Leading Systems Change:
Systems Thinking for a Sustainable World

Dates: 2/24, 3/3, 3/10, 3/24, 4/28, 6/16

Time: 9:00-17:30

Location: 一館 203

Professor: Dr. Joe Hsueh 薛喬仁
joehsueh@ntu.edu.tw

Credits: 3 Units

INTRODUCTION

Are you passionate about creating positive impact for Taiwan and the world?
Do you aspire to be a highly effective leader who can think systemically and act collaboratively?

This special six-day consulting-based course is designed for aspiring change leaders in business, government and civil society who want to create systemic change and lasting impact in the world. It is adopted from the MIT Sloan School of Management and based on the professor’s consulting experience.

This year’s theme will focus on impact investing. We will learn about various forms of impact investing to create economic, social and environmental impact. We will work on projects that help develop Taiwan’s national strategy for impact investing using systems thinking consulting methods.

This course is open to all graduate students and selected senior students across NTU. You will need to submit an application that includes:

1) CV (please notify your department and student number)

2) Bio (no more than one page single-spaced) describing:
   • your background
   • your vision for yourself and the world
• your reasoning for taking this course

Interested students please email your CV and bio to Lisa Wu lisawu2018@ntu.edu.tw no later than January 14th. Selected students will be notified by email on January 15th.

COURSE OBJECTIVES

1) **Systems Thinking**: you will learn the tools of systems thinking to help you analyze a complex problem and map a systems change strategy.
2) **Consulting Project**: you will learn consulting methods and work on projects to help clients develop their strategies using systems mapping.
3) **Impact Investing**: you will learn various forms of impact investing and how to create an impact investing ecosystem.

Note: This 3-credit course is the extension of the 1-credit “Systems Thinking and Learning Organization” course with real world consulting projects. If you have taken the 1-credit course in the past, you may find some similar materials in the first two days. This course emphasizes the application of the systems thinking methods in the real business settings.

COURSE CONTENT

**Systems Thinking**

“We cannot solve our problems with the same thinking we used when we created them.”

— Albert Einstein

Many of the critical challenges facing the world today are deeply complex, such as climate change, poverty, social injustice, food safety, and sustainable development. They stem from multiple causes, involve multiple stakeholders, are embedded in a web of multifaceted cause-and-effect relationships, and contain structural traps in which isolated actions result in suboptimal outcomes for the whole. Many such challenges are often addressed by scattered organizations using technical approaches alone, frequently resulting in policies or actions that attend to only one part of the system.

Increasingly, however, the challenges society faces are recognized to be more systemic in nature, requiring holistic thinking and the collaboration of multiple parties to arrive at systemic solutions. Systems thinking is a critical leadership capability that enables one to look at a problem holistically, identify root causes and design high-leverage solutions. It is called by MIT Sloan School of Management professor Peter Senge (彼得·聖吉) as “the core discipline of a learning organization” in his seminal book: “The Fifth Discipline: the Art and Practice of the Learning Organization.”

This course will help you understand what systems thinking is and how it can empower you to become an effective change leader for creating a sustainable world. We will learn about the principles and tools of systems thinking and how to apply them to problem solving, decision making, strategic planning and partnership building for creating systemic change.

Specifically, we will learn a set of tools that enable you to (1) graphically depict your understanding of a complex social system’s behavior and its underlying structure, (2) communicate with others about your
understanding explicitly to form a shared understanding, and (3) design high-leverage interventions to address root causes of a complex challenge.

These tools include causal loop diagrams, behavior-over-time graphs, stock-and-flow diagrams, system archetypes, systems mapping and group model building—all of which let you depict your understanding of a system—to computer simulation models and “management flight simulators,” which help you to test the potential impact of your interventions.

We will also learn participatory decision-making and facilitation methods and tools and practice them in your consulting projects to make you an effective meeting facilitator.

Another objective is to create a learning community so you can learn from your peers from different disciplines, develop friendships and form potential partnerships for leading systems change in Taiwan and the world.

Whether you choose to become a strategy consultant, a social entrepreneur, a corporate sustainability officer, a policy maker, a politician, a non-profit leader or a foundation manager, these tools and consulting methods shall make you an attractive job candidate.

**Consulting Project**

This is a consulting-based course. There will be a team consulting project that requires you to apply systems thinking methods to help clients develop their systems change strategy. Specifically, each team will 1) select a project from a list offered by the professor; 2) create a systems map depicting the client’s strategy through research and stakeholder interviews; 3) analyze the strategy by identifying the high-leverage points for achieving the client’s goals; 4) deliver a final presentation and a written report to the client. You may need to sign non-disclosure agreements with the clients.

**Impact Investing**

This year’s theme will focus on impact investing. We will learn about various forms of impact investing to create economic, social and environmental impact. We will work on projects that help develop Taiwan’s national strategy for impact investing.

**TEACHING METHOD**

This course will not be conducted in a traditional lecture format. Instead, it will be co-created in an interactive workshop style that includes participatory lectures, simulation games, small group exercises, large group dialogue, real world team projects and regular opportunities for personal reflection. It will be highly experiential and require active participation and a willingness to break out old habits with an open mind, heart and will for personal growth and development. The more you participate, the more you will grow. The workload will be heavy. It will be a challenging but fun class with lots of laughter, challenges and peer support.

The course will be conducted in English. The professor speaks both English and Chinese. You need to feel comfortable to listen and understand lectures in English. Fluency in English speaking is not required but you need to feel comfortable participating in group activities in English.
GRADING

Class participation: 10%
Individual assignment: 20%
Team project: 70%

READINGS


INSTRUCTOR

Dr. Joe Hsueh is an expert in systems thinking and systems change with a PhD in system dynamics from MIT. He is the founder of Omplexity, a systems change consultancy, and the co-founder of the Academy for Systems Change. He is a consultant to the United Nations and an adjunct faculty at Harvard University and National Taiwan University.


Joe developed the CleanStart Management Flight Simulator with MIT Professor John Sterman for teaching entrepreneurship, corporate strategy, strategic human resource management and employee ownership. The free online simulator is used at MIT Sloan and around the world.

Prior to his PhD at MIT, Joe studied a MPA in International Development at Harvard Kennedy School of Government, and spent a year with a Buddhist monastery experiencing Buddhism-in-action through volunteering around the world.