



Weekly Programme Post Graduate Master TUNNELLING AND TUNNEL BORING MACHINES

lecturer company

Week - 1			Subjects		Lecturer	hours	
Monday	morning	18/01/2016	MASTER COURSE OPENING CERIMONY	9.00 - 10.30	PEILA Daniele	1,5	
	afternoon	18/01/2016					
Tuesday	morning	19/01/2016	General aspects of tunnelling	9.30 - 12.30	PEILA Daniele	3	Politecnico di Torino (Italy)
	afternoon	19/01/2016	Guidelines for underground structures design	9.30 - 12.30	PEILA Daniele	3	Politecnico di Torino (Italy)
Wednesday	morning	20/01/2016	Guidelines for underground structures design	14.30 - 16.30	PEILA Daniele	2	Politecnico di Torino (Italy)
	afternoon	20/01/2016	Guidelines for underground structures design	14.30-17.30	PEILA Daniele	3	Politecnico di Torino (Italy)
Thursday	morning	21/01/2016	Geological aspects	9.30 - 12.30	SOLDO Luca	3	Geodata SpA (Italy)
	afternoon	21/01/2016	Hydrogeological aspects and water inflow into the tunnel	14.30-17.30	DE MATTEIS Luca	3	Geodata SpA (Italy)
Friday	morning	22/01/2016					
	afternoon	22/01/2016	Environmental sustainability of tunnel design	14.30 - 16.30	JARRE Pietro	2	Indipendent consultant - SWS

Week - 2			Subjects		Lecturer	hours	
Monday	morning	25/01/2016	Geological and geotechnical surveys	9.30 - 12.30	OGGERI Claudio	3	Politecnico di Torino (Italy)
	afternoon	25/01/2016					
Tuesday	morning	26/01/2016	Natural undisturbed state of stress in rock and soil	9.30 - 12.30	Lecturer to be defined	3	
	afternoon	26/01/2016	Outline of soil mechanics	14.30 - 17.30	Lecturer to be defined	3	
Wednesday	morning	27/01/2016	Outline of soil mechanics	9.30 - 12.30	Lecturer to be defined	3	
	afternoon	27/01/2016	Outline of soil mechanics	14.30 - 17.30	Lecturer to be defined	3	
Thursday	morning	28/01/2016	Outline of soil mechanics	9.30 - 12.30	Lecturer to be defined	3	
	afternoon	28/01/2016					
Friday	morning	29/01/2016	Geophysical investigations	9.30 - 12.30	SAMBUELLI Luigi	3	Politecnico di Torino (Italy)
	afternoon	29/01/2016	Geophysical investigations	14.30 - 16.30	SAMBUELLI Luigi	2	Politecnico di Torino (Italy)

Week - 3			Subjects		Lecturer	hours	
Monday	morning	01/02/2016	Rock mechanics outlines	9.30 - 12.30	BARBERO Monica	3	Politecnico di Torino (Italy)
	afternoon	01/02/2016	Rock mechanics outlines	14.30 - 17.30	BARBERO Monica	3	Politecnico di Torino (Italy)
Tuesday	morning	02/02/2016	Rock mechanics outlines	9.30 - 12.30	BARBERO Monica	3	Politecnico di Torino (Italy)
	afternoon	02/02/2016	Rock mechanics outlines	14.30 - 17.30	BARBERO Monica	3	Politecnico di Torino (Italy)
Wednesday	morning	03/02/2016	Rock mechanics outlines	9.30 - 12.30	BARBERO Monica	3	Politecnico di Torino (Italy)
	afternoon	03/02/2016	Rock mechanics outlines	14.30 - 17.30	BARBERO Monica	3	Politecnico di Torino (Italy)
Thursday	morning	04/02/2016	Rock mass characterization and classifications	9.30 - 12.30	RUSSO Giordano	3	Geodata SpA (Italy)
	afternoon	04/02/2016	Rock mass characterization and classifications	14.30 - 16.30	RUSSO Giordano	2	Geodata SpA (Italy)
Friday	morning	05/02/2016					
	afternoon	05/02/2016					

