# Course syllabus: Design Thinking

## Stockholm School of Entrepreneurship
## Fall term, 2024

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### General information about the course

Design Thinking (DT) is a powerful, widespread approach to manage innovation projects, used by teams and organizations to creatively solve "wicked" problems. Originating in design practice and theory, but applicable across a broad range of disciplines, DT potentially brings groundbreaking changes to the ways of working in innovation initiatives.

The term Design Thinking has been around since 1980s, however its popularity has grown significantly at the turn of the twenty first century. The 1999 episode of ABC news show Nightline on the creation of a new shopping cart concept by IDEO, a major design agency in the Silicon Valley, has today millions of views on YouTube. The curriculums of current master and executive education programs by prestigious business schools include courses on DT. Leading organizations from various industries like Siemens, P&G, SAP and PepsiCo have established roles at the C-suite level such as that of Chief Design Officer. Others like Intuit have trained and deployed a growing number of design evangelists to diffuse DT mindsets and principles across the organization. Almost all consulting giants have recently acquired design agencies to renew their skillsets and toolkits, especially as the pervasive digital transformation requires new competencies for developing superior user experiences.

Why is DT increasingly popular as an innovation management framework? How does it actually "work"? What are the foundations of DT that supports the development of innovations? How can DT support you in creatively solving problems throughout your educational and professional paths? The course will address these and other related questions. The course takes a practice-led approach, as the concepts and methods of DT are taught and immediately applied to a real systemic challenge. The course includes a mix of seminars and workshops, even within the same session. Attendance and active participation to the classes are critical for student's learning.

### Intended learning outcomes

The purpose of the course is to teach PhD, MFA, MSc and Ma students the main principles, concepts, methods and tools for Design Thinking. Students will apply them to a real challenge and so will reflect on its benefits and limitations.

The learning outcomes for the course are for participants to be able to independently:

- Acquire and execute Design Thinking methods
- Evaluate and organize the concepts that such a method generates
- Discuss and critically assess the strengths, weaknesses and innovative potential of the process

- Develop, document and articulate a coherent design proposal based on results generated
- Demonstrate how design thinking can change and enlarge the student's own disciplinary 'world view'
- Develop and argue for an interdisciplinary entrepreneurial initiative inspired by the design thinking process

Note: it is the responsibility of the students to ensure that course requirements are understood and to request clarifications or additional information at the beginning of the course.

## Learning activities & pedagogy

The pedagogical philosophy of the course is that of experiential learning as students will experience hands-on what DT concepts and tools mean and how they work. The course combines seminars with interactive practical learning activities such as workshops, feedback sessions, case discussions, guest speeches and team presentations by student teams. Teaching is conducted in an interactive manner with students expected to take an active role throughout the course. Teachers will mainly act as moderators, questioners, and facilitators of your learning.

The course has participants from the SSES member schools and so it is strongly interdisciplinary. In the context of innovation, diversity is a strength and so interdisciplinary teams will be formed.

### *Live Project*
The backbone of the course is the live project, which is about creatively finding, framing, reframing and solving a relevant problem connected to a macro "wicked challenge" that will be presented to students in the first part of the course. The challenge will include entrepreneurial and sustainability aspects, and will be broad enough to allow project teams to take and pursue different innovative directions. Indeed, the Live Project is conducted in teams, who will present their work and solutions to a panel of stakeholders, at the end of the course.

Teams are formed by faculty, based on diversity criteria. Team composition will be communicated to students in the first part of the course.

### *Canvas*
Course material will be posted on the course's Canvas page. News and any change to the schedule will be communicated through Canvas. All course participants are expected to continuously pay close attention to the information and material published on the course's Canvas. New material might be added gradually as the course proceeds.

## Literature

The pedagogical model is centered around student participation and action. You are expected to search for material (e.g. books, articles, Ted Talks, and other academic materials) on your own, and to fulfill the project' and assignments' requirements and the learning outcomes of the course. To answer the specific questions in the various assignments and to advance in your project, you may need to find information in the literature e.g., background on the macro challenge, theories connected to your team's formulation of the problem and solution, other perspectives on design, case studies and implementation in certain contexts.

Course mandatory literature is listed below:

### *Book*
Dorst, K. (2015). *Frame innovation: Create new thinking by design*. MIT press.
    Available in most digital bookstores, both paper or e-book. E.g.:
    https://www.bokus.com/bok/9780262324311/frame-innovation/

https://www.amazon.com/Frame-Innovation-Create-Thinking-Design/dp/0262324318
Tip: start reading the book as soon as possible. It's a great book!

*Articles*

Bianchi, M., & Verganti, R. (2021). Entrepreneurs as designers of problems worth solving. Journal of Business Venturing Design, 1(1-2), 100006.

Boland Jr, R. J., Collopy, F., Lyytinen, K., & Yoo, Y. (2008). Managing as designing: lessons for organization leaders from the design practice of Frank O. Gehry. Design issues, 24(1), 10-25.

Bureau, S. P., & Komporozos-Athanasiou, A. (2017). Learning subversion in the business school: An 'improbable'encounter. Management Learning, 48(1), 39-56.

