





Green. Building. Solutions.

Vienna Summer University, 24. July-14. August 2011 (more)

Program Dates

24 July to 14 August 2011

Registration Deadline

25 April 2011

Program Fee (more)

Euro 1.900/2.300, -- (students/alumni), including all listed program components, funding opportunities offered

How to apply (more)

at www.summer-university.com, open for Master-level students and alumni

Courses (more)

- 64 Contact Hours (8 ECTS) on
 - o Sustainable Urban Development
 - o Energy Efficient Building Solutions

Visits

- o Aspang & aspern Seestadt
- o solarCity Linz
- o **Daylight Dome Krems**
- o <u>Energy Base</u>, OeAD Passivhaus
- o Passivhaus Campus FH Salzburg
- o LOPAS, Tattendorf

Excursions & Activities (more)

- District Heating Plant
- Architectural City Tour of Vienna
- Viennese Waltzing night
- Danube River Highlights Tour
- · Salzburg City visit
- Schönbrunn
- · Movie & Discussion night

Accommodation in OeAD Passivhaus

First hand ecological knowledge and engineering expertise bundled in a three-week program in the capital of energy efficient building: Vienna. Think sustainable, take care of your future - now.

Comfortable living - summer and winter - without energy intense heating or cooling systems? Fresh air without temperature loss? "Passivhaus" is the leading standard for energy efficient building solutions. The investment is evened out rapidly by cutting operating cost by 9/10th and makes its inhabitants independent from rising energy prices and fossil fuels. And: its' profitability and environmental viability turns it into an opportunity for specialized architects.

Austria is the pioneer in Passivhaus-Technology: 3,2 Mio m² of floor space out of 7,0 Mio m² in whole Europe are found here.

Managing the increased need of specialized skills in planning and execution can be handled through substantiated advanced training. This program is your chance to step into this building standard of the future already today and become a first mover in the growing market of energy efficient building.

It offers an introduction and outlook of sustainable architecture as well as sustainable urban development and planning while presenting leading examples.

You will find an overview of green building rating systems and learn about ecological building materials and renewable resources in order to understand buildings over their life-cycle. With the integration of renewable energies into building concepts you will grasp the concept of the Passivhaus.

- Learn from the best: acquire cutting-edge skills from an Austrian consortium of eight academic institutions, 38 experts and the Austrian Passivhaus Union (IG Passivhaus) in an interdisciplinary setting
- Best practice at hand: connect theoretical knowledge and practical expertise right on site
- Try it yourself: enjoy to live in a Passivhaus
- Benefit your clients: your skills for healthy, cozy and efficient constructing and living
- Engage in intercultural learning: get involved in the group dynamics with international colleagues
- Visit Austria's cultural highlights: the cultural heritage city of Vienna, right in the heart of CENTROPE region, visit "the sound of music city" Salzburg, and Linz the European Capital of Culture 2009



























Course Program (more)

Learning objectives

- Understand the origin of resources and the respective use as well as the integration in buildings
- Learn about the relationships between buildings and their context
- Create an understanding for the necessity of interdisciplinary cooperation to realize green building strategies

Course topics

- Sustainable urban and settlement development, spatial planning for increased quality of life (including: mobility, open space planning, energy supplies and renewable energies, waste management)
- · Resource-optimized building concepts
 - o Fundamentals of planning for resourceoptimized building concepts
 - Passivhaus and Energy Plus Buildings
 - Healthy Building
 - Thermal comfort Ş
 - Air quality
 - Daylight planning
 - Building envelope, renewable construction materials (NAWAROs)
 - **Building Services Engineering**
 - Control systems, automatization
 - Certification of buildings, quality control
 - Sociological aspects, impact of utilizers

Graduates of the Green. Building. Solutions. Summer University are entitled to a reduced tuition fee and an accreditation for the Masters Program "Future Building Solutions at Danube University Krems".