Week - 4			Subjects		Lecturer	hours	
Monday	morning	08/02/2016	Drill and blast method	9.30 - 12.30	PEILA Daniele	3	Politecnico di Torino (Italy)
	afternoon	08/02/2016	Drill and blast method	14.30-17.30	PEILA Daniele	3	Politecnico di Torino (Italy)
Tuesday	morning	09/02/2016	EXERCISE- Design of a blast round	9.30 - 12.30	PEILA Daniele	3	Politecnico di Torino (Italy)
	afternoon	09/02/2016	EXERCISE- Vibrations induced by blasting	14.30-17.30	PEILA Daniele	3	Politecnico di Torino (Italy)
Wednesday	morning	10/02/2016	Hydrogeology and Tunnels	9.30 - 12.30	LO RUSSO Stefano	3	Politecnico di Torino (Italy)
	afternoon	10/02/2016	Hydrogeology and Tunnels	14.30 - 16.30	LO RUSSO Stefano	2	Politecnico di Torino (Italy)
Thursday	morning	11/02/2016	Supports: general overview	9.30 - 12.30	PEILA Daniele	3	Politecnico di Torino (Italy)
	afternoon	11/02/2016	Supports: general overview	14.30 - 16.30	PEILA Daniele	2	Politecnico di Torino (Italy)
Friday	morning	12/02/2016	Design of supports (general concepts)	9.30-12.30	PEILA Daniele	3	Politecnico di Torino (Italy)
	afternoon	12/02/2016	Convergence-confinement approach	14.30-17.30	PEILA Daniele	3	Politecnico di Torino (Italy)

Week - 5			Subjects		Lecturer	hours	
Monday	morning	15/02/2016					
	afternoon	15/02/2016					
Tuesday	morning	16/02/2016	Rock bolts. Case Histories and contractual aspects	10.30-12.30	AIROLDI Stefano	2	Orica
	afternoon	16/02/2016	Rock bolts. Case Histories and contractual aspects	14.30-16.30	AIROLDI Stefano	2	Orica
Wednesday	morning	17/02/2016	Rock bolting + EXERCISE	9.30 - 12.30	OGGERI Claudio	3	Politecnico di Torino (Italy)
	afternoon	17/02/2016	Rock bolting + EXERCISE	14.30 - 16.30	OGGERI Claudio	2	Politecnico di Torino (Italy)
Thursday	morning	18/02/2016	Shotcrete Technology	9.30 - 12.30	DAL NEGRO Enrico	3	Mapei (Italy)
	afternoon	18/02/2016	Use of fibers for shotcrete	9.30 - 12.30	Lecturer to be defined	3	Becaert - Maccaferri
Friday	morning	19/02/2016					
	afternoon	19/02/2016					

Week - 6			Subjects		Lecturer	hours	
Monday	morning	22/02/2016	Concrete Technology	9.30 - 12.30	PISTOLESI C./ MALTESE C.	3	Mapei (Italy)
	afternoon	22/02/2016	Concrete Technology	14.30 - 16.30	PISTOLESI C./ MALTESE C.	2	Mapei (Italy)
Tuesday	morning	23/02/2016	Formworks	9.30 - 12.30	BERTINO Eugenio	3	Cifa (Italy)
	afternoon	23/02/2016	Formworks	14.30 - 16.30	BERTINO Eugenio	2	Cifa (Italy)
Wednesday	morning	24/02/2016	Drilling machines and tools	9.30 - 12.30	KUKKONEN Juha	3	Sandvik (Finland)
	afternoon	24/02/2016	Drilling machines and tools	14.30 - 17.30	KUKKONEN Juha	3	Sandvik (Finland)
Thursday	morning	25/02/2016	Roadheader	9.30 - 12.30	PEINSITT Thomas	3	Sandvik (Austria)
	afternoon	25/02/2016	Roadheader	14.30 - 16.30	PEINSITT Thomas	2	Sandvik (Austria)
Friday	morning	26/02/2016					
	afternoon	26/02/2016					

