

Course title: Sustainable Built Environment				
Identification number	ECTS credits	Duration of the module	Intended study semester	Frequency of the course
	6	One Semester	4. Semester	Each Semester
Workload (total) (h)		Contact time (h)	Self-study (h)	
180		60	120	
Language		Planned group size	Compulsory or elective	
English		20 Students	Elective Module	
Module coordinator		Course(s) (with focus/module group if applicable)		
Prof. Dr. Alfons Buchmann		Sustainable Built Environment		
1.	Qualification goals/competences/learning outcomes			
	After completing the module, students will be able to:			
	<ul style="list-style-type: none"> • understand the importance of sustainability for the environment. • identify the potential for sustainable construction operations in civil engineering. • assess the carbon footprint of buildings and infrastructure. • assess sustainable materials based on their mechanical properties. • offer design and construction solutions to achieve the sustainable development goals. • work within an international team for a joint project. 			
2.	Contents			
	<ul style="list-style-type: none"> • The module will cover the following subjects: • Sustainability concept • Systems-oriented thinking • Carbon footprints, energy and water considerations • Technology in building with sustainable materials (bamboo, clay, and wood) • How to research material beyond approval limits • How to work transdisciplinary in another language • Collaborative online international learning (COIL) projects with partner universities 			
3.	Teaching methods			
	Lecture with integrated class exercise			
4.	Participation requirements			
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5.	Regulations on attendance			
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6.	<p>Examination type and scope A group project study and presentation</p> <p>Course test as a prerequisite for participation in the exam /</p>
7.	<p>Requirements for the awarding of credit points (ECTS) Passed exam Sustainable Built Environment</p>
8.	<p>Applicability of the module (in other degree programmes) Bachelor's degree programme International Civil Engineering</p>
9.	<p>Importance of the grade for the final grade 6/194</p>
10.	<p>Literature references</p> <ul style="list-style-type: none"> • Lecture Notes in OLAT
11.	<p>Other information The ECTS gained through this course will count towards the practical project and overall score for ICE students.</p>
12.	<p>Last edited 26.01.25</p>