



Universidad
de Jaén



INSTITUTO
DE INVESTIGACIÓN
EN BIORREFINERÍAS



SIADEB ADVANCED COURSE ON BIOREFINERIES

 September 30, 2024.  Classroom 19, Building A4 DAY 1. FUNDAMENTALS: Fundamentals and Conversion Technologies		
TITLE	SPEAKER	Time
Morning session: Introduction to biomass and biorefineries		
1.0 Welcome address	Eulogio Castro	09:00-
1.1 Introduction to biorefineries	Jalel Labidi	11:00
1.2 Bioresources and Feedstocks	Florabela Carvalheiro	
BREAK		30'
1.3 Pre-treatment of biomass. Application to macroalgae processing	Héctor Ruiz / Rosa Rodríguez	11:30-
1.4 Biochemical conversion	Keikhosro Karimi	13:30
LUNCH		90'
Afternoon session: Conversion technologies, bioproducts and applications		
1.5 Thermochemical conversion	Ángel Luis Villanueva	15:00-
1.6 Basic calculations in biorefineries	Ismael Nieves	16:30
BREAK		30'
1.7 Biofuel production	Antonio Chica	17:00-
1.8 Bio-based chemicals and materials	Luis Duarte	18:00
1.9 Applications of artificial intelligence in the design of biorefineries	Mark M. Wright	
 October 1, 2024		
DAY 2. PRACTISE: Experimental Design, Simulation, and Life Cycle Assessment		
Morning session: Experimental design and simulation.  Classroom 6, Building A4		
2.1 Introduction to experimental design	Mariano Martín	09:00-
2.2 Simulation and modelling	Carlos Cardona	11:00
BREAK		30'
2.3 Simulation mini-project with Aspen Plus	Carlos Cardona	11:30-
		13.30
LUNCH		90'
Afternoon session: LCA and sustainability.  Classroom 7. Building B4		
2.4 LCA fundamentals	Bernabé Alonso	15:00-
2.5 LCA methodology	Ángel Galán	16:30
2.6 Mini-project LCA with SimaPro	Ángel Galán	16:30-
		18:30