Week - 7			Subjects		Lecturer	hours	
Monday	morning	29/02/2016	Relevant examples of conventional tunnelling	9.30 - 12.30	GALLER Robert	3	Università di Leoben (Austria)
	afternoon	29/02/2016	Relevant examples of conventional tunnelling	14.00 - 16.00	GALLER Robert	2	Università di Leoben (Austria)
Tuesday	morning	01/03/2016	Monitoring general concepts	10.30 - 12.30	OGGERI Claudio	2	Politecnico di Torino (Italy)
	afternoon	01/03/2016	Example of monitoring	14.30 - 16.30	OGGERI Claudio	2	Politecnico di Torino (Italy)
Wednesday	morning	02/03/2016	Face reinforcement	9.30 - 12.30	PEILA Daniele	3	Politecnico di Torino (Italy)
	afternoon	02/03/2016	Forepoling	14.30-17.30	PEILA Daniele	3	Politecnico di Torino (Italy)
Thursday	morning	03/03/2016	Ground reinforcemets and pre-supports	9.30 - 12.30	PEILA Daniele	3	Politecnico di Torino (Italy)
	afternoon	03/03/2016	Grouting	14.30-17.30	PEILA Daniele	3	Politecnico di Torino (Italy)
Friday	morning	04/03/2016	Case histories of grouting techniques	9.30 - 12.30	PEILA Daniele	3	Politecnico di Torino (Italy)
	afternoon	04/03/2016	Jet grouting	14.30-17.30	PEILA Daniele	3	Politecnico di Torino (Italy)

Week - 8			Subjects		Lecturer	hours
Monday	morning	07/03/2016				

	afternoon	07/03/2016					
Tuesday	morning	08/03/2016	Fundamentals of numerical analysis	9.30-12.30	BORRI BRUNETTO Mauro	3	Politecnico di Torino (Italy)
	afternoon	08/03/2016	Fundamentals of numerical analysis	14.30-16.30	BORRI BRUNETTO Mauro	3	Politecnico di Torino (Italy)
Wednesday	morning	09/03/2016	Numerical modelling	9.30-12.30	FLORIA Vincenzo	3	Geodata SpA (Italy)
	afternoon	09/03/2016	Numerical modelling	14.30-16.30	FLORIA Vincenzo	2	Geodata SpA (Italy)
Thursday	morning	10/03/2016	Numerical modelling	9.30-12.30	FLORIA Vincenzo	3	Geodata SpA (Italy)
	afternoon	10/03/2016	Numerical modelling	14.30-16.30	FLORIA Vincenzo	2	Geodata SpA (Italy)
Friday	morning	11/03/2016	Numerical modelling	9.30-12.30	FLORIA Vincenzo	3	Geodata SpA (Italy)
	afternoon	11/03/2016	Numerical modelling	14.30-16.30	FLORIA Vincenzo	2	Geodata SpA (Italy)

Week - 9 - ITACET WEEK			Subjects		Lecturer	hours	
Monday	morning	14/03/2016	Methods for risk analysis: general overview	9.30 - 12.30	ESKESEN Soren	3	COWI /ITA President (Denmark)
	afternoon	14/03/2016	Methods for risk analysis: exercises	14.30-16.30	ESKESEN Soren	2	
Tuesday	morning	15/03/2016	Risk analysis applications	9.30-12.30	GRASSO Piergiorgio	3	Politecnico di Torino
	afternoon	15/03/2016					
Wednesday	morning	16/03/2016	Urban Tunnelling	9.30-12.30	WAGNER Harald	3	Indipendent consultant
	afternoon	16/03/2016	Urban Tunnelling	14.30-16.30	WAGNER Harald	2	Indipendent consultant
Thursday	morning	17/03/2016	Fundamental of static and codes for lining design	9.30 - 12.30	BARPI Fabrizio	3	Politecnico di Torino
	afternoon	17/03/2016	Fundamental of static and codes for lining design	9.30 - 12.30	BARPI Fabrizio	3	Politecnico di Torino
Friday	morning	18/03/2016					
	afternoon	18/03/2016	Fundamental of static and codes for lining design	14.30 - 17.30	BARPI Fabrizio	3	Politecnico di Torino

