

Weekly Programme Post Graduate Master TUNNELLING AND TUNNEL BORING MACHINES

Last Update 23/05/2012



MODULE 1 (Tunnel design and construction methods)

Week - 1			Subjects		Lecturer	hours
Monday	morning	21/11/2011	MASTER COURSE OPENING CERIMONY	9.00 - 10.30	VION Olivier - PEILA Daniele - PELIZZA Sebastiano	
			Use of Underground Space	11.00-13.00	ADMIRAAL Han	2
	afternoon		Use of Underground Space	15.00-18.00	ADMIRAAL Han	3
Tuesday	morning	22/11/2011	Use of Underground Space	9.30-12.30	ADMIRAAL Han	3
	afternoon		Use of Underground Space	14.00-18.00	ADMIRAAL Han	4
Wednesday	morning	23/11/2011	Use of Underground Space	9.30-13.30	ADMIRAAL Han	4
	afternoon		Corep Presentation	15.15 - 16.15	OVCIN Emanuela	1
			International Service for Foreign students -	16.30 - 17.00		
Thursday	morning	24/11/2011	General tunnelling aspects	9.30 - 12.30	PELIZZA Sebastiano	3
	afternoon		General tunnelling aspects	14.30 - 1630	PELIZZA Sebastiano	2
Friday	morning	25/11/2011	International Service for Foreign students -	8.15 - 10.30		
	afternoon		Hydrogeological aspects and water inflow into the tunnel	15.00-17.00	RICCI Giovanni	2

24

Week - 2			Subjects		Lecturer	hours
Monday	morning	28/11/2011	Natural undisturbed state of stress in rock and soil	9.30 - 12.30	FIDELIBUS Corrado	3
	afternoon		Outline of soil mechanics	14.30 - 17.30	FIDELIBUS Corrado	3
Tuesday	morning	29/11/2011	Outline of soil mechanics	9.30 - 12.30	FIDELIBUS Corrado	3
	afternoon		Geological and geotechnical surveys	14.30 - 17.30	OGGERI Claudio	3
Wednesday	morning	30/11/2011				
	afternoon		Counter measure for free span too small	14.30 - 16.30	PELIZZA Sebastiano	2
Thursday	morning	01/12/2011				
	afternoon		Modelling fluid flow in porous and fractured media	14.30-18.30	FIDELIBUS Corrado	4
Friday	morning	02/12/2011	Geophysical investigations	9.30 - 12.30	SAMBUELLI Luigi	3
	afternoon		Geophysical investigations	14.30 - 17.30	SAMBUELLI Luigi	3

24

Week - 3			Subjects		Lecturer	hours
Monday	morning	05/12/2011				
	afternoon		Corep Club	13.00-14.00	SAVINO Ignazio	1
			Rock mechanics outline	14.00-17.00	BARLA Giovanni	3
Tuesday	morning	06/12/2011	Rock mechanics outline	9.00-13.00	BARLA Giovanni	4
	afternoon					
Wednesday	morning	07/12/2011	Rock mechanics outline	10.00-13.00	BARLA Giovanni	3
	afternoon		Rock mechanics outline	14.00-18.00	BARLA Giovanni	4
Thursday	morning	08/12/2011	Holiday			
	afternoon		Holiday			
Friday	morning	09/12/2011	Holiday			
	afternoon		Holiday			

15

Week - 4			Subjects		Lecturer	hours
Monday	morning	12/12/2011	Rock mass characterization and classifications	9.30 - 12.30	RUSSO Giordano	3
	afternoon			14.30 - 17.30	RUSSO Giordano	3
Tuesday	morning	13/12/2011	Hydrogeology and Tunnels	9.30 - 12.30	LO RUSSO Stefano	3
	afternoon			14.30 - 16.30	LO RUSSO Stefano	2
Wednesday	morning	14/12/2011	Methods for risk analysis: general overview	9.30 - 12.30	ESKESEN Søren Degn.	3
	afternoon		Methods for risk analysis: exercises	14.30-16.30	ESKESEN Søren Degn.	2
Thursday	morning	15/12/2011	Drill and blast method	9.30 - 12.30	GIRAUDI Alessandro	3
	afternoon		Drill and blast method	14.30 - 17.30	GIRAUDI Alessandro	3
Friday	morning	16/12/2011	Drill and blast method - vibrations control	9.30 - 12.30	GIRAUDI Alessandro	3
	afternoon		EXERCISE- Design of a blast round	14.30 - 17.30	GIRAUDI Alessandro	3

