim of artistic and technically skilled graduates, this report unites technical disciplines embedded in the curriculum into a compulsory document/ report.

It is coordinated with the lecturers of the technical subjects that are supporting it by iterative consultations. Intensive research, experiments on material or processing level, simulations, cooperation with industries, innovative interpretation of taught content and tools, are just some examples how students prove their technical skills applied to the design process of their individual project.

Module status	C - Compulsory
ECTS	3
Max. enrolment	none
Assessment	Paper, Portfolio, exercises, minimum 70% mandatory presence, continuous assessment
Knowledge prerequisites	none
Module course	Technical Studies: Technical Report
Learning forms	exercises, research, writing, case study
Contact time per semester (Lectures/ Hours)	28/21
Frequency	every Semester
Language	English
Recommended literature	Literature lists are issued and updated each semester

5.2.5 Communication & Research Design

Module Category	Essential
Module Description	Communication & Research Design

Learning outcomes:

- to distinguish different typographies, graphics and layout techniques
- to describe layout compositions
- to determine diagrams and information graphics
- to know different digital layout programmes and apply them adequately
- to name essential concepts, methods and tools of image editing
- to describe complex layout compositions.

methodological skills

- to create digital layouts and graphics.
- to apply different digital design tools to enhance their project idea. To develop and create digital layouts and architectural visualisations.
- to combine various forms of design formats to reinforce the project idea

social skills

- to perceive and take arguments from fellow students
- to develop self-competency
- to plan and implement tasks independently

Course contents:

The module provides a practice-based understanding of communication as well as insights into research strategies in architecture. By way of exploring architectural firms or institutions the participants develop and learn their communication and research skills through observing, reflecting and developing communication and research practices of architectural firms.

Module status	C - Compulsory
ECTS	3
Max. enrolment	none
Assessment	Paper, Portfolio, exercises, minimum 70% mandatory presence, continuous assessment
Knowledge prerequisites	none
Module course	Communication & Research Design
Learning forms	exercises, research, writing, case study
Contact time per semester (Lectures/ Hours)	28/ 21
Frequency	once a year

5.2.6 Project Management & Entrepreneurship: Project Management for Architects

Module Category	Essential
Module Description	Project Management & Entrepreneurship: Project Management for Architects

Learning outcomes:

Professional competence

- Acquire the knowledge of planning operations regarding quality, time and cost
- Deal with identifying innovative business opportunities and implementing them in the market
- Evaluate the feasibility of a project
- Handle the contracts of the various professionals who will carry out the work: architects, engineers, contractor etc.
- Analyse projects from diverse points of view, such as urban planning issues; Financial, Legal, Political, Technical & Economical issues
- Acquire the knowledge about building approval processes with the City Administrations.

Methodological competence

- Identify key elements of problems and choose appropriate methods for their resolution in a considered manner
- Acquire the tools to creatively implement a vision
- Apply a variety of design- and research methods and visualisation techniques

Social competence

- Explain competently, discuss and critique own work through oral presentations, writing or visual communication
- Manage the development of works both at a technical level and at coordination level when dealing with all project partners (architects, engineers, suppliers etc.).
- Follow the development of the previewed planning, implementing the corrective actions that should be needed

Personal competence

- Gain confidence in own role and the persuasive and accountable manner in which it is expected to be performed.
- Be organised and efficient in work processes.
- Ability to adapt and deal with situations through ongoing change.

Learning contents:

This module will show students how to manage projects and teams Students will learn how to deal with clients, understand the role of marketing, the basics of accounting and leadership, thus preparing them for their future role as responsible employers.

Module status	C - Compulsory
ECTS	3
Max. enrolment	none
Assessment	Paper, Portfolio, exercises, minimum 70% mandatory presence, continuous assessment
Knowledge prerequisites	none
Module course	Project Management & Entrepreneurship: Project Management for Architects
Learning forms	exercises, research, writing, case study
Contact time per semester (Lectures/ Hours)	28/21
Frequency	once a year

5.3 Electives

5.3.1 Workshop

Module Category	Elective
Module Description	Workshop

Learning outcomes:

Professional competence

- Execute complex defined and self-defined projects of research, development or investigation and identify and implement relevant outcomes.
- Communicate and articulate ideas and information fluently in English language and work comprehensively in visual, oral and written forms.
- Make formal presentations about specialist topics to informed audiences.
- Exercise autonomy and initiative in carrying out set project briefs and self-directed programmes of study.
- Demonstrate ability to manage time and physical resources in relation to set project briefs and self-directed programmes of study as an individual and a group member.
- Show confidence in analysing case studies and the ability to infer principles and motivations.

