

## FYS5310 teaching schedule

Preliminary schedule only! You should keep the class-times on Mondays and Wednesdays open unless notified by email (or in this schedule) that there is no class

References to the textbook to Fultz & Howe unless stated otherwise.

Date		Time	Lecture/lab	Topic	Chapters	Homework
Monday	20.01.2020	09:15-11:00	Lecture	Introduction to the course (01)		
Wednesday	22.01.2020	14:15-16:00	Lecture	No class		
Monday	27.01.2020	10:15-12:00	Lecture	Derivation of the structure factor and the atomic form factor (02)	4.1, 4.3, 6.1	
Wednesday	29.01.2020	14:15-16:00	Lab/Colloquium	Going through exercise set 1		Exercise set 1 (handout)
Monday	03.02.2020	10:15-12:00	Lab/Colloquium	No class		
Wednesday	05.02.2020	14:15-16:00	Lab/Colloquium	Going through exercise set 2		Exercise set 2 (handout)
Monday	10.02.2020	09:15-12:00	Lab/Colloquium	No class		
Wednesday	12.02.2020	14:15-16:00	Lecture	Uses of EELS and EELS instrumentation (03)	5.1, 5.2; W&C 37	
Monday	17.02.2020	10:15-12:00	Lab/Colloquium	Going through exercise set 3		Exercise set 3 (handout)
Wednesday	19.02.2020	14:15-16:00	Lecture	No class		
Monday	24.02.2020	10:15-12:00	Lab/Colloquium	Demonstrations on the JEOL 2100F		
Wednesday	26.02.2020	14:15-16:00	Lab/Colloquium	No class		
Monday	02.03.2020	10:15-12:00	Lecture	Inelastic form factors (04)	5.4.1-5.4.3 + primer on Dirac notation	
Wednesday	04.03.2020	14:15-16:00	Lecture	Inelastic form factors, scattering cross sections, dipole selection rules (05)	5.4.4-5.4.7, W&C 39, plus Brehm and Mullin on parity and dipole selection rules	
Monday	09.03.2020	09:15-12:00	Lab/Colloquium	No class		
Wednesday	11.03.2020	14:15-16:00	Lecture	Core losses: Quantification and electronic structure (06)	5.4, W&C 39+40	
Monday	16.03.2020	09:15-11:00	Lab/Colloquium	Going through exercise set 4		Exercise set 4 (handout)
Wednesday	18.03.2020	14:15-16:00	Lecture	Low energy loss; electronic structure and dielectric properties pt 1 (07)	5.3, W&C 38	
Monday	23.03.2020	09:15-11:00	Lab/Colloquium	Going through exercise set 5		Exercise set 5 (handout)
Wednesday	25.03.2020	14:15-16:00	Lecture	Low energy loss; electronic structure and dielectric properties pt 2 (08)		