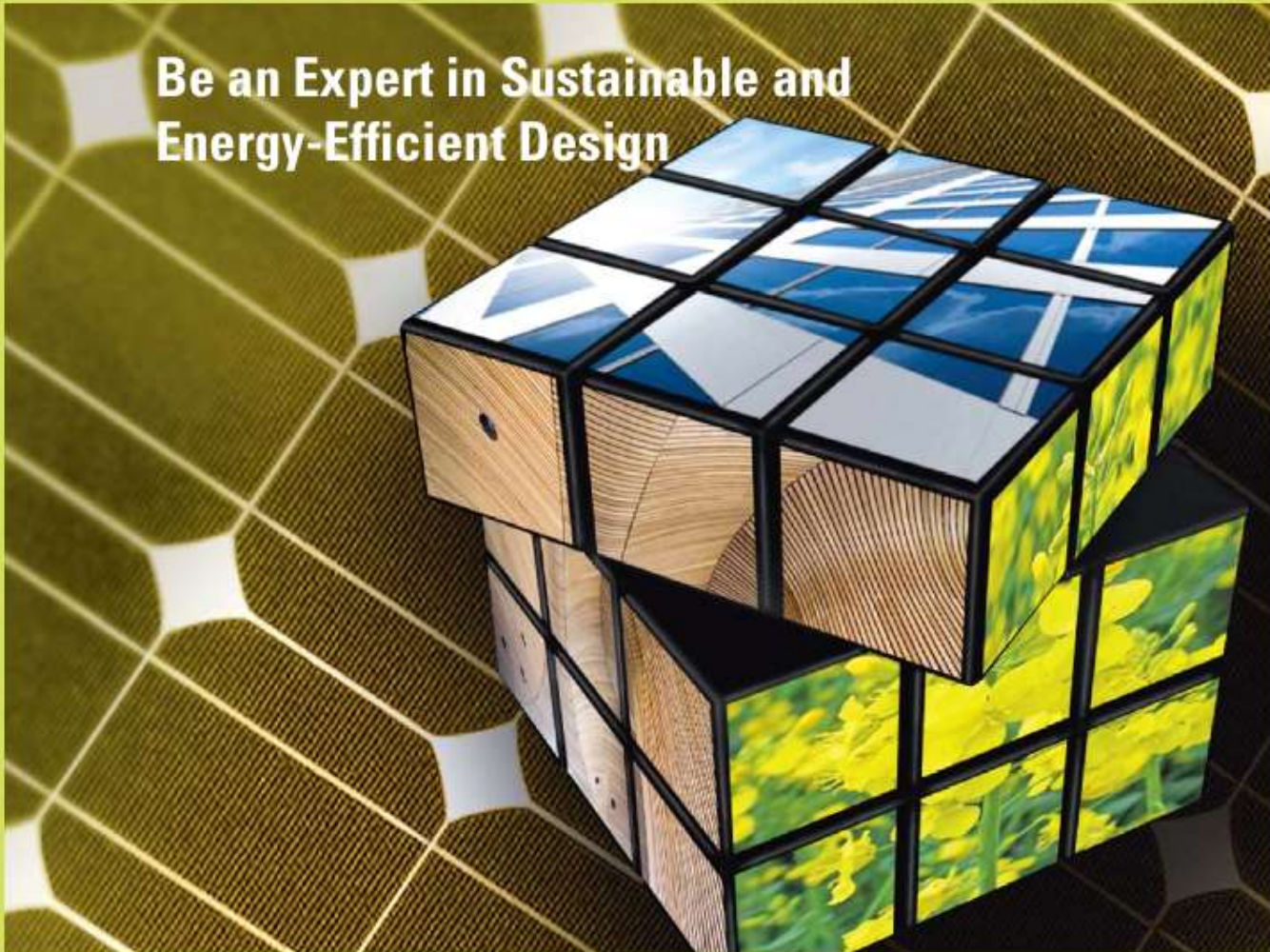


**Be an Expert in Sustainable and  
Energy-Efficient Design**



International University Program in Sustainable Design  
**Future Building Solutions, MSc**



# Future Building Solutions, MSc

## Be an Expert in Sustainable and Energy-Efficient Design

Climate change, declining oil reserves, depleted resources on the one hand and changed needs, advanced qualities of comfort and a new public awareness of energy efficiency on the other have sparked a revolution in the way in which we plan, design and construct buildings for a sustainable future.

