

<b>COUNTRY:</b> Poland Open Design and Manufacturing through event based learning	<b>TOTAL PERIOD:</b> 6 months (October 2018-March 2019)	1 ECTS = 25 h
	105h (training)+ 45h students own work =150 h	<b>6 ECTS</b>




**Practice Part at FabLab Łódź**  
Webinars + students own work

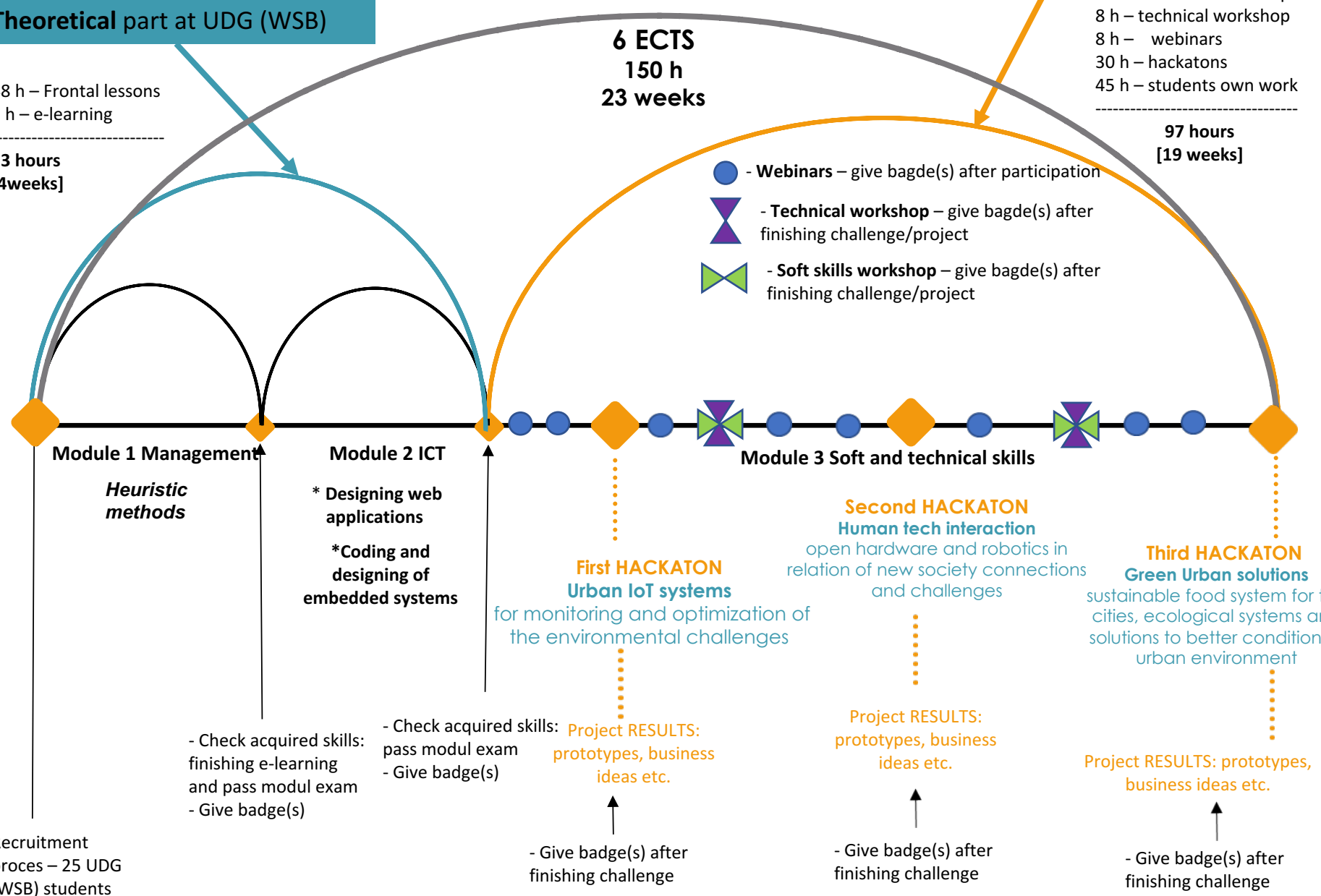
**Theoretical part at UDG (WSB)**

48 h – Frontal lessons  
5 h – e-learning  
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**53 hours**  
**[4weeks]**

