FACULTY OF SOCIAL SCIENCES

LUND UNIVERSITY

SGR016F, Sustainability Science and the SDGs: Foundations, concepts, methodologies, 7.5 credits, third cycle

The course was established by the Board of the Faculty of Social Sciences at Lund University on 26 November 2020 and the syllabus was approved by the Research Studies Council on 4 November 2020.

The syllabus is valid from the spring semester 2021.

A. General information

The course is third-cycle course offered at the Faculty of Social Sciences.

The language of instruction is English.

B. Learning outcomes

On completion of the course, the doctoral student is to have acquired the following knowledge and skills:

Knowledge and Understanding
- demonstrate in depth and up-to-date knowledge on the foundations of sustainability science and the sustainable development goals

- display specialized knowledge about sustainability science, including the interaction between broader sustainability challenges and a more specific case

- demonstrate an understanding of relevant research methodologies in sustainability science.

Competence and Skills
- demonstrate a capacity for scholarly analysis and synthesis of the field and the ability to review and discuss phenomena, issues and situations

- exhibit the ability to identify and formulate issues with scholarly precision, critically, autonomously and creatively, and undertake a quality analysis and other advanced tasks in predetermined time frames

- demonstrate the ability to present and discuss ideas in the field and on the SDGs authoritatively, and in dialogue with others.

Judgement and Approach
- demonstrate the ability to integrate different scientific perspectives that contribute to a more nuanced understanding of specific socio-ecological systems

- demonstrate reflective awareness of how the participant's work is situated within the realm of sustainability, including the SDGs.

C. Course content

Tackling the world's toughest sustainability challenges requires collaboration, creative methodologies, and robust knowledge creation. To frame and address these challenges, the global community since 2015 has largely has united itself around 17 sustainable development goals (SDGs). This PhD course links the emerging research field of sustainability science with the SDGs with intentions to stimulate learning on the knowledge, methodologies, concepts and concepts needed to contribute to sustainable social change. More concretely, its aim is for post-graduate students develop a more comprehensive understanding of this research field, including approaches (e.g., visioning, imaginaries) and perspectives (e.g., systems thinking, political ecology, resilience) commonly used in the field. Furthermore, intentions are for participants to develop both more robust and nuanced understandings of the current academic debates and policy challenges of operationalizing the SDGs. Course sub-themes within this realm will focus on SDG trade-offs and synergies, implementing the SDGs at the local level, and education for the SDGs, and how sustainability science can contribute to contributing to these realms.

D. Course design

Focus on the course learning activities will consist of a mix of readings, interactive seminars & lectures and assignment/paper submissions/presentations.

Block 1: Knowledge, context and concepts

1. Theoretical underpinnings
- Theories of Sustainable (Social) Change

- Natural systems & social fields

- Norms and sustainability

2. Foundations and evolution of sustainability science
- Field evolution (lead-up, foci in early years, key researchers)

- Multi, Inter & Transdisciplinarity

3. Complementary & conflicting concepts & perspectives in the field
- Political ecology/economy

- Resilience thinking

- System thinking

4. Context of sustainability and SDGs
- SDGs and sustainability

- Interlinkages, conflicts and tradeoffs

- Measurement, applications and limitations, critical perspectives
- Education for the SDGs

Block 2: Methodologies for sustainability research

- Descriptive/analytical: patterns, flows, networks
- System analysis: causality, drivers, feedback, dynamics
- Anticipation: visioning, scenarios, imaginaries
- Design: design thinking, urban living labs, transition experiments
- Inclusion: inequality, gender, participation, critical enchantment
- Comparatives and synthesis: how to study cases, generalities and synthesis

E. Assessment

1. Active participation in class seminars/discussions (25%) with mandatory attendance on common course activities (makeup assignments possible).
2. Causal loop diagram (of PhD project) submission (25%).
3. Introduction (kappa) paper framing the candidate's PhD thesis in a sustainability (science) perspective (50%)

F. Grades

The grades awarded are Pass or Fail. To be awarded a grade of Pass, doctoral student students must have attained the learning outcomes stated for the course.

At the start of the course doctoral students are informed about the learning outcomes stated in the syllabus and about the grading scale and how it is applied in the course.

G. Admission requirements and selection priority

To be admitted to the course, students must be admitted to third cycle studies. The course will be limited to 15 participants. Course participant selection will proceed in the following order:

1. LUCSUS doctoral students SDG research school at Lund University
2. Doctoral students from the Faculty of Social Sciences
3. Lund University doctoral students (doing sustainability-relevant research)
4. Doctoral students from other universities doing sustainability-relevant research