Methodological competence

- Apply a variety of design- and research methods and visualization and production techniques
- Have knowledge of scientific or artistic methods within an interdisciplinary context

Social competence

- Explain competently, discuss and critique own work through oral presentations, writing or visual communication
- Lead a team and assume responsibility
- Demonstrate the ability to work with other students for assignments, exercises, experiments, presentations etc

Personal competence

- Gain confidence in own role, and the persuasive and accountable manner in which it is expected to be performed.

Learning contents:

An intensive weekly workshop enables students to further deepen their knowledge of an issue addressed in the Advanced Studios and/ or conduct excursions to places and sites addressed in their design project.

Module status	E - Elective
ECTS	3
Max. enrolment	28
Assessment	Paper, Portfolio, exercises, minimum 75% mandatory presence, continuous assessment
Knowledge prerequisites	none
Module course	workshop
Learning forms	Lecture and seminar: case studies, discourse, writing
Contact time per semester (Lectures/ Hours)	30/22.5
Frequency	depending on the offer
Language	German/English

5.3.2 Cross-faculty electives

Module Category	Electives
Module Description	cross-faculty electives

The detailed descriptions of the different modules courses are explained in Detail in the Study Plan of the cross-faculty electives.

In case of a workshop, there is the possibility to complete 3 ECTS in the field of Architecture and Planning.

Learning contents:

Cross-faculty electives give the students the opportunity to deepen their knowledge in a range of specific topics in the field.

The courses are furthermore designed to place subject-related studies against a social, political, historical, philosophical and aesthetic background. The students' understanding of complex and contradictory circumstances and the dynamic interplay of factors will be strengthened as a result.

Independently of the chosen topic students will develop the skill of relating the different themes and questions to their own project. Analogies and contradictions between theories, methods, ideologies and knowledge, as well as points of contact and contrast with other disciplines are looked at and critically discussed.

Link to homepage: _____

Module status	–optional compulsory module
ECTS	9-12
Max. enrolment	28
Assessment	depending on the course
Knowledge prerequisites	none
Module course	Elective out of a selection of the respective Semesters
Learning forms	Lecture and seminar: case studies, discourse, writing
Contact time per semester (Lectures/ Hours)	depending on the course
Frequency	depending on the offered Electives
Language	English/German
Recommended literature	An updated literature list is issued each semester this module is taught

5.4 Pro Bono

5.4.1 Pro Bono Project

Module Category	Pro Bono
Module Description	Pro Bono Project

Learning outcomes:

Professional competence

- Identify key elements of problems and choose appropriate methods for their resolution in a considered manner.
- Compile subject-specific tasks and questions.
- Create a project plan for a self-initiated project or for a project advertised by the Institute of Architecture and Planning.
- Know, classify, interpret and apply phases, methods and criteria of project management (e.g. plan and continuously review steps, use resources sensibly).
- Reflect value-related aspects in an interdisciplinary perspective (e.g. social justice, sustainability)
- Expand, deepen and apply disciplinary competences (knowledge and skills) related to the project (understand, classify and use basic knowledge about special target groups, fields of action and social or legal framework conditions).
- Identify, explain and actively take changes of perspectives.
- Acquire a basic knowledge of the practical implementation of architectural designs.
- Understand the complexity of a design process; from the conceptual work to the implementation of a project.
- Translate theoretical knowledge into practice.
- Take on tasks independently and demonstrate personal effectiveness in the implementation.
- Being aware of the different phases of a project and their interrelation.
- Evaluate the different methods used to develop the tasks developed as well as review the results.
- Understand, evaluate and put into practice ideas, information and arguments emerging in the architectural discourse
- Strengthen of the student's autonomy and sense of responsibility towards society through practical work.

Methodological competence

- Writing an application
- Developing ideas and concepts
- Know and understand factors of successful individual or team work as well as put methods and rules of successful individual or team work into practice.
- Research on project-related data in the internet and in the library.
- Read and analyse complex texts critically, recognise structures, uncover contradictions and distinguish facts from interpretation.
- Visualise a project by intelligibly communicating it
- Adjust the presentation format to the project
- Self-evaluate the project
- Production of project documentation
- Create and execute appropriate and target group-specific presentations of the project.
- Structure and process project results according to scientific criteria (project documentation, final report, final presentation).

Social competence

- Teamwork
- Interdisciplinary and context based communication depending on the target group.