### **The competitive advantage of sustainable design:**

Building professionals across the world are discovering sustainable design solutions as an instrument of competitive advantage; one that drives innovation, opens new markets and reaches new customers.

### **Be an expert in sustainable design:**

The international university program, Future Building Solutions, MSc, provides participants with all the necessary knowledge and skills to become an expert in sustainable building and energy-efficient design.



# The Benefits of a Specialization in Sustainable Design

Within the program participants can major in one of two areas of specialization: climate engineering and solar architecture. For each specialized area, three of the nine instruction modules are reserved:

## **Consulting for Buildings with Superior Performance Future Building Solutions – Climate Engineering**

- > Gain a profound understanding of indoor comfort and thermal performance of buildings.
- > Guide decisions on facade concepts, building construction and HVAC concepts from the early design phase.
- > Learn to use high-end thermal building simulation tools such as TAS® and TRNSYS®.
- > Improve your core competences and industry knowledge to ensure interdisciplinary cooperation with architects and designers.

## **Designing a Superior Built Environment Future Building Solutions – Solar Architecture**

- > Extend your portfolio of architectural skills to specialize in passive solar design, natural cooling and climate responsive architecture.
- > Become an expert in Green Building Rating, using LEED®, BREEAM®, DGNB®, TQB®, and the Passive House Concept.
- > Learn how to use specialized software tools for predicting heating and cooling demands, for thermal bridge calculation and for optimization of both thermal and visual comfort.
- > Become an expert in Integrated Design for the coordination of interdisciplinary planning teams.

## A postgraduate university education for a wide range of building professionals:

- > Architects
- > Engineers
- > Building Physicists
- > Building Service Engineers
- > Building Experts
- > Building Promoters
- > Master Builders
- > Construction Staff

# >> The Future Building Solutions Design Strategy

The Design Strategy combines a broad overview with in depth expertise on three levels:

The Future Building Solutions Design Concept singles out the major issues of sustainable design and technologies and places a special focus on the key issue: Energy efficiency.

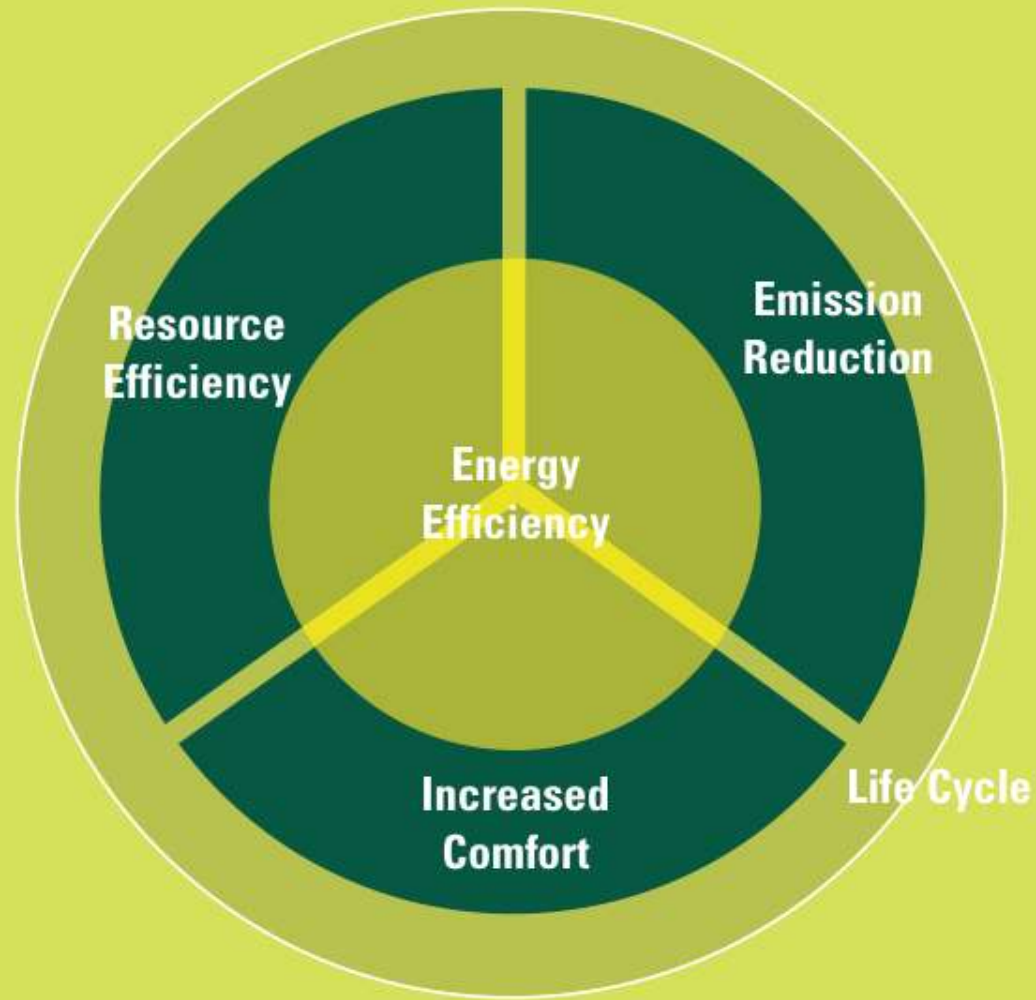
The Future Building Solutions Design Principles convey proven fundamental approaches for the successful application of sustainable design within these major issues.

