



## Course PM MF 2112 Advanced Product Design, 12 hp

### Summary

This course is a combination of four course elements, all tied together by an overarching design project. Each student will in the end make an individual design of a product, but this design will be informed by several other investigations made in groups of various constellations.

The four course elements are; 1) Human Centred Design, 2) Research Seminars, 3) Branding and 4) Individual Design Project.

The product design project are tools for home refurbishment, but provided as a service instead of individually owned products. The context is Stockholm as today, BUT in a circular service paradigm.

Deliverables will be

- 1) user studies according to type of equipment,
- 2) a brand platform/design brief and a
- 3) final design of a piece of equipment for a specific brand.

You will also have assignments in the research seminars.

The exercises are all fictional, though we will use real brands and real users to create great products.

### Course structure

#### Human Centered Design (HCD)

Period 3, Teachers: Sara Ilstedt and Martin Sjöman

Understanding users, their needs, values and problems is fundamental for good design. This course element will look at different ways designers can enquire, observe and understand users, and design for a good human-product interaction. You will learn how to plan and execute different methods such as observation, surveys, interviews, contextual studies, focus groups and creative methods and also reflect on the strengths and weaknesses of these methods.

Deliverables: 1) A user study that you report with an extended powerpoint that you make with your group, 2) a final presentation with your group.

#### Research Seminars

Period 3, Teachers: Sara Ilstedt and Martin Sjöman

We will provide an insight in Design Research and what you can learn from this field. A number of research papers will be presented and discussed in seminars.

One of the projects that you will learn more about is The Sustainability Arena (Målgruppsarenan) You can read more about it here <https://www.greenleap.kth.se/projekt/malgruppsarenan> (only in Swedish so far).

Deliverables: reflections about the research papers.

## **Branding**

Period 4, Teacher: Mia Hesselgren

We have selected a number of existing brands representing different business strategies. Your task will be to create a brand platform suitable to ensure that you will get brand coherency even though the device portfolio will be designed by different designers (you ;) The course element consists of literature studies, lectures, exercises and tutorials.

### **Deliverables**

A Brand platform. The disposition of your brand platform is open, but it should incorporate your strategic reasoning, descriptions of your target audience and competition, what brand values you want to express through your design. The brand platform should be comprehensive as stand-alone and should have both text and visual material. You will also work with the design of some of the touch-points of your service.

You will have a template as a starting point for your Brand Platform.

## **Individual Design Project**

Period 4, Teacher: Leif Thies

In this module you will combine the elements of the previous learning elements. You will design a product, informed by the user studies and the brand platform and of the service scenario.

The setting of the project will be in a circular economy, as it would look like today. We assume that we have already made the transfer from a linear product paradigm into a circular service paradigm. There is still need for physical products, but they are provided as an integrated part of a product-service-system (PSS) rather than as a product you buy, own and dispose. The marketplace will be much like today with different brands trying to attract users to their service offerings. You are going to adapt their brand platforms to this setting as well as design their hardware.

A very brief introduction to circular economy will be provided, but further individual studies are highly recommended (see Recommended Reading).

Your mission is to work with the design of one these so that they match your brand platform and your findings from the user studies. Regarding the technical specifications and construction, you are

encouraged to use best practice from what is already on the market. Your design is in that respect more of a redesign rather than starting from scratch.

Deliverables for the final presentation

Your design should be presented as three portfolio pages with at least one high-resolution image showing the final product. Additional images are welcome. You also need to show intended technical solutions, choice of material, etc. The design should incorporate a CAD modelled surface.

In the description of your final product design, you should also incorporate how the design meets the directions in your brand platform, and how it supports the findings from your user studies as well as how the service is provided.

You will get a brief for the portfolio pages when we get closer to that part.

## Course structure

The Advanced Product Design Course will be focusing on the different elements in product design.

Each student will be part of two different group assignments combined with one individual project.  
Communication

### Communication

Our channels for communication will be Canvas.

On Canvas you will find the most updated schedule. This will be **the only place** for the latest updates of the schedule!

All the documents for the course, lectures, and assignments will be on Canvas.  
We will also send my e-mails from Canvas, so it is very important that **you all register** to get necessary information. You will also upload your assignments here.

Please note that there may be misleading information on other channels, so hold tight to the ones mentioned above!

## Assessment

### Intended Learning Outcomes

The course syllabus is now published and you can reach the full version from the course web.

