

ARTX-1008 Sustainable design – Spring 2023

Contact teacher:

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Sessions (Mon 13-17 / Fri 9:15-12) and teaching locations:

- Mon 24.4. (Jeti - A208d, A Grid) – Intro to course & sustainability
- Fri 28.4. (Jeti - A208d, A Grid) – Multi-level design model: Positioning design strategies
- Mon 1.5. (no class) – Happy May Day!
- Fri 5.5. (Jeti - A208d, A Grid) – Tools to guide product design and certify performance
- Mon 8.5. (Jeti - A208d, A Grid) – Communicate sustainability with design
- Fri 12.5. (Maari C-D [Win] 184-186, Maarintalo) – Sustainability research: Granta Edupack & materials
- Mon 15.5. (Jeti - A208d, A Grid) – ‘Redesign’ for sustainability
- Fri 19.5. (Jeti - A208d, A Grid / Mordor, A Grid / F101, Väre) – Assessment & redesign presentations
- Mon 22.5. (Jeti - A208d, A Grid) – Material futures; Case work kick-off (topics, groups)
- Fri 26.5. (Jeti - A208d, A Grid) Case work continues
- Mon 19.5 (only in Zoom) – Interim check & tutoring for groups
- Fri 2.6. (no class) – Case work continues, independent group work
- Mon 5.6. (F101 / F102 / M202, Väre) – Final presentations
- Fri 9.6. 31.5. (no class) – Finalize diary & course feedback, independent work

In-class presence or online?

The lecture on 19.5. will be on ZOOM. In addition, some of the lecture content can be followed at zoom. However, the course is designed for online presence. Link to the course Zoom: <https://aalto.zoom.us/j/61885292601>

Materials:

All materials are listed in the detailed workplan and provided at:

<https://mycourses.aalto.fi/course/view.php?id=37401§ion=2>

Exercises:

Follow the instructions and the deadlines given at: <https://mycourses.aalto.fi/course/view.php?id=37401§ion=3>

Grading:

- independent assignments on session 2 (P/F), session 3 (P/F), session 4 (1-5), an session 7 (1-5), (30% of grade evaluation),
- group work with conceptual design case (1-5) (30%),
- personal learning diary (1-5) (40%) – cover the reflection tasks listed in the detailed work plan.

Warmly welcome to the course!

Session details and worktime allocation:

Week & session #	Date & place	Session topic	Tasks & materials	Contact hrs	Readings	Exercises	Groupwork	Reflection	Student workload
Week 1				Total per week = 22					
			Reading: Allwood, J., & Cullen, J. (2010). Sustainable Materials - with Both Eyes Open (Chapters 1 and 2)		3				3
Session #1	Mon 24.4. @ Jeti A208d, A Grid	Intro: Key concepts and concerns of sustainability. IPAT. Consumption hotspots.	Session materials: Chapters 1 c& 2 from the readings; Slides	3					3
			Reflection 1: Where do you see change coming from – regulation, business & design, consumers & values, science & technology					3	3
			Reading: Ceschin, F., & Gaziulusoy, I. (2016). Evolution of design for sustainability.		6				6
			Exercise: Calculate your own carbon footprint with SITRA's lifestyle calculator			1			1
#2	Fri 28.4. @ Jeti A208d, A Grid	Multi-level design model: Positioning design in the field of sustainability. Strategies on different levels.	Google slide about each DfS angle/level for groups to edit. A3 signs for the classroom about the angles/levels.	3					3
			Reflection 2: What level is most important? How are levels connected?					3	3
Week 2				Total per week = 14					
		<i>Monday 1.5. May Day</i>	Exercise: Find labels and product standards for sustainability. Submit at MyCourses three different labels/ different type.			3			3
#3	Fri 5.5. @ Jeti A208d, A Grid	Tools to guide product design and certify performance.	Session materials: Miro board in which labels can be placed	3					3
			Susan Vihma's text / video material		4				4
			Exercise: Select a product/service that communicates sustainability effectively or interestingly. Submit an image and preliminary ideas on how and what the products communicates. Use Susan Vihma's categories of semiotic meanings.			4			4
Week 3				Total per week = 22					
#4	Mon 8.5. @ Jeti A208d, A Grid	Communicate sustainability with design	Session materials: Miro board on design semiotics	3					3
			Reflection 3: Think about your own product choice and those of the fellows students. What/how and how they communicate about sustainability? What is greenwashing?					4	4
			Readings: Ashby et al (2013). Materials and Sustainable Development — a White Paper		5				5
#5	Fri 12.5. @ Maari C-D, Maarintalo	Sustainability research & Granta Edupack & materials analysis	Session materials: - Slides; Online resources, material libraries - Edupack fact-finding sheet (PDF) - Launching Assessment & redesign exercise	3					3
			Exercise: Select your redesign topic, begin to perform the assessment exercise			4			4
			Reflection 4: How comprehensive is the view Edupack gives on sustainability challenges?					3	3

