# Design for Sustainability: The Design Project

*"I have been impressed with the urgency of doing. Knowing is not enough; we must apply. Being willing is not enough; we must do."*
– Leonardo da Vinci, 1452 –1519

*"Sustainability is the ultimate design brief."*
–The Guardian, 2012

## 1. The Assignment

After having heard about, read, analysed, created, built and discussed Sustainable Design from a range of exciting and challenging angles, it is time to put this into practice and design for sustainability. Over 8 weeks time you will define, research, explore and solve a problem related to sustainable development, by actively designing. In this assignment you will, in a Design Group, use creativity and various design tools, methods and theories to address those issues, which deserve our attention.

In short, during this assignment you will:

- **Choose a problem or situation you wish to design for.** This problem must be relevant for sustainable development. You are free to choose local, global, big, small, etc. problems. Make sure that you will be able to explain <u>why</u> this problem is important to focus on.

- **Go through a design process.** You will go through a design process and design a concept / prototype / action / service / system / etc. to address, solve, influence this problem or situation. You will have some tools and methods at your disposal, but your process very much depends on your creativity and the problem your Design Group chooses.

- **Record your process and present your results.** You will create a poster showing your design and a portfolio telling the story of your design process. As with your problem area, your final results must be relevant to sustainability and justified as so.

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# 2. The Design Group

During Seminar II you will choose the topic/focus you would like to work with and will form a team of 4 - 5 people with different backgrounds, expectations, and schedules, etc. but with a common goal for the coming weeks: The Design Project. You are going to spend a lot of time with your team and therefore it is important to know each other, define some roles and agree on ground rules within your group. Figure out your time commitments. When are people taking holidays, which weeks will no one being available, etc.? You will find you have far less than 8 weeks of actual work time available to you. These preparations can be a valuable part of any group's success inside or outside university, so take time to talk to each other and know what you want from this experience.

# 3. Milestones and Timeline

The milestones in the timeline below are activities planned to help you to develop your design problem and design solutions. You will attend three different Workshops, two Peer Reviews and an Update Meeting. (You will receive more detailed instructions when needed.)

During **Workshops** we will actively use different design tools, methods, skills, processes and activities you can use in your design work. During the **Peer Review** meetings you are expected to demonstrate and discuss the work you have done so far, problems faced, etc. You will have the chance to ask questions, get advice, and receive feedback. You are expected to actively engage in giving other Design Groups feedback as well. The **Update Meeting** will be an opportunity for the examiner to see your work so far and for you to ask her for feedback.

Remember that each group member is expected to spend a minimum of 10 hours per week on this project, including during the few weeks when no class activities are scheduled. You are also expected to coordinate group meetings and work on your own.

Key dates are listed below. Please see the 'Design for Sustainability' section of the schedule the 'Deadlines' section of this document for more information.

| | |
|---|---|
| **29th March** | Weekend Workshop I: Human-Centred Design Under Pressure |
| **1st April** | Workshop II: Starting the project |
| **22nd April** | Peer Review I |
| **6th May** | Update Meeting |
| **13th May** | Peer Review II |
| **20th May** | Workshop III: Presenting Designs |
| **Deadline 25th May** | **9.00 AM.** Upload your Poster to studentportalen. |
| **28th May** | Poster Presentation at CEMUS Project Fair - Sustainability Festival |
| **Deadline 3rd June** | **17.00 PM.** Design Group Portfolio and Individual Reflection |

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# 4. Submission Requirements

You are required to submit the following for this assignment (explained in more detail below):

1. A portfolio of materials documenting your design process
2. A poster displaying your design and project and (optionally) a prototype, model, demonstration, etc. of the design
3. A presentation of your work at the CEMUS Project Fair', 28th May
4. An individual written paper in which you will reflect on your work in this course and any insight you have gained on design and sustainability

## 4.1. Portfolio

The portfolio should contain:

- **A clear design brief / problem definition.** This is a 1-page document with text and/or images that will help you to specify your problem area further. Use 'WWWWWH' from the Delft Design Guide, you will find this in your course reader, to assist you in this process.

- **Documentation of your design process.** The portfolio tells the story of your Design Group's process throughout the project. To tell this story, take simple records of your Design Group's meetings and activities, even if they seem not so valuable at the time (problem formulation, research, interviews, behaviour observation, idea generation, etc.). Include some combination of video, photographs, pictures, creations, sketches and other records of your activities and actions. This includes ideas, sketches, prototypes, etc. you were not satisfied with or did not continue to develop – these are a part of your process. The portfolio must show your progression throughout the whole project and it is not just a showcase for your final design..

Your portfolio must include (but be not limited to) the following steps in your design process over the 8 weeks, and each step should be documented in the portfolio:

- Introduction
- Research
- Design requirements
- Idea generation
- Idea selection
- Concept development
- Final design
- Written summary of final design
- Reference list

The portfolio can be submitted either in digital format through the student portal, or in hard copy.

