

Lecture Announcement

Winter Semester 2026/27

Sustainable and Circular Production

Lecturers:

Prof. Dr.-Ing Dirk Bähre



Sustainable and Circular Production

Further information:

Scope and Credits: 5 SWS (6 CP)
Lecture: Monday – 2:15 p.m. – 3:45 p.m.
Seminar: Tuesday – 8:30 a.m. – 11:15 a.m.
Start: October 19, 2026
Location: Room 3.19, A5.1

QR-Code LSF:



Description:

Sustainable and Circular Production introduces the key concepts and strategies for developing sustainable, circular and resilient production systems. The lecture takes a holistic perspective on the interactions between products, production, factories, value chains, people, resources and the environment. It covers sustainable business models, production networks, factory and product design, energy efficiency, circular economy, social sustainability, sustainability assessment and transformation management.

Content:

Sustainability concepts and principles. Production as a socio-technical-economic-ecological system, sustainable business models and circular economy. Sustainable value chains and production networks, sustainable factory and production design, energy efficiency and flexibility, social sustainability and human-centered production. Circular production systems and the 9R framework, sustainability assessment, transformation and sustainability management

Target group:

Students of master program Sustainable Materials and Engineering, natural science master's programs, doctoral students