28

Company / University

ITACUS - Enprodes consultant
ITACUS - Enprodes consultant
ITACUS - Enprodes consultant
ITACUS - Enprodes consultant
ITACUS - Enprodes consultant
Corep

Politecnico di Torino, Former President of ITA/AITES
Politecnico di Torino, Former President of ITA/AITES

Geodata S.P.A., Torino

CNR

CNR

CNR

Politecnico di Torino

Politecnico di Torino, Former President of ITA/AITES

CNR

Politecnico di Torino

Politecnico di Torino

Corep

Politecnico di Torino

Politecnico di Torino

Politecnico di Torino

Politecnico di Torino

Geodata S.P.A., Torino

Geodata S.P.A., Torino

Politecnico di Torino

Politecnico di Torino

ITA-AITES Ex-Co Member

ITA-AITES Ex-Co Member

Politecnico di Torino

Politecnico di Torino

Politecnico di Torino

Politecnico di Torino

CHRISTMASS HOLIDAY

Week - 5			Subjects		Lecturer	hours
Monday	morning	09/01/2012	Roadheader	9.30 - 12.30	PICHLER Josef	3
	afternoon			14.30 - 17.30	PICHLER Josef	3
Tuesday	morning	10/01/2012	Drilling machines and tools	9.30 - 12.30	KUKKONEN Juha	3
	afternoon			14.30 - 17.30	KUKKONEN Juha	3
Wednesday	morning	11/01/2012	Supports: general overview	9.30 - 12.30	PEILA Daniele	3
	afternoon			14.30 - 17.30	PEILA Daniele	3
Thursday	morning	12/01/2012	Design of supports (general concepts)	9.00 - 13.00	PEILA Daniele	4
	afternoon					
Friday	morning	13/01/2012	Shotcrete Technology	9.30 - 12.30	DAL NEGRO Enrico	3
	afternoon		Geological aspects	15.00 - 17.00	SOLDO Luca	2

27

Week - 6			Subjects		Lecturer	hours
Monday	morning	16/01/2012	Rock bolting + EXERCISE	9.30 - 12.30	OGGERI Claudio	3
	afternoon		Rock bolting + EXERCISE	14.30 - 16.30	OGGERI Claudio	2
Tuesday	morning	17/01/2012	Concrete Technology	9.30 - 12.30	PISTOLESI Carlo / MALTESE Cristiano	3
	afternoon			14.30 - 17.30	PISTOLESI Carlo / MALTESE Cristiano	3
Wednesday	morning	18/01/2012	Structural Eurocodes	9.00 - 13.00	FANTILLI Alessandro	4
	afternoon					
Thursday	morning	19/01/2012	Fundamental of static and codes for lining design	9.30 - 12.30	BARPI Fabrizio	3
	afternoon			14.30 - 17.30	BARPI Fabrizio	3
Friday	morning	20/01/2012	Fundamental of static and codes for lining design	9.30 - 12.30	BARPI Fabrizio	3
	afternoon					

24

Week - 7			Subjects		Lecturer	hours
Monday	morning	23/01/2012	Formworks	9.30 - 12.30	BERTINO Eugenio / CANDELORO Bruno	3
	afternoon			14.30 - 16.30	BERTINO Eugenio / CANDELORO Bruno	2
Tuesday	morning	24/01/2012	Use of fibers for shotcrete	9.30 - 12.30	ROSSI Bruno	3
	afternoon			14.30 - 16.30	ROSSI Bruno	2
Wednesday	morning	25/01/2012	Monitoring general concepts	10.30 - 12.30	OGGERI Claudio	2
	afternoon		Example of Monitoring	14.30 - 16.30	OGGERI Claudio	2
Thursday	morning	26/01/2012	Example of monitoring	10.30 - 12.30	LOCATELLI Livio	2
	afternoon					
Friday	morning	27/01/2012	Rock mechanics outline	9.30-11.30	BARLA Giovanni	2
	afternoon					

