

# Build Your Bauhaus



Bauhaus-  
Universität  
Weimar

## Experience the Bauhaus-idea

**and learn more about the influence of the bauhaus on our life!**

*The Bauhaus was a school, not a design-studio. Walter Gropius wanted to educate a new generation of designers, which is why he wanted his pupils to learn a craft and to work in the workshops. He encouraged them to gain hands-on experience in the workshops. Those experiences seemed to him to be the best way of finding the design for a new century. The objects were not best-sellers from the beginning, but rather stations on the road to something new.*

*We will follow the advices of Gropius and the traces of the Bauhaus in our workshop. We will start in the museums with the drafts and products of the Bauhaus pupils and end up in the wood workshop, where we will bring our projects to life.*

*We will visit the Bauhaus sights and museums in Weimar and Dessau. We will sleep in the Bauhaus building in Dessau. Another stop will be the Grassi museum for art and craft in Leipzig. The old designs are supposed to inspire us for the workshop training.*

*The wood-workshop of the Bauhaus-Universität Weimar is our base for the design and the manufacturing of models, mock-ups and prototypes. We use wood and all kinds of tools and machines to build our models there.*

*Results will be shown in a little exhibition at the end of the course. You will take your*

## Target Group

*The course is intended for everyone who is interested in the history of the Bauhaus and its effects on our life. Participants should bring along curiosity and courage for the Bauhaus-experience.*

*The course language in English. That is why good English language skills are required.*

**دانشجویان علاقه مند به این دوره میتوانند به امور بین الملل - طبقه هشتم  
دانشکده معماری و شهرسازی - مراجعه نمایند.**



# Colour. The Sensitive Language

**Expanding your knowledge of colour and learning  
how to sensitively use colour as an artistic medium of communication**



**Bauhaus-  
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Weimar**

*One main theme are the colour theories of the Bauhaus masters Itten, Kandinsky and Albers in practical exercises. The experimental works of the Bauhaus stage provide inspiration for interactive, colour based digital work, connected with movement and sound.*

*The content of the course are colour theories with focus on Weimar (Goethe, Bauhaus), practical colour exercises about classification, combination and effect, psychological and cultural aspects of colour. An interactive computerbased colour work is one focus in the second week.*

*We work mostly abstract and analytic with coloured papers, paint and computer.*

*(The workshop is not based on free artistic painting.)*

## Target Group

*All interested persons are welcome to join the workshop. Basic knowledge about computer and design principles are helpful, but no condition.*

*The course language in English. That is why good English language skills are required.*

*Colour is sensitive and playful, colour comprises old wisdom and is always new. Colour has an order and not only one. Colour is subjective and emotional but also serves as an objective and cultural language. Colour affects physics, psychology, medicine, biology, philosophy and of course art and design. The basic design principles like balance, contrast, dominance, proportion etc. are all also related to colour design.*

*The workshop focuses on the expansion of your knowledge of colour and the development of a sensitive use of color as an artistic communication tool.*

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# Floating Architecture



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Find out how to use design and material science to meet one of the biggest challenges facing mankind!

*The course provides in-depth knowledge of designing and planning eco-friendly floating structures made of renewable composite materials in both theoretical and practical context.*

*Through a series of lectures, workshops, and instructed project work this course seeks to convey knowledge about specific material development and advance the understanding of project related research work. Approaches and possible solutions to pressing issues like the effects of rising sea levels on urban planning concepts especially in heavily populated coastal areas and cities located near river estuaries will be discussed.*

*In addition to an analytic look at solutions currently being attempted, the participants will be asked to formulate their own possible responses for selected geographical and socio-economic hotspots with the use of ecological material compounds. Among the questions examined is, how floating structures can be implemented using renewable resources and how such sustainable solutions can be informed by the scientific development of new materials. During individually guided workshops the participants will develop lightweight materials of their own and test geometries of core layers for composite materials for light weight constructions.*

*Additionally, field trips will provide a broader view of the matter. A visit to the Fraunhofer Institute for Mechanics of Materials in Halle, one of the most renowned research and development institutes in Germany,*

*will set the focus on application-based research and illustrate the essential importance of interdisciplinary scientific work.*

*Discussions and the exchange of ideas with professors, research associates, and other colleagues during classes will enhance the participants personal experience. As an interdisciplinary colloquium the course offers a unique opportunity for master students, graduates, doctoral candidates, and young professionals in the fields of architecture, urban management, and product design to come to Weimar and exchange ideas on a highly contemporary topic.*

*Participants should have a substantial interest in the topics of the course. Knowledge of concepts of floating architecture and renewable materials as well as lightweight construction*

## Target Group

*This course is open to all master students, graduates, doctoral candidates, and young professionals in the fields of architecture, urban management, and product design.*