Liedtka, J. (2015). Perspective: Linking design thinking with innovation outcomes through cognitive bias reduction. Journal of product innovation management, 32(6), 925-938.

Madsbjerg, C., & Rasmussen, M. B. (2014). An anthropologist walks into a bar. Harvard Business Review, *92*(3), 80-90.

Christensen, C. M., Hall, T., Dillon, K., & Duncan, D. S. (2016). Know your customers' jobs to be done. Harvard Business Review, 94(9), 54-62.

Hoyt, D., & Sutton, R. I. (2016). What design thinking is doing for the San Francisco Opera. Harvard Business Review online. https://hbr.org/2016/06/what-design-thinking-is-doing-for-the-san-francisco-opera

van Leeuwen, J. P., Rijken, D., Bloothoofd, I., & Cobussen, E. (2020). Finding New Perspectives through Theme Investigation. *The Design Journal*, *23*(3), 441-461.

Articles are accessible through SSE Library and are available on the course's Canvas, in a .pdf format.

## Videos

The classes will be very hands-on, practical, and interactive. One way to make sure that this happens, without compromising the learning of theoretical concepts, is to transfer the lecturing of relevant Design Thinking concepts to pre-recorded video-lectures.

Therefore, you will be required to watch specific video-lectures, in preparation to some of the classes. The information of which video(s) should be watched before which class will be provided on Canvas well in advance of the corresponding class. Check out information on Canvas on a regular basis, to avoid missing important details.

## Location

The course sessions will take place at SSE (Sveavägen 65, Stockholm) in room A320. One session, on November 28, will take place at the House of Innovation, Lecture Hall, Nortullsgatan 2 (in case of unexpected contingencies that require the use of other classrooms, this information will be provided on Canvas).

## Schedule

The course runs every Tuesday and Thursday from 17:15 to 20:00, unless otherwise stated. A detailed schedule of classes, of assignments and of deliverables will be provided at the beginning of the course.

Note: This course is planned as half time (the expected workload for you is 20h/week). Considering that classes account for 6 hours of these 20h/week, the remaining 14 hours are expected to be dedicated to individual preparation of the course's material and to project teamwork (including the execution of project's intermediate assignments). Teamwork is fundamental in this course, in order to carry out the Live Project work. During the classes, your team will perform exercises and activities that are instrumental to the advancement and completion of your Live Project. However, this will not be enough to proficiently execute your project. Your team is expected to schedule frequent meetings in between the course sessions to advance and complete the Live Project work. Because you come from different schools, coordination and scheduling

will be more complex than for your other, "traditional" courses. So, plan accordingly to avoid that your schedule does not become strained. Also, the fact that you come from different schools makes the teamwork in this course different from what you are probably used to. Be open-minded, curious and committed to learning from new perspectives and experiences.

*Attendance*
Attendance to the classes is mandatory. The key reason is that during classes, practical activities will be performed by each student, and the learning associated to it cannot occur from distance or ex-post. Moreover, project teamwork will take place during classes. Thus, you are expected to contribute to your team with active participation and task execution.

Should something prevent you from attending the class, please e-mail Chiara ([chiara.difuria@sses.se](mailto:chiara.difuria@sses.se)) to let us know in advance. You are allowed to miss max. two classes during the whole course. Missing more than two sessions will lead to a (constructive) discussion with the course director to assess the situation, with dropping the course being a possible outcome. This is to avoid free-riding behavior which would create major issues to the involved team. We take free-riding very seriously. Thus, we will promptly address any emerging situation that might signal the occurrence of free-riding, in coordination with the team(s) involved.

It is your own responsibility to catch up on what you missed, please ask your team and extended classmates. If you have a good reason for arriving late or leaving class early, please inform Chiara about this too.

**Assessment**

The course grade (A-E; see below the grading scale) will be determined by two team deliverables and by one final individual take-home exam.
Each component of the examination will be described in detail through dedicated documents, that will be posted on the course's Canvas at the beginning of the course.

Here we provide a general overview.

Team-based deliverables

- Art Thinking presentation (5% of the final grade): at the end of the Art Thinking workshop (Session 3 and 4 of the course), each team will present their work and solution in front of the class. The deliverable includes the artefact(s) generated during the workshop and the oral presentation (due during Session 4 of the course, on November 14th; exact time to be communicated during the session).
- Final Live Project presentation and report (45% of the final grade): the final Live Project deliverables consist of two main hand-ins: A) team presentation (slides due on December 11th, 18:00; oral presentation during the final session of the course, on December 12th); B) team report (word document due on December 11th, 18:00).

Individual deliverable

- After-action review (AAR) (50% of the final grade): the purpose of AAR is to assess the student's ability to "learn by reflecting", i.e., by synthesizing, abstracting, and articulating the key lessons taught by experience by means of relating them to DT concepts from literature and classes and of developing original tools and principles. AAR is a take-home exam. The deadline for submitting the AAR is December 29th, 2024, 18:00.