18

Week - 8			Subjects		Lecturer	hours
Monday	morning	30/01/2012	Ground Reinforcing - General aspects	9.30 - 12.30	PEILA Daniele	3
	afternoon			14.30 - 16.30	PEILA Daniele	2
			Simmetrix	16.30 -18.30	AIROLDI Stefano	2
Tuesday	morning	31/01/2012	Grouting	10.30 - 12.30	PEILA Daniele	2
	afternoon		Case histories of grouting techniques	14.00 - 18.00	PETTINAROLI Andrea	4
Wednesday	morning	01/02/2012	Forepoling	9.30 - 12.30	PEILA Daniele	3
	afternoon		Ground Reinforcing - exercise	14.30 - 17.30	PEILA Daniele	3
Thursday	morning	02/02/2012	Design analyses of tunnels and caverns in seismic conditions - Applications	14.30 - 17.30		
	afternoon				BARLA Giovanni	3
Friday	morning	03/02/2012	Numerical modelling - Case histories	10.30 - 12.30	FLORIA Vincenza	2
	afternoon			14.30 - 16.30	FLORIA Vincenza	2

26

Sandvik Mining and Construction
Sandvik Mining and Construction
Sandvik Mining and Construction
Sandvik Mining and Construction
Politecnico di Torino, Ex-Co ITA/AITES member
Politecnico di Torino, Ex-Co ITA/AITES member
Politecnico di Torino, Ex-Co ITA/AITES member

Mapei - Underground Technology Team
Geodata S.P.A., Torino

Politecnico di Torino
Politecnico di Torino
Mapei - Underground Technology Team
Mapei - Underground Technology Team
Politecnico di Torino

Politecnico di Torino
Politecnico di Torino
Politecnico di Torino

Cifa S.p.a.
Cifa S.p.a.
Officine Maccaferri S.p.a.
Officine Maccaferri S.p.a.
Politecnico di Torino
Politecnico di Torino
Golder Associates

Politecnico di Torino

Politecnico di Torino, Ex-Co ITA/AITES member
Politecnico di Torino, Ex-Co ITA/AITES member
Atlas Copco
Politecnico di Torino, Ex-Co ITA/AITES member
Studio Ing. Andrea Pettinaroli srl
Politecnico di Torino, Ex-Co ITA/AITES member
Politecnico di Torino, Ex-Co ITA/AITES member

Politecnico di Torino
Geodata S.P.A., Torino
Geodata S.P.A., Torino

Week - 9			Subjects	Lecturer	hours
Monday	morning	06/02/2012	EXERCISE: Example of calculations	9.30 - 12.30 BARBERO Monica	3
	afternoon			14.30 - 17.30 BARBERO Monica	3
Tuesday	morning	07/02/2012	Relevant examples of conventional tunnelling	8.30 - 12.30 GALLER Robert	4
	afternoon			14.00 - 16.00 GALLER Robert	2
Wednesday	morning	08/02/2012	Laboratory test for rock abrasivity assesment	9.00 - 13.00 PICCHIO Andrea / CHIAREGATO Alessio	4
	afternoon				
Thursday	morning	09/02/2012			
	afternoon				
Friday	morning	10/02/2012			
	afternoon				

16

Week - 10			Subjects	Lecturer	hours
Monday	morning	13/02/2012	EXERCISE: Example of calculations	9.30 - 12.30 BARBERO Monica	3
	afternoon			14.30 - 17.30 BARBERO Monica / BARPI Fabrizio	3
Tuesday	morning	14/02/2012			
	afternoon				
Wednesday	morning	15/02/2012			
	afternoon				
Thursday	morning	16/02/2012			
	afternoon				
Friday	morning	17/02/2012	Overview of TBM machines	9.30 - 12.30 PELIZZA Sebastiano	3
	afternoon			14.30 - 16.30 PELIZZA Sebastiano	2