**6 ECTS**  
**150 h**  
**23 weeks**

6 h – soft skills workshop  
8 h – technical workshop  
8 h – webinars  
30 h – hackatons  
45 h – students own work  
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**97 hours**  
**[19 weeks]**

-  - **Webinars** – give badge(s) after participation
-  - **Technical workshop** – give badge(s) after finishing challenge/project
-  - **Soft skills workshop** – give badge(s) after finishing challenge/project



**Module 1 Management**

*Heuristic methods*

**Module 2 ICT**

- \* Designing web applications
- \* Coding and designing of embedded systems

**Module 3 Soft and technical skills**

**First HACKATON**  
**Urban IoT systems**

for monitoring and optimization of the environmental challenges

**Second HACKATON**  
**Human tech interaction**  
open hardware and robotics in relation of new society connections and challenges

**Third HACKATON**  
**Green Urban solutions**

sustainable food system for the cities, ecological systems and solutions to better condition of urban environment

- Check acquired skills: finishing e-learning and pass modul exam  
- Give badge(s)

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- Give badge(s)

**Project RESULTS:** prototypes, business ideas etc.

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Recruitment proces – 25 UDG (WSB) students

- Give badge(s) after finishing challenge

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# Polish Training Program

Open Design and Manufacturing through event based learning

**Management module** – 16 h of frontal lessons +  
5h of e-learning

Only UDG (WSB) students  
in WSB facilities  
**Dąbrowa Górnicza**

**ICT module** – 32 h of frontal lessons

Only UDG (WSB) students  
in WSB facilities  
**Dąbrowa Górnicza**

**Soft skills module** – 6 h of workshop

UDG (WSB) students mixed with Lodz  
University of Technology  
in FabLab Łódź facilities  
**Łódź**

**Technical skills module** – 8 h of workshop

UDG (WSB) students mixed with Lodz  
University of Technology  
in FabLab Łódź facilities  
**Łódź**

**Webinars** – 8 h (8 webinars x 1h)

Open events  
UDG (WSB) students + registered users  
Run by FabLab Łódź  
**Online**

**3 Hackatons** – 30 h (3 events x 10 h)

Open events  
UDG (WSB) students + registered participants  
Run by FabLab Łódź  
**Łódź**

**Week 1** - 2h **Heuristic methods** (Day 1) - Frontal lessons

- 5h **Heuristic methods** - e-learning course

**Week 2** - 7h **Heuristic methods** (Day 2) - Frontal lessons

- 7h **Heuristic methods** (Day 3) –Fronal lessons

**Management  
module**

**Week 3** - 8h **Designing web applications** (Day 4) - Frontal lessons

- 8h **Designing web applications** (Day 5) - Frontal lessons

**Week 4** - 8h **Coding and designing of embedded systems** (Day 6) - Frontal lessons

- 8h **Coding and designing of embedded systems** (Day 7) - Fronal lessons

**ICT  
module**

**Week 5** – 1 h **ICT for makers movement** (Day 8) – webinar

**Week 6** – 1 h **IoT** (Day 9) - webinar

- 10 h **Urban IoT systems** for monitoring and optimization of the environmental challenges (Day 10) – hackaton

**Week 7-8** - 10 h Student own work

**Week 9** - 1 h **Introduction to rapid prototyping methods** (Day 11) - webinar

**Week 10** - 4 h **Rapid prototyping** (Day 12) - workshop

- 3 h **Cultural psychology** (Day 12) - workshop

**Week 11-13** - 15 h Student own work

**Week 14** - 1 h **Programming** (Day 13) – webinar

- 5 h Student own work

**Week 15** - 1 h **Human-Robot Interaction** (Day 14) - webinar

- 10 h **Human tech interaction** (Day 15) - open hardware and robotics in relation of new society connections and challenges – hackaton

**Week 16** – 5 h Student own work

**Week 17** - 1 h **Embedded systems** (Day 16) - webinar

**Week 18** - 4 h **Rapid prototyping** (Day 17) - workshop

- 3 h **Cultural psychology** (Day 17) - workshop

**Week 19-20** – 10 h Student own work

**Week 21** – 1 h **Data bases** (Day 18) - webinar

**Week 22** – 1 h **Smart citizens case study** (Day 19) – webinar

**Week 23** – 10 h **Green Urban solutions** (Day 20) - sustainable food system for the cities, ecological systems and solutions to better condition of urban environment - hackaton

**Soft skills  
and  
technical  
skills  
Module**

(webinars,  
hackatons,  
students own  
work)