

EXCHANGE PROGRAM 2023-24: SPRING SEMESTER “S8”

This document presents 4 pre-defined tracks: Computer Science, Electrical Engineering, Mechanical Engineering, and Industrial Engineering.

The courses listed within these tracks are the same as those from the main course list. The only difference is that they are arranged according to specific engineering fields, which can be helpful if you're not sure which courses to choose.

🔗 You can download the relevant syllabus by clicking on each course.

COMPUTER SCIENCE TRACK (SPRING SEMESTER)			
PERIOD	CODE	COURSE TITLE	ECTS
February to March	2CC3000	Optimization	2.5
	ST 76	Engineering Challenge Term - High Performance Simulation for Footprint Reduction: Context and Issues module Parallel Computing Methods and Algorithms, and Optimization Methods Project: Shape Optimization and Drag Reduction in Aeronautics	0
	2SC7600		2.5
	2SC7610		4.5
	2SC7692		
April to May	2EL1580	Artificial Intelligence	2.5
	2EL1120	Interactive Robotics Systems	2.5
	2EL1520	Object Oriented Software Engineering	2.5
June (one week)	2IN23XX	Humanities & Social Sciences Course : Individuals, Work, Organizations / Perspective on Key Social Issues Science, Technology, Society / Innovation, Arts and Creativity	1.5
	OR	OR	OR
	2IN2180	Procurement Management	2.5
	OR	OR	OR
	2IN5060	Audio Signal Processing	2.5
During the whole semester	2SL8100	Project and Soft skills development workshops: Team project (1 d/wk throughout semester) + Engineering Skills Workshops + Professional Practice Workshops	8.5
	+		+
	2SL5007		1
	+	+	
	2SL7007	0.5	
	2LC0200	French as a Foreign Language + another foreign language class (optional)	1.5 + (1.5)

Total: 30 to 32.5 ECTS depending on choices.

ELECTRICAL ENGINEERING TRACK (SPRING SEMESTER)			
PERIOD	CODE	COURSE TITLE	ECTS
February to March	2CC3000	Optimization	2.5
	ST 72	Engineering Challenge Term - Optimization of Network Infrastructures for Smart Cities:	
	2SC7200	Context & Issues module	0
	2SC7210	Game Theory for Smart Cities	2.5
	2SC7290	Project: Smart Cities: Connected Cities	4.5
April to May	2EL1315	Electrical Energy Conversion for Renewable Energy Sources and Electromobility	2.5
	OR 2EL2240	OR Economics of Decarbonised Transport Systems	
	OR 2EL1580	OR Artificial Intelligence	
	2EL1120	Interactive Robotics Systems	2.5
	OR 2EL2520	OR Electronics for Biomedical and Communication Applications	
	2EL1520	Object Oriented Software Engineering	2.5
OR 2EL1430	OR Nuclear Engineering (check that you have the prerequisites)		
June (one week)	2IN23XX	Humanities & Social Sciences Course Individuals, Work, Organizations / Perspective on Key Social Issues Science, Technology, Society / Innovation, Arts and Creativity	1.5
	OR 2IN2180	OR Procurement Management	OR 2.5
During the whole semester	2SL8100	Project and Soft skills development workshops: Team project (1 d/wk throughout semester)	8.5
	+	+	+
	2SL5007	Engineering Skills Workshops	1
	+	+	+
	2SL7007	Professional Practice Workshops	0.5
	2LC0200	French as a Foreign Language + another foreign language class (optional)	1.5 + (1.5)

Total: 30 to 32.5 ECTS depending on choices.

**MECHANICAL ENGINEERING TRACK
(SPRING SEMESTER)**

PERIOD	CODE	COURSE TITLE	ECTS
February to March	2CC3000	Optimization	2.5
	ST 81		0
	2SC8100	Engineering Challenge Term - Additive Manufacturing Design: Context & Issues module	2.5
	2SC8110 2SC8190	Multiphysical Couplings for Additive Manufacturing Project: Structure Optimization in Additive Manufacturing	4.5
April to May	2EL1850	Multiphysics Coupling Simulation with Finite Element Method	2.5
	2EL1120	Interactive Robotics Systems	2.5
	2EL1315	Electrical Energy Conversion for renewable energy sources and electromobility	2.5
June (one week)	2IN23XX	Humanities and Social Sciences Course Individuals, Work, Organizations / Perspective on Key Social Issues Science, Technology, Society / Innovation, Arts and Creativity	1.5
	OR 2IN2180	OR Procurement Management	OR 2.5
During the whole semester	2SL8100	Project and Soft skills development workshops: Team project (1 d/wk throughout semester)	8.5
	+	+	+
	2SL5007	Engineering Skills Workshops	1
	+	+	+
	2SL7007	Professional Practice Workshops	0.5
	2LC0200	French as a Foreign Language + another foreign language class (optional)	1.5 + (1.5)

Total: 30 to 32.5 ECTS depending on choices.

INDUSTRIAL ENGINEERING TRACK (SPRING SEMESTER)			
PERIOD	CODE	COURSE TITLE	ECTS
February to March	2CC3000	Optimization	2.5
	ST 81		0
	2SC8100	<u>Engineering Challenge Term - Additive Manufacturing Design:</u>	2.5
	2SC9110 2SC8190	Context and Issues module Multiphysical Couplings for Additive Manufacturing Project: Structure Optimization in Additive Manufacturing	4.5
April to May	2EL2230	Maintenance and Industry 4.0	2.5
	2EL2210 OR 2EL2240	Supply Chain Operations Management OR Economics of Decarbonised Transport Systems	2.5
	2EL1850 OR 2EL1430	Multiphysics Coupling Simulation with Finite Element Method OR Nuclear Engineering (check the prerequisites)	2.5
	2IN2180 OR 2IN23XX	Procurement Management OR Humanities and Social Sciences Course: Individuals, Work, Organizations / Perspective on Key Social Issues Science, Technology, Society / Innovation, Arts and Creativity	2.5 OR 1.5
During the whole semester	2SL8100	<u>Project and Soft skills development workshops:</u> Team project (1 d/wk throughout semester)	8.5
	+	+	+
	2SL5007	Engineering Skills Workshops	1
	+	+	+
	2SL7007	Professional Practice Workshops	0.5
	2LC0200	French as a Foreign Language + another foreign language class (optional)	1.5 + (1.5)

Total: 30 to 32.5 ECTS depending on choices.