Course Catalogue Engineering and ICT

EXCHANGE PROGRAMME

Circular Housing 2024-2025

University of Applied Sciences Windesheim

Course summary

VOE Code: BT.KOCH.V19 ECTS credits: 1 Level: Bachelor's degree (full-time)

Course Title	Kick-Off Circular Housing		
Type	Compulsory		
Learning competences			
Learning outcomes	• Introduction to each other • Learning about each others expectations, skills and learning goals • Introduction to the main topics handled in the module		
Course content	• Introduction lecture(s) • Workshop(s)		
Planned learning activities and teaching methods	• Lecture(s) • Workshop(s) • Self study		
Recommended or required reading and other learning resources / tools	According to course outline		
Prerequisites and co-requisites	You are required to have two years of Bachelor's study experience in Architecture, Architectural Technology, Construction Engineering or a similar course, and English-language skills at B2 level.		
Level	Advanced		
Grading scale	1 up to 10, 1 dec.		
Assessment methods and criteria	**Type of assessment**	**Grade weighting**	**Criteria**
	Assignment	1	Higher or equal to 5.5
Language of Instruction	English		
Name of lecturer	For information about the lecturers you can contact Eefje Kroesen		
Mode of delivery	Face to face		

Course summary

VOE Code: BT.LMCH.v21 ECTS credits: 2 Level: Bachelor's degree (full-time)

Course Title	Lifecycle and Maintenance
Type	Compulsory
Learning competences	BK1 Initiating and directing BK5 Manage
Learning outcomes	Understanding and developing insight in the lifecycle of a building with a focus on the design phase (Total Cost of Ownership) and the phase of maintenance (Multi-year Maintenance Plan) in the specific context the circular economy. Next to that the student learns how to make the required documents that are being used in these two phases.
Course content	Knowledge about, and learning how to make, a Total Cost of Ownership and a Muli-year Maintenance Plan in the context of the circular economy. Knowledge and skills about the use of building materials and energy use in the context of the circular economy.
Planned learning activities and teaching methods	• Lectures and workshops by lecturers and external experts. • You work in a project team on an assignment.
Recommended or required reading and other learning resources / tools	
Prerequisites and co-requisites	You are required to have two years of Bachelor's study experience in Architecture, Architectural Technology, Construction Engineering or a similar course, and English-language skills at B2 level.
Level	Advanced

Grading scale	1 up to 10, 1 dec.		
Assessment methods and criteria	**Type of assessment**	**Grade weighting**	**Criteria**
	Assignment LMCH	1	Higher or equal to 5.5
Language of Instruction	English		
Name of lecturer	For information about the lecturers you can contact Eefje Kroesen		
Mode of delivery	Face to face		

Course summary

VOE Code: BT.PCH.V18 ECTS credits: 6 Level: Bachelor's degree (full-time)

Course Title	Project Circular Housing		
Type	Compulsory		
Learning competences	BK1 Initiating and directing		
Learning outcomes	You will learn to develope a building by designing en engineering based on circular principles.		
Course content	You will learn to interpretate a Programme of Requirements and to develope new insight by doing research to circular housing. You will use these knowledge to develope a circular building. • you can doing research using a method • you can design a building using a method • you can apply new insights and technics in your project • You can visualyse the (design-)solutions • You are able to make a BIMmodel and transfer data in a digital method • You are able to communicate clearly and comprehensible with all projectpartners (internal and external)		
Planned learning activities and teaching methods	• You will work as a projectteam, in which everyone has his own role with the tasks as there are in reality. • There is a weekly supervision by the lecturers.		
Recommended or required reading and other learning resources / tools	Computer software • ArchiCad • Solibri • Enorm • MPG		
Prerequisites and co-requisites	You are required to have two years of Bachelor's study experience in Architecture, Architectural Technology, Construction Engineering or a similar course, and English-language skills at B2 level.		
Level	Advanced		
Grading scale	1 up to 10, 1 dec.		
Assessment methods and criteria	**Type of assessment**	**Grade weighting**	**Criteria**
	Assignment	1	Higher or equal to 5.5
Language of Instruction	English		
Name of lecturer	For information about the lecturers you can contact Eefje Kroesen		
Mode of delivery	Face to face		

Course summary

VOE Code: BT.LECH.V18 ECTS credits: 3 Level: Bachelor's degree (full-time)

Course Title	Lectures and Excursions
Type	Compulsory
Learning competences	
Learning outcomes	Obtaining knowledge on the field of Circular Building Principles.

	You will improve your theoretical knowledge on the field of circular materials and circular building principles. Students can apply the obtained knowledge in the design project of the minor.
Course content	Lectures on Circular Building • During this module you get aquintant with subjects like circular construction and installation priciples, the use of circular and biodgradable buildingmaterials, shadow costs, residual value and other relevant subjects on circular housing. • Several of the lectures will be given bij external experts on the field of circular building. Field Trip As a reference and as an inspiration we will also visit several circular housing and building projects .
Planned learning activities and teaching methods	• Lectures • Field trips
Recommended or required reading and other learning resources / tools	• Laptop • Calculator • Drawing materials • Camera • Pen • Paper
Prerequisites and co-requisites	You are required to have two years of Bachelor's study experience in Architecture, Architectural Technology, Construction Engineering or a similar course, and English-language skills at B2 level.
Level	Advanced
Grading scale	1 up to 10, 1 dec.
Assessment methods and criteria	**Type of assessment** / **Grade weighting** / **Criteria** Portfolio / 1 / Higher or equal to 5.5
Language of Instruction	English
Name of lecturer	For information about the lecturers you can contact Eefje Kroesen
Mode of delivery	Face to face

Course summary

VOE Code: BT.ECH.V18 ECTS credits: 3 Level: Bachelor's degree (full-time)

Course Title	Engineering Circular Housing
Type	Compulsory
Learning competences	
Learning outcomes	Engineering of a building following the rules for circular economy, concentrated on buildings.
Course content	In this course you will learn about sustainable and circular materials, constructions and MEP-equipment and use these knowledge to develope your project.
Planned learning activities and teaching methods	• Lectures • Workshops
Recommended or required reading and other learning resources / tools	• Personal computer (laptop) • Calculator
Prerequisites and co-requisites	You are required to have two years of Bachelor's study experience in Architecture, Architectural Technology, Construction Engineering or a similar course, and English-language skills at B2 level.
Level	Advanced
Grading scale	1 up to 10, 1 dec.

Assessment methods and criteria	**Type of assessment**	**Grade weighting**	**Criteria**
	Assignment	1	Higher or equal to 5.5
Language of Instruction	English		
Name of lecturer	For information about the lecturers you can contact Eefje Kroesen		
Mode of delivery	Face to face		