

Module: Circular Economy

Level	Bachelor	Short Name	KLW
Responsible Lecturers	Schüler		
Department, Facility	Applied Natural Sciences		
Course of Studies	Environmental Engineering and Management, Bachelor		
Compulsory/elective	Compulsory	ECTS Credit Points	5
Semester of Studies	5	Semester Hours per Week	4
Length (semesters)	1	Workload (hours)	150
Frequency	SuSe	Presence Hours	60
Teaching Language	German/English	Self-Study Hours	90

The following section is filled only if there is **exactly one** module-concluding exam.

Exam Type	Written Exam	Exam Language	German
Exam Length (minutes)	120	Exam Grading System	One-third Grades
Learning Outcomes	<p>The students have the methodological skills to examine and evaluate technical and economic processes with regard to their relevance for the environment and society. The focus is particularly on the use of resources and material cycles.</p> <p>The students can develop problem-oriented solutions. In addition to technical options, this also includes management-oriented approaches.</p>		
Participation Prerequisites			

The previous section is filled only if there is **exactly one** module-concluding exam.

Consideration of Gender and Diversity Issues	<ul style="list-style-type: none"> ✓ Use of gender-neutral language (THL standard) ✓ Target group specific adjustment of didactic methods ✓ Making subject diversity visible (female researchers, cultures etc.)
Applicability	
Remarks	

Module Course: Circular Economy (Lecture)

(of Module: Circular Economy)

Course Type	Lecture	Form of Learning	Presence
Mandatory Attendance	no	ECTS Credit Points	5
Participation Limit		Semester Hours per Week	4
Group Size		Workload (hours)	150
Teaching Language	German/English	Presence Hours	60
Study Achievements ("Studienleistung", SL)		Self-Study Hours	90
SL Length (minutes)		SL Grading System	

The following section is filled only if there is a course-specific exam.

Exam Type		Exam Language	
Exam Length (minutes)		Exam Grading System	
Learning Outcomes			
Participation Prerequisites			

The previous section is filled only if there is a course-specific exam.

Contents	Terms: resource, raw material, waste <ul style="list-style-type: none"> • Material flow management • Waste hierarchy • Concepts of waste prevention • Cascade use • Technical options for separating, recycling and recovering waste • Regulatory and economic incentive systems • Concepts and goals of a circular economy
Literature	<ol style="list-style-type: none"> 1. Kranert, M. (Hrsg.). (2017). <i>Einführung in die Kreislaufwirtschaft: Planung - Recht - Verfahren</i> (5. Auflage). Springer Vieweg. 2. Letcher, T. M. (Ed.). (2020). <i>Plastic waste and recycling: Environmental impact, societal issues, prevention, and solutions</i>. Academic Press.
Remarks	