



# MBS Master in Integrated Building Systems

# Master in Integrated Building Systems

	1.Sem	2.Sem	3.Sem	4.Sem
FUNDAMENTALS	Building process (2 ects)	Building process (2 ects)	Urban physics (3 ects)	Master thesis (30 ects)
	Structural design (2 ects)	Structural design (2 ects)	Application of CFD for buildings (3 ects)	
	Energy conversion (4 ects)	Indoor environment, resources, and safety (3 ects)	Specialized courses (12 ects)	
	Mathematic (4 ects)	Building systems (3 ects)		
CORE COURSES	Chemistry (3 ects)	Building control (3 ects)	Integrated design (6 ects)	
	Materials and construction (3 ects)	Whole building simulation (3 ects)		Semester project (6 ects)
	Building physics: theory and applications (4 ects)	Sustainable Buildings: The Applied viewpoint (3 ects)		
	Principles of micro economics (3 ects)	Specialized courses (5 ects)		
	Technology and Innovation Management (3 ects)	Innovation leadership (6 ects)		
Renewable technologies 1 (4 ects)				
GESS (2 ects)				

## Graduates with a Master's degree in integrated building systems:

- have a broad spectrum of knowledge including: energy flows in and around buildings, building system design, engineering expertise in building design and control, building services, energy management systems, new energy technologies for buildings, renewable energy technologies, and the comfort, safety, economic and environmental aspects of building design.
- are able to integrate state-of-the-art knowledge on building systems and technologies into complex buildings.
- have basic knowledge in the fields of architecture, mechanical, civil and electrical engineering and a basic understanding of physics, thermo and fluid dynamics, applied mathematics, engineering, building technology and building construction.

## Admission

Successful candidates must hold a Bachelor's degree in architecture, mechanical, civil or electrical engineering or similar. The teaching language of the degree programme is English. Admission periods to the programme for autumn 2015 are November 1st until December 15th for students requiring visa and March 1st until March 31st for Swiss and European students.

All candidates must submit electronic applications to the ETH Admission Office.

For further information visit:

[www.master-buildingsystems.ethz.ch](http://www.master-buildingsystems.ethz.ch)