Week - 10			Subjects		Lecturer	hours
Monday	morning	21/03/2016	HOLIDAYS			
	afternoon	21/03/2016	HOLIDAYS			
Tuesday	morning	22/03/2016	HOLIDAYS			
	afternoon	22/03/2016	HOLIDAYS			
Wednesday	morning	23/03/2016	HOLIDAYS			
	afternoon	23/03/2016	HOLIDAYS			
Thursday	morning	24/03/2016	HOLIDAYS			
	afternoon	24/03/2016	HOLIDAYS			
Friday	morning	25/03/2016	HOLIDAYS			
	afternoon	25/03/2016	HOLIDAYS			

Week - 11			Subjects		Lecturer	hours
Monday	morning	28/03/2016	HOLIDAYS			
	afternoon	28/03/2016	HOLIDAYS			
Tuesday	morning	29/03/2016	HOLIDAYS			
	afternoon	29/03/2016	HOLIDAYS			
Tuesday	morning	30/03/2016	HOLIDAYS			
	afternoon	30/03/2016	HOLIDAYS			
Wednesday	morning	31/03/2016	HOLIDAYS			
	afternoon	31/03/2016	HOLIDAYS			
Friday	morning	01/04/2016	HOLIDAYS			
	afternoon	01/04/2016	HOLIDAYS			

Week - 12 - ITACET WEEK			Subjects		Lecturer	hours	
Monday	morning	04/04/2016	Overview of shields machines	9.30 - 12.30	PEILA Daniele	3	Politecnico di Torino (Italy)
	afternoon	04/04/2016	Overview of shields machines	14.30-16.30	PEILA Daniele	2	Politecnico di Torino (Italy)
Tuesday	morning	05/04/2016	Traffic Tunnels in Urban Area	9.30 - 12.30	KOVARI Kalman	3	ETH - Zurich (CH)

9	afternoon	05/04/2016	Traffic Tunnels in Urban Area	14.30 - 17.30	KOVARI Kalman	2	ETH - Zurich (CH)
Wednesday	morning	06/04/2016	Tools and excavability forecast for roadheaders	9.30 - 12.30	BILGIN Nuh	3	Istanbul Tech. University (Turkey)
		06/04/2016	Tools and excavability forecast for roadheaders	14.30 - 17.30	BILGIN Nuh	2	Istanbul Tech. University (Turkey)
Thursday	morning	07/04/2016	Tools and excavability forecast for roadheaders	9.30 - 12.30	BILGIN Nuh	3	Istanbul Tech. University (Turkey)
	afternoon	07/04/2016	Tools and excavability forecast for roadheaders	14.30 - 17.30	BILGIN Nuh	2	Istanbul Tech. University (Turkey)
Friday	morning	08/04/2016	Shallow tunnels: settlements	9.30-12.30	LECA Eric	3	ITA ExCo (France)
	afternoon	08/04/2016	Shallow tunnels: settlements	14.30-16.30	LECA Eric	2	ITA ExCo (France)

Week - 13			Subjects		Lecturer	hours	
Monday	morning	11/04/2016	Soil conditioning and tail injection	10.30 - 12.30	SCHULKINS Richard	2	Mapei (Singapore)
	afternoon	11/04/2016	Soil conditioning and tail injection	14.30 - 16.30	SCHULKINS Richard	2	Mapei (Singapore)
Tuesday	morning	12/04/2016	Rock TBM types and facilities	9.30 - 12.30	CONCILIA Massimo	3	Pizzarotti (Italy)
	afternoon	12/04/2016	Rock TBM types and facilities	14.30 - 16.30	CONCILIA Massimo	2	Pizzarotti (Italy)
Wednesday	morning	13/04/2016	Rock TBM types and facilities	9.30 - 12.30	CONCILIA Massimo	3	Pizzarotti (Italy)
	afternoon	13/04/2016	Rock TBM types and facilities	14.30 - 16.30	CONCILIA Massimo	2	Pizzarotti (Italy)
Thursday	morning	14/04/2016	Relevant case histories of mechanized tunnelling	9.30 - 12.30	CLASSEN Jen	3	Toto SpA (Italy)
	afternoon	14/04/2016	Relevant case histories of mechanized tunnelling	14.30 - 16.30	CLASSEN Jen	2	Toto SpA (Italy)
Friday	morning	15/04/2016	Face stability design and face counterpressure	9.30 - 12.30	ANAGNOSTOU Georgios	3	ETH - Zurich (CH)
	afternoon	15/04/2016	Face stability design and face counterpressure	14.30 - 16.30	ANAGNOSTOU Georgios	2	ETH - Zurich (CH)

