Foundations of **Systems Mapping**

Start: July 21st

UCI — Universidad para la Cooperación Internacional

COSTA RICA REGENERATIVA

Omplexity

Course Introduction

Through the process of evolution, our brains have adapted to making decisions in situations where cause and effect are related closely in time and space. When faced with even a modest degree of complexity — all too present in our modern world — our mental models fail us. We advocate vigorously for siloed "solutions" that result in unintended consequences and frustrate our best intentions. Often, we don't even try to address the root cause of our problems, resorting instead to setting piecemeal objectives and managing by heuristic.

Our world, and the challenges it faces, requires us to evolve the way we think and take action, not just to solve problems, but to create the world we truly want.

Systems thinking gives us a set of practices, habits, and tools that help us think through complexity. In this course, we will explore the foundations of systems mapping, a powerful tool for visualizing complex systems that was developed at MIT by pioneers like Jay Forrester, Donella Meadows, John Sterman, and Peter Senge. We will learn not only how to think about complexity but also how to use the shared language of systems mapping and facilitative leadership to drive collective action for effective and meaningful change.

The 7 weeks are divided in:
4 workshops and 3 team work
sessions.

Workshop dates: July 21st, August 4th, August 18th, September 1st. (16 hours)

Work in teams sessions: July 28, August 11, August 25th.

Every second week we will have a class. The week in between will allow participants to read and work in teams.

Time: 4-8 p.m (CST)

Taught in English

Teaching by Omplexity

Investment: $400

*LIMITED to 25 participants.

Objectives

IDENTIFY COMPLEX PROBLEMS
Students will be able to identify complex problems and articulate the importance of applying systems thinking in addressing complex social challenges.

DEVELOPMENT OF SYSTEMS MAPS
Students will learn to facilitate the development of systems maps, specifically Causal Loop and Stock & Flow Diagrams.

IDENTIFY, LEARN & LEAD
Students will develop lifelong habits for identifying, learning, and leading in complex situations.

GROUPS
It's a project based learning, students will be assigned groups based on their survey results of their personal interests before class

Agenda
4 weeks workshop

Date	Student Objective	In-Class
Week 1 (4 Hours)	Understand the basic language of systems thinking. Learn to translate observation into mapping.	Introduction to Concepts Lecture Juggling Game Project Team Confirmation & Leader/ mapper Selection
Week 2 (4 Hours)	Gain a foundational understanding of system change into mapping.	Systems Archetypes Limits to Growth Shifting the Burden Iceberg Model & System change Example & Next Steps
Week 3 (4 Hours)	Gain a process for conducting research into systems.	System mapping steps Computer Virus Homework Review Stock & Flow Lecture + BOT
Week 4 (4 Hours)	Learn system mapping and debrief	System mapping project presentation and final reflection

*time and content will be adjusted based on class dynamics
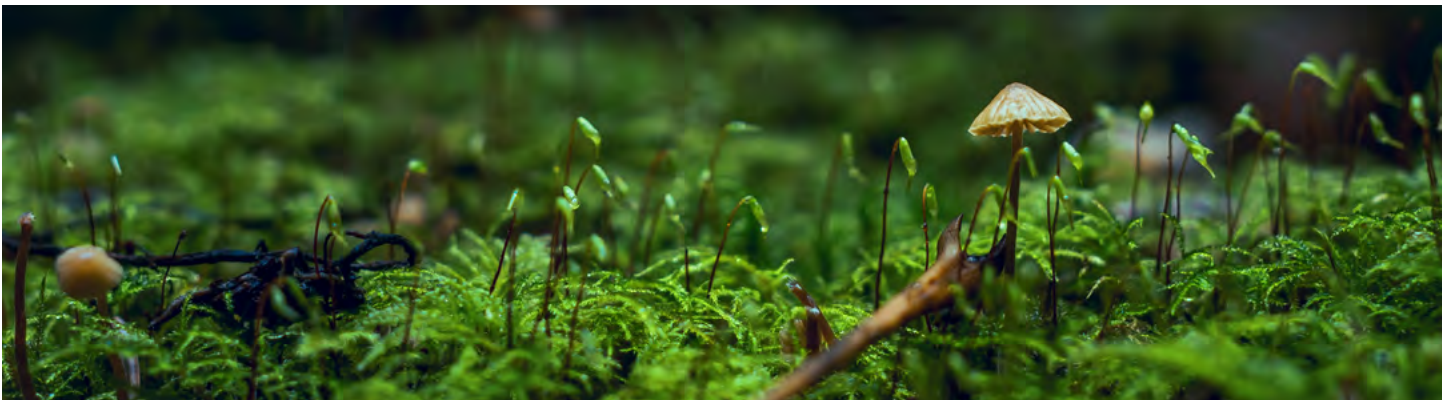
Teaching Team

This course was developed by Prof. Joe Hsueh and is **led by** senior members of his consulting firm, **Omplexity.** The course design is based on the firm's work facilitating participatory systems change for collective action with multinational initiatives including United Nations Development Programme (UNDP) and Sustainable Apparel Coalition, as well as place-based initiatives working on fishery restoration, groundwater rights, and performing arts development.

Ian MacRae, is a senior associate with Omplexity. Together with Prof. Hsueh, Ian developed the teaching materials that Omplexity uses to equip students and professionals with the tools of systems thinking, refining the content over the past five years.

His insights are drawn from the facilitation of dozens of systems mapping workshops conducted with large groups of systems stakeholders. Based in Canada, Ian returns frequently to Taiwan to lecture at National Taiwan University.

Darren Yeh, is a managing director with **Omplexity,** he worked to continually apply the discipline of systems thinking to real-life work and develop systems thinkers for systems change.

He was selected by the Taiwan government for the UN Global Youth leadership Summit in 2006 and International Young Ambassador program in 2010. Darren's empathy and high-standards help make every client interaction productive and rewarding for all parties.

Special prize for organizations interested in enrolling a group of people.

For 3 persons or more: $350 per person

Systems Thinking and Systems Mapping is a great tool for teams, **we highly encourage enrolling with colleagues.**

Furthermore you will be able to work as a group on a topic you choose according to your organization interests.

"Hunger, poverty, environmental degradation, economic stability, unemployment, chronic disease, drug addiction and war, for example, persist in spite of the analytical ability and technical brilliance that have been directed toward eradicating them. No one deliberately creates those problems, no one wants them to persist, but they persist nonetheless. That is because they are intrinsically system problems-undesirable behaviors characteristic of the system structures that produce them. They will yield only as we reclaim our intuition, stop casting blame, see the system as the source of its own problems, and find the courage and wisdom to restructure it."

—Thinking in Systems, Donella H. Meadows.

Enrollment process:

1. Access Online Payment link.

2. Send Payment receipt to the email fpia@uci.ac.cr

3. You will get a confirmation reply and any further details.

4. If you have questions please contact the program coordinator Fernanda Pia, fpia@uci.ac.cr

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