

# Systems perspectives on biomass resources, 2024-2025

## Schedule

### Block I – Lectures and workshops, onsite in Luleå, room: E206, Polhem

Monday 11 November Theme: Introduction

Time	Activity	Lecturer
11.30	Gathering and information	Elisabeth Wetterlund, LTU Joakim Lundgren, LTU
12.00	Lunch	
13.00	Course introduction	Elisabeth Wetterlund Joakim Lundgren
13.30	The global energy situation – introduction lecture	Joakim Lundgren
14.30	The important role of systems perspectives	Margareta Bäckström Lindgren, LTU (Grants Office)
15.30	Coffee break	
15.50	Presentations from all participants (5 min / person): Introduction to your research <i>See instructions for preparations before course start</i>	All
17.30	End of classroom day	
19.00	Dinner in downtown Luleå	

Tuesday 12 November Theme: Taking a systems perspectives approach

Time	Activity	Lecturer
8.30	Reflections from yesterday (daily check-in)	Elisabeth Wetterlund
8.45	Goal conflicts in the transition to a sustainable energy system	Maria Pettersson, LTU
10.15	Coffee break	
10.30	Bioeconomy and related markets	Robert Lundmark, LTU
12.00	Lunch	
13.00	Policies	Åsa Lindman, LTU
14.30	Coffee break	
15.00	Workshop: Sustainable Development Goals (SDGs) in relation to your research <i>See instructions for preparations before course start</i>	Elisabeth Wetterlund All
16.00	Project introduction	Joakim Lundgren
17.00	End of day	

Wednesday 13 November Themes: Sustainability and the role of biomass in a sustainable society & Systems analysis methods and tools

Time	Activity	Lecturer
8.15	Process modelling, process integration and techno-economic analysis	Sennai Mesfun, RISE
9.45	Coffee break	
10.00	Sustainability and the SDGs	Anna Krook-Riekkola, LTU
12.00	Lunch	
13.00	Environmental systems analysis of bio-based systems	Per-Anders Hansson, SLU
14.30	Project discussions	Joakim Lundgren
15.30	Time for project work	
17.00 (ca)	End of day	

Thursday 14 November

Themes: Sustainability and the role of biomass in a sustainable society & Systems analysis methods and tools

Time	Activity	Lecturer
8.30	Reflections from yesterday (daily check-in)	Elisabeth Wetterlund
8.45	Economic methods and empirical applications in biomass and natural resources	Linda Wårell & Jerry Blomberg, LTU
10.15	Coffee break	
10.45	Systems perspectives – From local to global forest resilience	Florian Kraxner, IIASA
12.00	Lunch	
13.00	Energy systems modelling	Jonas Forsberg, LTU
14.30	Land-based modelling and integrated assessment models	Florian Kraxner, IIASA
15.30	Coffee break	
16.00	Project workshop Pizza dinner	Elisabeth Wetterlund
20.00 (ca)	End of day	

Friday 15 November

Theme: Putting your research in a systems context

Time	Activity	Lecturer
8.00-9.30	Group work, preparing presentations	
9.30	Presentations from all project groups + discussions (ca 20 min / group)	Elisabeth Wetterlund Joakim Lundgren
11.30	Summary and reflections	
12.30	Lunch	
13.30	End of the day and of course week in Luleå	

## Block II – Project work, online lectures and final seminar onsite in Luleå

November 2024 to March 2025

Independent project work in the project groups. Supervision as needed.

Friday 13 December (online via Zoom)

8.45-9.45	Forests and climate change mitigation	Göran Berndes, Chalmers
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Tuesday 17 December (online via Zoom)

09.00-10.00	Process integration as a tool for industrial energy efficiency	Andrea Toffolo, LTU
10.00-11.00	Project status discussion	Elisabeth Wetterlund

Friday 10 January 2025 (online via Zoom) (preliminary date and time)

09.00-10.00	Techno-economic analysis of biorefinery investments	Andrea Ramirez Ramirez, Delft University of Technology
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Friday 24 January 2025 (online via Zoom)

09.00-10.00	Uncertain investments. The impact from method choice on economic valuations.	Jonas Zetterholm, RISE
10.00-11.00	Project status discussion	Elisabeth Wetterlund

Tuesday 11 March 2025 (onsite in Luleå)

10.00-16.00 (ca time)	Final seminar, with project presentations <i>Details will follow</i>	Elisabeth Wetterlund Joakim Lundgren
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