



Date	Day – Session title	Activity	Time	Lesson	Docent
04/09/2023	<b>Monday</b> – ISKRA Overture	Info	09:00 – 09:30	Welcome, institutional greetings, ISKRA overture	Vincenzo Russo, Tapio Salmi, Stefan Haase
04/09/2023	<b>Monday</b> – New trends in kinetics and process development	Lecture	09:30 – 11:00	New trends in chemical kinetics	Martino Di Serio (UniNa)
		Lecture	11:00 – 12:30	Principles of mass and energy transfer	Vincenzo Russo (UniNa)
		Lunch	12:30 – 13:30		
		Lecture	13:30 – 15:00	Development of heterogeneous catalysts	Tapio Salmi (ÅA)
		Activity	18:00	Walking in Napoli Downtown and Social Dinner: meeting point Piazza Bovio	
05/09/2023	<b>Tuesday</b> – Intensification of chemical processes	Lecture	09:00 – 10:30	Catalysts and structured reactors	Tapio Salmi (ÅA)
		Lecture	10:30 – 12:00	Milli and micro-reactors	Stefan Haase (TUD)
		Workshop	12:00 – 13:00	Process Intensification. How to choose the right device	Henrik Grenman (ÅA)
		Lunch	13:00 – 14:00		
		Lecture	14:00 – 15:30	Unconventional forms of energy: ultrasound, microwave, plasma	Tapio Salmi (ÅA)
		Workshop	15:30 – 16:30	Case studies for the evaluation of the most correct form of unconventional energy	Matias Alvear (ÅA)
		Lecture	16:30 – 18:00	Process dynamics and process reliability	Stefan Haase (TUD)
06/09/2023	<b>Wednesday</b> – Multiphase chemical reactors and reactive separation units	Lecture	09:00 – 10:30	Multiphase reactors	Stefan Haase (TUD)
		Lecture	10:30 – 12:00	Advanced methods in characterization of multiphase reactors	Stefan Haase (TUD)
		Lunch	12:00 – 13:00		
		Lecture	13:00 – 14:30	Fluid-fluid and fluid-solid reactions	Henrik Grenman (ÅA)
		Workshop	14:30 – 17:00	Laboratory of Industrial Catalysis	Rosa Turco (UniNa)
07/09/2023	<b>Thursday</b> – Mathematical modeling of chemical reactors	Lecture	09:00 – 10:30	Numerical methods	Riccardo Tesser (UniNa)
		Lecture	10:30 – 11:50	Reactor Modeling Software	Riccardo Tesser (UniNa)
		Info	11:50 – 12:00	Assigning tasks for Saturday	Vincenzo Russo (UniNa)
		Lunch	12:00 – 13:00		
		Workshop	13:00 – 14:30	Using MATLAB “hands on”	Tommaso Cogliano (ÅA)
		Activity	15:30	Napoli Sotterranea: meeting point Piazza del Gesù Nuovo	
08/09/2023	<b>Friday</b> – Reactive separation and reactor optimization	Lecture	09:00 – 10:00	Optimization of chemical reactors	Tapio Salmi (ÅA)
		Lecture	10:00 – 11:00	Reactive absorption/extraction/distillation	Vincenzo Russo (UniNa)
		Lecture	11:00 – 12:30	Reactive chromatography	Vincenzo Russo (UniNa)
		Lunch	12:30 – 13:30		
		Lecture	13:30 – 14:30	Design of experiments	Francesco Taddeo (UniNa)
		Workshop	14:30 – 15:30	From simulation to design	Rosa Vitiello (UniNa)
		Lecture	15:30 – 16:30	Regression analysis	Riccardo Tesser (UniNa)
		Workshop	16:30 – 17:30	At the pursuit of kinetic constants	Riccardo Tesser (UniNa)
09/09/2023	<b>Saturday</b> – Student Session	Activity	09:00 – 11:30	Flash presentations of real research	
		Lecture	11:30 – 12:30	How to write a scientific article	Vincenzo Russo (UniNa)
		Lunch	12:30 – 13:30		
		Activity	13:30 – 15:30	Journal Club: become the reviewer of a famous author	
		Info	15:30 – 16:00	Conclusions and Take Home messages	Vincenzo Russo, Tapio Salmi, Stefan Haase

ISKRA was organized in the frame of Erasmus+ KA131 Blended Intensive Programme