



## HÖGSKOLAN I GÄVLE

### Dealing with Wicked Problems of Sustainability 7.5 cr

*Problemlösningssverktyg för komplexa hållbarhetsutmaningar 7,5 hp*

Set by Faculty of Engineering and Sustainable Development

**Version**

**Set at**

**Valid from**

4/22/20

**HT2021**

<b>Level</b>	A1F
<b>Education level</b>	Second cycle
<b>Course identifier</b>	MIA302
<b>Credits</b>	7.5 cr
<b>Main field of study</b>	Sustainability Science
<b>Subject group</b>	Environmental Science
<b>Disciplinary domain</b>	Technology 20.0 % Natural sciences 20.0 % Social sciences 60.0 %

**Learning outcomes**

After completion of the course, the student shall be able to

1. identify, discuss and analyze wicked problems at different levels of analysis (individual, group, community, and global levels)
2. apply strategies and decision analysis methods to analyze, structure and solve wicked problems and identify goal conflicts in these solutions
3. Identify and analyze wicked problems in relation to sustainable urban development, global environmental issues and sustainability in general
4. analyze sustainability problems from ethical, international, gender and cultural perspectives.

**Course content**

The course contains perspectives on wicked problems related to global environmental issues, sustainable urban development and related sustainability issues. The course covers tools and strategies to analyze and solve wicked and complex problems. The course also covers advanced problem-solving tools that distinguishes sustainability science: current state analysis, future scenarios, visioning, and transition strategies. The course also covers decision analysis and decision-making tools to analyze and solve wicked problems.

<b>Teaching</b>	Seminars and laborations		
<b>Prerequisites</b>	Sustainability Science and Systems Theory 7.5 cr and Natural Resource Management and Resilience Building of Social-Ecological Systems 7.5 cr or corresponding		
<b>Examination</b>	Laboration report and seminars		
	Moment 0010 Laboration report 5 cr, examines learning outcomes 1-3, grades A-F		
	Module 0020 Seminars 2.5 cr, examines learning outcomes 1, 3-4, grades Pass, Fail		
<b>Grade</b>	A, B, C, D, E, Fx, F		
<b>Other regulations</b>	Degree Criteria for the final grade will be handed out by the course responsible or examiner latest at the beginning of the course.		
<b>Sustainable environment</b>	The majority of the course content deals with sustainable development..		
<b>Module</b>			
	0010 Laboration report	5 cr	Grade: AF
	0020 Seminars	2.5 cr	Grade: UG