

# oauen-kunst-werkstoffe

Master of Arts (M.A.)

	1. Semester	2. Semester	3. Semester	4. Semester
Design Urban Design	M-P1* - EIS <b>Project 1</b>  10 ECTS / 6 SWS	M-P2* - EIS <b>Project 2</b>  10 ECTS / 6 SWS	M-P3* - EIS <b>Project 3</b>  10 ECTS / 6 SWS	M-THS1 - POE <b>Thesis-Seminar</b> 3 ECTS / 2 SWS  M-THS2 - POE <b>Master-Thesis</b>  27 ECTS
Core	M-TH 1 - TUC Theory and history / academic work 1 5 ECTS / 4 SWS	M-TH 2 - TUC Theory and history / academic work 2 5 ECTS / 4 SWS	M-BK - RUO <b>Specialties Construction 5</b> ECTS / 4 SWS	
	M-TK - FEY <b>Structures</b> 5 ECTS / 4 SWS	M-T - RUO <b>Technology Ecology</b> 5 ECTS / 4 SWS	M-PIB - RUE <b>Conversion of Existing Buildings</b> 5 ECTS / 4 SWS	
Elective General Studies	M-WM ** - THO <b>Elective or General Studies 5</b> ECTS / 4 SWS	M-WM ** - THO <b>Elective or General Studies 5</b> ECTS / 4 SWS	M-WM ** - THO <b>Elective or General Studies 5</b> ECTS / 4 SWS	
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### \* Project 1 - Project 3

Alternative subject areas: Urban Development (SPE) – International Design (EIS) – Design and Technology (RUO) – Building Theory (POE) – Conversion of Existing Buildings (RUE) – Strategies for rural areas (THO) – Digital Processes in Architecture (IM)

**A minimum of one project urban development in the 1st, 2nd or 3rd semester**

### \*\* Electives

Alternative subject areas: Architectural Theory - Design – Urban Development – Building Theory – Conversion of Existing Buildings – Support Structure – Structural Design - Technology - Clima Design – Digital Processes – Strategies for rural areas - Science of Management and Law – Project Development – Construction Management – Housing Construction

**A maximum of three electives can be selected amongst modules from disciplines from other fields (General Studies)**

## Architecture Master of Arts (M.A.)

**M-BK**

**3. Semester**

**Specialities Construction**

**Responsible** Prof. Jo Ruoff

**Teachers** Prof. Dr. Manfred Feyerabend, Prof. Jo Ruoff,  
academic staff, lecturers

**Prerequisite -**

### Contents/Teaching Programme

In this module functional, constructional, conceptual and production-based contents are taught to form the basis, while selected fields of design will be looked into in more depth. Examples include modular construction, industrial construction or special facade technology.

In line with the subject, there will be field trips to view contemporary, innovative structures.

### Competences/Learning Outcomes

Students should learn to recognize and categorize influencing factors inherent in construction that have an impact on complex cross-linked design processes. Consequently, students are expected to include these findings in their specific task to develop them further. Attention should be drawn to particularly sophisticated designs and contemporary facade technology, in order to familiarize students with the latest technological developments and the design potential they offer.

### Teaching and Supervision Methods

Supervised project work with prior lecture content, tutorials in a workshop-like manner, corrections, discussing and reflecting in the team, field trips

Scope/Type	Total lessons taught per week during semester	Credits
Classroom teaching 60 hours Self-study 90 hours Term 1 semester Offered in each academic year Type of examination project work	4 lessons in 3rd semester	5 ECTS in the 3rd semester

## Architektur

Master of Arts (M.A.)

**M-P1- P3**

**1.-3. Semester**

### Project

**Responsible** Prof. Dagmar Eisermann

**Teachers** Prof. Dagmar Eisermann, Prof. Marc Immel, Prof Georg Poensgen, Prof. Ulof Rückert, Prof. Jo Ruoff, Prof. Henrike Specht, with their respective academic staff, as well as the professor for innovation.

**Prerequisite** -

### Contents/Teaching Programme

Having adopted a holistic mindset within the field of architecture and urban development, students work on a design topic in either an international or regional context. According to their liking and skillset, they can choose a design topic from the range of topics offered at the beginning of the semester.\* \*\* .