Week - 14			Subjects		Lecturer	hours	
Monday	morning	18/04/2016	Slurry shield tunnelling and separation plants	9.30 - 12.30	THEWES Markus	3	Bochum University (Germany)
	afternoon	18/04/2016	Slurry shield tunnelling and separation plants	14.30 - 16.30	THEWES Markus	2	Bochum University (Germany)
Tuesday	morning	19/04/2016	TBM in rock masses	9.30 - 12.30	OFIARA Dennis	3	Robbins (USA)
	afternoon	19/04/2016	TBM in rock masses	14.30 - 16.30	OFIARA Dennis	2	Robbins (USA)
Wednesday	morning	20/04/2016	TBM - EPB and HS	9.30 - 12.30	CRESTO Alessandro	3	Herrenknecht (Germany - Italy)
	afternoon	20/04/2016	TBM - EPB and HS	14.30 - 16.30	CRESTO Alessandro	2	Herrenknecht (Germany - Italy)
Thursday	morning	21/04/2016	Relevant case histories of mechanized tunnelling	9.30 - 12.30	CRESTO Alessandro	3	Herrenknecht (Germany - Italy)
	afternoon	21/04/2016	Relevant case histories of mechanized tunnelling	14.30 - 16.30	CRESTO Alessandro	2	Herrenknecht (Germany - Italy)
Friday	morning	22/04/2016					
	afternoon	22/04/2016					

Week - 15			Subjects		Lecturer	hours	
Monday	morning	25/04/2016					
	afternoon	25/04/2016					
Tuesday	morning	26/04/2016					
	afternoon	26/04/2016					
Wednesday	morning	27/04/2016					
	afternoon	27/04/2016	Slope - tunnel interactions	9.30 - 12.30	PIRULLI Marina	3	Politecnico di Torino (Italy)
Thursday	morning	28/04/2016	Slope - tunnel interactions	14.30-17.30	PIRULLI Marina	3	Politecnico di Torino (Italy)
	afternoon	28/04/2016	Case history of tunnelling design	14.30 - 16.30	JARRE Pietro	2	Indipendent consultant - SWS
Friday	morning	29/04/2016	Machine monitoring and control	9.30 - 12.30	CARRIERI Giampiero	3	Geodata SpA (Italy)
	afternoon	29/04/2016	Machine monitoring and control	14.30 - 16.30	CARRIERI Giampiero	2	Geodata SpA (Italy)

Week - 16			Subjects		Lecturer	hours	
Monday	morning	02/05/2016	Geological constraint in mechanized tunnelling	9.30 - 12.30	Paul MARINOS	3	University of Athen (Greece)
	afternoon	02/05/2016	Geological constraint in mechanized tunnelling	14.30 - 16.30	Paul MARINOS	2	University of Athen (Greece)
Tuesday	morning	03/05/2016	Segmental lining design	9.30 - 12.30	PESCARA Moreno	3	Geodata SpA (Italy)

	afternoon	03/05/2016	Segmental lining design	14.30 - 16.30	PESCARA Moreno	2	Geodata SpA (Italy)
Wednesday	morning	04/05/2016	Segmental lining design	9.30 - 12.30	PESCARA Moreno	3	Geodata SpA (Italy)
	afternoon	04/05/2016	Segmental lining design	14.30 - 16.30	PESCARA Moreno	2	Geodata SpA (Italy)
Thursday	morning	05/05/2016					
	afternoon	05/05/2016	Gasket and seals for liner	14.30 - 18.30	BOMBEN Gustavo	4	FAMA Engineering (Italy)
Friday	morning	06/05/2016	Relevant case histories of mechanized tunnelling	9.30 - 12.30	CAMUS Thomas	3	NFM (France)
	afternoon	06/05/2016	Relevant case histories of mechanized tunnelling	14.30 - 17.30	CAMUS Thomas	3	NFM (France)

