



“Project Scoping with AI Assistance”

As part of the [UKE PLATFORM project](#), this web-based, short course introduces conceptual modeling tools to promote system understanding when dealing with complex issues, such as societal resource management where multiple disciplines, stakeholders and processes are involved. We will use problem-based learning to identify and relate critical variables within the system. Following this, scenario support modelling can provide decision support, especially regarding feasible project opportunities, appropriate methods and data needs, i.e. “project scoping”.

The AI assistance in project scoping will be connected to each of the 5 steps commonly used in conceptual system modeling (see figure on next page). Complex issues often require multidisciplinary and multi-sectoral solutions. Since project groups do not often reach this diversity, AI can help fill the gaps. AI can assist in each modeling step - from brainstorming to system analysis and decision support, as well as data-based verification of modeled scenarios. A human-centered AI perspective can also facilitate transparent information transfer in all directions and help recognize both benefits and risks. Background knowledge on AI tools will be mainly obtained with selected on-line tutorials. Their adaptation and use for our system modeling goals will be discussed.

The approach is applicable to most any type of problem and within a range of disciplines. Research, educational and societally applied collaboration can be facilitated by case-study modeling. Considering the diversity of applications areas and the specificity of each individual case study, the methodology intends to provide general but adaptable procedural guidance for initial project development. The short course will be followed by a case-study workshop in May, where the case studies will be presented and discussed, hopefully with good representation from stakeholders related to the diverse case-study issues and future implementation.

This is very much a “hands-on” course, and the participants are expected to actively get involved in the development of one of the proposed case studies. Mentors/advisors with experience and research interest for the case studies will assist. It is envisioned that project scoping can lead to thesis ideas and research project proposals. Similar and very successful activities were completed in 2022, 2023 and 2024, and we will build upon this experience.

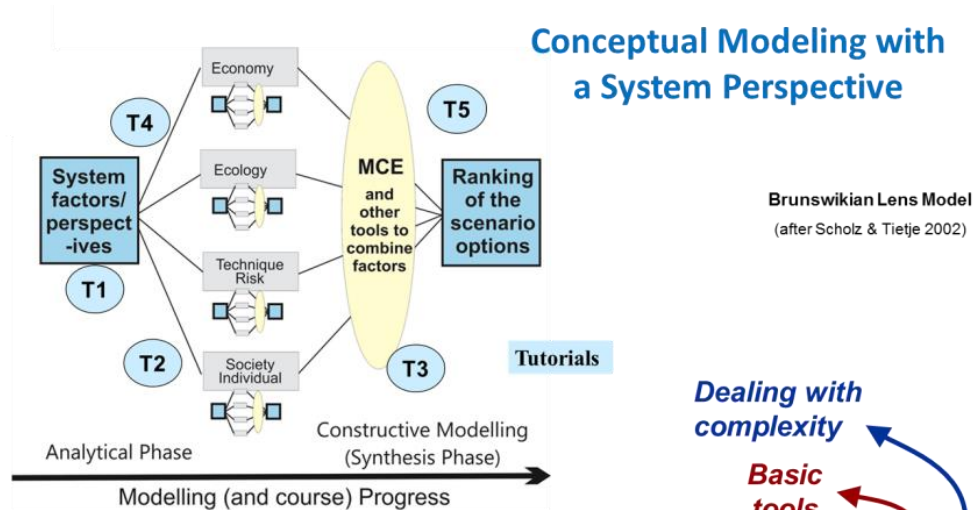
Certificates of participation and completion will be given, but credits should be coordinated by the individual home institutes. Following the webinars and completing the tutorials is considered equivalent to 3 ECTS credits. Case-study presentations can increase this to 5 or 7.5 at the two workshops. Advanced training for staff, which would involve both theory group advising and evaluation, can also be possible within some partner institutes.

For more information contact Rodney Stevens, stevens@gvc.gu.se, tel: 46-709892750

Project and course website: <https://kermitcooperation.wixsite.com/platform>

Webinar site: <https://gu-se.zoom.us/my/rodneystevens>

Methodology for “Project Scoping”



Tutorials

- 1.Environmental Sketch – defining and describing the system
- 2.System structural analysis – studying the internal relationships
- 3.Multi-criteria analysis – predicting the impact of the variables
- 4.Functional Facies mapping – subdividing and simplifying complex systems
- 5.Risk Ranking – predicting relative impact in complex systems

Schedule - 2025

Webinars will be 14.00 – 15.30 EEST (13.00-14.30 in Sweden)

Presentation Seminar schedule to be decided later

	Short Course Lectures	Tutorials
8/4	UKE PLATFORM Goals and Course Introduction, Step 1. “System Sketch” examples (step 1). Introduction to AI Assistance for project scoping.	T1
15/4	Progress with AI Assisted “system sketch”. Step 2. System structural analysis (theory and examples). AI discussion.	T2
22/4	Progress with AI Assisted “System Structural Analysis”. Step 3. Scenario Modeling for Decision Support (e.g. MCE). AI discussion.	T3
29/4	Progress with AI Assisted “Scenario Modeling”. Steps 4 & 5. Functional Facies & Risk Analysis. AI discussion & planning for case-study presentations.	
6/5	AI Workshop – led by SET Univ., Kyiv	
	Schedule and content to be announced later	
13/5	Case-Study Seminar	
	Presentations of the case-study results (posters and oral summaries) for all participants and associated stakeholders	