

Program for the CAS course on "Mechanical & Materials Engineering" June 2024

	2	3	4	5	6	7	8	9	10	11	12	13	14	15		
	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat		
8:00																
8:30	Arrival day and registration	Opening F. Tecker / J.Visser / S.Atieh	Sustainable and Affordable Design Wilfried van Kessel (VDL)	Steels & Stainless Steels II Stefano Sgobba (CERN)	Free study time or visit to Firm 3 (Group A)	Beam instrumentation Ray Veness (CERN)	Additive Manufacturing A. Astarita (Univ. of Naples)	Excursion	Welding I Frank Moll (SLV)	Surface Treatments & Coatings Mauro Taborelli (CERN)	Free study time	Vacuum systems for Accelerators Paolo Chiggiato (CERN)	Detector Magnets and Structures Herman Ten Kate (ex-CERN)	Departure day		
9:30		Introd. to Mechanics and Structures I Martina Scapin (Polito)	Computational Tools I (design) Federico Carra (CERN)	Machining Julius Tschöepel (IPK)		NC magnets Stephane Sanfilippo (PSI)	Large structures for Fusion Technology Neil Mitchell (Gauss Fusion)		Introduction to Metrology Paul Shore (NPL - UK)	Forming Charbel Moussa (CEMEF)		Undulators Haimo Joejri (PSI)	Collider basics Hermann Schmickler (ex-CERN)			
10:30		Coffee		Coffee		Coffee			Coffee							
11:00		Introd. to Mechanics and Structures II Martina Scapin (Polito)	Computational Tools II (fabrication) Federico Carra (CERN)	Non Ferrous Materials Ignacio Aviles (CERN)		SC magnets Stephane Sanfilippo (PSI)	Design for Additive Manufacturing A. Astarita (Univ. of Naples)		Vacuum brazing Serge Mathot (CERN)	Measurement Uncertainty Samanta Piano (Nottingham)		RF Applications Thomas Lucas (PSI)	Beam Intercepting Devices Davide Reggiani (PSI)			
12:00		Introduction to Engineering Materials A. Arauzo (Univ. Zaragoza)	Non Destructive Testing Gonzalo Arnau (CERN)	Plastics and Composite Materials Ana Teresa Perez (CERN)		Cryostats and cryomodules Vittorio Parma (CERN)	Digital Twins for Accelerators and Detectors Oscar Sacristan (CERN)		Welding II Romain Gerard (CERN)	Fabrication summary Marco Garlaschè (CERN)		RF Power and Couplers Eric Montesinos (CERN)	Alignment and Metrology Hélène Mainaud (CERN)			
13:00		Lunch				Lunch										
14:30		Introduction to Design for Accelerators Marc Timmins (CERN)	Mechanical Testing Klaus Peter Weisz (KIT)	Mech. Meas.(Group A) Design (Group B) NDT (Group C) Visit Firm 3 (Group D)		Mech. Meas.(Group D) Design (Group A) NDT (Group B) Visit Firm 3 (Group C)	Mech. Meas.(Group C) Design (Group D) NDT (Group A) Visit Firm 3 (Group B)		Mech. Meas.(Group B) Design (Group C) NDT (Group D) Visit Firm 3 (Group A)	Metrology (Gr. A) Fabrication (Group B) Visit Firm 1 (Groups C & D)		Metrology (Gr. C) Fabrication (Group D) Visit Firm 1 (Groups A & B)	Metrology (Gr. B) Fabrication (Group A) Visit Firm 2 (Groups C & D)		Metrology (Gr. D) Fabrication (Group C) Visit Firm 2 (Groups A & B)	Medical Applications with Accelerators Maurizio Vretenar (CERN)
15:30		Physical properties & testing A. Arauzo (Univ. Zaragoza)	Steels & Stainless Steels I Stefano Sgobba (CERN)	H					Coffee				Accelerator Technology Highlights Hermann Schmickler (ex-CERN)			
16:00		Coffee		Mech. Meas.(Group A) Design (Group B) NDT (Group C) Visit Firm 3 (Group D)		Mech. Meas.(Group D) Design (Group A) NDT (Group B) Visit Firm 3 (Group C)	Mech. Meas.(Group C) Design (Group D) NDT (Group A) Visit Firm 3 (Group B)		Mech. Meas.(Group B) Design (Group C) NDT (Group D) Visit Firm 3 (Group A)	Metrology (Gr. A) Fabrication (Group B) Visit Firm 1 (Groups C & D)		Metrology (Gr. C) Fabrication (Group D) Visit Firm 1 (Groups A & B)	Metrology (Gr. B) Fabrication (Group A) Visit Firm 2 (Groups C & D)		Metrology (Gr. D) Fabrication (Group C) Visit Firm 2 (Groups A & B)	Coffee
16:30		Standards and Safety Luca Dassa (CERN)	Mechanical measurements Kurt Artoos (CERN)	Mech. Meas.(Group A) Design (Group B) NDT (Group C) Visit Firm 3 (Group D)		Mech. Meas.(Group D) Design (Group A) NDT (Group B) Visit Firm 3 (Group C)	Mech. Meas.(Group C) Design (Group D) NDT (Group A) Visit Firm 3 (Group B)		Mech. Meas.(Group B) Design (Group C) NDT (Group D) Visit Firm 3 (Group A)	Metrology (Gr. A) Fabrication (Group B) Visit Firm 1 (Groups C & D)		Metrology (Gr. C) Fabrication (Group D) Visit Firm 1 (Groups A & B)	Metrology (Gr. B) Fabrication (Group A) Visit Firm 2 (Groups C & D)		Metrology (Gr. D) Fabrication (Group C) Visit Firm 2 (Groups A & B)	Closing F. Tecker
17:00	151M		Seminar I		Seminar II											
18:00	Dinner															
18:30																
19:30	cinema evening															
	gala dinner															