Based on the fundamental knowledge gained in their previous study and taking into account the basic evaluation preceding the design itself such as analyses, off-the-cuff work or the like, they will examine the existing historical, cultural, socio-economic, urban and construction-related context. Against this backdrop and with the capacity for critical reflection that students have meanwhile cultivated, groundbreaking concepts are developed, which serve as a guideline in the subsequent design process. Diving deeper into the design in their specific major is an integral part of their design work.

The coherence of the concept in theoretical, functional and design-oriented respect as well as its realization in urban development and architecture will be raised in scheduled face-to-face sessions and discussed in a process-like manner.

\* Topics: Urban Development (SPE) – International Design (EIS) – Construction and Technology (RUO) – Building Theory (POE) – Building in Existing Contexts (RUE) - Strategies for rural Areas (THO) – Digital Processes in Architecture (IM)

\*\* Students must verify that they have completed one of the three required M-P modules with a specialization in urban development.

### Competences / Learning Outcomes

The aim is the independent development and in-depth elaboration of a complex design solution on all benchmark levels that are necessary to comprehend. The design competency as the architects' core competency is further enhanced. After thorough consideration students are able to bring the concepts which have been developed by themselves into the corresponding architectural resp. urban development shape and construction and add to its overall expression by using the right depiction method. In doing so, they express their stance towards the challenge they had to face. They are able to respond to current issues and likewise assume responsibility for a sustainable development. At the end of the day, they are capable of communicating complex contents to their audience in a theoretically substantial manner while keeping a critical distance to the individual theme itself.

### Teaching and Supervision Methods

Supervised project work with prior lecture content for the basic evaluation which are dependent on the respective design topic and subject area.

### Scope/Type

Classroom teaching 90 hours  
Self-study 210 hours  
Term 1 semester  
Offered every semester  
Type of examination project work

### Total lessons taught per week during semester

6 lessons

### Credits

10 ECTS

## Architektur

Master of Arts (M.A.)

**M-PIB**

**3. Semester**

### Conversion of Existing Buildings

**Responsible Teachers** Prof. Ulof Rückert  
Prof. Ulof Rückert, lecturers

**Prerequisite -**

### Contents/Teaching Programme

This lecture is about the fundamentals of designing and building in existing contexts. The following subject areas will be looked into in more detail with the focus placed on how to go about building in existing structure:

- Conceptual approaches in design and realisation
- Building physics and building services
- Hazardous substances in buildings
- Preservation of historical monuments
- Analysis of building examples from the 19th and 20th century
- Theoretical design approaches for the expansion and conversion of existing buildings

### Competences / Teaching Outcomes

Students learn how to assess existing structure while they explore and demonstrate various ways of further use

### Teaching and Supervision Methods

Lectures, seminars, tutorials, papers, presentations

#### Scope/Type

Classroom teaching 60 hours  
Self-study 90 hours  
Term 1 semester  
Offered each semester  
Type of examination project work

#### Total lessons taught per week during semester

4 lessons

#### Credits

5 ECTS



## Architecture Master of Arts (M.A.)

**M-T**

**2. Semester**

### Technology / Ecology

**Responsible Teachers** Prof. Jo Ruoff  
Prof. Ulf Decker, Prof. Jo Ruoff, academic staff lecturers

**Prerequisite -**

### Contents/Teaching Programme

Contents include:

- Ecologically sound construction
- Working on examples of application for the spatial and technical integration of building service systems and constructional requirements in the architectural design
- Simulation of lighting conditions and energy flows, analogue and digital

Field trips to view state-of-the-art and innovative building services.

### Competences / Teaching Outcomes

Students should be enabled to recognize the correlation between surroundings and buildings and develop an understanding what possibilities there are to respond by means of structural characteristics. In doing so they should apply what they have learnt from building physics and learn to use building physics measuring methods. Furthermore, students should evaluate the pros and cons of different building services so that they can derive a strategy to find an ecologically and technically appropriate solution for a design task. This is the module achievement.

### Teaching and Supervision Methods

Lectures, tutorials, workshops, corrections, discussing and reflecting within the team, field trips

#### Scope/Type

Classroom teaching 60 hours  
Self-study 90 hours  
Term 1 semester

#### Total lessons taught per week during semester

4 lessons in 1st semester

#### Credits

5 ECTS in the 1st semester

Offered in each academic year  
Type of examination project work

## Architektur

Master of Arts (M.A.)

