

Industrial and Urban Symbiosis PhD Course 4 (block 1) + 4 (block 2) ECTS

March – June 2019

Industrial and Urban Symbiosis (IUS) involves inter-organisational relations among diverse actors and sectors in regions and cities that improve resource productivity and support eco-innovation. IUS receives increasing attention from public policy and corporate and regional strategy, as well as academic research. This PhD course focuses on the opportunities and challenges linked to the emergence and development of IUS practices and networks.

Purpose and goals

This course aims to improve knowledge relevant for working with and/or studying IUS practices and networks, with particular focus on development determinants and dynamics, facilitation techniques, and multiple outcomes of IUS. Focus is also placed on selected research methods that are suitable for studying IUS processes. Upon successful completion of the course, the learners are expected to be able to:

- Describe and critically discuss key features of IUS;
- Explain and discuss different forms by which IUS practices can be applied in and around cities and regions and
- Describe and critically discuss the implications of IUS for business competitiveness, for urban and rural development, and for bio-based and circular economies;
- Describe and critically discuss approaches to assessing the outcomes of IUS;
- Explain and analyse techno-physical, organizational, social, economic, and institutional determinants of IUS emergence and development;
- Describe and critically analyse different approaches to facilitating IUS developments- including contextual strategies for effective IUS facilitation;
- Reflect upon the interplay between the IUS and their core research and discuss how these could be integrated for mutual benefit.

Structure, content and learning activities

The course has two main blocks.

Block 1 is compulsory and covers the following topics and activities:

- Origins, key features, different forms and definitions of IUS and their implications;
- Environmental, business and development potentials of IUS and their implications for bio-based and circular economies;
- Key determinants and dynamics of the emergence and development of IUS, with focus on techno-physical, organizational, social, economic and institutional factors.
- Different facilitation techniques and tools;
- Selected research methods suitable for studying IUS phenomena;

These topics will be covered through lectures (both by educators and learners), critical review of selected literature, with group work and discussions, and through the preparation and peer review of a scientific research output with limited scope.

This block also includes a study visit where the learners will have the chance to interact with stakeholders from a context where IUS is either operational or its development is desirable.

To complete this block, the learners will work either individually or in pairs and conduct further research on a topic, which they will choose through dialogue with their peers and course coordinators. The output of this research will be a document that meets the requirements for “introduction” and “methodology” sections of a scientific paper.

Block 2 is optional and involves the development and submission of an article to a scientific journal.

Target group and prerequisites

Ph.D students from Linköping University and other Nordic universities with an interest in the topic of industrial and urban symbiosis can join the course – there are no prerequisites other than having started PhD studies and having an interest in the field. The course will accept a maximum of 16 participants, on a “first-come first-serve” basis.

Course duration and schedule

The course includes four sessions in Linköping University’s Valla Campus in Linköping plus a full-day study visit. The first session will be between 10.15 – 17.00 in Linköping on 14 March 2019. For a limited number of sessions, participation from a distance would be possible.

Literature

Will be announced later.

Examination

The course will be graded on a pass/fail basis. Evaluation in Block 1 will be based on learners’ active participation and performance in different learning activities and on the quality of their research output and the peer review.

In order to earn the credits of block 2, learners need to submit their manuscript to a relevant peer-reviewed journal and discuss the reviewer comments with the examiners.

Examiners

The course examiners are Dr. Murat Mirata and Prof. Mats Eklund.

How to apply

Interested participants outside Linköping University need to contact Murat Mirata (мурат.мирата@liu.se) to express their interest in the course and receive further guidance.