*All participants should have a substantial interest in the topics of the course. Knowledge of concepts of floating architecture and renewable materials as well as lightweight construction are warmly welcome.*

*The course language in English. Therefore good command of English is required.*

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# Forecast Engineering



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Weimar

## From past design to future decision

*The design of engineering structures takes place today and in the past on the basis of static calculations. The consideration of uncertainties in the model quality becomes more and more important with the development of new construction methods and design requirements. In addition to the traditional forced-based approaches, experiences and observations about the deformation behavior of components and the overall structure under different exposure conditions allow the introduction of novel detection and evaluation criteria.*

*Bauhaus-Universität Weimar presents special topics of Structural Engineering to highlight the broad spectrum of civil engineering in the field of modeling and simulation. The expected outputs of the summer course are to enable the participating students to deal with advanced methods in model validation and simulation and its practical application, as well as the exchange of ideas between the participating students.*

*Through a challenging and demanding series of lectures, as well as seminars and project work, presented with a state-of-the-art information and communication technology, this project seeks to impart knowledge and to combine research with a practical context.*

*This comprehensive summer school at graduate level will introduce selected students to six course topics and related projects. To enable participants to understand and use the presented concepts in their further professional career a main part of the summer school is devoted to interdisciplinary project work.*

*Discussions and the exchange of ideas with professors, research associates and other participants during and after classes will enhance the personal experience and bring best benefits to all participants. In addition, we offer excursions to building-sites and leading companies as well as a programme of cultural events.*

### Course Topics

*The special character of this course is in the combination of basic disciplines of structural engineering with applied research*

*projects in the areas of steel and reinforced concrete structures, earthquake and wind engineering as well as informatics and linking them to mathematical methods and modern tools of visualization. The broad spectrum of civil engineering in the field of modeling and simulation is highlighted here.*

*In the frame of the planned summer course different aspects, modelling techniques as well as strategies will be discussed and trained. The topics are:*

- *Survey and assessment of existing buildings under extreme actions by using modern information and sensing technologies;*
- *Methods for the determination of residual capacity, capacity limits and safety tolerances for different scenarios;*
- *Experience and performance based design concepts;*
- *Design of structures taking account of changing requirements;*
- *Elaboration of interdisciplinary cooperation needs to solve complex engineering technically challenging questions.*

*The focus is on structures under extreme impact, due to the observed behaviours from past and current events as well as special requirements for future designs.*

### Projects

*Project 1 | Implementation and Validation of Wireless Structural Health Monitoring Systems*

*Project 2 | Image Analysis for Change Detection*

*Project 3 | Evaluation of Existing Masonry Structures under Multiple Extreme Impacts*

*Project 4 | Numerical Analysis of Steel Frames*

*Project 5 | Calibration of Numerical Models in Civil Engineering Applications*

*Project 6 | Wind-induced Vibrations of Long-span Bridges*

### Target Group

*M.Sc. / PhD / graduates in the fields of civil engineering.*

*Prerequisite for participation in addition to adequate English skills, are the submission of a meaningful motivation letter and an abstract with respect to current personal scientific activity which mediates the interest or the ability to edit the project themes.*

*The course language is English. That is why good English language skills are required.*

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# International Future Lab



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Weimar

## Wanted: Futurologists for Thuringia!

**How would it feel to design the future? We can! Let's do it!**

The international future lab is cooperation between Bauhaus-Universität Weimar and the International Building Exhibition Thuringia (IBA Thüringen). Until 2023 IBA Thüringen will investigate alternative ideas of architecture and explore future effects of societal transformation. From May until September 2015 IBA Thüringen presents itself to the public through a large-scale exhibition at the historical Viehauktionshalle. The international future lab will become part of this exhibition during the Summer School. We set up our 'live-lab' at the exhibition space to explore the future of Thuringia and add our findings to the exhibition to give it an international angle. Within our interdisciplinary team we aim at creating future visions and translate them into scenographic interventions on site that will permanently become part of the exhibition.

Participating in the international future lab you gain insights into future thinking and learn how to develop and translate future visions into experimental-scenographic interventions in an interdisciplinary group.

## Target Group

All students and alumni from fields related to Architecture, Urban Planning, Product Design and Visual Communication are welcome.

Requirements:

- laptop
- digital camera

The course language is English. Therefore good command of English is required.

