



## Week I: Roles and responsibilities of buildings [17-24 July]

<p><b>Module 0: Introduction &amp; Orientation</b></p>	<p>Participant preparatory homework Orientation: program overview, intercultural training, introduction <b>Architecture Theory: Climate and modernity</b> <b>Architectural &amp; Cultural City Tour Vienna</b></p>
<p><b>Module 1: Global Challenges &amp; Role of Buildings</b></p>	<p><b>Opening Ceremony featuring Austrian Minister of Climate Action, Environment, Energy, Mobility, Innovation and Technology</b> Sustainability and biodiversity: from restorative to regenerative Climate goals 2030: Importance of renovation and energy efficiency (Paris, Green Deal, SDGs) Architecture for 2050 - Carbon resiliency in a changing climate</p>
<p><b>Module 2: Introduction to Green Building Design and Passive House Standard</b></p>	<p>The Architecture of Green Buildings Historical Development and Principles of Passive House Design Evolution and internationalization of the Passive House Standard Participants presentations of preparatory homework <b>Virtual tour passive house renovations Mariahilferstrasse/Kaiserstrasse</b> Panel Discussion with Experts of the day</p>
<p><b>Module 3: Quality of life in and around buildings</b></p>	<p><b>Healthy people in healthy buildings: passive house apartment visit</b> Daylight &amp; Visual Comfort Thermal comfort - requirements and strategies Green roofs, green walls and interior greening Landscaping for people and planet Microclimate and outdoor comfort Green infrastructure in cities</p>

<b>Module 4: Socially inclusive &amp; accessible urban spaces</b>	<p>Planing, democracy, rights for public space</p> <p>Socioeconomic factors of sustainable urban planning</p> <p>Mobility as a driver of sustainable cities</p> <p>Urban Co-creation in the Digital Age</p> <p><a href="#">Visit &amp; Presentation: Seestadt Aspern (OeAD-GreenHouse &amp; PopUp Dorms)</a></p> <p><a href="#">Best practice for Co-housing: Bike and Rails</a></p>
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**Week II: Material, energy and financial streams [25-31 July]**

<b>Module 5: Circular economy in building sector</b>	<p>Circular economy as strategy for cities</p> <p>Material streams management, reuse, recycle</p> <p>Natural Materials and Biodiversity</p> <p>Alternative materials R&amp;D</p> <p>Tackling a Double Challenge – How to Build More While Using Less</p> <p>Wood and straw-bale as sustainable construction material</p> <p>Canadian expertise in wooden buildings</p> <p><a href="#">Virtual visit TÜWI and/or Wallentinhaus seminar center</a></p>
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<b>Module 6: Energy Concepts &amp; Technologies</b>	<p>Positive Energy District</p> <p>Urban energy planning and Integration of renewables</p> <p>Innovative cooling processes</p> <p>Heat pumps in green buildings</p> <p>Solar Thermal, PV and its applications</p> <p><a href="#">Virtual Visit: AIT Energybase</a></p>
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<b>Module 7: Software Toolbox (Building Modelling &amp; Simulations)</b>	<p>Building Information Modelling - Static and Dynamic</p> <p>Dynamic Thermal Simulations - Introduction to Polysun and IDA ICE</p> <p>Workshop: Dynamic Thermal Simulations - Deep Dive</p> <p>Integration of results into Team Design Project</p>
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<b>Module 8: Economy for sustainable buildings</b>	<p>Building certification as market driver</p> <p>Building renovation as a market opportunity</p> <p>Attractive sustainable real estate for investors</p> <p>Green Finance and investments</p>
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## Week III: Real-life case study for a sustainable neighbourhood [1-8 August]

### Module 9: Team Design Project "Otto-Wagner-Areal; From historical site to positive energy campus"

Introduction to project work & guidelines for 1st deliverable

Building renovation and cultural heritage

Culture-Scene in Otto-Wagner-Areal

Central University in Vienna - Future plans for OWA

Project milestone deliverables presentations

Student Project Final Presentation

[Certification Ceremony](#)