Lectors

Among our 38 reputable lectors you will find the following academic representatives:



Univ.Prof. Arch. DI Dr.techn. **Martin Treberspurg** University of Natural Resources and Life Sciences, Vienna (BOKU)



Ass.Prof. DI Dr.techn. **Karin Stieldorf** Technical University Vienna, Department for Architecture and Design (TU)



Ing., MSc. **Bernhard Kram** Danube University Krems, Department for Building and Environment (DUK)



ao.Univ.Prof. Doz. Dr. **Gunther Maier** Vienna University of Economics and Business, Institute for Regional Development and Environment (WU)



Ass.Prof. Dr. **Sabine Sedlacek** Modul University Vienna, Public Governance and Management (MODUL)



DI Dr. **Gerhard Zucker** Austrian Institute of Technology, Energy Department (AIT)



























Anticipated Schedule (more)

Lecture & Workshop Excursion Social Activity

Sun Arrival Day: Check-in at OeAD Passivhaus 24.07.

Sustainability in Building & Urban Planning

Week 1	Mon	 Orientation Day Program Briefing, Expectations Session Intercultural Training 	
	25.07.	Evening Reception with local students at Vienna City Hall	Günter Lang, IGPH Wolfgang Feist (tbc) Ernst Ulrich von Weizsäcker (tbc)
		 Introductory Keynote: Sustainability: An answer to limits to growth and climate change? 	Helga Kromp-Kolb, BOKU
	Tue	 Economic concepts of externalities, efficiency and refurbishment 	Gunther Maier, WU & Sabine Sedlacek, MODUL
	26.07.	Human ecology	tba
		Waltzing Night	
	Wed	 Energy Economics, Sustainable Supply Scenarios, Set Plan 	<u>Günther Brauner</u> , TU
	27.07.	District heating	Olivier Pol, AIT
		District Heating Plant	Alexander Wallisch, Fernwärme Wien
	Thu	Regional Development	Gunther Maier, WU
	28.07.	Regional Development: Practices in different sectors	Sabine Sedlacek & Dagmar Lund-Durlacher, MODUL
		Student Union Meeting Movie & Discussion: <i>The 4th Revolution</i>	























	Fri	•	Urban Planning, Land Use, Gender Planning	Elisabeth Aufhauser, UW
	29.07.	•	and Life Styles aspern Vienna's Urban Lakeside, Project	Claudia Nutz, Wien
			Presentation	3240
	Sat	•	Passivhaussiedlung, Aspang	Gerhard Berger, Stadt
	30.07.			Wien
	Sun		City Tour	
	31.07.		Vienna's Architectural Styles Jugendstil, Biedermaier, Hundertwasser & Co.	