Finally, the Future Building Solutions Design Implementation imparts up to date and detailed architectural and engineering skills throughout the program for the successful execution of sustainable design solutions - in climate responsive architecture, indoor comfort, energy efficiency, zero carbon emission, life cycle assessment, renewable energy technologies, daylight design and many more - for domestic and office buildings in every climate of the world.

## Certified Passive House Planner

We teach the Passive House Concept and offer participants the opportunity to become a Certified Passive House Designer (CEPH) in cooperation with the Passive House Institute in Darmstadt, Germany.

# 1. Future Building Solutions Design **Concept**



## 2. Future Building Solutions Design Principles



### > Integrated Design

The complexity of sustainable design dictates a collaborative design strategy between all disciplines and all players. Future Building Solutions sets the framework for integrated solutions by offering a program where the two key players of sustainable design, engineers and architects, teach, learn and work together.



### > Context Sensitivity

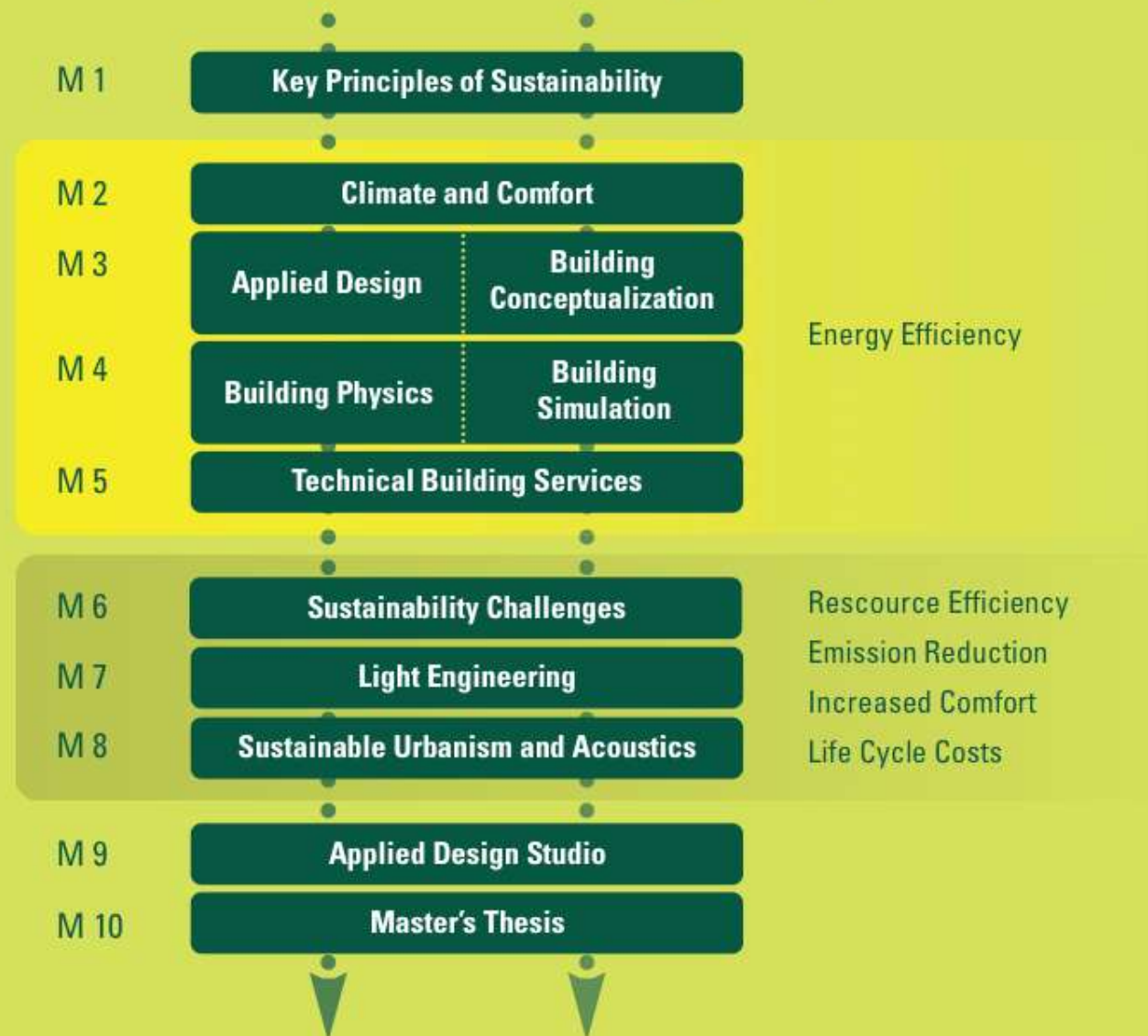
The Three Tier Approach ensures a context sensitive design by placing design solutions and passive energy solutions at the fore of active solutions. Context Sensitivity reacts to the specific conditions of a particular site to ensure that damage to the world is minimized while comfort and health are maximized.



### > Focus on Energy Efficiency

The sustainable design of buildings encompasses a broad set of issues with many possible approaches for solutions. The program places a special focus on the central issue of sustainable design: Energy efficiency - the pivotal point for a broad and effective sustainable design solution - and within that an emphasis on solar design, for a future beyond oil.

### 3. Future Building Solutions Design Implementation



Majors in Solar Architecture & Climate Engineering



