

From Science to Systemic Solutions: Systems Thinking for Everyone

ISSS2017 Vienna

Announcement

PhD (Graduate) Course¹

Systems Thinking in Research Practice

7 – 14 July 2017, Vienna, Austria

Comprising

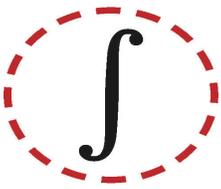
- Three and a half days of dedicated 'workshops' introducing different systems approaches, methods and research traditions, which will be held at BOKU University in Vienna
- Five days of participation in the 2017 ISSS Conference in Vienna ([ISSS 2017](#)), including a group generated presentation on the final day
- Certificates of participation and credit of 4 ECTS (European Credit Transfer System) points on successful completion

Objectives

Working strategically to negotiate boundaries for research in a meaningful way in the areas of contemporary concern that are the focus of ISSS2017 (systemic leadership; systemic intelligence; systemic innovation; systemic governance; systems engineering; smart technologies; futures studies) or impinge systemically on all that we do at this historical moment (e.g., sustainability; development; health; farming, food, biodiversity, to name but a few), requires particular skills and abilities not least in research practice.

It is necessary to be able to make relevant connections and to contextualize research activities without becoming overwhelmed by potential complexity and uncertainty. Increasingly multifaceted and complex issues such as sustainability and climate change are particularly challenging for PhD

¹ This program is designed primarily for PhD students currently enrolled/registered in a recognised program at any University/Institute. MSc students from North America registered in a graduate program are eligible to apply for admission.



research and for designing and using new technologies, policies and practices. It is a context that is however a core part of the ISSS community's experience.

The purpose of this course is to help you, the PhD student, develop your skills in contextualizing your research, to make connections among issues using systems, cybernetic and complexity thinking and to so improve your ability to work both strategically and purposefully. The course is also designed to help you build on what other researchers have done.

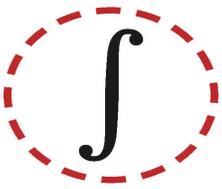
Through joining this course you can expect to:

- gain an overview of the intellectual traditions of Systemic Thinking and Approaches,
- make links to the history of ISSS and other organized bodies concerned with systemic research and scholarship,
- strengthen your research through developing understanding of systems theories and methodologies
- have an opportunity to reflect on strengths and weaknesses of different systems approaches and methodologies in relation to your own PhD research
- get added value from your participation in the Vienna ISSS Conference by also becoming part of a parallel critical learning systems community that has a PhD research focus
- critically review potential contributions of your research to help meet global challenges
- develop appreciation of multiple perspectives on contemporary issues
- work across multiple disciplines, build networks and establish new relationships supportive of your research and scholarship

Process

The course will be held in connection to the 61st ISSS Conference to be held in Vienna and draw on the gathering of specialists and researchers within this field. The design draws on tried and tested ways of experiential learning and the expertise of academics who have been designing learning experiences for mature age learners for many years. The course will be grounded in a project of your own choice, preferably based on your PhD work. In your time in the program, if accepted, you will participate in an inquiry with three main parts: before, during and after the conference. It will also involve some preparation and submission of a final reflection.

1. *Before the course*, you will be asked to complete an assignment in which you describe and reflect on either (i) your understanding and use of systems/cybernetic theories in your project; or (ii) the rationale you have followed, or would follow, in making a choice to include, or not, systems/cybernetic theories in your PhD research; this will require an on-line submission prior to your arrival.
2. The second part of the course is a three day workshop held in Vienna (on the campus of BOKU University beginning Friday 7th July at 09:00 hrs). This phase will start by exploring your own research context and needs and beginning a process of self-designing a 'critical learning system'. You will be supported in the process by facilitators and other specialists who will provide inputs and resources and prepare you for the final phase of the course including mentorship that helps you plan your attendance at the most relevant sessions for you at the ISSS conference. It will also provide an opportunity for joint reflection and feedback as the conference progresses. The endpoint of this phase will be a short



presentation developed by the whole PhD group for the ISSS conference attendees during the final morning session.

3. On the final day of the conference (afternoon of 14th July), you and the other students will gather **for half a day** to recapitulate and work in groups, and complete the assignment that has been agreed, on possible improvements of your own PhD study design and your revised future research trajectory linking these to systemic thinking and practice.