Principles of Passivhausplanning

	Mon	•	Introduction, overview and outlook of sustainable architecture	Martin Treberspurg, BOKU
	01.08.	•	Principles of the Passive House & Design of the Austria House	<u>Mariam Djalili</u> , BOKU
		•	IEAA-Tool "Integrating energy-relevant aspects in early design stages"	Mariam Djalili, BOKU
	Tue	•	Grey Energy in building materials	Reiner Braun, AIT
	02.08.	•	Assurance of Quality in Passivhaus Timber Constructions	Heinz Ambrozy, IGPH
		•	Timber Attic	Heinz Ambrozy, IGPH
	Wed	•	Passivhaus Loam Constructions	Karin Stieldorf, TU
	03.08.	•	LOPAS, Tattendorf	Karin Stieldorf, TU
	Thu	•	Daylight Engeneering	Bernhard Kram, DUK
Week 2	04.08.	•	Acoustics	Robert Schild, <u>Isover</u>
	Fri	•	Passivhaus in different Climatic Regions	Robert Schild, <u>Isover</u>
		•	Passivhaus in different Climatic Regions From Passivhaus to standard to Energy Plus Buildings	Robert Schild, <u>Isover</u> <u>Karin Stieldorf</u> , TU
	Fri 05.08.	•	From Passivhaus to standard to Energy Plus	·
		•	From Passivhaus to standard to Energy Plus Buildings Culture of constructing	Karin Stieldorf, TU
		•	From Passivhaus to standard to Energy Plus Buildings Culture of constructing Energy Base Optional Visits around Vienna (fitting to	Karin Stieldorf, TU Georg W. Reinberg, IGPH
	05.08.	•	From Passivhaus to standard to Energy Plus Buildings Culture of constructing Energy Base	Karin Stieldorf, TU Georg W. Reinberg, IGPH
	05.08.	•	From Passivhaus to standard to Energy Plus Buildings Culture of constructing Energy Base Optional Visits around Vienna (fitting to participant focus)	Karin Stieldorf, TU Georg W. Reinberg, IGPH Karin Stieldorf, TU
	05.08.	•	From Passivhaus to standard to Energy Plus Buildings Culture of constructing Energy Base Optional Visits around Vienna (fitting to participant focus) Daylight Dome, Krems City Tour Krems, Danube Cruise Overnight: Raab Heim, Linz	Karin Stieldorf, TU Georg W. Reinberg, IGPH Karin Stieldorf, TU
	05.08. Sat 06.08.	•	From Passivhaus to standard to Energy Plus Buildings Culture of constructing Energy Base Optional Visits around Vienna (fitting to participant focus) Daylight Dome, Krems City Tour Krems, Danube Cruise	Karin Stieldorf, TU Georg W. Reinberg, IGPH Karin Stieldorf, TU





















Renewable Energies & Business Concepts

	Mon	•	University of Applied Sciences Salzburg	Hartwig Reiter, FH Sbg.
	08.08.	•	First Passivhaus University Campus Salzburg City Tour	Alexander Petutschnigg, FH Sbg.
			Red Bull, Hangar	
	Tue	•	Applied Building Controls/Building Automation Networks	Gerhard Zucker & Peter Palensky, AIT
	09.08.	•	Quality Assurance for Technical Building Equipment (HVAC)	Johannes Fechner, BOKU
		•	Marketing Opportunities for Architects in Energy Efficient Building	Robert Schild, <u>Isover</u>
	Wed	•	Heat Pumps, Earth Collectors, Controlled Air Ventilation	Markus Haider & Dietrich Wertz, TU
	10.08.	•	Innovative cooling processes (Solar cooling)	Doris Österreicher, AIT
		•	Photovoltaic	Ertex
	Thu	•	The measured Performance of Passive Houses. Wellbeing, Costs and Energy Performance	Roman Smutny, BOKU
W	11.08.	•	Life Cycle Analysis of Buildings	Roman Smutny, BOKU
Week 3		•	LCC – Life Cycle Costs Analysis for Buildings. Economy of Energy Efficient Buildings	Philipp Kaufmann, WU
		•	Sustainable Building Labels – a Tool for Planning, Marketing and CSR	Philipp Kaufmann, WU
		•	Simulation in the building process to increase energy efficiency	Markus Brychta, AIT
	F:		"Heuriger"	Chairting Dülen Chadt
	Fri	•	Regulatory Requirements for Energy Efficient Buildings in Austria	Wien (tbc)
	12.08.	•	Klima:aktiv - the Austrian climate protection	Roman Smutny, BOKU
		•	initiative: strategy and program, tools Healthy Buildings	Vladimir Vukovic, AIT
		•	3D simulation tools for the healthy building analysis	Mirza Popovac & Bernhard Kubicek, AIT
	Sat	•	Passivhaus Project Presentations	Johannes Kislinger, IGPH
	13.08.	•	Lessons Learned of the first large volume	Roman Smutny, BOKU
			Passive Houses in Austria	
		•	Student Project Presentations Certification Ceremony	
	Sun 14.08.	De	parture Day: Check-out	

Status: 4. January 2011. Subject to change without prior notice.













