Start period	Wed 10/12	Thurs 11/12	Fri 12/12	Sat 13/12	Sun 14/12	Mon 15/12	Tues 16/12	Weds 17/12
			DATA COLLECTION	**DATA COLLECTION**	**DATA PROCESSING**	**EXP PHASING**	**MR / REFINEMENT**	**MODEL BUILDING**
09:00	Arrival/registration	Data collection G. Evans	DATA COLLECTION AT I02, I03, I04-1	DATA COLLECTION AT I03 (24h), I04 (till 3am)	Data quality indicators K. Diederichs	SHELXE and ANODE A. Thorn	Intro to MR and Phaser A. McCoy	Buccaneer and Nautilus P. Emsley
09:15								
09:30								
09:45		BEST + intro to kappa strategies A. Popov			XDS demo/tutorial K. Diederichs	Experimental Phasing with SHELX G. Sheldrick	MrBump R. Keegan	ARP/wARP for ligands V. Lamzin / J. Pereira
10:00								
10:15							AMPLE J. Thomas	
10:30	COFFEE	COFFEE			COFFEE	COFFEE		COFFEE
10:45							COFFEE	
11:00	Welcome to the course M. Walsh	MAD/SAD experiments G. Leonard			Phasing methods and practice A. McCoy	CRANK N. Pannu		Ligands (Coot, CCP4 & JLigand) P. Emsley & A. Lebedev
11:15							BALBES F. Long	
11:30	Introduction to SR/beamlines K. McAuley							
11:45		ISPyB S. Fisher				DM N. Pannu	Model building and refinement G. Murshudov	MX from an industrial perspective J. Debreczeni
12:00			LUNCH	LUNCH	LUNCH			
12:15	LUNCH	LUNCH				LUNCH	LUNCH	LUNCH
12:30								
12:45								
13:00					BLEND: complete data sets from multiple crystals J. Foadi			
13:15	Introduction to the OPPF R. Owens	Data Processing A. Leslie				Coot basics J. Debreczeni		
13:30							Low resolution refinement R. Nicholls	Model validation and optimisation R. Joosten
13:45	Introduction to the MPL I. de Moraes				Twinning A. Thorn			
14:00						Coot advanced P. Emsley		
14:15	Diamond showcase: HC1, kappa and plate screening J. Sanchez-Weatherby, R. Flaig, D. Axford	Data Reduction P. Evans					ARP/wARP V. Lamzin / J. Pereira	Biological assemblies with PISA E. Krissinel
14:30								
14:45								
15:00			DATA COLLECTION AT I02, I03, I04-1		COFFEE	COFFEE	COFFEE	COFFEE
15:15	COFFEE / CHECK LOG ON	COFFEE			DATA PROCESSING	Coot hands-on J. Debreczeni / P. Emsley	HANDS ON	Molecular graphics with CCP4MG S. McNicholas
15:30								
15:45	MX Pipelines G. Winter	Room temperature data collection R. Owen		DATA COLLECTION AT I03 (24h), I04 (till 3am)				
16:00								
16:15	Very long wavelengths – Challenges and opportunities for experimental phasing A. Wagner							
16:30		Communicating Science - Why and How S. Curry				SHELXC/D/E tutorial A. Thorn		HANDS ON
16:45								
17:00	Cryocrystallography and radiation damage E. Garman							
17:15		Making best use of Beam Time / Remote Access D. Lawson				HANDS ON		
17:30								
17:45								
18:00	Some history of protein crystallography L. Sawyer	Getting the best from Hybrid Photon Counting pixel detectors	DATA PROCESSING					
18:15								
18:30								
18:45		FREE TIME						
19:00	DINNER		DINNER	DINNER	DINNER	DINNER	DINNER	DINNER
19:15		Travel to The Packhorse						
19:30		CHRISTMAS DINNER AT THE PACKHORSE, MILTON HILL						
19:45								
20:00	Student posters / drinks		FREE TIME	DATA COLLECTION AT I03 (24h), I04 (till 3am)	DATA PROCESSING	HANDS ON	HANDS ON	FREE TIME
20:15								
20:30								
20:45								