Week 4				Total per week = 23					
			Reading: Allwood & Cullen (Chapters 16 & 17)		5				5
#6	Mon 15.5. @ Jeti A208d, A Grid	Circular economy: Strategies for life cycle extension, 4R and other strategies, end-of-life management (Mikko). Product redesign (Tatu)	Session materials: - Slides - Ecodesign Strategy Wheel (PDF), Eco-Indicator 99 (PDF); META sheet (PDF) - Topics for exercise (list)	3					3
		<i>Thu 18.5. Ascension Day</i>	Exercise: Research your redesign topic, perform META matrix exercise; Prepare poster presentation (before/after), upload to MyCourses			9			9
#7	Fri 19.5. @ Jeti A208d, Mordor, A Grid, F101, Väre	Redesign: presentation of improvement ideas and strategies	Session materials: - Poster presentations uploaded to MyCourses. Three submission boxes, one for each track.	3					3
			Reflection 5: Reflect on the results of the redesign exercise; Discuss also of other students' most interesting contributions.					3	3
Week 5				Total per week = 24					
			Readings: These readings are to support the groupwork. Students select one of the following Allwood book chapters 20, 21 or a text on biomaterials.		5				5
#8	Mon 22.5. @ Jeti A208d, A Grid	Material futures 1 / Group work kick-off	Introduce Concrete, Plastic and Bio-based novel materials 4x45 min.	3					3
			Groupwork: Study selected material/project & produce a new design concept with this material				10		10
			Read allwood ch 23		3				3
#9	Fri 26.5. @ Jeti A208d, A Grid	Material futures 2	Continue from session 8. Introduce ch 23-25. Ask students to think what are the most important drivers for their groupwork design solutions. Include a discussion on where the groups are.	3					3
Week 6				Total per week = 24					
			Groupwork: Prepare short interim presentation				3		3
#10	Mon 29.5. (only Zoom)	Design with materials	Session materials: - Zoom link for the status check - Groups prepare a presentation (ie. few slide PPT) of the material and your concept, uploaded to MyCourses	3					3
			Groupwork: Incorporate feedback & finalize concept idea				12		12
#11	Fri 2.6. (no class)	Independent group work	Groupwork: Prepare presentation slides and talk (guidelines in MyCourses)				6		6
Week 7				Total per week = 31					
#12	Mon 5.6. @ F101, F102, M202, Väre	Design with materials	Session materials: - Groups prepare a presentations of their solution, uploaded to MyCourses	3					3
			Reflection 6: What was the most interesting/important groupwork concept? Why? How would you improve the concept?					5	5
		<i>Fill in course feedback!</i>	Fill in the feedback form (Compulsory)			1			1
#13	Fri 9.6. (no class)	Independent work	Reflection: Finalize your learning diary: Visit your own submissions and those of the fellow students. Structure your diary according to reflection questions 1, 2, 3, 4, 5, 6. Try to also cover how your thinking has changed during the course when editing and finalising your reflections.					12	12
			Time to think					10	10
				Workload for the whole course (hrs)					
				33	31	22	31	43	160