Week - 17			Subjects		Lecturer	hours	
Monday	morning	09/05/2016	Case histories and segment lining design	9.30 - 12.30	PIEK Luis	3	ARUP (USA)
	afternoon	09/05/2016	Case histories and segment lining design	14.30 - 16.30	PIEK Luis	2	ARUP (USA)
Tuesday	morning	10/05/2016	Case histories and segment lining design	9.30 - 12.30	PIEK Luis	3	ARUP (USA)
	afternoon	10/05/2016	Case histories and segment lining design	14.30 - 16.30	PIEK Luis	2	ARUP (USA)
Wednesday	morning	11/05/2016	Soil conditioning laboratoy test (DIATI)	9.30 - 12.30	Lecturer to be defined	3	Politecnico di Torino (Italy)
	afternoon	11/05/2016					
Thursday	morning	12/05/2016	Case histories : the metro of Warsaw	9.30 - 12.30	BARBANTI Marco	3	Astaldi (Italy-Poland)
	afternoon	12/05/2016	Case histories : the metro of Warsaw	14.30 - 16.30	BARBANTI Marco	2	Astaldi (Italy-Poland)
Friday	morning	13/05/2016	Case histories	9.30-12.30	PIGORINI Andrea	3	ITALFERR (Italy)
	afternoon	13/05/2016	Case histories	14.30-16.30	PIGORINI Andrea	2	ITALFERR (Italy)

Week - 18			Subjects		Lecturer	hours	
Monday	morning	16/05/2016	Numerical modelling - Examples	9.30 - 12.30	FLORIA Vincenza	3	Geodata SpA (Italy)
	afternoon	16/05/2016	Numerical modelling - Examples	14.30 - 16.30	FLORIA Vincenza	2	Geodata SpA (Italy)
Tuesday	morning	17/05/2016	Numerical modelling - Examples	9.30 - 12.30	FLORIA Vincenza	3	Geodata SpA (Italy)
	afternoon	17/05/2016					
y		18/05/2016	Settlement and effect on surface	9.30 - 12.30	INVERNIZZI Stefano	3	Politecnico di Torino (Italy)
		18/05/2016	Settlement and effect on surface	14.30 - 17.30	INVERNIZZI Stefano	3	Politecnico di Torino (Italy)
Thursday	morning	19/05/2016	Case Histories of USA examples	9.30-12.30	FULCHER Brian	3	Kenny Construction Company (USA)
	afternoon	19/05/2016	Case Histories of USA examples	14.30-16.30	FULCHER Brian	2	Kenny Construction Company (USA)
Friday	morning	20/05/2016	Case Histories of USA examples	9.30-12.30	ELIOFF Amanda	3	Parsons Brinckerhoff (USA)
	afternoon	20/05/2016					

Week - 19			Subjects		Lecturer	hours	
Monday	morning	23/05/2016	Driving of full face machines	9.30 - 12.30	GRÜBL Fritz	3	University of Stuttgart (Germany)
	afternoon	23/05/2016	Driving of full face machines	14.30 - 16.30	GRÜBL Fritz	2	University of Stuttgart (Germany)
Tuesday	morning	24/05/2016					
	afternoon	24/05/2016	Environmental aspects	14.30 - 16.30	JARRE Pietro	3	Indipendent consultant - SWS
Wednesday	morning	25/05/2016	Case history	9.30 - 12.30	KOLIC Davorin	3	Geodata Croatia
	afternoon	25/05/2016	Case history	14.30 - 16.30	KOLIC Davorin	2	Geodata Croatia
Thursday	morning	26/05/2016	Example of Monteceneri Tunnel	9.30 - 12.30	MERLINI Davide	3	Pini Swiss Engineers (CH)
	afternoon	26/05/2016	Example of Monteceneri Tunnel	14.30 - 16.30	MERLINI Davide	2	Pini Swiss Engineers (CH)
Friday	morning	27/05/2016	Case history of EPB tunnelling	10.30 - 12.30	GIACOMIN Giovanni	2	Ghella (Italy)
	afternoon	27/05/2016	Case history of EPB tunnelling	14.30 - 16.30	GIACOMIN Giovanni	2	Ghella (Italy)

