

	Monday June 10 Phenomics	Tuesday June 11 Spectral imaging	Wednesday June 12 Metabolomics	Thursday June 13 Field Phenomics	Friday June 14 GoMapMan omics
09.00	Course introduction and teacher introductions (all teachers)	Hyper- and multispectral imaging for health and disease (Markku Keinänen)	Journal Club: Student presentations of the pre-assigned literature in groups	Field phenomics (Morten Lillemo)	Gene ontology lecture (Erik Alexandersson)
09.30					
10.00					
10.30	Introduction to phenomics (Kristiina Himanen)				
11.00	Low cost phenotyping set ups and Specalyzer (Aakash Chawade)	Hand held hyperspectral demo (Markku Keinänen)	Introduction to Metabolomics (Markku Keinänen)	UAV data demos	
11.30					
12.00	Lunch together C117; Students introduction	Lunch break	Lunch break	Lunch break	Lunch break
12.30					
13.00	Introduction of the NaPPI facilities (Kristiina Himanen)	EnBlightMe – detecting plant diseases in the field (Erik Alexandersson)	Workshop 3. Metabolomics, including visit to metabolomics lab and introduction to data analysis (Markku Keinänen, Nina Sipari)	Phenotyping breeding populations (teacher from Agriculture University of Iceland)	Workshop 5. Metabolomics with GoMapMan (EA, SB)
13.30					
14.00					
14.30	Workshop 1 1. Arabidopsis under stress -> Metabolomics-sampling (NaPPI) 2. Large plant phenotyping (NaPPI) 3. Online phenotyping (MK)	Workshop 2 1. Arabidopsis under stress -> Metabolomics sampling (NaPPI) 2. Large plant phenotyping (NaPPI) 3. Online phenotyping (MK) 4. Specim and Specalyzer		Work shop 4. (ML, AUI)	
15.00					
15.30					
16.00			Workshop 1 sum up (meeting rooms B145, C120, 117)		Workshop 2 sum up (meeting rooms B145, C120, 117)
16.30					
17.00					
17.30					
Evening:	Students introduction continue over pizza dinner	Preparation of journal club presentations and questions in assigned groups	Social event	Course dinner on an island	