M-TH1

1. Semester

**History / Theory / scientific work methods 1**

**Responsible Teachers** Prof. Dr.-Ing. Friedrich Tucek  
Prof. Dr.-Ing. Friedrich Tucek

**Prerequisite -**

### Contents/Teaching Programme

Fundamental knowledge in architectural theory ranging from its initial stages in ancient times up to classical modernism is the content of lecture and seminar of MA 1. Contents will be based on selected source texts and, wherever possible, there will be a connection to design work and physical architecture. Moreover, this seminar is aimed at teaching and practising the fundamentals of scientific work methods such as reproducing and summarizing texts and the correct citing of sources etc.

### Competences / Teaching Outcomes

The objective is on the one hand, to provide students with key information about architectural theory and terminology; while they acquire skills that are necessary for academic work. Students will be provided with the necessary knowledge and given hints to empower them to take their own stance when faced with architectural and urban development-related challenges in their societal context.

### Teaching and Supervision Methods

Lectures, seminars, tutorials, papers, presentations

#### Scope/Type

Classroom teaching 60 hours  
Self-study 60 hours  
Term 1 Semester

#### Total lessons taught per week during semester

4 lessons 1st semester

#### Credits

5 ECTS in the 1st semester

Offered in each academic year  
Type of examination written exam / research project

## Architektur

Master of Arts (M.A.)

**M-TH2**

**2. Semester**

**History / Theory / scientific work methods 2**

**Responsible Teachers** Prof. Dr.-Ing. Friedrich Tucek  
Prof. Dr.-Ing. Friedrich Tucek

**Prerequisite -**

### Contents/Teaching Programme

The seminar in MA 2 provides fundamental knowledge in architectural theory going from the classical modernism through to the present. Contents will be based on selected source texts and, wherever possible, there will be a connection to design work and physical architecture. Based on module M-TH1 this seminar is aimed at teaching and practising the fundamentals of scientific work methods.

### Competences / Teaching Outcomes

The objective is to give students key information about architectural theory and terminology; while they acquire skills that are necessary for academic work. Students will be provided with the necessary knowledge and given hints to empower them to take their own stance when faced with architectural and urban development-related challenges in their societal context.

### Teaching and Supervision Methods

Lectures, seminars, tutorials, papers, presentations

#### Scope/Type

Classroom teaching 60 hours  
Self-study 60 hours  
Term 1 semester  
Offered in each academic year  
Type of examination research project

#### Total lessons taught per week during semester

4 lessons in 2nd semester

#### Credits

5 ECTS in the 2nd semester



## Architektur

Master of Arts (M.A.)

**M-THS1**

**4. Semester**

**Thesis-Seminar**  
Thesis-Seminar

**Responsible Teachers** Prof. Georg A. Poensgen  
Professors

**Prerequisite** 90 ETCS

### Contents/Teaching Programme

The thesis-Seminar (2 lessons) refers to the theme of the Thesis and will be held in an interactive way. Small groups work together, engage in discussions and watch students presenting content (learning by teaching).

### Competences / Teaching Outcomes

Students should be prepared for the content of their subsequent thesis, to allow a more in-depth study of the theme and to learn how to independently apply acquired knowledge to the application-related task assigned to them, which has been taken from their field of expertise. With the specified topic in mind they are also required to demonstrate a scientific work method.

### Teaching and Supervision Methods

Supervised project work with prior lecture content, tutorials in a workshop-like manner, corrections, discussing and reflecting in the team, field trips possible

#### Scope/Type

Classroom teaching 30 hours  
Self-study 60 hours  
Term 1 semester  
Offered every semester  
Type of examination Attend seminar

#### Total lessons taught per week during semester

2 lessons in 4th semester

#### Credits

3 ECTS in the 4th semester

## Architektur

Master of Arts (M.A.)

**M-THS2**

**4. Semester**

**Master-Thesis**  
**Master-Thesis**

**Responsible Teachers** Prof. Georg A. Poensgen  
Professors

**Prerequisite** 90 ETCS

### Contents/Teaching Programme

In general, the Master Thesis is to solve a conceptual problem in the field of architecture while demonstrating an autonomous workstyle. In certain cases that are suitable within the theme it can also be a written paper with literature content in the specialist area. The theme of the Master Thesis can be derived from all areas within the Master module range.

Candidates are assigned with a specific group topic or else they can suggest a theme. The task can be posed by any professor of the faculty and any lecturer teaching in the Master programme and they can supervise / support them accordingly.

