

DATE	TIME	TITLE	LECTURER	TYPE	Room
20.05.19	09:00 - 09:45	<b>Introduction to genetics and genetic epidemiology</b> - Historical content and current challenges - measures of diseaseas occurrence - genotyping - biobanking - study design - population based example - HUNT	Kristian Hveem	lecture	BS51
	10:00 - 10:45	<b>Introduction to genetics and genetic epidemiology 2</b> - genetic variation - mutations and polymorphisms - origin - mapping of the human genome	Kristian Hveem	lecture	BS51
	11:00 - 11:45	<b>Genomics for the study of complex diseases</b> - cover basic gwas - population genetics - ancestry	Brooke	lecture	BS51
	13:00 - 15:00	<b>R set-up and introduction - lecture + practical</b> - Introduction to data types and formats - QC and data preparation - simple associations	Brooke, Nicole/Anne Heidi/Maiken/Ben	Practical	BS51
21.05.19	09:00 - 09:45	<b>Genomics for the study of complex diseases 2</b> - follows up from the monday lecture, more general gwas	Brooke	lecture	BS51
	10:00 - 10:45	<b>Advanced GWAS - Methods- statistical analysis</b> - imputation - methods, qc and analysis - imputations - different reference panels	Nicole	lecture	BS51
	11:00 - 11:45	<b>Advanced GWAS, Meta analysis, rare variants</b> - SAIGE, BOLT-LMM	Jonas	lecture	BS51
	13:00 - 15:00	<b>HANDS ON</b> - running GWAS - conditional analysis - learn about SAIGE - burden test, genebased burden test	Brooke, Jonas, Nicole/Anne Heidi/Maiken/Ben	Practical	BS51
22.05.19	09:00 - 09:45	<b>Functional Characterization of GWAS Results</b>	Brooke	lecture	BS51
	10:00 - 10:45	<b>After GWAS, GRS and beyond</b>	Jonas	lecture	BS51
	11:00 - 11:45	<b>Next generation sequencing for the study of complex diseases</b>	Brooke or Jonas	lecture	BS51
	13:00 - 15:00	<b>HANDS ON</b> - metaanalysis using METAL	Brooke/Anne Heidi/Nicole/Maiken/ Ben/Jonas	Practical	BS51
23.05.19	09:00 - 09:45	<b>Mendelian Randomization (Theory)</b> - background and history - theory & assumptions	Bjørn-Olav	lecture	KBS11
	10:00 - 10:45	<b>Mendelian Randomization</b> - methods - SNP-selection for instrument construction - power calculations	Nicole	lecture	KBS11
	11:00 - 11:45	<b>Mendelian Randomization - cont. from above lecture</b> - bias	Nicole	lecture	KBS11
	13:00 - 15:00	<b>MR Practical</b> - MR-base	Nicole/Ben/Brooke	Practical	KBS11
24.05.19	09:00 - 09:45	<b>Advanced MR methods</b> - familybased MR	Ben	lecture	BS51
	10:00 - 10:45	<b>Advanced MR methods</b> - introduction to SEM - structural equation modelling	Nicole	lecture	BS51
	11:00 - 11:45	<b>Summary/discussions and assignment preparations</b>	Bjørn-Olav/Nicole/ Ben/Maiken/Brooke/ Kristian/Anne Heidi	lecture	BS51
	13:00 - 15:00	<b>Summary/discussions and assignment preparations</b>	Nicole/Ben/Brooke/ Maiken	Practical	BS51