

## FYS5310 teaching schedule

Preliminary schedule only! You should keep the class-times on Wednesdays and Thursdays 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	
Wednesday	18.01.2017	14:15-16:00	Lecture	Introduction to the course. Derivation of the structure factor (01)	4.1, 4.3.1, 6.1	Exercise set 1 (handout)
Thursday	19.01.2017	12:15-14:00	Lecture	No class (SMN seminar)		
Wednesday	25.01.2017	13:15-16:00	Lab/Colloquium	Going through exercise set 1 + Lecture: The atomic form factor (02)	4.3	Excercise set 2 (handout)
Thursday	26.01.2017	12:15-14:00	Lecture	No class		
Wednesday	01.02.2017	14:15-16:00	Lab/colloquium	Going though exercise set 2		
Thursday	02.02.2017	12:15-14:00	Lecture	Uses of EELS and EELS instrumentation (03)	5.1, 5.2; W&C 37	Exercise set 3 (handout)
Wednesday	08.02.2017	14:15-16:00	Lab/colloquium	Going though exercise set 3		
Thursday	09.02.2017	12:15-14:00	Lecture	Inelastic form factors (04)	5.4.1-5.4.3 + primer on Dirac notation	
Wednesday	15.02.2017	12:15-16:00	Lab/colloquium	No class		
Thursday	16.02.2017	12:15-14:00	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	
Wednesday	22.02.2017	12:15-16:00	Lab/colloquium	No class		
Thursday	23.02.2017	12:15-14:00	Lecture	Core losses: Quantification and electronic structure (06)	5.4, W&C 39+40	Exercise set 4 (handout)
Wednesday	01.03.2017	12:15-16:00	Lab/colloquium	Going through excercise set 4		
Thursday	02.03.2017	12:15-14:00	Lecture	Low energy loss; electronic structure and dielectric properties pt 1 (07)	5.3, W&C 38	
Wednesday	08.03.2017	12:15-16:00	Lab/colloquium	Computer lab: working with EELS spectra pt 1		
Thursday	09.03.2017	12:15-14:00	Lecture	Low energy loss; electronic structure and dielectric properties pt 2 (08)	5.3, W&C 38	Exercise set 5 (handout)
Wednesday	15.03.2017	12:15-16:00	Lab/colloquium	No class		
Thursday	16.03.2017	12:15-14:00	Lecture	No class		
Wednesday	22.03.2017	12:15-16:00	Lab/colloquium	Computer lab pt 2		
Thursday	23.03.2017	12:15-14:00	Lecture	No class		
Wednesday	29.03.2017	12:15-16:00	Lab/colloquium	No class		
Thursday	30.03.2017	12:15-14:00	Lecture	No class		
Wednesday	05.04.2017	12:15-16:00	Lab/colloquium			
Thursday	06.04.2017	12:15-14:00	Lecture	Going through exercise set 5 + introduction to STEM (09)	12, W&C 3 + 22	
Wednesday	12.04.2017	12:15-16:00	Lab/colloquium	No Class		
Thursday	13.04.2017	12:15-14:00	Lecture	No class (Maundy Thursday)		
Wednesday	19.04.2017	12:15-16:00	Lab/colloquium	More STEM (10)	12, W&C 3 + 22	
Thursday	20.04.2017	12:15-14:00	Lecture	Convergent Beam Electron Diffraction pt 1 (11)	7.5	
Wednesday	26.04.2017	12:15-16:00	Lab/colloquium	Convergent Beam Electron Diffraction pt 2 (12)	7.5	
Thursday	27.04.2017	12:15-14:00	Lecture	Principles of electron holography pt 1 (13)		
Wednesday	03.05.2017	12:15-16:00	Lab/colloquium			
Thursday	04.05.2017	12:15-14:00	Lecture	Phd students present papers		
Wednesday	10.05.2017	12:15-16:00	Lab/colloquium			
Thursday	11.05.2017	12:15-14:00	Lecture			
Wednesday	17.05.2017	12:15-16:00	Lab/colloquium	No class (Constitution day)		
Thursday	18.05.2017	12:15-14:00	Lecture			
Wednesday	24.05.2017	12:15-16:00	Lab/colloquium			
Thursday	25.05.2017	12:15-14:00	Lecture	No class (Ascencion Day)		
Wednesday	31.05.2017	12:15-16:00	Lab/colloquium			
Thursday	01.06.2017	12:15-14:00	Lecture			
Wednesday	07.06.2017	12:15-16:00	Lab/colloquium			
Thursday	08.06.2017	12:15-14:00	Lecture			
Wednesday	14.06.2017	12:15-16:00	Lab/colloquium			
Thursday	15.06.2017	12:15-14:00	Lecture			