Below the expected learning outcomes.

After completing the course students should be able to:

1. Plan and execute a study in human-centered design, analyze the result and create insights relevant for the design of product and services.
2. Describe and reflect on current theories, methods and approaches in HCD, branding and design research and relate it to your project.
3. Analyze a brand and develop a product design guideline to support the design of products and services.
4. Design a complex product, demonstrating an appropriate balance between insights from human-centered design, application of product design guideline and sustainable development concerns.
5. Relate to the advantages and challenges with circular economy and creatively apply it in a product-service-system.

### Exam

We will have an exam but the form is not decided upon yet. The exam will have two parts; Human Centred Design and Branding.

### Grading Criteria

The Intended Learning Outcomes and Outcomes-based Assessment and Grading Criteria will be discussed in a pedagogic seminar at the beginning of the course.

Learning Outcome	E	C	A	Examination
LO1 Plan and execute a study in human-centered design, analyze the result and create insights relevant for the design of product and services.	Used at least two methods in the user studies and gained insights and conclusions from this study that are relevant for the case.	The user studies are made in a <b>thorough and engaged way</b> using at least <b>three</b> methods. Gained conclusions and made reflections from the interactions with the users <b>bringing new perspectives and insights that go beyond the obvious.</b>	The user studies are made in a thorough and engaged way using <b>three or more</b> methods including <b>development of new or existing methods.</b> Gained <b>advanced</b> conclusions and made reflections from the interactions with the users bringing new perspectives and insights that go beyond the obvious. <b>The research process Is structured and transparent.</b>	<i>Presentation and report of user studies. PRO1</i>

<p>LO2 Describe and reflect on current theories, methods and approaches in HCD, branding and design research and relate it to your project.</p>	<p>Describe current theories, methods and approaches in HCD, branding and design research on a basic level and relate it to your project.</p>	<p>Describe <b>and reflect on</b> current theories, methods and approaches in HCD, branding and design research and <b>connect</b> it to your project.</p>	<p>Describe and <b>critically</b> reflect on current theories, methods and approaches in HCD, branding and design research and <b>reframe it to be applicable in</b> your project.</p>	<p><i>For HCD and Branding: Written exam. TEN1</i></p> <p><i>For Design Research: Active participation in research seminars. Hand in individual papers. SEM1(P/F)</i></p>
<p>LO3 Analyze a brand and develop a product design guideline to support the design of products and services.</p>	<ul style="list-style-type: none"> <li>- Fill in provided template of brand platform.</li> <li>- Basic understanding of mother brand's current brand values and design style.</li> <li>- Use of available corporate communication channels as sources.</li> <li>- Obvious and copy-paste use of current brand values in suggested brand platform.</li> </ul>	<p><i>E level+ at least two of</i></p> <ul style="list-style-type: none"> <li>- Basic identification of relevant trends.</li> <li>- Description of brand positioning including connections to other relevant brands.</li> <li>- Deeper investigation of brand using several different sources, including second hand sources.</li> </ul>	<p><i>C level+ at least three of</i></p> <ul style="list-style-type: none"> <li>- Demonstrate deep understanding of current brand values and lifestyles of brand target groups.</li> <li>- Identification of future potentials including the non-obvious possibilities, including showing possible position moves at different levels.</li> <li>- Develop brand extension making mother brand proud.</li> <li>- Strategic choices carefully crafted and thoroughly motivated.</li> <li>- Modify brand platform template and applications to better suit the specific case.</li> </ul>	<p><i>Presentation and report of brand platform. INLI</i></p>
<p>LO4 Design a complex product demonstrating an appropriate balance between insights from human-centered design, application of product design guideline and sustainable development concerns.</p>	<p>Design a complex product demonstrating a <b>basic</b> balance between insights from human-centered design, application of product design guideline and sustainable development concerns.</p>	<p>Design a complex product demonstrating a <b>carefully crafted</b> balance between insights from human-centered design, application of product design guideline and sustainable development concerns.</p>	<p>Design a complex product demonstrating a <b>carefully crafted</b> balance between insights from human-centered design, application of product design guideline and sustainable development concerns.</p> <p>The balance is well developed in the formgiving and is communicated and visualized in a clear way.</p>	<p><i>Presentation and portfolio pages of individual design. PRO2</i></p>