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# Performance of the Pavilion



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**Collectively design and create a mobile pavilion**

**at Bauhaus-Universität Weimar using experimental processes in modular construction**

**Using multidisciplinary and unconventional approaches, this course will re-examine the contemporary role of the pavilion as an architectural and engineered sculpture, historical document, place of consumption and production, shelter, and cultural platform. Guided by a series of seminars and workshops, the class will focus on generating a full scale pavilion through applied theory and practice.**

**Seminars will investigate historical to present day contexts of “the temporary structure” informed by architectural, art, and craft perspectives. Workshops will explore novel, low cost construction methods with extraordinary material use and modular building approaches.**

**Also, participants will have the opportunity for both an individual and shared experience of conceptualizing, designing, engineering, and making.**

## Target Group

**The course is intended for architects, engineers, designers, and artists as well as for everyone who is interested in the design to construction process. Design and/or construction experience encouraged, but not required. Participants should bring along curiosity and courage for the experience to work with their hands.**

**The course language in English. That is why good English language skills are required.**

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# Place & Atmosphere



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## Friedrich Fröbel comes to the Bauhaus

*There will be two phases of work progress. In the first phase we will discuss different design alternatives. Afterwards the different concepts will be layouted and presented. The second phase will consist out of building models and 1:1 mock-ups of the selected schemes. The aim is to form a logical sequence of all installations and have a coherent choreography in the end.*

*Lectures of aspects of design methods with different subjects will be given. The subjects will contain theoretical topics, artistic projects and architectural projects. The lectures will continue through all design phases of the course and should produce inspirations and discussions.*

## Educational Targets:

*There is a focus on learning how to retrieve places, spaces and concepts. The result will be to sharpening and reflecting the own perception. In order to be able to develop and to communicate the design concept to a scale of 1:1, we will work on the skills of presenting space in different ways. The students get to know more about the theoretical basis and methodical approaches of Friedrich Froebel.*

## Target Group

*Architecture/Design/Art – Master/Graduate are welcome.*

*The course language in English. Therefore good command of English is required.*

*The focus of the workshop will be creating “spaces of perception”, which invite to discover and to make curious. In an arrangement of assignments we will use the context of main Building of the Bauhaus-University Weimar to experiment with different design methods.*

*The thesis, that the “Spielgabensystem” of the pedagogue Friedrich Froebel is discussed as an inspirational source of the “Bauhaus”-movement, will be a starting point for our research his theory for our design methods. Inspired by the philosophy and methods of Friedrich Froebel, the designed spaces should react in a special way to different human senses and to its function. In the end of the workshop there will be a spatial translation of places into a 1:1 scale. In our imagination these environments in true scale could transform into permanent places. We will use different methods of representation, which try to trace the atmosphere we imagined and built. The design of the installations of space shall be inspired by the work of the artists Walter de Maria, Dan Graham, James Turrell, Rebecca Horn and others.*

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# Spatial Poetry



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Weimar

Moreover this process will further strengthen and train the students' ability for abstraction, interpretation and reinterpretation. The language in the texts is seen as a generator that triggers the spatial experiments and phenomenological tests throughout the course.

## Go Big - Models and Drawings

By intensively using large scale plaster models and over-sized charcoal drawings, the course seeks to familiarise the participants with the capacity to meaningfully evaluate the models and carve out the relevance of shapes, relations, proportions and light. On the basis of handcrafted plaster models and charcoal drawings, students will learn to both experiment with spatial ideas and meaningfully use the architectural model in this process.

The course features an array of thematically aligned lectures, such as technical inputs on building molds, as well as theoretical lectures on phenomenological approaches in architecture with examples and case studies. In Addition to this we will visit particularly shaped landscapes and environments as a visual and thematic inspiration. As the final event the group will organize an exhibition with all the models and drawings produced throughout the course.

## A Phenomenological Approach

In this hands-on course students will investigate and experiment with architectural space in its most archaic form. By weaving shapes, relations, proportions, and light, architecture can elevate new spatial experiences and phenomena, which is the theoretical foundation this course is built upon. In this context working with physical models has proved to be one of the most fundamental methods to produce, assess and refine space – especially in our increasingly digitalised world. This course is a testing field for experimenting with space and the methods to evaluate it.

### Spatial Narratives – From Text to Space

As a trigger we will use text passages from canonical German novels and their hints and insinuations of spatial poetry within. We will interpret them, and carve out their inscribed spatial narratives and subtexts and transform them into models. The texts will therefore serve as vehicles, which allow us to translate textual atmospheres and phenomena into architectural space.

## Target Group

This course addresses students from fields such as architecture, design and the arts. However, it also welcomes everyone who is interested in the discourse on architectural space and who seeks to experimentally gain further understanding of space.

The course language is English. That is why good English language skills are required.

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## خودروهای هیبریدی

### *Hybrid Electric Vehicles*

دوره تابستانه ***Hybrid Electric Vehicles & All Electric Vehicles*** در زمینه خودروهای هیبرید به همراه بازدید از کارخانه های خودرو سازی آلمان برگزار خواهد شد. دانشجویان میتوانند جهت کسب اطلاعات بیشتر و ثبت نام به امور بین الملل واقع در طبقه هشتم دانشکده معماری - شهرسازی مراجعه نمایند.

**مهلت ثبت نام تا پایان اسفند ماه ۹۳ میباشد.**