11

MODULE 2 (Mechanized tunnelling)

Week - 11			Subjects	Lecturer	hours
Monday	morning	20/02/2012	EXAMPLE: Roadheader application	9.30 - 12.30 MIGNELLI Claudia	3
	afternoon			14.30 - 17.30 MIGNELLI Claudia	3
Tuesday	morning	21/02/2012			
	afternoon				
Wednesday	morning	22/02/2012			
	afternoon				
Thursday	morning	23/02/2012	EXAM - First Module	9.00 - 12.00 PEILA Daniele	3
	afternoon				
Friday	morning	24/02/2012	Face stability design and face counterpressure	9.30 - 12.30 ANAGNOSTOU Georgios	3
	afternoon			14.30 - 16.30 ANAGNOSTOU Georgios	2

14

Week - 12			Subjects	Lecturer	hours
Monday	morning	27/02/2012	Tools and excavability forecast for Roadheaders	9.30 - 12.30 BILGIN Nuh	3
	afternoon			14.00 - 17.00 BILGIN Nuh	3
Tuesday	morning	28/02/2012	Tools and excavability forecast for Roadheaders: Exercise	8.30 - 12.30 BILGIN Nuh	4
	afternoon			14.00 - 16.00 BILGIN Nuh	2
Wednesday	morning	29/02/2012	Rock TBM types and facilities	9.30 - 12.30 CONCILIA Massimo	3
	afternoon		Rock TBM types and facilities	14.00 - 17.00 CONCILIA Massimo	3
Thursday	morning	01/03/2012	Rock TBM types and facilities	9.30 - 12.30 CONCILIA Massimo	3
	afternoon		Rock TBM types and facilities	14.00 - 17.00 CONCILIA Massimo	3
Friday	morning	02/03/2012	Plant Facilities needed when using Full Face TBM's		
	afternoon			13.15 - 19.15 WAGNER Harald	6

30

Politecnico di Torino
Politecnico di Torino
Mining University of Loeben, Head of subsurface Engineering
Mining University of Loeben, Head of subsurface Engineering
Politecnico di Torino

Politecnico di Torino
Politecnico di Torino

Politecnico di Torino, Former President of ITA/AITES
Politecnico di Torino, Former President of ITA/AITES

Politecnico di Torino
Politecnico di Torino

Politecnico di Torino, Ex-Co ITA/AITES member

ETH - Swiss Federal Institute of Tecnology
ETH - Swiss Federal Institute of Tecnology

Istanbul Technical University
Istanbul Technical University
Istanbul Technical University
Istanbul Technical University
Pizzarotti S.P.A.
Pizzarotti S.P.A.
Pizzarotti S.P.A.
Pizzarotti S.P.A.

Independent Consulting Engineer and Expert of ITA Executive Council

Week - 13			Subjects		Lecturer	hours
Monday	morning	05/03/2012	Slurry shield tunnelling and separation plants	10.30 - 13.30	THEWES Markus	3
	afternoon		Slurry shield tunnelling and separation plants	14.30 - 17.30	THEWES Markus	3
Tuesday	morning	06/03/2012	Rock TBM tools	9.30 - 12.30	FRENZEL Christian	3
	afternoon		Rock TBM tools	14.30 - 17.30	FRENZEL Christian	3
Wednesday	morning	07/03/2012	Topic to be defined	9.30 - 12.30	FRENZEL Christian	3
	afternoon		Exercise: forecast of rock TBM penetration	14.30 - 17.30	FRENZEL Christian	3
Thursday	morning	08/03/2012	Rock TBMs - case histories	9.30 - 12.30	ASKILSRUD Odd G.	3
	afternoon		Rock TBMs - case histories	14.30 - 17.30	ASKILSRUD Odd G.	3
Friday	morning	09/03/2012	Example of rock tunnelling	9.30 - 12.30	ASSIS André	3
	afternoon		Example of rock tunnelling	14.30 - 18.30	ASSIS André	4
Saturday	morning	10/03/2012	Example of rock tunnelling	9.00 - 13.00	ASSIS André	4