Week - 20			Subjects		Lecturer	hours	
Monday	morning	30/05/2016					
	afternoon	30/05/2016	Fire resistance of the segment linings	13.30-17.30	MOREAU Berenice	4	CETU (France)
Tuesday	morning	31/05/2016	Lining design in seismic conditions	9.30 - 12.30	Lecturer to be defined	3	

	afternoon	31/05/2016	Lining design in seismic conditions	14.30-17.30	Lecturer to be defined	3
Wednesday	morning	01/06/2016				
	afternoon	01/06/2016				
Thursday	morning	02/06/2016	HOLIDAYS			
	afternoon	02/06/2016	HOLIDAYS			
Friday	morning	03/06/2016	HOLIDAYS			
	afternoon	03/06/2016	HOLIDAYS			

Week - 21			Subjects		Lecturer	hours	
Monday	morning	06/06/2016					
	afternoon	06/06/2016	Claims	14.30-16.30	ALLIONE Romano	2	Expert, FIDIC
Tuesday	morning	07/06/2016	Train transport	9.30-12.30	ARATO Marco	3	Atlas Copco
	afternoon	07/06/2016	Ventilation design	14.30-16.30	ARATO Marco	2	Atlas Copco
Wednesday	morning	08/06/2016	Tunnel Facilities	9.30 - 12.30	NICOLA Antonio	3	Salini-Impregilo
	afternoon	08/06/2016	Tunnel Facilities	14.30 - 16.30	NICOLA Antonio	2	Salini-Impregilo
Thursday	morning	09/06/2016					
	afternoon	09/06/2016	Contracts	9.30-12.30	ALLIONE Romano	3	Expert/FIDIC
Friday	morning	10/06/2016	Contracts	14.30-17.30	ALLIONE Romano	3	Expert/FIDIC
	afternoon	10/06/2016	Claims	9.30-12.30	TORTA Patrizio	3	Expert, PM&E (Italy)

Week - 22			Subjects		Lecturer	hours	
Monday	morning	13/06/2016	Conveyor belts design	9.30 - 12.30	Lecturer to be defined	3	
	afternoon	13/06/2016	Conveyor belts design	14.30 - 16.30	Lecturer to be defined	2	
Tuesday	morning	14/06/2016	Quality in job sites	10.30-12.30	OGGERI Claudio	2	Politecnico di Torino (Italy)
	afternoon	14/06/2016	Safety aspects of Underground works	9.30 - 12.30	PATRUCCO Mario	3	Politecnico di Torino (Italy)
Wednesday	morning	15/06/2016	Monitoring ahead the tunnel face in mechanized tunnelling	14.30 - 17.30	AMBERG Felix	3	
	afternoon	15/06/2016	Safety aspects of Underground works	14.30 - 17.30	PATRUCCO Mario	3	Politecnico di Torino (Italy)
Thursday	morning	16/06/2016	Reuse and management of excavated material	9.30 - 12.30	OGGERI Claudio	3	Politecnico di Torino (Italy)
	afternoon	16/06/2016	Reuse and management of excavated material	14.30 - 16.30	OGGERI Claudio	2	Politecnico di Torino (Italy)
Friday	morning	17/06/2016	Case history Frejus tunnel	9.30 - 12.30	BRINO Lorenzo	3	LTF (Italy-France)
	afternoon	17/06/2016					