## **Pioneer in Ecological and Sustainable Technologies**

Renowned for its green mountains and clear lakes, Austria is a pioneer in ecological and sustainable technologies; an innovative leader in sustainable building, with the largest number of passive houses per capita in the world; a leader in the development of new technologies for sustainable design able to translate these technologies into real projects.

## **Competence-Center for the Complete Building Cycle**

The Department for Building and Environment is a competence center for the complete building cycle: from real estate economics to building science to facility management. It offers practice-oriented training for experts in all three facets of the life cycle of real estate from the planning, building and use phases to demolition and modernization. The Department for Building and Environment is a leader in the research and implementation of sustainable design and the passive house.

# >> Key Figures

## Upcoming Program

- > Commences October 11, 2010
- > Duration: Four semesters with nine one-week instruction modules (Mon – Sat) and Master's Thesis
- > Conclusion in June 2012 with presentation and defense of your Master's Thesis
- > Participation in all nine modules within one year can be arranged.

## Admission Requirements

- > A university degree in Architecture or building related engineering sciences or a relevant non-university degree together with additional qualifications and significant practical experience.
- > Successful completion of the application and assessment process. Applications are accepted throughout the year.
- > A good working knowledge of English.

## Your Costs

- > Tuition for the entire program is 18,000 Euros (no VAT is payable). Please note that travel and accommodation costs are not included in quoted prices.
- > Registration for single module weeks can be arranged. Tuition for a single module week is 2,100 Euros (no VAT is payable).

## Our Services Include

- > High-quality tuition from leading professionals.
- > Close supervision during the module weeks coupled with remote supervision between modules.
- > Individual supervision of the Master's Thesis.
- > Support with organization throughout the course of study.

## Accreditation

- > Master of Science - MSc
- > 90 ECTS