35

Week - 14			Subjects		Lecturer	hours
Monday	morning	12/03/2012	TBM - EPB and HS	9.30 - 12.30	CRESTO Alessandro	3
	afternoon			14.30 - 16.30	CRESTO Alessandro	2
Tuesday	morning	13/03/2012	Relevant case histories of mechanized tunnelling	9.30 - 12.30	CRESTO Alessandro	3
	afternoon			14.30 - 16.30	CRESTO Alessandro	2
Wednesday	morning	14/03/2012	TBM - EPB and HS	9.30 - 12.30	RAMIREZ VAZQUEZ René Raul	3
	afternoon			14.00 - 16.00	RAMIREZ VAZQUEZ René Raul	2
Thursday	morning	15/03/2012	Relevant case histories of mechanized tunnelling	9.30 - 12.30	RAMIREZ VAZQUEZ René Raul	3
	afternoon			14.00 - 16.00	RAMIREZ VAZQUEZ René Raul	2
Friday	morning	16/03/2012	Raise Boring	9.30 - 11.30	FACCHINETTI Adriano	2
	afternoon					

22

Week - 15			Subjects		Lecturer	hours
Monday	morning	19/03/2012				
	afternoon		Segmental lining design	14.00 - 18.00	PESCARA Moreno	4
Tuesday	morning	20/03/2012	Segmental lining design	9.30 - 12.30	PESCARA Moreno	3
	afternoon			14.00 - 18.00	PESCARA Moreno	4
Wednesday	morning	21/03/2012	Design of reinforcement of segments with steel fibers	9.30 - 12.30	PLIZZARI Giovanni / TIBERTI Giuseppe	3
	afternoon			14.00 - 17.00	PLIZZARI Giovanni / TIBERTI Giuseppe	3
Thursday	morning	22/03/2012	Reuse and management of excavated material	9.00 - 12.00	OGGERI Claudio	3
	afternoon					
Friday	morning	23/03/2012	Settlements and effects on surface	9.30 - 12.30	INVERNIZZI Stefano	3
	afternoon			14.30 - 17.30	INVERNIZZI Stefano	3

26

Week - 16			Subjects		Lecturer	hours
Monday	morning	26/03/2012	Driving of full face machines	9.30 - 12.30	GRÜBL Fritz	3
	afternoon			14.00 - 16.00	GRÜBL Fritz	2
Tuesday	morning	27/03/2012	Machine monitoring and control	9.30 - 12.30	GUGLIELMETTI Vittorio / CARRIERI Giampiero	3
	afternoon			14.30 - 16.30	GUGLIELMETTI Vittorio / CARRIERI Giampiero	2
Wednesday	morning	28/03/2012	INTERTunnel 2012	10.00 - 12.00		2
	afternoon		INTERTunnel 2012	14.00 - 16.00		2
Thursday	morning	29/03/2012	Soil conditioning and tail injection	9.30 - 12.30	SCHULKINS Richard	3
	afternoon			14.00 - 16.00	SCHULKINS Richard	2
Friday	morning	30/03/2012	TBM Tunnel Case Studies : Consultant's Experiences	9.30 - 12.30	KOLIC Davorin	3
	afternoon			14.00 - 17.00	KOLIC Davorin	3

25

Bochum University
Bochum University
Colorado School of Mines
Colorado School of Mines
Colorado School of Mines
Colorado School of Mines
Affiliated Consultant to the Robbins Company
Affiliated Consultant to the Robbins Company
University of Brasilia - Former President ITA/AITES
University of Brasilia - Former President ITA/AITES
University of Brasilia - Former President ITA/AITES