Personal competence

- Learn to independently initiate projects
- Consciously adopt perspectives on other professions
- Know, understand and apply mandatory standards of professional oral and written communication.
- Appropriately transfer and incorporate scientific knowledge into project-related situations and contexts.
- Train problem-solving behaviour

Course content:

The Pro Bono Project gives the student an opportunity to draw a close connection to the practice. Through the preparation of a Pro Bono project, the students gain a deeper insight into the three main areas of professional activity: concept phase, execution phase and reflection phase. In this way the students can complement and/or test their theoretical studies with practice-relevant work.

Module status	C - Compulsory
ECTS	6
Max. enrolment	none
Assessment	Grade drawn from: Pro Bono Application Conceptual Phase Execution Phase Reflection Phase Project Documentation Project Presentation/Critical Review
Prerequisites (for registration)	Admission Assessment
Knowledge prerequisites	none
Module course	Pro Bono Project
Learning forms	Project work under supervision, project management, Individual selection of methods
Contact time per semester (Lectures/ Hours)	30/22.5
Frequency	every Semester
Language	English or German
Recommended literature	Project-specific literature

5.5 Preliminary Study

Module Category	Preliminary Study
Module Description	Preliminary Study

Learning outcomes:

Professional competence

- Independently identify a research topic and develop it coherently into a research proposal for the Design Project
- Manage own learning using full range of resources for the discipline

Methodological competence

- Analyse new and/ or abstract data and situations without guidance, using a range of techniques and methods appropriate to the subject
- Critically evaluate evidence to support hypotheses, reviewing its reliability, validity and significance

Personal competence

- Take responsibility for his/her own work by being critical

Learning contents:

This module, to be undertaken in the third semester, allows students to compose a Preliminary Study. The Preliminary Study serves as a basis for the Master's Thesis. It contains a research question, an in-depth theoretical investigation as well as a conceptual outline for the Historical and Theoretical Report as well as the Technical Report.

Module status	C - Compulsory
ECTS	21
Max. enrolment	none
Assessment	Grade drawn from: Paper/Preliminary Study (80%) & Presentation (20); 75% mandatory presence, continuous assessment
Knowledge prerequisites	none
Module course	Preliminary Study
Learning forms	Lecture: researching, writing
Contact time per semester (Lectures/ Hours)	60/45
Frequency	every Semester
Language	English
Recommended literature	Literature lists are issued and updated each semester

5.6 Master's Thesis

Module Category	Master's Thesis
Module Description	Master's Thesis

Learning outcomes:

Professional competence

- Execute complex defined and self-defined projects of research, development or investigation and identify and implement relevant outcomes.
- Develop an architectural idea into a sustainable proposal, carefully taking into consideration the project's historical, theoretical, cultural, economic and social context.
- Communicate and articulate ideas and information fluently in English language and work comprehensively in visual, oral and written forms.
- Make formal presentations about specialist topics to informed audiences.
- Exercise autonomy and initiative in carrying out set project briefs and self-directed programme of study.
- Demonstrate ability to manage time and physical resources in relation to set project briefs and self-directed programmes of study as an individual and a group member.
- Deal with complex ethical and professional issues.
- Show competence in analysing case studies and the ability to infer principles and motivations.

Methodological competence

- Apply a variety of design- and research methods and visualization techniques
- Have knowledge of scientific or artistic methods within an interdisciplinary context

Social competence

- Explain competently, discuss and critique own work through oral presentations, writing or visual communication
- Understand how to work with confidence in the complex organisational and community settings within which the applied methods and design processes are typically deployed.
- Demonstrate the ability to work with other students for assignments, exercises, experiments, presentations etc.

Personal competence

- Assess own work and put it into a historical, theoretical and social context.
- Gain confidence in own role and the persuasive and accountable manner in which it is expected to be performed.

Learning contents:

The Master's Thesis builds upon the Preliminary Study. It includes a developed hypothesis which is verified (or falsified) within the context of a given or freely chosen design project.

Module status	C - Compulsory
ECTS	21
Max. enrolment	none
Assessment	Grade drawn from: Thesis (80%), Presentation and Defense (20%); 75% mandatory presence
Prerequisites (for registration)	Successfully passed module "Preliminary Study"
Knowledge prerequisites	none
Module course	Master's Thesis
Learning forms	design studio, exercises, experiment, research, writing, visualising, modelling, presenting, case study
Contact per semester (Lectures/ Hours)	60/45

Frequency	Every Semester
Language	English
Recommended literature	Literature lists are issued and updated each semester
