

Master in Integrated Building Systems

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

The Master’s programme in Integrated Building Systems will be launched in autumn 2014. 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 to the programme for autumn 2014 will start in the second application period (March 1 - April 15, 2014).

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

For further information visit:

www.master-buildingsystems.ethz.ch

