

Minor: Biomass Refining

Course substitution arrangements for students who continue their studies according to the curriculum of 2022-2024 during the transitional period of 1.8.2024 - 31.12.2025, when some of the courses of the curriculum 2022-2024 are no longer taught.

Compulsory course (5 cr)			
Code	Course name	ECTS credits	Equivalence in 1.8.2024 - 31.12.2025
CHEM-E1100	Plant Biomass	5	CHEM-E1180 Plant Resources
Elective courses			
CHEM-E1110	Lignocellulose Chemistry	5	No equivalence. Can be substituted by CHEM-E2121 Surface Chemistry of Bio-based Materials or CHEM-E2123 Characterization of Bio-based Materials
CHEM-E0115	Planning and Execution of a Biorefinery Investment Project	5	The course continues
CHEM-E7100	Engineering Thermodynamics, Separation Processes, part I D	5	CHEM-E7121 Separation Processes 1 D
CHEM-E1210	Bioproduct Mill Recovery Processes	5	The course continues
CHEM-E1120	Thermochemical Processes	5	No equivalence. Can be substituted by CHEM-E1175 Sustainability Assessment for Bioproducts
CHEM-E1130	Catalysis	5	The course continues
CHEM-E1220	Sustainability in Bioproduct Industry D	5	CHEM-E1170 Introduction to Sustainability in the Bioeconomy
CHEM-E3140	Bioprocess Technology II	5	CHEM-E3115 Industrial Biotechnology
CHEM-E1150	Biomass Pretreatment and Fractionation – in Class D	5	CHEM-E1115 Biomass fractionation I D
CHEM-E1160	Biomass Pretreatment and Fractionation - in Laboratory	5	CHEM-E1125 Biomass fractionation II
CHEM-E1105	Advanced Fibreline Processes D	5	No equivalence. Can be substituted by CHEM-E2126 Introduction to the Packaging Value Chain
CHEM-E2120	Fibres and Fibre Products	5	CHEM-E2122 Fibre Processes
CHEM-E2140	Cellulose-Based Fibres D	5	CHEM-E2129 Nanocellulose Technology
CHEM-E2155	Biopolymers D	5	The course continues
AAE-E2005	Thermochemical Energy Conversion	5	The course continues
AAE-E3100	Energy Carriers	5	The course continues