PostGraduate Certificate in Light Metals Reduction Technology
University of Auckland

WEEK ONE

University of Auckland

Monday 17th Nov.		Tuesday 18th Nov		Wednesday 19th Nov		Thursday 20th Nov		Friday 21st Nov		Saturday 22nd Nov
8:00-8:30	Introductions, Course Organisation + Philosophy/Purpose. (MPT/MMH)	**8:00-9:00**	Energy Balance on cells: E to make metal (JJJC)	**8:00-9:15**	Dynamics of Cell Energy Balance (MPT)	**8:00-9:00**	Heat Transfer; Potshell and sidewall losses (JJJC)	**8:00-9:30**	Electromagnetic Forces in the Cell (Gustafsson)	
8:30-10:00	Process Overview (incl Mass and E Balance) (MPT)	**9:00-10:30**	Tutorial -Energy Balance (JJJC)	**9:15-10:15**	Tutorial: Understanding your cell dynamics (MPT)	**9:00-10:00**	Tutorial: Heat Transfer	**9:30-10:15**	Impurities in cells (JBM)	
10:00-10:20	*Tea Break*	**10:30 -10:50**	*Tea Break*	**10:15 -10:30**	*Tea Break*	**10:00 -10:20**	*Tea Break*	**10:15 -10:30**	*Tea Break*	**Sunday 23rd Nov**
10:20-12:00	Electrolytes for Smelting and Bath Chemistry (JJJC)	**10:50-12:00**	Light Metals production: world status (JBM)	**10:30-12:00**	Measurement Processes, their reliability and reproducibility (PL)	**10:20-12:00**	Smelter grade alumina- structure and properties (JBM) Tutorial Alumina Spec sheet	**10:30-12:00**	Tutorial - Impurities (JBM)	
12:00 -1:00	*Lunch*	**12:00 -1:00**	*Lunch*	**12:00 -1:00**	*Lunch*	**12:00 -1:00**	*Lunch*	**12:00 -1:00**	*Lunch*	
1:00-1:30	Participant Presentations	**1:00-1:30**	Participant Presentations	**1:00-1:30**	Participant Presentations	**1:00-1:30**	Participant Presentations	**1:00-1:30**	Participant Presentations	
1:30-3:00	Electrochemistry and the components of the cell voltage (MPT)	**1:30-3:00**	Impact of cell condition on cell voltage (PL)	**1:30-3:00**	Workshop: Measurement Processes (PL)	**1:30-3:00**	Cell Design Life Cycle (MPT)	**1:30-3:00**	Cell Start up (Siew/Lavoie)	
3:00-3:20	*Tea Break*	**3:00-3:20**	*Tea Break*	**3:00-3:20**	*Tea Break*	**3:00-3:20**	*Tea Break*	**3:00-3:20**	*Tea Break*	
3:20–5:00	Tutorial: Cell Voltage	**3:200 - 5:00**	Workshop/Tutorial; Cell condition and cell voltage	**3:20–5:00**	Dynamics of Cell Mass Balance (MPT) TUTORIAL: Cell Mass Balance	**3:20–5:00**	Bubble resistance and hydrodynamics (JJJC)	**3:20–5:00**	Cell Start up WORKSHOP/DISCUSSION (PL/MPT)	