Herrenknecht
Herrenknecht
Herrenknecht
Herrenknecht
Caterpillar Tunneling Canada Corporation
Caterpillar Tunneling Canada Corporation
Caterpillar Tunneling Canada Corporation
Caterpillar Tunneling Canada Corporation
Raise Boring Manager - Edilmac/Atlas Copco

Geodata S.P.A., Torino
Geodata S.P.A., Torino
Geodata S.P.A., Torino
Università di Brescia
Università di Brescia
Politecnico di Torino

Politecnico di Torino
Politecnico di Torino

Stuttgart University - PSP Consulting Engineers GmbH Munich
Stuttgart University - PSP Consulting Engineers GmbH Munich
Independent Consultant / Geodata S.P.A., Torino
Independent Consultant / Geodata S.P.A., Torino

Mapei - Underground Technology Team
Mapei - Underground Technology Team
PhD,PE,CE - Neuron Consult ZT - ITA Croatia President
PhD,PE,CE - Neuron Consult ZT - ITA Croatia President

Week - 17			Subjects		Lecturer	hours
Monday	morning	02/04/2012	EPB excavation problems in the metro of Torino	10.30 - 12.30	SARTORE Piero Antonio/GIACOMIN Giovanni	2
	afternoon			14.30 - 16.30	SARTORE Piero Antonio/GIACOMIN Giovanni	2
Tuesday	morning	03/04/2012	to be defined	9.30 - 12.30		
	afternoon		to be defined	14.00 - 17.00		
Wednesday	morning	04/04/2012	Segmental lining design	9.30 - 12.30	PIEK Luis	3
	afternoon			14.00 - 16.00	PIEK Luis	2
Thursday	morning	05/04/2012	Cast-in-situ lining design	9.30 - 12.30	PIEK Luis	3
	afternoon			14.00 - 16.00	PIEK Luis	2
Friday	morning	06/04/2012	Easter Holiday			
	afternoon					

Maire Tecnimont S.P.A. / Ghella S.P.A.
Maire Tecnimont S.P.A. / Ghella S.P.A.

Arup - Senior Tunnel Engineer - Master former student
Arup - Senior Tunnel Engineer - Master former student
Arup - Senior Tunnel Engineer - Master former student
Arup - Senior Tunnel Engineer - Master former student

14

Week - 18			Subjects		Lecturer	hours
Monday	morning	09/04/2012	Easter Holiday			
	afternoon					
Tuesday	morning	10/04/2012	Easter Holiday			
	afternoon					
Wednesday	morning	11/04/2012	Mechanised tunneling USA : case histories	9.30-12.30	ELIOFF Amanda	3
	afternoon			14.30-16.30	ELIOFF Amanda	2
Thursday	morning	12/04/2012	Transfer to Rome			
	afternoon					
Friday	morning	13/04/2012	ITA-AITES Training Course in Rome			
	afternoon					
Saturday	morning	14/04/2012	ITA-AITES Training Course in Rome + Transfer to Torino			
	afternoon					
Sunday	morning	15/04/2012	17:46 Roma Termini - FRECCIAROSSA 9578 - 22:23 Torino Porta Nuova			
	afternoon					

Parsons Brinckerhoff
Parsons Brinckerhoff

5

Week - 19			Subjects		Lecturer	hours
Monday	morning	16/04/2012	Holiday			
	afternoon					
Tuesday	morning	17/04/2012	Microtunnelling	10.30 - 12.30	STERLING Raymond	2
	afternoon			14.30 - 17.30	STERLING Raymond	3
Wednesday	morning	18/04/2012	Microtunnelling	10.30 - 12.30	STERLING Raymond	2
	afternoon			14.30 - 17.30	STERLING Raymond	3
Thursday	morning	19/04/2012	Microtunnelling	10.30 - 12.30	STERLING Raymond	2
	afternoon			14.30 - 17.30	STERLING Raymond	3
Friday	morning	20/04/2012	Case histories of EPB Excavation			
	afternoon			14.00 - 18.00	BARBANTI Marco	4

Louisiana Tech. University
Louisiana Tech. University
Louisiana Tech. University
Louisiana Tech. University
Louisiana Tech. University
Louisiana Tech. University

Astaldi S.p.A.