Course Team

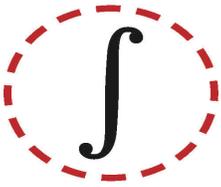
- Prof. Ray Ison ([Open University](#))
- Dr. Chris Blackmore ([Open University](#))
- Prof. Nadarajah Sriskandarajah ([Emeritus](#), Swedish University of Agricultural Sciences)
- Assoc.Prof. Dr. Ika Darnhofer ([BOKU](#))

Teaching method: Lectures (25%), in-class group exercises (50%), written assignments (25%)

Course Assessment: Participation in discussions and group exercises (50%), pre-course assignment (10%), Feedback presentation (20%), Final assignment (20%)

To obtain the course certificate you will be required to:

- complete the course assignments as outlined above
- participate in the lectures and group discussion
- participate in one of the relevant working groups of the ISSS conference.
- after the conference, discuss improvements to your own PhD study, or future research trajectory design linking it to systemic thinking and practice.



Preliminary Course Program

Pre-course preparation	Pre-course assignment to reflect on your research and your use of systems theories Join the on-line discussion forum and post your assignment (trajectory diagram)
Fr. 7 th July	Overview of the programme Introduction to System Thinking in Practice (STiP) theoretical lineages and traditions; implications for research practices (the PFMS heuristic)
Sat. 8 th July	Introducing and using systems, tools, techniques, methods and methodologies combined with group work; Articulating your PFMS model
Sun. 9 th July	Views from history of the systems field; the role of systemic design and institutions in leading and enabling 'system change'. Protocols for the group-based systemic inquiry and final presentation
10 th – 13 th July	On-going systemic inquiry at the ISSS. Every evening: Critical Learning System meeting and discussion
Fr. 14 th July	Feedback presentations; CLS reflection session
Final assignment	Group report; linking your future research design to your inquiry outcome.

Credit Points: 4 ECTS

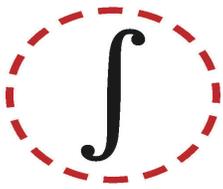
Certificate: Registered participants will get a graded course certificate from BOKU (link to the course in [BOKUonline](#)).

Language: English

Prerequisites

Basic knowledge of systems thinking and genuine interest in systemic inquiry is required. Prior to the course, you will create a timeline of your personal research and systems trajectories to share during the first session of the course. You will also begin to reflect on what working as a Critical Learning Systems (CLS) community might be for your research. You will also need to read several chapters introducing you to lineages in Systems Research and to Systems Thinking in Practice (STiP).

BOKU will provide all registered students with access to a course Moodle site where all resources and contributions will be posted.



Key Literature

- Bawden, Richard (2010) Messy issues, worldviews and systemic competencies. In: C. Blackmore (ed). *Social Learning Systems and Communities of Practice*. London: Springer, pp. 89-101.
- Blackmore, Chris (Ed.) (2010) *Social Learning Systems and Communities of Practice*. Springer: London. For online extracts see:
<http://www.springer.com/computer/information+systems+and+applications/book/978-1-84996-132-5>
- Ison, Ray (2010) Introducing Systems Practice. In: R. Ison. *Systems Practice: How to Act in a Climate-Change World*. London: Springer pp. 17-35.
- Ramage, Manus and Shipp, Karen (2009) *Systems Thinkers*. Springer: London. For online extracts see:
<http://www.springer.com/life+sciences/behavioural/book/978-1-84882-524-6>
- Reynolds, Martin and Holwell, Sue (2010). Introducing systems approaches. In: M. Reynolds and S. Holwell (eds). *Systems Approaches to Managing Change: A Practical Guide*. London: Springer, pp. 1–23.

Fees

The only direct fees to be paid are the registration fee for the ISSS conference at the Graduate Course Participant rate of \$445 (see http://iss.org/world/2017_Vienna_Registration), and the BOKU Student Union membership of € 20 to be paid at BOKU. All other travel, accommodation and living expenses will be the responsibility of the student.

Application for the Course

The course will accept up to 30 participants, accepted on a 'first-come first-served' basis. Those interested to participate, please send an email to ika.darnhofer@boku.ac.at describing in one short paragraph why you want to participate in the course and outlining your current PhD or graduate program.

Once you have registered to the ISSS conference (see: http://iss.org/world/2017_Vienna_Registration), please send her a registration confirmation (note that you should not register later than 15th June). Ika Darnhofer will provide you with detailed instructions on how to register at the BOKU.