<p>LO5 Relate to the advantages and challenges with circular economy and creatively apply it in a product-service-system.</p>	<p>- Basic understanding and application of circular economy in brand platform and individual design.</p>	<p>- Branding concepts more strongly adapted to circularity and a service paradigm. - The opportunities with a circular economy have been applied in the individual design.</p>	<p>- Critical analysis of circularity <b>challenges</b> including clear demonstration of choices in brand platform. - The opportunities with a circular economy have been communicated through the individual design to support an overall greater user experience.</p>	<p><i>Presentation and report of brand platform. INL1</i></p> <p><i>Presentation and portfolio pages of individual design. PRO2</i></p> <p><i>Both INL1 and PRO2 must meet at least E level for the student to be rewarded a final degree at the course.</i></p>
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### Grading

For the entire course the scale will be A, B, C, D, E, FX, F

Your active participation and contribution to the group assignments will be equally important as the quality of your individual project and assignments. Close consideration will be on how well the findings from the group assignments is implemented in your final design.

- INL1 - Hand in exercises, 2.0 credits, Grading scale: A, B, C, D, E, FX, F (*Branding*)
- PRO1 - Project, 4.0 credits, Grading scale: A, B, C, D, E, FX, F (*Human Centered Design*)
- PRO2 - Project, 3.0 credits, Grading scale: A, B, C, D, E, FX, F (*Individual Project*)
- SEM1 - Seminar, 1.5 credits, Grading scale: P, F (*Design Research Seminars*)
- TEN1 - Written examination, 1.5 credits, Grading scale: A, B, C, D, E, FX, F (*Human Centered Design+Branding*)

The assessment is based on written examination, the student's active participation in group assignments and seminars, the quality of submitted assignments (both individual and in groups) and written assignments such as peer reviews.

### Schedule

The course runs on every Monday and Thursday over the entire semester (except on holidays and exam weeks). A detailed schedule with rooms, etc will be provided on canvas.

Here is an overview of the term:

#### Week 3 Term start

Start of course

#### Week 4- 9 Human centered design

Final presentation Human centred design

Introduction to Branding

## Week 10-11 Study and examination

examination

## Week 12-15 Branding

Final presentation Branding

## Week 15-22 Individual project

Start of individual project

Final presentation of individual project

## Required Reading

For the Human Centred Design course element:

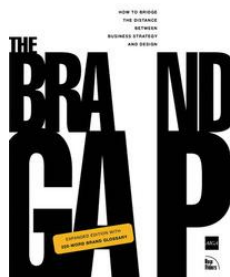


**"Research Methods for Product Design"**, Alex Milton & Paul Rogers.

[http://www.amazon.co.uk/Research-Methods-Product-Design-Portfolio/dp/1780673027/ref=sr\\_1\\_1?ie=UTF8&qid=1457526255&sr=8-1&keywords=research-methods-for-product-design](http://www.amazon.co.uk/Research-Methods-Product-Design-Portfolio/dp/1780673027/ref=sr_1_1?ie=UTF8&qid=1457526255&sr=8-1&keywords=research-methods-for-product-design)

For the branding course element:

A WHITEBOARD OVERVIEW BY MARTY NEUMEIER



**"The Brand Gap"**, Marty Neumeier

The book is available for less than SEK 300 at

[http://www.bokus.com/bok/9780321348104/the-brand-gap-revised-edition/?source=googleps&gclid=CMfep\\_ejq8oCFeXPcgod\\_TYOBg](http://www.bokus.com/bok/9780321348104/the-brand-gap-revised-edition/?source=googleps&gclid=CMfep_ejq8oCFeXPcgod_TYOBg)

## Recommended Reading

Resources:

[www.maketools.com](http://www.maketools.com)

Case Study:

**Interface Floors**

<http://www.thenaturalstep.org/project/interface/>

Circular Economy:

**Ellen MacArthur Foundation**

<http://www.ellenmacarthurfoundation.org>

<http://www.ellenmacarthurfoundation.org/assets/downloads/publications/Ellen-MacArthur-Foundation-Towards-the-Circular-Economy-vol.1.pdf>

**The Guide to the Circular Economy: Capturing Value and Managing Material Risk**

Dustin Benton, Jonny Hazell and Julie Hill- Publ. 2015

The Sustainability Guide is a portal for sustainable design. Among other things you can find information about Circular Economy <https://sustainabilityguide.eu/sustainability/circular-economy/>