19

Week - 20			Subjects		Lecturer	hours
Monday	morning	23/04/2012	Design of conveyor belts for tunnelling application	9.30 - 12.30	DUCHATEAU Jean-Benoît	3
	afternoon			14.30 - 17.30	DUCHATEAU Jean-Benoît	3
Tuesday	morning	24/04/2012	Rock TBMs	9.30 - 12.30	CAMUS Thomas	3
	afternoon			14.00 - 17.00	CAMUS Thomas	3
Wednesday	morning	25/04/2012	National Holiday			
	afternoon					
Thursday	morning	26/04/2012	Holiday			
	afternoon					
Friday	morning	27/04/2012	Design of segment lining: analysis of a relevant case history	9.30 - 12.30	DELLA VALLE Nicola	3
	afternoon			14.00 - 17.00	DELLA VALLE Nicola	3

Marti Technik AG
Marti Technik AG
NFM Technologies
NFM Technologies

Tunnelconsult
Tunnelconsult

18

MODULE 3 (Management and safety of job sites)

Week - 21			Subjects		Lecturer	hours
Monday	morning	30/04/2012	Holiday			
	afternoon					
Tuesday	morning	01/05/2012	National Holiday			
	afternoon					
Wednesday	morning	02/05/2012	Holiday			
	afternoon					
Thursday	morning	03/05/2012	Tunnel Facilities	9.30 - 12.30	NICOLA Antonio	3
	afternoon		Tunnel Facilities	14.30 - 16.30	NICOLA Antonio	2
Friday	morning	04/05/2012	Water treatment plants	9.30 - 12.30	NEGRI Elisabetta	3
	afternoon		EXAM - Second Module	14.00 - 16.00	PEILA Daniele	2

10

Week - 22			Subjects		Lecturer	hours
Monday	morning	07/05/2012	Rome Metro C: site organization	9.30-12.30	SORGE Roberto	3
	afternoon					
Tuesday	morning	08/05/2012	Geology and Base Tunnels	9.30 - 12.30	SKUK Stefan	3
	afternoon			14.00 - 17.00	SKUK Stefan	3
Wednesday	morning	09/05/2012	Holiday			
	afternoon					
Thursday	morning	10/05/2012	Relevant tunnel examples: choice between open and close TBM	10.30 - 12.30	GRANDORI Remo	2
	afternoon		DSU TBM and tunnelling in difficult condition	13.30 - 15.30	GRANDORI Remo	2
Friday	morning	11/05/2012	Claims	9.30 - 12.30	TORTA Patrizio	3
	afternoon			14.30 - 16.30	TORTA Patrizio	2

18

Week - 23			Subjects		Lecturer	hours
Monday	morning	14/05/2012	Safety of work site and equipments	9.30 - 12.30	PATRUCCO Mario	3
	afternoon			16.00 - 19.00	PATRUCCO Mario	3
Tuesday	morning	15/05/2012	Safety of work site and equipments	9.30 - 12.30	SORLINI Achille	3
	afternoon			14.30 - 17.30	SORLINI Achille	3
Wednesday	morning	16/05/2012	Safety of work site and equipments	9.30 - 12.30	PATRUCCO Mario	3
	afternoon			14.00 - 17.00	PATRUCCO Mario	3
Thursday	morning	17/05/2012	Ventilation devices	9.30 - 12.30	AMADO Ana Belén / FERNANDEZ Javier	3
	afternoon			14.30 - 16.30	AMADO Ana Belén / FERNANDEZ Javier	2
Friday	morning	18/05/2012	Ventilation design			
	afternoon			14.00 - 18.00	PATRUCCO Mario	4

