

Master's degree in Chemical Engineering – Smart Chemical Factories

program structure for students starting their studies in February

Q2 Spring semester (3 mandatory subjects + 2 elective subjects)

295EQ021 Process Control
295EQ022 Polymer Physics
295EQ023 Management & Organization

295EQ121 Membrane Processes & Technologies (GCPE)
295EQ122 Industrial Water Technologies (GCPE)

295EA221 Experimentation & Instrumentation (SPE)
295EQ222 Polymer Transformation Processes (SPE)

Q1 Autumn semester (5 mandatory subjects)

295EQ011 Biotech Processes & Polymer Industry
295EQ012 Data Analysis & Pattern Recognition
295EQ013 Chemical & Catalytic Reaction Engineering

295II024 Sustainability & Circular Economy
295II015 Technology Innovation

Q4 Spring semester (2 elective subjects)

Registration & TFM development

External Academic Traineeship or elective subjects (12 ECTS):

295EQ141 Computational Fluid Dynamics (GCPE)
295EQ142 Circular Process Engineering (GCPE)

295EQ241 Advanced Materials (SPE)
295EQ242 Design of Equipment Coating Technologies (SPE)

Q3 Autumn semester (3 mandatory subjects + 2 elective subjects)

295EQ031 Waste Resource Technologies
295EQ032 Nanotechnology
295EQ033 Risk & Safety at the Chemical Industry

295EQ131 Process Integration (GCPE)
295EQ132 Advanced Catalytic Reaction (GCPE)

295EQ231 Chemistry of Polymerization (SPE)
295EQ232 Biopolymers & Bioplastics (SPE)

Possibility to enrolment and presentation 295EQ041 Master's Thesis

(Q5) Spring semester (if necessary)

If not done previously, enrolment & presentation 295EQ041 Master's Thesis

Legend

Mandatory subjects

SPE – Smart Polymer Engineering (specialization track / elective subject)

GCPE – Green Chemical Processes Engineering (specialization track / elective subject)

All the subjects are 6 ECTS except Master's Thesis which is 18 ECTS

It's not mandatory to choose an specialization track