The results achieved in the Master thesis need to be presented in a professional manner and as part of a colloquium have to be presented by the candidates to anyone from the faculty who wants to listen. The colloquium forms the second higher education degree qualifying for entry into a profession.

### Competences / Teaching Outcomes

- Students should have the skills and insights to be able to autonomously work on scientific issues applying the knowledge and competencies gained within their study as well as draw on their own creative solution potential
- On the basis of scientific research work they should have the capacity to solve a challenging design task with innovation and at the same time accomplish the assignment in their own specific architectural language.

### Teaching and Supervision Methods

Autonomous workstyle, consultation

#### Scope/Type

Classroom teaching –  
Self-study 810  
hours  
Term 1 semester  
Offered every semester  
Type of examination Thesis

#### Total lessons taught per week during semester

#### Credits

27 ECTS in the 4th semester

## Architektur

Master of Arts (M.A.)

**M-TK**

**1. Semester**

**Structures**

**Responsible** Prof. Dr. Manfred Feyerabend

**Teachers** Prof. Dr. Manfred Feyerabend

**Prerequisite -**

### Contents/Teaching Programme

Contents offered cover the transfer of theoretical knowledge about three-dimensional structures of any material: Cable mesh constructions and diaphragm designs, shell structures, dome-shaped glass grids, pneumatic constructions, skin-like facade and building envelopes. At the same time students will work on exemplary spatial constructions in the workshop „How to design digitally“. They will receive an instruction how to handle the specific form finding software and develop spatial support structures digitally. The digital model will be translated into material. The load-bearing behaviour of the structures will be reviewed and discussed using the computer and the model itself.

### Competences / Teaching Outcomes

Students learn to recognize and classify how the support structure impacts the complex and cross-linked design process. Students will be introduced to particularly demanding 3D support structures with the aim to recognize the principles of the spatial load-bearing effect and learn how to handle them. Finally students are empowered, to distinguish between sound and sensible shapes and constructions and those that don't make sense. This will allow them in their profession as architects later in life, to steer the design of support structures of complex buildings in the right direction and to develop meaningful and coherent solutions in collaboration with engineer partners.

### Teaching and Supervision Methods

Lecture, Supervised project work withing the workshop „How to design digitally“, Discussion and reflection in the group.

#### Scope/Type

Classroom teaching 60 hours  
Self-study 90 hours  
Term 1 semester  
Offered in each academic year  
Type of examination paper

#### Total lessons taught per week during semester

4 lessons in 1st semester

#### Credits

5 ECTS in the 1st semester

## Architektur

Master of Arts (M.A.)

**M-WM**

**1.-3. Semester**

**Wahlmodul/Studium Generale**  
**Elective/General studies**

**Responsible** Prof. Peter Thomé Architekt BDA

**Teachers** Professors, Professorinnen and professors from other disciplines other universities, academic staff, lecturers

**Prerequisite** -

While they are engaged in research-based learning students go deeper into contents that are associated with either a project they have worked on so far or a theme specified below. Students are encouraged to autonomously work on theoretically and/or methodically challenging problem definitions.

### Contents/Teaching Programme

This module includes the specialization of themes with various emphases. Complex problem definitions will be addressed using scientific tools while embracing an experimental and empirical work method. Specialization themes include issues from the fields architectural theory, design, urban development, strategies rural areas, building theory, conversion of existing buildings, support structure, structural design, technology, Clima Design, digital processes, science of management and law, project development and construction management. Specialization fields are also in line with current research fields that the faculty is already involved in. In addition, there is the opportunity, to select modules of other disciplines or faculties of Koblenz University of Applied Sciences as well as other universities, to work on their non-disciplinary issues more in depth.

There will be a range of topics in each semester, which can be offered in various assignments.

### Competences / Teaching Outcomes

Students analyse complex interrelationships from various fields of expertise and are able to incorporate these into a scientific research question. They are introduced to working methodically to respond to these questions and have the capacity to apply a methodical workstyle. After assessing the various solution approaches they can communicate these and are able to critically reflect upon their achievements.

### Teaching and Supervision Methods

Depending on the type of task which has been posed, any teaching or supervision method is possible

#### Scope/Type

Classroom teaching 60 hours  
each

Self-study 90 hours  
each

Term 1 semester  
Offered every semester

Type of examination research project,  
project work

#### Total lessons taught per week during semester

4 lessons each

#### Credits

5 ECTS each