27

Week - 24			Subjects		Lecturer	hours
Monday	morning	21/05/2012	Geological constraints and geotechnical issues	9.30 - 12.30	MARINOS Paul	3
	afternoon		in mechanized tunneling... Case histories	14.00 - 17.00	MARINOS Paul	3
Tuesday	morning	22/05/2012	Holiday			
	afternoon					
Wednesday	morning	23/05/2012	Case histories: metro Torino	9.00 - 12.00	CROVA Roberto	3
	afternoon		Laboratory test for Soil Conditioning and Injection ground	13.00 - 16.00	PICCHIO Andrea / CHIEREGATO Alessio	3
Thursday	morning	24/05/2012	Case histories of safety problems in tunnel: GAS Explosion risk			
	afternoon			14.00 - 18.00	PATRUCCO Mario	4
Friday	morning	25/05/2012	Case history of Frejus tunnel	9.30 - 12.30	BRINO Lorenzo	3
	afternoon		Case histories	14.00 - 17.00	MASOLI Pier Mauro	3

22

Impregilo S.P.A.
Impregilo S.P.A.
Golder Associates
Politecnico di Torino, Ex-Co ITA/AITES member

Metro C - Rome

Galleria di Base del Brennero
Galleria di Base del Brennero

Seli S.P.A.
Seli S.P.A.
PM&E , Project Management Engineering Srl
PM&E , Project Management Engineering Srl

Politecnico di Torino
Politecnico di Torino
Geodata S.P.A., Torino
Geodata S.P.A., Torino
Politecnico di Torino
Politecnico di Torino
Zitron Company
Zitron Company

Politecnico di Torino

National Technical University of Athens, Past President of IAEG
National Technical University of Athens, Past President of IAEG

Gruppo Torinese Trasporti
Politecnico di Torino

Politecnico di Torino
Lyon - Turin Ferroviaire
Strabag Societas Europaea

Week - 25			Subjects	Lecturer	hours
Monday	morning	28/05/2012	Design of bored tunnels in urban area		
	afternoon				
Tuesday	morning	29/05/2012		KOVARI Kalman	3
	afternoon			KOVARI Kalman	2
Wednesday	morning	30/05/2012	Contractual aspects and work site management	ARRIGONI Gianni	3
	afternoon			ARRIGONI Gianni	3
Thursday	morning	31/05/2012	Contractual aspects and work site management	ARRIGONI Gianni	3
	afternoon			ARRIGONI Gianni	3
Friday	morning	01/06/2012	Contractual aspects and work site management	ARRIGONI Gianni	3
	afternoon			ARRIGONI Gianni	3
Saturday	morning	02/06/2012	National Holiday		
	afternoon				

23

Week - 26			Subjects	Lecturer	hours
Monday	morning	04/06/2012	Technical visits (Milano metro)		
	afternoon				
Tuesday	morning	05/06/2012	to be defined		
	afternoon				
Wednesday	morning	06/06/2012	Technical visits (Sparvo)		
	afternoon				
Thursday	morning	07/06/2012	to be defined		
	afternoon				
Friday	morning	08/06/2012	EXAM - Third Module 9.30 - 11.30	PEILA Daniele	2
	afternoon				

2

Week - 27			Subjects	Lecturer	hours
Monday	morning	11/06/2012	to be defined		
	afternoon				
Tuesday	morning	12/06/2012	Technical visits (Herrenknecht Factory + Monte Ceneri)		
	afternoon				
Wednesday	morning	13/06/2012	Technical visits (Herrenknecht Factory + Monte Ceneri)		
	afternoon				
Thursday	morning	14/06/2012	to be defined		
	afternoon				
Friday	morning	15/06/2012	Technical visits - (GENOVA railway junction)		
	afternoon				

This Post Graduated Master Course is sponsored by:

Golden Sponsor:



Sponsor:



ETH - Swiss Federal Institute of Tecnology

ETH - Swiss Federal Institute of Tecnology

Tunnel consultant

Tunnel consultant

Tunnel consultant

Tunnel consultant

Tunnel consultant

Tunnel consultant

Politecnico di Torino, Ex-Co ITA/AITES member