Please note that during the course, each team will be asked to complete and submit intermediate assignments. These team-based assignments help teams progress in their Live Project, providing a proper cadence and a focus on important activities. Performing the assignments and submitting their outputs is

mandatory. They are to be considered as pass/fail intermediate assignments (where the criterion for pass is that a valid attempt to carry out the assignment was made).

Information about the contents and deadline of each intermediate assignment will be available on the course's Canvas at the beginning of the course.

*Grading scale*

E sufficient (50-59), D satisfactory (60-69), C good (70-79), B very good (80-89), A excellent (90-100), Non-passing grades are: F (0-49, further work required). Maximum 100 points. The final letter is your grade, which will be communicated to your university.

If you are a student from KI, Konstfack or admitted after fall 2016 at SSE you are listed to another scale of grading. Your grades will be transferred accordingly in line with regulations at your home university.

*Resubmission*

If you receive a Fail in one of the examinations, you will be allowed to resubmit the deliverable on an agreed date. Please note that you won't be able to earn more than 50% of the maximum points available in that exam.

*Late assignments*

Don't miss the deadlines! If you do, you will be subject to a 1-letter grade reduction. You will be allowed to resubmit the deliverable on an agreed date.

**AI Policy**

Generative AI (and its applications such as ChatGPT) is a groundbreaking digital technology with profound implications on learning and pedagogy. In order to seize the opportunities that AI can provide to learning, while controlling its limitations and potential harm, it is important to formulate and adopt a clear policy around the use of AI in this course, that articulates what constitutes acceptable use of AI. The policy is the following (inspired by Mollick and Mollick, 2023).

In this course, teams are allowed to use generative AI (e.g., ChatGPT and image generation tools, like Dall-E) to address the project challenge and perform the activities involved in this course. Learning to use AI is an emerging skill and the course gives students the opportunity to practice with that. AI can support students and teams in the creation of insightful and meaningful content.

It is, however, mandatory for each team, to submit all the conversations that the team (and each team member independently) had with AI chatbots, through Canvas. For each deliverable that the team or the individual has to submit on Canvas, there will be a requirement to submit also a document including every single interaction that team members had with any AI chatbot, in performing the Live Project work and any other assignment.

Please note that the team's and/or the individual student's chats with AI, whatever their contents, have no influence on the assessment and grading of the deliverables (only the actual deliverables have). The reason why we, the course staff, collect all the chats with AI is to understand and analyse the different types of support that AI provides to students' imagination, creativity and sensemaking. So, it is, once again, important that each team or individual submits every single interaction it had with AI.

Note that during the course, there will be no specific tutorial on how to use generative AI tools. If needed, team members are expected to search for relevant information in the massive amount of material on generative AI that can be found online. The course staff will be available to help with these tools.

Besides submitting all the conversations with AI, each team or individual must explicitly acknowledge and specify the use of AI in their final deliverables. For example, when a specific content (e.g., idea, concept or anything else) originated from an interaction with AI, the team or individual should add a citation to the AI tool (the citation should include the prompts used and the date; feel free to add this information in an Appendix at the end of the deliverable, if preferred). Referencing of generative AI applies also to visuals, such

images or videos. Failure to properly disclose the use of AI constitutes plagiarism and violates SSE Academic Regulations.

Be aware of the limits of ChatGPT, such as the following:

- If minimum-effort prompts are used, ChatGPT will provide low-quality results. Teams and individuals will have to refine their prompts in order to get good outcomes. Prompt design and formulation is a critical task that influences the ability of AI to assist teams in their design effort. <u>While AI can provide useful base material and inspiration for the formulation of problems and of solutions, the quality, insightfulness and meaningfulness of the team's design work ultimately depends on the team's (human) ability to reflect, make sense, integrate, connect, augment, and further develop the information provided by the machine.</u>
- Don't trust anything the AI tool says. Cross-check the numbers and facts it gives, with other sources, if you are planning to use them. Teams and individuals will be responsible for any errors or omissions caused by AI.
- Don't use AI tools if you believe it isn't appropriate for the case or circumstance.
- Don't submit sensitive or confidential information to AI tools unless there are credible guarantees of confidentiality.

Please note that this AI policy does not constitute official guidelines from the Stockholm School of Entrepreneurship nor from the Stockholm School of Economics. It only applies to the 2024 edition of the Design Thinking course.

**Course staff**

**Mattia Bianchi (Course director)**
Mattia Bianchi is the Matts Carlgren Professor of Business Administration, especially Innovation Management, at the House of Innovation of the Stockholm School of Economics. He has been Program Director of the Master of Science in Business & Management of the Stockholm School of Economics until 2018.
Mattia holds a Ph.D. in Management Engineering from Politecnico di Milano and a Diploma in Management from Imperial College London.
Mattia's primary research fields include Open Innovation, Design Thinking, Agile and Product Development. Mattia has published several articles in the field of technology & innovation management in leading journals, e.g., Research Policy, Journal of International Business Studies, Journal of Product Innovation Management, Technovation and R&D Management.
Mattia teaches Innovation Management and Design Thinking in the master programs of SSE and of SSES (Stockholm School of Entrepreneurship) and in the SSE Executive MBA in Stockholm.


*__Please note that we reserve the right to change this description.__*