## 4.2 Poster and/or Prototype Presentation

All posters must be A1 size. (Submit them on time and we will print them for you. See 'Deadlines' section of this document).

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The poster should show your design to a viewer who is completely unfamiliar with your project. You will have a chance to present the poster to this kind of audience at the Sustainability Festival in May. Bringing prototypes will also help you to present. You do not have to include the complete design process in the poster, but focus on the most important parts of your design. Most likely the audience will want to know <u>why</u> you have made specific design decision(s).

The examiner, Prof. Tuula Eriksson, will attend the poster presentations, so make sure that you are able to discuss with her your final design and design process leading up to it.

## 4.3 Individual Insight Paper

Each individual must submit an individual reflection of 600-800 words on your experience during this design project. Focus on personal development and the insights you have gained during the design process. For example, you may consider

- Did you design something new in your project work, and if so how/why were you able to do this?
- How is the design process different to other ways of approaching problems?
- Is design a good way of approaching sustainability problems, why/why not?
- What elements of your design process do you think you can apply in future projects?
- What have been for you the more challenging aspects of the design process?

# 5. Final Submission Deadlines

Finished work is to be submitted on these dates. For other key dates see 'Milestones and Timelines'.

**25 May,9:00**     **Upload Poster.** (in the morning). All posters must be suitable for A1 size printing. Upload ta PDF or image file of the poster to the student portal at https://studentportalen.uu.se. We will send posters to a company for printing. Do not submit late or you will not be able to have a poster printed by us.

**3 June, 17:00**     **Upload Portfolio.** Upload the PDF file of the portfolio, 'GROUP_NAME_Portfolio.pdf' or .docks, to the student portal.

**3 June, 17:00**     **Upload Individual Insight Paper.** Upload the PDF file of your reflection, 'YOUR_NAME_Individual_Insight.pdf', to the student portal.

PLEASE NOTE: Always include your group number and the names of all group members in the document you submit. Always include the group number or your name in the title of the document you submit.

# 6. Work Space, Resources & Support

The space in which you work will be absolutely crucial to how well you can design. Finding a space for your group to work in , in which you will not be interrupted often, and which you can have for a longer period of time to be creative will give you **huge leaps forward in creativity and productivity**, almost guaranteed. If you need advice on finding work spaces at the university ask us, there are many available for booking, e.g. in Blasenhus and Geocentrum.

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You will **always be able to work in the CEMUS library** (as long as it is not booked by other courses) as usual. There is a filing cabinet labelled 'Sustainable Design' where you can find some materials to help you during this design process. Please keep in mind that we have limited resources, so please make sure you leave whatever you can for other groups to use. In the CEMUS library you will have enough freedom to brainstorm, make models and prototypes, etc. But please make sure you leave the library the way you found it!

You will find **tools and methods from our in-class Workshops** on the course portal. The last part of the course reader consists of several articles that can help you during the design process. Also have a look at the original sources:

- Delft Design Guide
  http://ocw.tudelft.nl/courses/product-design/delft-design-guide/course-home/

- IDEO Human Centered Design Toolkit
  http://www.ideo.com/work/human-centered-design-toolkit/

- Recipes for Systemic Change from Helsinki Design Lab
  http://www.helsinkidesignlab.org/pages/studio-book

The following clip can give you a quick overview of a design process from brief to design (please forgive the terribly lame reporting):
  http://www.youtube.com/watch?v=M66ZU2PCIcM

On the **two Wednesday evenings** when no class activities are scheduled the course coordinators will be available at the SDESIGN Office at CEMUS to answer your questions or provide feedback. Send an email to sdesign@csduppsala.uu.se if you want to schedule an extra group meeting.

# 7. Tips, Tricks & Lessons Learned

Design projects are very time intensive; the time and energy that was put into the project always shows in the final results. **Start on time and work hard**!

In a design project you **cannot divide the work in the same way** as you might be able to do with regular group projects (e.g. I'll do the idea generation and you'll do idea selection).Work together as a team. Throughout the course we have discovered repeatedly that a team effort leads to more imaginative, original ideas than individual work. Schedule enough time to actually sit and work together in this project.

**Set regular times to meet each week**. This is one of the best ways to ensure constant contact with your group, and an important part of project management in general. People need to know in advance when you will meet so you can plan around these times.

**Don't be afraid to make** mistakes, stupid ideas or to try out something silly. Temporarily delaying criticism is the key to generating good ideas. Dare to be naïve.

**Don't worry about having the right answer**. For each problem there are probably a million ways to solve it. This project is about exploring these different options and developing them.

A design project is different from 'scientific research' you might be more familiar with. **If you're confused, you're probably doing the right thing**. However, just because this is a creative project, does not mean that there are no requirements for content and quality.

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Since many of you are new to this process, it is normal that you do not know what to do at times. **Ask for help if needed** and make sure you ask for help on time (not the last day before the deadline). It is your own responsibility to contact the course coordinators if you want an extra meeting (which we can always schedule)

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