Week - 23			Subjects		Lecturer	hours	
Monday	morning	20/06/2016	Safety aspects of mechanized tunnelling		Lecturer to be defined	3	
	afternoon	20/06/2016	Case History metro Torino	9.30 - 12.30	CROVA Roberto	3	INFRATO (Italy)
Tuesday	morning	21/06/2016	Safety of work site and equipments	9.30 - 12.30	SORLINI Achille	3	Geodata SpA (Italy)
	afternoon	21/06/2016	Safety of work site and equipments	14.30 - 17.30	SORLINI Achille	3	Geodata SpA (Italy)
Wednesday	morning	22/06/2016	Compressed air	10.00 - 14.00	Lecturer to be defined	4	Atlas Copco (Italy - Sweden)
	afternoon	22/06/2016	Ventilation design	14.30 - 18.30	PATRUCCO Mario	4	Politecnico di Torino (Italy)
Thursday	morning	23/06/2016					
	afternoon	23/06/2016	Ventilation design	14.30 - 18.30	PATRUCCO Mario	4	Politecnico di Torino (Italy)
Friday	morning	24/06/2016					
	afternoon	24/06/2016	Ventilation design	14.30 - 18.30	PATRUCCO Mario	4	Politecnico di Torino (Italy)

Week - 24			Subjects		Lecturer	hours	
Monday	morning	27/06/2016	Worksite organization in urban area	9.30 - 12.30	DELLA VALLE Nicola	3	Tunnel consult (Spain)
	afternoon	27/06/2016	Worksite organization in urban area	14.30 - 16.30	DELLA VALLE Nicola	2	Tunnel Consult (Spain)
Tuesday	morning	28/06/2016					

	afternoon	28/06/2016	Methane explosion	14.30 - 16.30	PATRUCCO Mario	3
Wednesday	morning	29/06/2016	Microtunnelling	10.30 - 12.30	Lecturer to be defined	2
	afternoon	29/06/2016	Microtunnelling	14.30 - 17.30	Lecturer to be defined	3
Thursday	morning	30/06/2016	Microtunnelling	10.30 - 12.30	Lecturer to be defined	2
	afternoon	30/06/2016	Microtunnelling	14.30 - 17.30	Lecturer to be defined	3
Friday	morning	01/07/2016	Microtunnelling	10.30 - 12.30	Lecturer to be defined	2
	afternoon	01/07/2016	Microtunnelling	14.30 - 17.30	Lecturer to be defined	3

Politecnico di Torino (Italy)

Week - 25			Subjects		Lecturer	hours
Monday	morning	04/07/2016	Design Consideration for TBM	9.30 - 12.30	LOVAT R.	3
	afternoon	04/07/2016	Design Consideration for TBM	14.30 - 16.30	LOVAT R.	2
Tuesday	morning	05/07/2016	Job site organization of mechanized tunnelling	9.30 - 12.30	Lecturer to be defined	3
	afternoon	05/07/2016	Job site organization of mechanized tunnelling	14.30 - 16.30	Lecturer to be defined	2
Wednesday	morning	06/07/2016	TECHNICAL VISIT HERRENKNECHT		PEILA Daniele	3
	afternoon	06/07/2016	TECHNICAL VISIT HERRENKNECHT		PEILA Daniele	3
Thursday	morning	07/07/2016	TECHNICAL VISIT HERRENKNECHT		PEILA Daniele	3
	afternoon	07/07/2016	TECHNICAL VISIT HERRENKNECHT		PEILA Daniele	3
Friday	morning	08/07/2016				
	afternoon	08/07/2016				

Lovat (Canada)

Lovat (Canada)

Week - 26			Subjects		Lecturer	hours
Monday	morning	04/07/2016	TECHNICAL VISIT		PEILA Daniele	3
	afternoon	04/07/2016	TECHNICAL VISIT		PEILA Daniele	3
Tuesday	morning	05/07/2016				
	afternoon	05/07/2016	Exam - First module (date to be defined)		PEILA Daniele	2
Wednesday	morning	06/07/2016	EXAM - Second Module (date to be defined)		PEILA Daniele	2
	afternoon	06/07/2016	Exam - Third module (date to be defined)		PEILA Daniele	2
Thursday	morning	07/07/2016				
	afternoon	07/07/2016				
Friday	morning	08/07/2016				
	afternoon	08/07/2016				

Totale